



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**SECOND
SPECIAL NORTH ATLANTIC
FIXED SERVICES MEETING**

Paris, 12 - 21 January 1959

REPORT OF THE MEETING

Approved by the Meeting
and issued by authority of the Secretary General

INTERNATIONAL CIVIL AVIATION ORGANIZATIONSECOND SPECIAL NORTH ATLANTIC FIXED SERVICES MEETINGParis 12 - 21 January 1959SUPPLEMENT NO. 1

On 29 January 1959, acting under the authority delegated to him by Council at the Eighteenth Meeting of its Thirty-fifth Session, the President of the Council took action on the Recommendations of the Second Special North Atlantic Fixed Services Meeting, as set forth hereunder.

1. Approved that the cable system described in Recommendation 1, and amplified in certain respects in Recommendations 5, 6 and 8, replace in the North Atlantic (NAT) Regional Plan the VHF Forward Scatter/Cable System described in the report of the first meeting of the Special NAT Fixed Services Meeting (Doc 7761, SP/NAT-FS/1).

Note: The VHF Forward Scatter/Cable System was approved in principle as part of the North Atlantic Regional Plan by the Council on 6 February 1957 (XXX-2). The action taken, therefore, constitutes a proposal for amendment of the current NAT regional plan.

2. Approved Recommendations 1, 2, 3, 4, 8 and 9 without comment.
3. Approved Recommendations 5 and 6 (pages 13 and 14) noting that the services described form part of the overall communications system specified in Recommendations 1 and 8 and that implementation will need to be co-ordinated with that of other parts of the system.
4. Approved Recommendation 7 (page 15) on the understanding that a decision respecting the withdrawal of particular services will be made by the Council on the basis of information received from States directly concerned with the operation of the cable circuits which replace the circuits to be withdrawn.

Note: The Air Navigation Commission envisaged that, at the appropriate time, it would determine, from the infor-

mation received respecting the performance of the new services and other operational aspects, when the services indicated in this Recommendation could be withdrawn and then recommend to Council appropriate dates at which their deletion from Joint Financing agreements should become effective.

The Joint Support Committee considered that the eventual action by the Council on the deletion of services recommended therein from Annex I of the 1956 Agreements will require prior consideration by the Committee, particularly as regards changes in the Inventories in Annex II of the Agreements. In this connection it was noted that the Council, under Article XIII (paras. 5 and 6) of the Agreements, may, in agreement with the Governments of Denmark and Iceland, exclude from these Agreements any part of the Services and amend the Annexes to these Agreements accordingly. The details of these changes could be left to the Secretariat to work out with the Governments of Denmark and Iceland during future Audit Missions.

5. Noted from paragraphs 7.1.2, 7.1.3, 7.2 (page 17) that decisions concerning some of the functional allocations of the teletypewriter circuits, the provision of Flight Information Service for Greenland, and the effect of the new communications system on the circuits in the North Atlantic Regional Plan other than those jointly financed were outstanding and that the Air Navigation Commission intended to refer these matters to the next NAT Regional Air Navigation Meeting which is expected to be convened before the new communications system will be brought into service.
6. Approved Recommendations 10 - 27 of the Meeting.

Note: The Joint Support Committee noted that the responsibilities of Denmark and Iceland to implement the portion of the cable system to be jointly financed were clearly defined in Recommendation No. 10, but that the responsibilities of Canada and the United Kingdom in the implementation of the remaining portion of the cable system were stated only in

general terms in the introductory paragraph to Recommendation No. 10. After considering Recommendations 1(b), 10 and 11, the Committee concluded that the situation should be clarified by asking Canada and the United Kingdom when giving their consents to the increases in Article V ceilings of the 1956 Danish and Icelandic Agreements, to confirm their intention not only of meeting half the cost of the sectors Corner Brook-Greenland and Iceland-Gairloch but also of accepting responsibility for the extensions at each end, namely Corner Brook-Gander and Gairloch-Prestwick respectively.

7. Informed participating States of the 1956 Danish and Icelandic Agreements by cable that all Recommendations of the Meeting were approved.
8. Decided that the previous Council Decision in C-WP/2440 (resulting from recommendations of the First Special North Atlantic Fixed Services Meeting in January 1957), insofar as it relates to amendments of Article V and Annexes I, II and III of the Agreements and implementation of the VHF Forward Scatter/Cable System, be superseded by the present decision.
9. Decided that amendments of Article V and of Annexes I, II and III of the 1956 Danish and Icelandic Agreements, in accordance with Recommendations Nos. 5, 6 and 21 - 26 of the Meeting, shall become effective pursuant to Article VI of the said Agreements, immediately upon receipt of consents thereto by States responsible in the aggregate for not less than 90% of the latest assessments.

- - - - -

On 23 February 1959, at the third Meeting of its Thirty-Sixth Session, the Council noted the proposal presented by Switzerland to the Paris Meeting and mentioned in the Chairman's letter of transmittal of the report, and decided that the Secretariat should remind the Council that it had to consider again Clause 2 of Recommendation No. 1 of the 1956 Joint Financing Conference when future new important joint financing projects were being considered.

- - - - -

On 25 February 1959, Canada and the United Kingdom having confirmed their commitments as set forth in para. 6 above, and consents having been received from States responsible in the aggregate for 93.42% of the 1959 assessments, the amendments referred to in para. 9 above became effective.

- - - - -

On 2 March 1959, consents having been received from States responsible for the balance (6.58%) of the assessments, the cable project was thus incorporated with unanimous consent in the 1956 Danish and Icelandic Agreements as part of the Services.

- END -

LETTER OF TRANSMITTAL

To: The President of the Council

From: The Chairman of the Second Special North Atlantic
Fixed Services Meeting, January 1959

I have the honour to submit herewith, for the consideration of the Council, the Report of the Second Special North Atlantic Fixed Services Meeting, held in Paris from 12 January to 21 January 1959. I also wish to inform you, at the request of the Meeting, that the Delegation of Switzerland presented to the Meeting a paper on the subject of participation by other interests in the sharing of costs (SP/NAT-FS/2-WP/18), but that the Meeting was not in a position to consider the matter.

U. Schmidt-Ott

U. Schmidt-Ott
Chairman

PART ITABLE OF CONTENTS AND LIST RECOMMENDATIONS1.- Table of Contents

	<u>Page</u>
<u>PART I</u> - Table of contents and List of Recommendations	1
1.- Table of contents	1
2.- List of Recommendations	3
<u>PART II</u> - History of the meeting	5
1.- Place and duration of the meeting	5
2.- Officers and Secretariat	5
3.- Representation	6
4.- Agenda	7
5.- Working arrangements and procedures	8
<u>PART III</u> - Report on the agenda	10
A - Technical Arrangements	10
1. Adoption of the Cable System	10
2. Implementation Schedule	11
3. Interim arrangements	11
4. Cable leases (technical aspects)	11
5. Proposed additions to Annex I of the 1956 Danish and Icelandic Joint Financing Agreements	13
6. Proposed deletions from Annex I of the 1956 Danish and Icelandic Joint Financing Agreements	15
7. Related technical problems	16
B - Financial Arrangements	19
1. Methods of financing circuits in the submarine cable system required by the ICAO States, as described in Recommendation No. 1	19
2. Duration of the cable circuit leases and annual rentals to be included therein	21
3. Other principles for incorporation in the cable circuit leases	24

	<u>Page</u>
4. Supporting guarantee to be given to Denmark and Iceland	26
5. Joint financing elements	26
6. Proposed amendment of Article V of the 1956 Danish and Icelandic Joint Financing Agreements	28
7. Proposed amendment of Annexes II and III to the 1956 Danish and Icelandic Joint Financing Agreements	29
8. Completion of Financial Arrangements	33

APPENDICES

1.- Diagram of the Recommended Cable system	34
2.- Estimate of annual expenses of the connecting link terminal at Prins Christians Sund	35
3.- Estimate of annual expenses of the connecting links at Gufunes	36
4.- Statements by Delegations	37
5.- List of Working Papers considered by the meeting	41

2.- List of Recommendations Adopted by the Meeting

<u>Recommendation</u>	<u>Subject</u>	<u>Page</u>
No. 1	Cable System to replace VHF Forward Scatter/Cable System.....	10
No. 2	Implementation schedule of Cable System.....	11
No. 3	Interim services after implementation of Scotland-Iceland Cable Sector.....	11
No. 4	Technical Aspects of Cable Circuit Leases.....	11
No. 5	Technical Specifications of Cable System for inclusion in Annex I of Danish Joint Financing Agreement.....	13
No. 6	Technical Specifications of Cable System for inclusion in Annex I of Icelandic Joint Financing Agreement.....	14
No. 7	Deletion of Services from Danish and Icelandic Joint Financing Agreements following implementation of the Cable System.....	15
No. 8	Speech Circuit arrangements of the Cable System....	16
No. 9	Technical Coordination by Implementing States for the Cable System.....	18
No. 10	Portions of the Cable System to be jointly financed.....	19
No. 11	Application of Art. VI of Danish and Icelandic Joint Financing Agreements to the joint financing of the Cable System.....	20
No. 12	Rentals of circuits in the Canada/Greenland, Frederiksdal/Prins Christian Sund and Greenland/Iceland sectors of the Cable System.....	21
No. 13	Rentals of Circuits in the UK/Iceland Sector.....	24
No. 14	Joint Financing of each Sector to commence when such sector is operational.....	24

<u>Recommendation</u>	<u>Subject</u>	<u>Page</u>
No. 15	Option to continue the 20 year Cable Circuit Leases.....	24
No. 16	Cancellation Charges of the 20 year Cable Circuit Leases.....	24
No. 17	Provision of Alternate Routing.....	26
No. 18	Supporting guarantee given to Denmark and Iceland for Cancellation Charges under 20 year Leases.....	26
No. 19	5% allowance to offset assessment under Art. II....	27
No. 20	Addition of 10% margin to the Quotation available in calculating increase of Article V Ceiling.....	27
No. 21	Increase of Article V ceiling of the Danish Joint Financing Agreement to US \$ 1,922,652.....	28
No. 22	Increase of Article V ceiling of the Icelandic Joint Financing Agreement to US \$ 1,555,002.....	28
No. 23	Amendment of Annex II to Danish Joint Financing Agreement.....	29
No. 24	Amendment of Annex III to Danish Joint Financing Agreement.....	29
No. 25	Amendment of Annex II to Icelandic Joint Financing Agreement.....	31
No. 26	Amendment of Annex III to Icelandic Joint Financing Agreement.....	31
No. 27	Completion of Financial Arrangements by giving consents before 4 February 1959.....	33

PART IIHISTORY OF THE MEETING1.- PLACE AND DURATION OF THE MEETING

1.1 The Second Special North Atlantic Fixed Services Meeting was convened in the ICAO European and African Office, Paris, on 12 January 1959, under the temporary chairmanship of Mr. Walter Binaghi, President of the Council, and completed its work on 21 January 1959.

2.- OFFICERS AND SECRETARIAT

2.1 Dr. U. Schmidt-Ott (Federal Republic of Germany) was elected Chairman of the Meeting and Mr. S. Holsten (Norway) was elected Vice-Chairman.

2.2 The Chairmen of the two sub-committees were: -

Financial sub-committee: Mr. N.J. Tolliday (United Kingdom) - Chairman

Technical sub-committee: Mr. G.G. Sink (United States) - Chairman

2.3 Secretariat for the Meeting were:

Secretary of the Meeting: Mr. R.J. Moulton, Chief,
Facilitation and Joint
Financing Branch

Deputy Secretary of the Meeting; and
Secretary, Financial sub-committee: Mr. C.S.H. Tsiang

Secretary, Technical
Committee: Mr. F.E. Sperring

Officer, Financial sub-committee: Mr. M. Doz

Officer, Technical sub-committee: Mr. F.X. Byrne

Mr. W.H. Mandefield, Mr. N. Detière and Mrs. G. Chevassus were responsible for Administration and Services, including translation and interpretation.

3.- REPRESENTATION

3.1 The meeting was attended by the representatives of the following States and international organizations:

CONTRACTING STATES OF 1956 DANISH AND ICELANDIC AGREEMENTS

<u>Belgium</u>	Mr. R.D.G. Derenne	Chief Delegate
<u>Canada</u>	Mr. O.L. Britney	Chief Delegate
	Mr. H.A.L. Pattison	Alternate
	Mr. D.F. Bowie	Adviser
	Mr. E.B. Powell	Adviser
<u>Denmark</u>	Mr. H.T. Mølgaard	Chief Delegate
	Miss A.A. Brun	Delegate
	Mr. J.H.G. Crone-Levin	Delegate
	Miss E. Kjaer	Delegate
	Mr. P. Melbye	Delegate
	Mr. L. Søndergaard	Delegate
	Mr. B. Suenson	Adviser
	Mr. N.E. Holmblad	Adviser
<u>France</u>	Mr. D. Haguenau	Chief Delegate
	Mr. G. Peidenis	Delegate
	Mr. A.H. Blatrix	Delegate
	Mr. G. Terras	Delegate
	Mr. J.H.C. Hubert	Delegate
	Mr. J.G. Giraud	Delegate
<u>Germany (Fed. Rep.)</u>	Dr. U. Schmidt-Ott	Chief Delegate
	Mr. L. Vieth	Delegate
	Mr. H. Coerper	Adviser
<u>Iceland</u>	Mr. A. Kofoed-Hansen	Chief Delegate
	Mr. F.A.H. Diego	Delegate
	Mr. E. Palsson	Delegate
	Mr. S. Thorkelsson	Delegate
<u>Israel</u>	Mr. D. Barnes	Chief Delegate
	Lt. Col. G. Tur-Ner	Delegate
<u>Italy</u>	Col. G. Zucconi	Chief Delegate
<u>Netherlands</u>	Mr. O.J. Selis	Chief Delegate
	Mr. W.C. Witte	Alternate
	Mr. A.J. Lensing	Adviser
<u>Norway</u>	Mr. S. Holsten	Chief Delegate

<u>Sweden</u>	Mr. A. Lindestam	Chief Delegate
<u>Switzerland</u>	Mr. P.G. Senn Mr. P. Meister	Chief Delegate Delegate
<u>United Kingdom</u>	Mr. G.C. Lowe Mr. L.T. Andrew Mr. R.E. Cox Mr. V. Dodd Mr. G.P. Peacock Mr. C.S.J. Prater Mr. N.J. Tolliday Mr. G.H. Coates	Chief Delegate Delegate Delegate Delegate Delegate Delegate Delegate Adviser
<u>United States of America</u>	Mr. J.H. Tippets Col. A.L. Haley Mr. S.S. Cummins Mr. G.G. Sink Mr. W.W. Broomall Mr. D.K. Child Mr. H.G. Gatlin	Chief Delegate Alternate Alternate Alternate Adviser Adviser Adviser

OBSERVER FROM OTHER ICAO CONTRACTING STATES

<u>Ireland</u>	Mr. G.E. Enright Mr. V. Fanning	Chief Observer Observer
----------------	------------------------------------	----------------------------

OBSERVERS FROM INTERNATIONAL ORGANIZATIONS

<u>International Tele- communication Union - International Frequency Registration Board (ITU/IFRB)</u>	Mr. J.A. Gracie	Observer
<u>International Air Transport Association (IATA)</u>	Mr. H. Kershaw	Observer

4.- AGENDA

4.1 The provisional agenda (SP/NAT-FS/2-WP/1), prepared in advance of the meeting, was adopted without comment as follows:

1. Consideration of Canadian proposal for an all-cable system, as a substitute for a Forward Scatter/Cable System, for Fixed Communications in the NAT Region, with a view to finalization of technical problems related thereto and of arrangements for joint financing of certain portions thereof.
2. Consideration of principles to be incorporated in the cable circuit leases and of authorization required for Implementing States to negotiate the final lease arrangements.
3. Consideration of joint financing arrangements for certain portion of the system, including.
 - a) Application or not of Article VI of the existing Agreements.
 - b) If Article VI is not applied, amendments required in existing agreements or preparation of new agreement.
 - c) "Financial guarantees" for the cable lease (Article XXIV as now in Agreements or amendments thereto.)
 - d) "Special benefits" to Denmark and Iceland.
 - e) "Reserve fund" requirements.

It was found during the course of the Meeting that the most suitable way to deal with the above Agenda was in the manner set forth in Part III of this Report.

5.- WORKING ARRANGEMENTS AND PROCEDURES

- 5.1 The Meeting established two sub-committees as follows:

Technical sub-committee: This sub-committee dealt with SP/NAT-FS/2-WP/8, paras. 3, 4, 5 and pages 8, 11 and 12; and also SP/NAT-FS/2-WP/9, paras. 1.1, 4, 5, 6 and Appendix 2.

Financial sub-committee: This sub-committee dealt with the remaining documentation (SP/NAT-FS/2-WPs/2, 4, 5 and 6, having been replaced by later papers, were not considered).

- 5.2 It was agreed that pending any new developments, Delegations entitled to vote would be those set forth in paragraph 1 of SP/NAT-FS/2-WP/3; and that the Rules of Procedure would be those used at the Geneva Conference (i.e. JF/DEN/ICE-WP/6). It was also agreed to proceed on the assumption that Article VI of the 1956 Joint Financing agreements would be utilized if at all possible, and that the form of the final report would be as indicated at the outset of paragraph 3 of SP/NAT-FS/2-WP/3.

5.3 Proceedings were conducted in English and French and the Agenda and supporting documents were available in both languages. It was decided that a summary of decisions would be issued for general meetings (i.e. meetings of the main committee) and that no minutes would be required in respect of sub-committee meetings.

PART IIIREPORT ON THE AGENDAA - TECHNICAL ARRANGEMENTS1. Adoption of the cable system

- 1.1. The Meeting agreed that the submarine cable system proposed by Canada should replace the system envisaged in the recommendations of the First Special NAT Fixed Services Meeting.

1.1.1. Recommendation No. 1 :

That the VHF forward scatter/cable system detailed in Doc 7761 SP/NAT-FS/1 be replaced by a cable system as follows:

- a) A submarine cable between Newfoundland (Corner Brook), the South coast of Greenland (Frederiksdal, Iceland (Vestmannaeyjar) and Scotland (Gairloch);
- b) Inter-connecting links between Gander and Corner Brook in Newfoundland and between Prestwick/Shannon and Gairloch in Scotland provided by the normal common carrier systems;
- c) Connections between Prins Christians Sund and Frederiksdal in Greenland provided by circuits in a duplicate submarine cable system, and between Reykjavik and Vestmannaeyjar by duplicate VHF radio links;
- d) the cables shall provide 1 speech and 4 duplex teletype-writer 75 bauds (approx. 100 wpm) channels between Corner Brook, Prins Christians Sund, Reykjavik and Gairloch.

Note 1 : The above cable system is shown diagrammatically at Appendix 1.

Note 2 : With reference to d), it was recognized that although the submarine cable would, ab initio, permit 75 baud working it might not be possible, initially, for the aeronautical users, to operate at more than 50 bauds, (approx. 66 wpm) because of landline and equipment limitations.

2. Implementation schedule

- 2.1 The laying of cables between Scotland and Iceland and between Canada and Iceland possibly could not be carried out before 1961 and 1962 respectively; however, when a firm order has been placed and the availability of cable ships investigated, consideration should be given to the possibility of achieving earlier implementation dates, and especially to the possibility of completing the total cable system in 1961.

2.1.1. Recommendation No. 2 :

That the Implementing States should make every effort to achieve the earliest possible implementation of the system, and should try to put the complete system into operation in 1961.

3. Interim Arrangements

- 3.1. The attention of Implementing States is called to the possibility that between the time that the Iceland-Scotland aeronautical fixed circuits become operative by submarine cable and the time that the entire North Atlantic ICAO aeronautical fixed submarine cable system is put into operation it may be feasible to devise interim arrangements for partial implementation of the latter system (with the exclusion of Greenland) by connecting Iceland to Canada utilising the Scotland-Iceland aeronautical fixed cable circuits and other facilities which may then be available.

3.1.1. Recommendation No. 3 :

That, as a matter of urgency, Implementing States should investigate the possibility of providing interim service as soon as the Scotland-Iceland submarine cable becomes available.

4. Technical Material for consideration in negotiating Cable Leases.

- 4.1 The Meeting prepared technical material for use by Implementing States in negotiation of leases.

4.1.1. Recommendation No. 4 :

That Implementing States should ensure that the following aspects are incorporated in the leases and that overall compatibility of the system is achieved.

(1) Co-ordination

Each individual lease should include technical provisions which will ensure not only the satisfactory operation of that particular sector but also, of the system as a whole (See the diagram at Appendix 1).

(2) Alternate Routing

Each lease should ensure that:

- (a) The parties agree to accept the requirement for alternate routing of channels in case of failure of any segment of the submarine cable system;
- (b) Provision should be made for alternate routing using direct trans-Atlantic submarine cable;
- (c) In the case of failure in any telephone or telegraph circuit, reserve circuits, as far as they may be available, should be brought into service;
- (d) If no reserve circuits are available, or in case of failure of the whole system due to submarine cable outage, alternate routing should be provided within 5 minutes for the voice circuits, and within 15 minutes for teletypewriter circuits, following receipt of information at the appropriate switching centres that an outage exists.

(3) Maintenance

Provision should be made in the submarine cable leases that cable companies would not disrupt service on any of the ICAO circuits for maintenance purposes without prior co-ordination with the operating agencies concerned (e.g. Air Traffic Control (ATC) for the voice channel).

The lease should contain clear-cut delineation of responsibilities as to which aeronautical stations or air traffic control centres are authorized to release circuits for maintenance and which cable-head locations are to act as maintenance controlling authority or co-ordinator, either for the system as a whole or by segments.

(4) Routine Circuit Tests

The lease should contain a fixed time period allocated for routine tests, unless service can be maintained by using other

circuits. Such fixed time period may be assigned for daily, weekly or monthly preventative maintenance.

(5) Future Technical Developments

The lease should include provisions for fresh negotiations in the event of additional facilities being required or more advanced communication techniques being introduced. These may, for example, include data transfer, computer techniques, higher speed teletypewriter working, etc.

(6) Quality of the telephone circuit

Pending the adoption of a CCITT standard for long repeatered submarine telephone systems, the quality of the telephone circuit both in any one submarine link and over the submarine system as a whole should comply with all relevant clauses of the CCITT recommendations for international circuits at least as regards the frequency range 300-3150 c/sec. Should a CCITT standard be adopted for long repeatered submarine telephone systems prior to the ordering of the cable, the quality may be adjusted to conform to that standard, except that the bandwidth of the ICAO leased circuit should not be reduced without prior consultation with the Implementing States.

Note: The relevant CCITT material will be found in Volume III bis Green Brook CCIF (XVIII Plenary Assembly, Geneva 1956)

(7) Quality of the Telegraph Circuits

The quality of the telegraph circuits will be consistent with the relevant CCITT standard for frequency-shift-modulated telegraph systems. The system will be able to work with a maximum distortion of 10% at 75 bauds (100 wpm approx.) in any link of the submarine cable system.

5. Proposed Additions to Annex 1 of the 1956 Joint Financing Agreements.

- 5.1. The Meeting considered that it would be necessary to amend both the Danish and Icelandic Joint Financing Agreements, Docs 7726-JS/563 and 7727-JS/564, Annex I (The Services), Part III (Aeronautical and Meteorological Telecommunication Services) to reflect changes resulting from implementation of the cable system. It decided to recommend that the ICAO Council take this action in the following manner:

5.1.1. Recommendation No. 5:

That the Agreement on the Joint Financing of certain Air Navigation Services in Greenland and the Faroe Islands (Doc 7726-JS/563) Annex I, Part III be amended as follows:

Under "B. Prins Christians Sund", add the following:

"5. Aeronautical fixed services to Canada.

1 voice circuit (cable) to ATC Gander via Frederiksdal and Corner Brook.

4 duplex teletypewriter circuits (cable) to Gander via Frederiksdal and Corner Brook.

6. Aeronautical fixed services to Iceland:

1 voice circuit (cable) to ATC Reykjavik via Frederiksdal and Vestmannaeyjar.

1 duplex teletypewriter circuit (cable) to ATC Reykjavik via Frederiksdal and Vestmannaeyjar.

3 duplex teletypewriter circuits (cable) to Gufunes via Frederiksdal and Vestmannaeyjar."

5.1.2. Recommendation No. 6 :

That the Agreement on the Joint Financing of certain Air Navigation Services in Iceland. (Doc. 7727-JS/564) Annex I, Part III be amended as follows:

1. Under "A. Reykjavik",

Add after 6 d) the following:

"e) ATC Reykjavik - Prins Christians Sund/ATC Gander via Vestmannaeyjar and Frederiksdal.

f) ATC Reykjavik - ATC Prestwick/Shannon via Vestmannaeyjar and Gairloch."

Add a new para."7. Cable Telegraph Services:

Duplex teletypewriter circuits between:

a) ATC Reykjavik - Prins Christians Sund/ ATC Gander (1 circuit) via Vestmannaeyjar and Frederiksdal.

- b) ATC Reykjavik - ATC Prestwick/Shannon (1 circuit) via Vestmannaeyjar and Gairloch."

2. Under "B. Gufunes".

Add a new para. "10. Cable Telegraph Services:

Three duplex teletypewriter circuits between

- a) Gufunes - Prestwick/Shannon (3 circuits) via Vestmannaeyjar and Gairloch.
- b) Gufunes - Prins Christians Sund/Gander (3 circuits) via Vestmannaeyjar and Frederiksdal."

Add after B10:

"Note. The circuits listed under A 6e) and f), A 7a) and b), and B10 a) and b) are to be provided by landlines from ATC Reykjavik and Gufunes to the Civil Communications Centre of the PTT in Reykjavik, and from there by VHF radio links to Vestmannaeyjar where connection will be made with submarine cables to Greenland (and thence to Canada) and to the United Kingdom."

6. Proposed Deletions from Annex I of the 1956 Joint Financing Agreements.

- 6.1 The Meeting agreed that certain telecommunications services now being provided under the Danish and Icelandic Joint Financing Agreements (1956) would be affected by the introduction of the cable system. Since new communication systems frequently require a short period of time before complete reliability is reached, the Meeting agreed that it would be necessary to retain in service some of these for a period of at least 90 days after introduction of the submarine cable.

6.1.1. Recommendation No. 7 :

That, subject to 90 days satisfactory operational experience being gained from the cable circuits, Council should take action to delete the following services from the 1956 Joint Financing Agreements:

Doc 7726-JS/563, Annex I, Part III

"B. Prins Christians Sund:

1. Aeronautical fixed service to Gander - duplex radioteletypewriter with diplex operation in direction of Gander only for onward transmission of Greenland meteorological data.

2. Aeronautical fixed service to Reykjavik - duplex radioteletype-writer.
4. A manual circuit between Prins Christians Sund and Reykjavik to provide an outlet for air/ground reports.

C. Godhavn:

3. A direct manual circuit between Godhavn and North America for transmission of Greenland meteorological data."

Doc 7727-JS/564, Annex I, Part III

"B. Gufunes:

1. Duplex radioteletypewriter circuit - Prins Christians Sund.
2. Duplex radioteletypewriter circuit - London
- 6e). Landline teletypewriter service Gufunes - COM Keflavik.
- 8a). Keying lines - Gufunes-Rjupnahaed" (the number which may be eliminated will depend on the number of radio point-to-point circuits decommissioned)

7. Related Technical Problems.

7.1 Circuit Arrangements

7.1.1 Speech Circuit Arrangements

7.1.1.1 Recommendation No. 8

- a) That the cable system should include provision for direct speech communications between the following pairs of adjacent centres:-

Gander ATC - Prins Christians Sund A/G
Gander ATC - Reykjavik ATC
Gander ATC - Prestwick/Shannon ATC
Prins Christians Sund A/G - Reykjavik ATC
Reykjavik ATC - Prestwick/Shannon ATC,

- and b) that the arrangements should permit (i) conference type speech co-ordination simultaneously between the above designated four centres and (ii) full flexibility in either patching a channel completely through from end centre to end centre (e.g. to provide one channel linking Gander and Prestwick/Shannon) on a continuing basis or setting up individual channels linking adjacent centres (e.g. to provide separate channels Gander-Prins Christians Sund, Prins Christians Sund - Reykjavik etc.),
- and c) that selective calling facilities should be provided,
- and d) that equivalent access to the system should be provided to the Air Traffic Controllers at Prestwick and Shannon.

7.1.2. Teletypewriter Circuit Arrangements.

- 7.1.2.1. The Meeting agreed that there was no need to reach a decision at this time concerning the functional allocation of the teletypewriter circuits. There will be a considerable lapse of time between this Meeting and the date the cable could be placed in service. It appears likely that a North Atlantic Regional Air Navigation Meeting will be convened during this interval and could give consideration to this matter. In the event that a Regional Air Navigation Meeting is not convened before the cable is placed in operation, the Implementing States could take necessary action in this regard.

7.1.3 Connections to Narssarssuaq

- 7.1.3.1. The Meeting noted that the proposed plan does not make provision for extension of circuits to Narssarssuaq, the location presently shown in the North Atlantic Regional Plan as a Flight Information Centre. Planning has been in progress for some time which will lead to the elimination of Narssarssuaq Flight Information Centre. None of the proposed solutions which are being considered would require joint financing for implementation. In view of this fact, and the likelihood that a North Atlantic Regional Air Navigation Meeting will be held prior to implementation of the cable system, the Meeting agreed that the omission of circuits serving Narssarssuaq was of no consequence at this time.

7.2 The effect of the Plan on circuits not operating under the Joint Financing Agreements (1956)

- 7.2.1 In addition to the circuits operating under the Joint Financing Agreements, there are other circuits, now forming part of the North Atlantic Regional Plan, which may be affected by

implementation of the cable system. It is expected that elimination of these circuits from the Regional Plan would be accomplished through bilateral arrangements between the States concerned and normal Regional Plan amendment action.

7.3 Technical Co-ordination

7.3.1 In considering the technical co-ordination required for lease negotiations and implementation of the system, the Meeting agreed that responsibilities could best be undertaken by the States upon whose territories the cable landings would be located.

7.3.1.1. Recommendation No. 9

That the Council request the Implementing States to execute the technical plan adopted by this Meeting, consulting as necessary the other States concerned but without further reference of the technical provisions to ICAO

B - FINANCIAL ARRANGEMENTS1. Methods of financing circuits in the submarine cable system required by the ICAO States, as described in Recommendation No. 1

1.1 The Meeting agreed that the financing of the submarine cable system should be arranged as follows:

- a) Canada to accept financial responsibility for one half of the sector between Newfoundland and Greenland;
- b) The United Kingdom to accept financial responsibility for one half of the sector between United Kingdom and Iceland;
- c) The remainder of the system to be jointly financed under the existing Joint Financing Agreements with Denmark and Iceland.

1.2 The Meeting furthermore agreed that the implementation responsibility should be undertaken by the four States mentioned above.

1.2.1 Recommendation No. 10

That the following portions of the circuits in the submarine cable system described in Recommendation No. 1 be jointly financed:

- a) one-half of the sector between Newfoundland (Corner Brook) and the south coast of Greenland (Frederiksdal), the connections between Prins Christians Sund and Frederiksdal in Greenland, and one-half of the sector between the south coast of Greenland (Frederiksdal) and Iceland (Vestmannaeyjar) which will be implemented by Denmark;
- b) one-half of the sector between the south coast of Greenland (Frederiksdal) and Iceland (Vestmannaeyjar), the connections between Reykjavik and Vestmannaeyjar, and one-half of the sector between Iceland (Vestmannaeyjar) and Scotland (Gairloch) which will be implemented by Iceland.

1.3 In the absence of acceptable arrangements whereby the Implementing States could be the owners of the cable system, the Meeting agreed that the jointly financed sectors of the cable system be rented from Cable Companies and included in the 1956 Danish and Icelandic Agreements by the application of Article VI of those Agreements.

1.3.1 Recommendation No. 11

That the portions of the submarine cable system described in Recommendation No. 10 above should be jointly financed in accordance with the 1956 Agreements on the Joint Financing of certain Air Navigation Services in Greenland and the Faroe Islands (Doc 7726-JS/563), and on the Joint Financing of certain Air Navigation Services in Iceland (Doc 7727-JS/564) and by applying Article VI of these Agreements by increasing the limit prescribed in Article V of each Agreement in such a way as:

a) to allow Denmark:

- 1) to join with Canada in leasing one voice and four duplex teletypewriter circuits in the overall submarine cable system between Corner Brook (Newfoundland) and Frederiksdal (Greenland);
- 2) by itself to lease one voice and four duplex teletypewriter circuits in a dual submarine cable system between Frederiksdal and Prins Christians Sund (Greenland);
- 3) to install, maintain and operate the cable terminal equipment at Prins Christians Sund; and
- 4) to join with Iceland in the leasing of one voice and four duplex teletypewriter circuits in that portion of the overall cable system between Frederiksdal and Reykjavik (Iceland) PTT Communications Centre; and

b) to allow Iceland:

- 1) to join with Denmark in the leasing of one voice and four duplex teletypewriter circuits in the overall cable system between Frederiksdal and Reykjavik PTT Communications Centre (as previously allowed to Denmark);

- 2) to join with the United Kingdom in the leasing of one voice and four duplex teletypewriter circuits in the overall cable system between Reykjavik PTT Communications Centre and Prestwick (Scotland); and
- 3) to extend from the Reykjavik PTT Communications Centre one voice and one teletypewriter circuit to Reykjavik ATC Centre and three teletypewriter circuits to Gufunes aeronautical communications stations.

2. Duration of the cable circuit leases and annual rentals to be included therein

2.1 The Meeting agreed that Canada, Denmark and Iceland should enter into lease arrangements with the cable companies for the sectors Canada-Greenland, Frederiksdal-Prins Christians Sund and Greenland-Iceland, which would contain specific clauses as regards the duration of the leases and the rates to be included therein. The Meeting further agreed that Iceland and the United Kingdom should ensure continuous availability, on an annual rental basis, of circuits on the sector Iceland-United Kingdom, as long as the remainder of the system is leased.

2.1.1 Recommendation No. 12

- a) That Canada, Denmark and Iceland should enter into 20 year agreements with the Cable Companies on the sectors Canada-Greenland, Frederiksdal-Prins Christians Sund and Greenland-Iceland under which one voice circuit and four duplex teletypewriter circuits with alternate routing facilities (cf. Rec. No. 4, para. 2)) will be provided at annual rentals not greater than the following:

Canada - Greenland	US \$ 427,988
Greenland - Iceland	<u>436,012</u>
(Sub-total)	(US \$ 864,000)
Frederiksdal - Prins Christians Sund	US \$ 62,000

Note: These figures are not subject to variations (cf. para. 5.3).

- b) That in view of the uncertainty regarding the existence in the future of any other traffic on the sectors Canada-Greenland, Frederiksdal-Prins Christians Sund and Greenland-Iceland, the Implementing States be authorized to guarantee revenue to the cable companies so that if at any time there were no use of the cables on these three sectors in excess of one voice circuit and four duplex teletypewriter circuits, the payments to the cable companies would, in total, be at the following annual rentals:

Canada-Greenland	US \$ 516,511
Greenland - Iceland	<u>526,189</u>
(Sub-total)	(US \$ 1,042,700)
Frederiksdal - Prins Christians Sund	US \$ 62,000

Note: These figures are subject to variations, but not exceeding +10% (cf. para. 5.3)

These rates would be reduced in accordance with the following tabulation on page 23 so that when and for as long as two voice circuits and eight duplex teletypewriter circuits (or their revenue equivalent) were operating no payments would be made to the cable companies in excess of the annual rentals shown in sub-paragraph (a) above.

- c) That the leases should contain a clause whereby at no time and in no circumstances should the annual rentals payable per circuit to the cable companies by the Implementing States be higher than annual rentals payable per circuit for similar facilities by any other user of the cables.
- d) That before the leases which are subject to joint financing are signed, Denmark and Iceland should transmit the draft leases to the Secretary General of ICAO and receive confirmation from him that the Recommendations of this Meeting are being covered by the leases and that reasonable guarantees are obtained as regards the implementation and operation of the system within the time limits indicated by this Meeting.

ICAO Require- ments <u>2/</u>	Annual Rental	Rental per circuit <u>3/</u>		Other Users' Require- ments <u>2/</u>	Annual Rental	Rental per circuit		Total Annual Rental
		Voice	Duplex Teletype- writer			Voice	Duplex Teletype- writer	
	-- In U.S. Dollars --				-- In U.S. Dollars --			
1+4	<u>1/</u> 1,042,700	347,567	173,783	Nil	--	--	--	1,042,700
1+5	1,042,700	297,914	148,957	Nil	--	--	--	1,042,700
1+6	1,152,000	288,000	144,000	Nil	--	--	--	1,152,000
1+7	1,296,000	288,000	144,000	Nil	--	--	--	1,296,000
1+4	1,042,700	347,567	173,783	1+0 <u>4/</u>	347,567	347,567	--	1,390,267
1+4	1,042,700	347,567	173,783	1+1 <u>4/</u>	521,350	347,567	173,783	1,564,050
1+4	1,036,800	345,600	172,800	1+2 <u>4/</u>	691,200	345,600	172,800	1,728,000
1+4	<u>942,545</u>	314,182	157,091	1+3 <u>4/</u>	785,455	314,182	157,091	1,728,000
1+4	<u>1/</u> 864,000	288,000	144,000	1+4	864,000	288,000	144,000	1,728,000

Notes:

- 1/ These figures correspond to the Sub-totals under b) and a) above, and therefore notes under a) and b) above also apply to intermediate figures in this tabulation. Rental for Frederiksdal-Prins Christians Sund sector which is fixed at US \$62,000 p.a. is not included herein.
- 2/ Under "Requirements", the first number refers to voice circuits and the second to duplex teletypewriter circuits; thus 1+4 means 1 voice plus 4 duplex teletypewriter circuits.
- 3/ Rental of 1 voice circuit equals to that of 2 duplex teletypewriter circuits.
- 4/ It is noted that, provided the service offered to other users is not comparable to that given to the Implementing States, the Cable Companies may lower these rentals to the standard rates quoted for voice and duplex teletypewriter circuits (including where applicable the trans-Atlantic rate). In that event the rentals payable by the Implementing States might be increased subject to i) the maximum of \$1,042,700 not being exceeded, and ii) the total annual rental to the companies for circuits not exceeding 2 voice plus 8 duplex teletypewriter circuits being not more than US \$1,728,000.

2.1.2 Recommendation No. 13

That Iceland and the United Kingdom should rent on an annual basis as from the date the cable is operational one voice circuit and four duplex teletypewriter circuits with alternate routing facilities (cf. Recommendation No. 4, para. 2)) between Iceland and the United Kingdom at annual rentals not greater than US \$272,145, and should ensure continuous availability of these circuits as long as the remainder of the system is leased.

2.1.3 Recommendation No. 14

That each of the sectors mentioned in Recommendation No. 10 above be jointly financed as from the date such sector is operational.

3. Other principles for incorporation in the cable circuit leases

3.1. The Meeting agreed that Canada, Denmark and Iceland should incorporate in the cable leases for the sector Canada-Iceland clauses regarding option for extending the duration of the leases and cancellation of such leases according to the principles set down in the following Recommendations Nos. 15 and 16. Furthermore, the alternate routing provided in Recommendation No. 4, para. 2) should be done at no extra cost under Joint Financing.

3.1.1 Recommendation No. 15

That the leases should include terms under which, provided that the cable system is still maintained and operational, the Implementing States shall have the option to continue the leases beyond the initial 20-year period at the then standard rates on the understanding that such option is taken up two years prior to the expiry of the original lease. Rates and conditions of such continuing leases shall be at least as good as those given to any other user for similar facilities in the cable system. Furthermore, the Implementing States shall be given preferential treatment with respect to the allocation of facilities.

3.1.2 Recommendation No. 16

That the leases for one half of the Canada-Greenland sector, the entire Frederiksdal-Prins Christians Sund sector and the entire Greenland-Iceland sector should not include cancellation charges exceeding the unamortized part of the capital. This capital is shown, for the above sectors included

in the Danish and Icelandic Joint Financing Agreements, in the following tabulation. However, cancellation charges can be increased by an amount corresponding to any inescapable expenditures caused by the cancellation, and reduced by an amount corresponding to the proceeds, if any, from the recovery and sale of the Frederiksdal-Prins Christians Sund cables. The following tabulation is based on the sinking fund (annuity) method using an interest rate of six per cent.

Unamortized part of the Capital

	<u>Iceland</u>	<u>Denmark</u>	<u>Total</u>
After 0 year	US \$ 2,144,730	US \$ 4,855,270	US \$ 7,000,000
" 1 "	2,086,434	4,723,299	6,809,733
" 2 years	2,024,634	4,583,396	6,608,030
" 3 "	1,959,132	4,435,112	6,394,244
" 4 "	1,889,685	4,277,895	6,167,580
" 5 "	1,816,068	4,111,239	5,927,307
" 6 "	1,738,056	3,934,636	5,672,692
" 7 "	1,655,351	3,747,408	5,402,759
" 8 "	1,567,672	3,548,919	5,116,591
" 9 "	1,474,758	3,338,578	4,813,336
" 10 "	1,376,252	3,115,580	4,491,832
" 11 "	1,271,838	2,879,206	4,151,044
" 12 "	1,161,160	2,628,650	3,789,810
" 13 "	1,043,843	2,363,068	3,406,911
" 14 "	919,478	2,081,526	3,001,004
" 15 "	787,670	1,783,137	2,570,807
" 16 "	647,933	1,466,800	2,114,733
" 17 "	499,820	1,131,499	1,631,319
" 18 "	342,824	776,091	1,118,915
" 19 "	176,405	399,347	575,752
" 20 "	0	0	0

and that, notwithstanding the cancellation charges stated above, in calculating the sum due to the cable companies in the event of cancellation of the leases, account should be taken of the possibility that the companies can economically make use of the circuits formerly used by ICAO and, further, of any utilization in excess of two voice circuits and eight duplex teletypewriter circuits (or their revenue equivalent) at the rates mentioned in 2.1.1 (a) in the period up to the time of cancellation.

3.1.3 Recommendation No. 17

That alternate routing specified in Recommendation No. 4, para. (2) be provided at no extra cost to Joint Financing.

4. Supporting guarantee to be given to Denmark and Iceland

4.1 In view of the duration of the leases and of the associated cancellation provisions (cf. para. 3.1.2 above), the Meeting agreed that guarantees should be given to Denmark and Iceland.

4.1.1 Recommendation No. 18

That the Participating States should give to Denmark and Iceland a joint guarantee covering their cancellation commitments accepted within the terms of their leases with the cable companies in the event that the leases for the Iceland-Greenland, half of the Greenland-Canada and the Frederiksdal-Prins Christians Sund cables be terminated; such guarantee being obtained through the amendment of Annex III to the 1956 Danish and Icelandic Joint Financing Agreements, as set forth in Recommendations Nos. 24 and 26.

5. Joint Financing Elements5.1 Basic costs

The Meeting examined the financial implications of the submarine cable system and agreed to accept the following quotations for the purpose of calculating the increase in Article V ceilings:

A) CABLE CIRCUIT RENTALS (20-year Lease)	TOTAL PER ANNUM	DANISH AGREEMENT	ICELANDIC AGREEMENT	TOTAL FOR JOINT FINANCING
Canada - Greenland	US \$ 516,511	US \$ 258,255	US \$ —	US \$ 258,255
Greenland - Iceland	526,189	263,095	263,095	526,189
Iceland - U.K.*	272,145	—	136,072	136,072
Frederiksdal - Prins Christians Sund	62,000	62,000	—	62,000
TOTAL		US \$ <u>583,350</u>	US \$ <u>399,167</u>	US \$ <u>982,517</u>
B) <u>CONNECTING LINKS</u>		US \$ 13,052	US \$ 15,820	US \$ 28,872

* NOTE - Lease on year-to-year basis.

5.2 Compensation for Assessment under Article II and Adjustment of Administration Charges under Annex III

Article II of the 1956 Danish and Icelandic Joint Financing Agreements charges Iceland and Denmark 5% of the total costs of the services provided in consideration of "special benefits". Furthermore, Annex III, Part C, para. 1, permits Denmark and Iceland an administration charge of 10% on general operational expenses, i.e. rents.

The Meeting agreed that neither special benefits nor the 10% administration charge were justified as regards the submarine cable leases.

The Meeting therefore agreed to the changes in Annex III of the Agreements specified in Recommendations Nos. 24 and 26.

5.2.1 Recommendation No. 19

That 10% administration should not be charged to the joint financing of the leases, but that the 5% share borne by Denmark and Iceland under Article II of the 1956 Danish and Icelandic Joint Financing Agreements be offset by a 5% administration charge on the approved actual costs of the rentals for the circuits specified in Recommendation No. 11.

5.3 Margin to be used for the calculation of the increase in Article V ceiling

The Meeting agreed to provide for a 10% margin in addition to the quotations available, for the purpose of determining the increase required in Article V ceiling in view of: a) the price variations which might occur between the time of the Meeting, the signature of the leases and the implementation of the scheme; b) the uncertainty which may remain as regards estimates of maintenance and repair costs; c) the technical improvements which may be offered during the operation of the scheme.

5.3.1 Recommendation No. 20

That a 10 per cent margin be added to the total rental cost shown in paragraph 5.1 above and to the administrative charge described in Recommendation No. 19 for the purpose of calculating the increases necessary in Article V of the 1956 Danish and Icelandic Joint Financing Agreements.

6. Proposed Amendment of Article V of the 1956 Danish and Icelandic Joint Financing Agreements

6.1 After agreeing to the financial elements mentioned above, the Meeting proceeded to assess the increases in total cost figures in Article V, as follows:

	<u>Danish Agreement</u>	<u>Icelandic Agreement</u>	<u>Total</u>
A) CABLE			
1) Annual Rental	US \$ 583,350	US \$ 399,167	US \$ 982,517
2) 5% offsetting allowance	29,168	19,958	49,126
3) 10% Margin	<u>61,252</u>	<u>41,913</u>	<u>103,165</u>
<u>TOTAL FOR CABLE</u>	<u>673,770</u>	<u>461,038</u>	<u>1,134,808</u>
B) CONNECTING LINKS			
1) Annual Cost	13,052	15,820	28,872
2) 10% Margin	<u>1,305</u>	<u>1,582</u>	<u>2,887</u>
<u>TOTAL FOR CONNECTING LINKS</u>	<u>14,357</u>	<u>17,402</u>	<u>31,759</u>
C) <u>TOTAL INCREASES</u>	<u>US \$ 688,127</u>	<u>US \$ 478,440</u>	<u>US \$ 1,166,567</u>
D) ORIGINAL CEILING (ARTICLE V)	US \$ 1,234,525	US \$ 1,076,562	
E) INCREASED CEILING	US \$ 1,922,652	US \$ 1,555,002	

In view of the above, the Meeting decided to make the following Recommendations to the ICAO Council:

6.1.1 Recommendation No. 21

That, for the purposes of jointly financing the Greenland portion of the Services recommended by this meeting, upon obtaining ninety per cent consent pursuant to Article VI, the limit prescribed in Article V of the 1956 Danish Joint Financing Agreement be increased to US \$ 1,922,652.

6.1.2 Recommendation No. 22

That, for the purpose of jointly financing the Icelandic portion of the Services recommended by this meeting, upon obtaining ninety per cent consent pursuant to Article VI, the limit prescribed in Article V of the 1956 Icelandic Joint Financing Agreement be increased to US \$ 1,555,002.

7. Proposed Amendment of Annexes II and III to the 1956 Joint Financing Agreements

7.1 The Meeting considered that it would be necessary to amend Annex II (Inventory) and Annex III (Financial) of both the Danish and Icelandic 1956 Joint Financing Agreements to incorporate the capital expenditures and special financial provisions as a consequence of inclusion of the cable system. It decided to recommend that the ICAO Council take this action in the following manner:

Danish Agreement

7.1.1 Recommendation No. 23

Amend Annex II (page II-6 of the Danish Agreement) to include capital expenditures for the connecting link at Prins Christians Sund, increasing the initial values thus:

Under Column 2 for Item 1 - Buildings and appurtenance thereto - by \$ 8,750;

Under Column 3 for Item 2 - Antenna towers and counterpoises by \$ 1,250; and for Item 5 - communications equipment - by \$ 18,600.

7.1.2 Recommendation No. 24

Amend Annex III of the Danish Agreement as follows:

1. For the operation of connecting link at Prins Christians Sund:

Under Section I, para. 4 II (6); first and third columns, insert 1 additional technician;

2. For the Iceland/Greenland, Greenland/Canada and Frederiksdal/Prins Christians Sund cable circuits:

i) Under Section I insert paras. 5, 6, 7 and 8:-

"5. Part D of Section II of this Annex specifies the unamortized capital expenditures corresponding to the 20-year leases for the cable circuits for one half of the Canada/Greenland sector, one half of the Greenland/Iceland sector and the entire Frederiksdal/Prins Christians Sund sector, so as to provide guarantees under Articles XXIV, para. 2 and XXV.

6. Rental for Greenland/Canada cable circuits - one half of the annual rental may be charged at not more than US \$ 284,081 per annum.

7. Rental for Greenland/Iceland cable circuits - one half of the annual rental may be charged at not more than US \$ 289,404 per annum.

8. Rental for the Frederiksdal/Prins Christians Sund cable circuits - the entire annual rental may be charged at not more than US \$ 68,200 per annum."

ii) Under Section II, Part C, following paragraph 1, insert:

"Except that for the amount of the rental of the Greenland/Canada, Greenland/Iceland and Frederiksdal/Prins Christians Sund cable circuits, specified in Section I, paras. 6,7 and 8 herein, only 5 per cent may be charged."

iii) Under Section II insert Part D.

"PART D - UNAMORTIZED CAPITAL EXPENDITURES RELATED TO THE TWENTY-YEAR
CABLE CIRCUIT LEASES

1. Cancellation charges for the 20-year leases for the rental of the cable circuits referred to in Section I hereto are based on and do not exceed the unamortized part of the capital expenditures related to these leased cable circuits. In the event of the termination of the Agreement or withdrawal from participation by a Contracting Government prior to the expiry of the said leases, cancellation charges are payable on the unamortized part of the capital expenditures pursuant to Articles XXIV para. 2 and XXV respectively, but may be increased by an amount corresponding to any inescapable expenditures caused by the cancellation and reduced by an amount corresponding to the proceeds, if any from the recovery and the sale of the Frederiksdal/Prins Christians Sund cables. The following tabulation of the unamortized capital expenditures is based on the sinking fund (annuity) method using an interest rate of six per cent.

After 0 year	US \$ 4,855,270
" 1 "	4,723,299
" 2 years	4,583,396
" 3 "	4,435,112
" 4 "	4,277,895
After 5 years	4,111,239
" 6 "	3,934,636
" 7 "	3,747,408
" 8 "	3,548,919
" 9 "	3,338,578

After 10 years	US \$ 3,115,580
" 11 "	2,879,206
" 12 "	2,628,650
" 13 "	2,363,068
" 14 "	2,081,526
After 15 years	1,783,137
" 16 "	1,466,800
" 17 "	1,131,499
" 18 "	776,091
" 19 "	399,347
" 20 "	0

2. Notwithstanding, the cancellation charges stated in paragraph 1 above in calculating the sum due to the cable companies in the event of cancellation of the leases, account should be taken of the possibility that the companies can economically make use of the leased cables and, further, of any utilization in excess of 2 voice circuits and eight duplex teletypewriter circuits (or their revenue equivalent at the rates of Canada/Greenland \$427,988, Greenland/Iceland \$436,012, Frederiksdal/Prins Christian Sund \$62,000) in the period up to the time of cancellation."

Icelandic Agreement

7.1.3 Recommendation No. 25

Amend Annex II (page II-4 of the Icelandic Agreement) to include the connecting link at Gufunes, by increasing the initial value in Column 3 for Communications Equipment under Item 5 by US \$1,000.

7.1.4 Recommendation No. 26

Amend Annex III of the Icelandic Agreement as follows:

1. Under Section I insert paras. 6, 7 and 8:

- *6. Part D of Section II of this Annex specifies the unamortized capital expenditures corresponding to the 20-year leases for the cable circuits for one half of the Iceland/Greenland sector so as to provide guarantees under Articles XXIV, para. 2 and XXV.
7. Rental for the United Kingdom/Iceland cable circuits - one half of the annual rental may be charged at not more than US \$149,680 per annum.
8. Rental for the Greenland/Iceland cable circuits - one half of the annual rental may be charged at not more than US \$289,404 per annum."

2. Under Section II, Part C, following paragraph 1, insert:

"Except that for the amount of the rental of the United Kingdom/Iceland and Greenland/Iceland cable circuits specified in Section I, paras. 7 and 8 herein, only five per cent may be charged."

3. Under Section II, insert a new Part D.

"PART D - UNAMORTIZED CAPITAL EXPENDITURES RELATED TO THE TWENTY-YEAR
CABLE CIRCUIT LEASES"

1. Cancellation charges for the 20-year leases for the rental of the cable circuits referred to in Section I hereto are based on and do not exceed the unamortized part of the capital expenditures related to these leased cable circuits. In the event of termination of the Agreement or withdrawal from participation by a Contracting Government prior to the expiry of the said leases, cancellation charges are payable on the unamortized part of the capital expenditures pursuant to Article XXIV, para. 2, and XXV respectively, in accordance with the following tabulation, but may be increased by an amount corresponding to any inescapable expenditures caused by the cancellation. The following tabulation of the unamortized capital expenditures is based on the sinking fund (annuity) method using an interest rate of six per cent.

After 0 year	US \$ 2,144,730
" 1 year	2,086,434
" 2 years	2,024,634
" 3 "	1,959,132
" 4 "	1,889,685
After 5 years	1,816,068
" 6 "	1,738,056
" 7 "	1,655,351
" 8 "	1,567,672
" 9 "	1,474,758
After 10 years	1,376,252
" 11 "	1,271,838
" 12 "	1,161,160
" 13 "	1,043,843
" 14 "	919,478
After 15 years	787,670
" 16 "	647,933
" 17 "	499,820
" 18 "	342,824
" 19 "	176,405
" 20 "	0

2. Notwithstanding, the cancellation charges stated in paragraph 1 above in calculating the sum due to the cable companies in the event of cancellation of the leases, account should be taken of the possibility that the companies can economically make use of the leased cables and, further, of any utilization in excess of 2 voice circuits and eight duplex teletypewriter circuits (or their revenue equivalent at the rate of: Greenland/Iceland \$436,012) in the period up to the time of cancellation.

8. Completion of Financial Arrangements

8.1 In view of the urgency of achieving early implementation, the Meeting agreed that the financial arrangements contemplated in the preceding Recommendations should be completed without delay.

8.1.1 Recommendation No. 27

That the States participating in the 1956 Danish and Icelandic Joint Financing Agreements which were not in the position to give their consent at the end of this Meeting be urged to consider sending their consents to reach Montreal by 4 February 1959 so that Council may be able to implement Recommendations Nos. 5, 6 and 21 through 26, regarding amendment of Article V and Annexes I, II and III of the 1956 Danish and Icelandic Agreements.

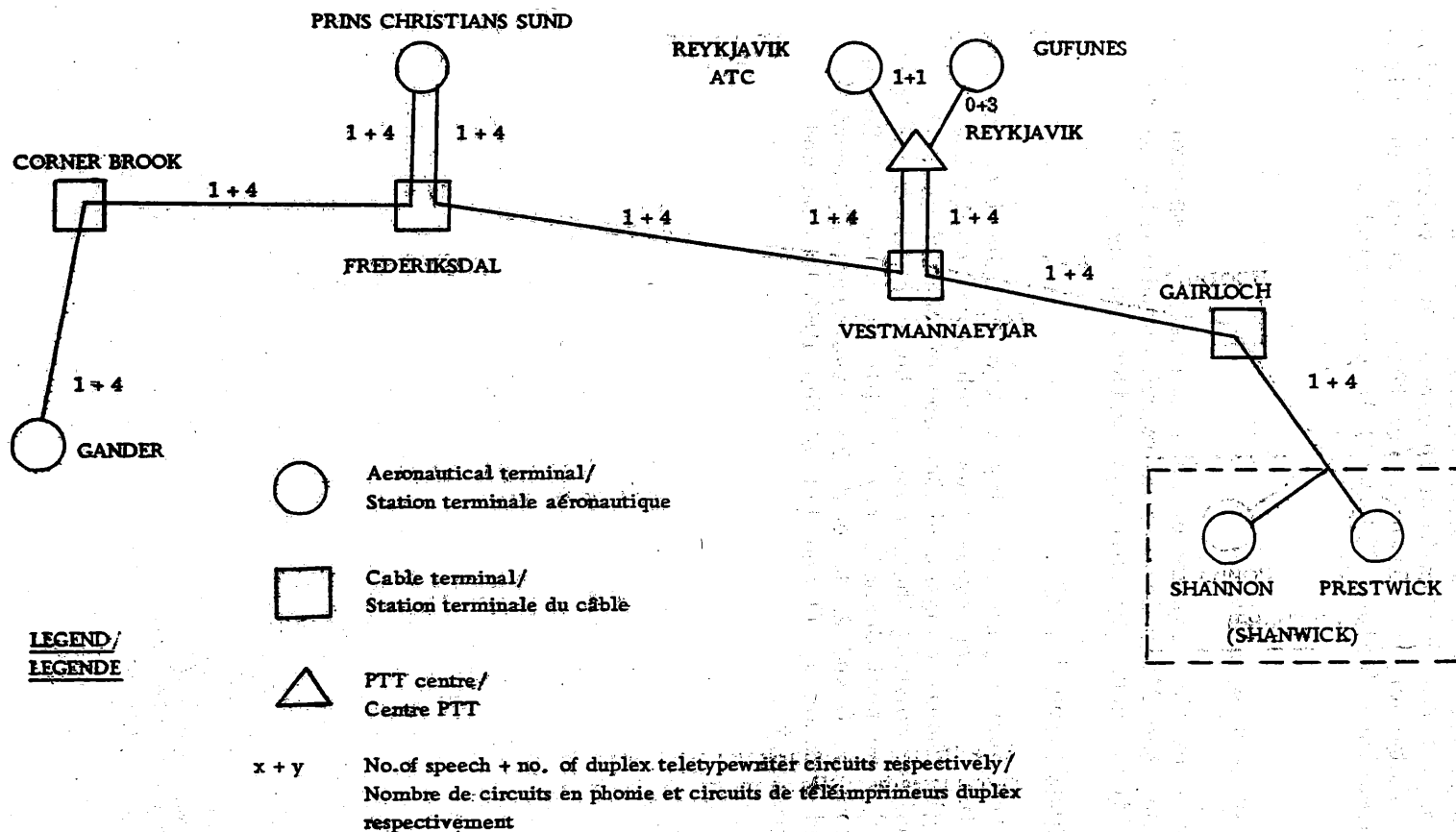


DIAGRAM OF THE RECOMMENDED CABLE SYSTEM

APPENDIX 1

NOTE: The circuits are provided as follows/ Les circuits sont assurés de la façon suivante :

- Gander to Corner Brook and Gairloch to Prestwick/Shannon by domestic common carrier/
Gander à Corner Brook et Gairloch à Prestwick/Shannon par service public intérieur.
- Corner Brook to Frederiksdal, Frederiksdal to Prins Christians Sund, Frederiksdal to Vestmannaeyjar and Vestmannaeyjar to Gairloch by submarine cable/ Corner Brook à Frederiksdal, Frederiksdal à Prins Christians Sund, Frederiksdal à Vestmannaeyjar et Vestmannaeyjar à Gairloch par câble sous-marin.
- Vestmannaeyjar to Reykjavik (PTT Civil COM Centre) by VHF radio link/ Vestmannaeyjar à Reykjavik (Centre de télécommunications des PTT) par liaison radio VHF.

APPENDIX 2ESTIMATE OF ANNUAL EXPENSES OF THE CONNECTING LINK TERMINAL AT
PRINS CHRISTIANS SUNDU.S. DollarsA. Operating Expenses

1. <u>Salaries for Regular operating personnel (one technician)</u>	\$ 5,000	
2. <u>Working Expendables (2 KW)</u>	1,200	
3. <u>General operating expenses</u>	<u>500</u>	6,700

B. Maintenance Expenses

1. <u>Special labour employed in maintenance</u>	200	
2. <u>Material for maintenance</u>	<u>1,000</u>	<u>1,200</u>

TOTAL DIRECT EXPENSES

\$ 7,900

C. Indirect Expenses

1. <u>10% for Administration</u>	790	
2. <u>Depreciation</u>		
2.1 Buildings at 10%	875	
2.2 Equipment at 10%	1,985	
3. <u>Interest at 4 1/2%</u>	1,287	
4. <u>Insurance at 0.75%</u>	<u>214.50</u>	

TOTAL - INDIRECT EXPENSES

\$ 5,151.50

TOTAL ANNUAL COST (A+B+C)

\$ 13,051.50

Add 10% margin

\$ 1,305.15

MAXIMUM PROJECT COST

\$ 14,356.65

APPENDIX 3ESTIMATE OF ANNUAL EXPENSES OF THE CONNECTING LINKS AT GUFUNESU.S. DollarsA. Operating Expenses

3.1 Rental of Landlines	\$ 12,750
3.2 Rental of Teletypewriters	<u>1,480</u>
TOTAL DIRECT EXPENSES	<u>14,230</u>

C. Indirect Expenses

1. <u>10% for Administration</u>	1,423
2. <u>Depreciation of Equipment</u> (10% of \$1,000 for Selective Calling Devices)	100
3. <u>Interest at 6%</u>	60
4. <u>Insurance at 0.75%</u>	<u>7</u>

TOTAL INDIRECT EXPENSES 1,590

TOTAL ANNUAL COST (A + C) \$ 15,820Add 10% Margin 1,582MAXIMUM PROJECT COST \$ 17,402

APPENDIX 4Statements by Delegations1.- FRANCE

The French delegation wishes to recall that the Administration it represents specified several months ago the documentation it considered would be necessary to reach a decision on the Joint Financing scheme which was submitted to its authorities and which the present Meeting was to consider. That documentation has not been supplied.

The reasons given either verbally or in writing, were that a straight-forward leasing of circuits is proposed and that the cable companies, which are commercial undertakings, cannot be expected to disclose information regarding their own costs.

The French Delegation wishes to emphasize that the scheme is related to the improvement of a public service financed by collective contributions.

The information required in support of an application for joint financing should not be less, either in quality or in accuracy, than that which a Government would require of its own utility agencies for the consideration of a scheme of similar type and scope.

Whether the States assisted by joint support intend to operate certain services themselves, or to have them operated on their behalf, does not affect the need for adequate supporting documentation.

In the present case, moreover, the project involves the installation and operation of transatlantic cables primarily designed to meet the needs of ICAO, and States have been requested to give guarantees covering the duration of contracts and revenue that are far more extensive than those usually associated with the application of "commercial rates".

In view of the foregoing, the French Delegation is now unable, under its instructions, to give the French Government's consent to the scheme.

However, being convinced of the urgent need to improve North Atlantic Fixed Service links, the French Delegation will report to its Government on the proceedings and conclusions of the present Meeting.

2.- ICELAND AND THE UNITED KINGDOM

Following the concluding meeting of the Financial sub-committee, the Iceland and United Kingdom Delegations have held joint discussions as a result of which it appears likely they may be able to resolve their differences in respect of the number of rented circuits in the United Kingdom-Iceland cable during any interim period before the implementation of the remainder of the cable system. As time is now short the two delegations propose, if their discussions achieve success, to submit a further joint statement after the conclusion of the present Conference. This might have the effect of enabling the two Governments to assume freedom to negotiate the best possible arrangement with the cable companies during such interim period while (1) preserving the financial situation of Iceland and (2) ensuring the earliest implementation of the cable.

- - - - -

On 5 February 1959, the Iceland and United Kingdom Delegations submitted the following supplementary statement:

Recommendation No. 13 of the Meeting states that Iceland and the United Kingdom should rent one voice circuit and four duplex teletypewriter circuits as from the date the Iceland-U.K. cable is operational. As, in the interim period before the remainder of the system is leased, the agreed civil aviation requirement for circuits in the Iceland-U.K. cable is expected to be less than one voice circuit and four duplex teletypewriter circuits the two countries propose to interpret the Recommendation during that interim period as permissive, in so far as any unwanted circuits are concerned. In effect they will rent circuits in the interim period in excess of the agreed civil aviation requirement only if they are unable otherwise to ensure that the cable is laid as soon as possible and to secure satisfactory financial terms from the cable company.

This approach to the question appears entirely within the spirit of Recommendation 13 and indeed offers the prospect of some financial relief to the joint-supporting States. It follows, of course, from the Recommendation that if Iceland finds that it has no satisfactory alternative but to rent one voice circuit and four duplex teletypewriter circuits during the interim period the whole of its expenditure on the rental of these circuits will qualify for joint financing.

3.- THE UNITED KINGDOM.Statement A

The United Kingdom, in the course of this Meeting, has supported Recommendations placing on the United Kingdom the financial responsibility for half of the cable section between the United Kingdom and Iceland. This policy, of course, has been based on a desire to simplify the task of the Meeting and thus to promote the early completion of the project.

However, through their sharing of responsibility for the Shanwick Oceanic Control Centre and the associated Communications centres, the Republic of Ireland and the United Kingdom will share, completely or partially, the direct use and benefits of the circuits which have been made possible by the existence of the cable sector concerned.

The United Kingdom action should not, therefore, be taken as precluding or prejudicing those negotiations between the Republic of Ireland and the United Kingdom which would be necessary to achieve a balance between their financial commitments in consonance with the extent of their sharing of the use and benefits of the circuits.

- - - - -

Statement B

The United Kingdom wishes to draw attention to the fact that a consequence of Recommendation No. 7 could be the closure of the existing United Kingdom-Iceland Radioteletypewriter circuit 90 days after the date of introduction of the United Kingdom-Iceland cable facilities and prior to the date of availability of alternate routing via the other sectors of the system and direct transatlantic circuits.

The United Kingdom notes that such a closure would render the teletypewriter communications between the United Kingdom and Iceland vulnerable to long period breakdown in the event of breakage of the cable by shipping or any other cause, and has great difficulty in reconciling this vulnerability with the need for reliable communications over this sector.

4.- THE UNITED STATES OF AMERICA

Although we are not authorized to consent at this time, the United States government is prepared to meet its financial commitments resulting from the inclusion of the new services approved by this Conference into the current Joint Financing Agreements with Iceland and Denmark.

You are all familiar, of course, with the limitations imposed by our system of government which requires that our consent be subject to the availability of funds.

We are hopeful that our formal consent can be deposited in Montreal well in advance of the deadline date of February 4, 1959.

5.- THE OBSERVER OF IATA

The International Air Transport Association notes with appreciation the intention of States to implement a submarine cable system with the object of reducing the recognized deficiencies in the Air Traffic Control organization in the North Atlantic. IATA is also pleased to note the general recognition by the Meeting of the need for urgency in implementation.

It is observed, however, that this meeting envisages a possibility that the system will not be implemented until the end of 1962, that is to say, almost four years from this present date. During this period there will occur very considerable changes in air traffic operations over the North Atlantic and in our opinion there is no doubt that the ATC problems will become very complex.

IATA therefore urges that the Implementing States and all other concerned Organizations continue to make every possible effort to secure the implementation of the cable system before the end of 1961.

APPENDIX 5LIST OF WORKING PAPERS
CONSIDERED BY THE MEETING

Working Paper No.	Agenda Item	Subject	Submitted by
1	-	Provisional Agenda	Secretariat
2	1	Proposal re Cable System for North Atlantic	Canada
3	-	Comments concerning Rules of Procedure and Organization of the Meeting	Secretariat
4	1	Technical and Joint Financing Questions related to the All-Cable System	Secretariat
5	2	Questions related to the Cable Circuit Lease and implementation procedure	Secretariat
6	3	Joint Financing Arrangements for the Cable System	Secretariat
7	-	List No. 1 of Meeting Working Papers arranged in sequence (Working Papers 1-7)	Secretariat
8 & Add. 1, 2 & 3	1	Modified Canadian Proposal re Cable System for North Atlantic, and Addenda (replaces WP/2)	Canada
9 & Add. 1 (Rev)	1	Technical and Joint Financing Questions related to the All-Cable System (replaces WP/2)	Secretariat
10	2	Questions related to the Cable Circuit Lease and implementation procedures (replaces WP/5)	Secretariat
11	3	Joint Financing Arrangements for the Cable System (Replaces WP/6)	Secretariat

Working Paper No.	Agenda Item	Subject	Submitted by
12	1	Summary of Major Developments regarding the Joint Financing of an Improved System of Fixed Communications in the North Atlantic	Secretariat
13	3	Comments as to the nature of the Commitments needed by the end of the Meeting if the project is to receive the earliest possible implementation	Secretariat
14	-	List No. 2 of Meeting Working Papers arranged in sequence (Working papers 7-14)	Secretariat
15 & Add. 1 & 2	-	List of Delegates - List No. 1	Secretariat
16	1	The Operational Requirement for Improved North Atlantic Aeronautical Fixed Communications	Secretariat
17	2	Cable Circuit Lease	Delegation of Belgium and the United Kingdom
18	1	Participation by other interests in the sharing of costs	Delegation of Switzerland
19	-	Report of the Technical Sub-Committee (i.e. Part III A of the Final Report of the Meeting)	Chairman Technical Sub-Committee
20	-	Report of the Financial Sub-Committee (i.e. Part III B of the Final Report of the Meeting)	Chairman Financial Sub-Committee
21	-	Report of the Meeting (Parts I and II)	Secretariat
22	-	Summary of Decisions of First General Meeting	Secretariat
23	-	Summary of Decisions of Second General Meeting	Secretariat
24	-	Summary of Decisions of Third General Meeting	Secretariat
25	-	Appendix 5 to Final Report of the Meeting	Secretariat

ICAO TECHNICAL PUBLICATIONS

The following summary gives the status, and also describes in general terms the contents of the various series of technical publications issued by the International Civil Aviation Organization. It does not include specialized publications that do not fall specifically within one of the series, such as the ICAO Aeronautical Chart Catalogue or the Meteorological Tables for International Air Navigation.

INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES are adopted by the Council in accordance with Articles 54, 37 and 90 of the Convention on International Civil Aviation and are designated, for convenience, as Annexes to the Convention. The uniform application by Contracting States of the specifications comprised in the International Standards is recognized as necessary for the safety or regularity of international air navigation while the uniform application of the specifications in the Recommended Practices is regarded as desirable in the interest of safety, regularity or efficiency of international air navigation. Knowledge of any differences between the national regulations or practices of a State and those established by an International Standard is essential to the safety or regularity of international air navigation. In the event of non-compliance with an International Standard, a State has, in fact, an obligation, under Article 38 of the Convention, to notify the Council of any differences. Knowledge of differences from Recommended Practices may also be important for the safety of air navigation and, although the Convention does not impose any obligation with regard thereto, the Council has invited Contracting States to notify such differences in addition to those relating to International Standards.

PROCEDURES FOR AIR NAVIGATION SERVICES (PANS) are approved by the Council for worldwide application. They comprise, for the most part, operating procedures regarded as not yet having attained a sufficient degree of maturity for adoption as International Standards and Recommended Practices, as well as material of a more permanent character which is considered too detailed for incorporation in an Annex, or is susceptible to frequent amendment, for which the processes of the Convention would be too cumbersome. As in the case of Recommended Practices, the Council has invited Contracting States to notify any differences

between their national practices and the PANS when the knowledge of such differences is important for the safety of air navigation.

REGIONAL SUPPLEMENTARY PROCEDURES (SUPPS) have a status similar to that of PANS in that they are approved by the Council, but only for application in the respective regions. They are prepared in consolidated form, since certain of the procedures apply to overlapping regions or are common to two or more regions.

The following publications are prepared by authority of the Secretary General in accordance with the principles and policies approved by the Council.

ICAO FIELD MANUALS have no status in themselves but derive their status from the International Standards, Recommended Practices and PANS from which they are compiled. They are prepared primarily for the use of personnel engaged in operations in the field, as a service to those Contracting States who do not find it practicable, for various reasons, to prepare them for their own use.

TECHNICAL MANUALS provide guidance and information in amplification of the International Standards, Recommended Practices and PANS, the implementation of which they are designed to facilitate.

AIR NAVIGATION PLAN documents detail requirements for facilities and services for international air navigation in the respective ICAO Air Navigation Regions. They are prepared on the authority of the Secretary General on the basis of recommendations of regional air navigation meetings and of the Council action thereon. The plans are amended periodically to reflect changes in requirements and in the status of implementation of the recommended facilities and services.

ICAO CIRCULARS make available specialized information of interest to Contracting States. This includes studies on technical subjects as well as texts of Provisional Acceptable Means of Compliance.
