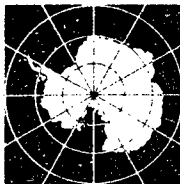


ANTARCTIC TREATY
THIRD CONSULTATIVE MEETING
TROISIEME REUNION CONSULTATIVE
TRAITE SUR L'ANTARCTIQUE



TRATADO ANTARTICO 153
TERCERA REUNION CONSULTIVA

ТРЕТЬЕ КОНСУЛЬТАТИВНОЕ СОВЕЩАНИЕ
ДОГОВОР ОБ АНТАРКТИКЕ

BRUXELLES

AGENDA ITEM 1.2

Doc/P6.
1. June 1964
Original: English

ANTARCTIC TREATY MEETING ON TELECOMMUNICATIONS

Washington, D. C. -- June 24-28, 1963

FINAL REPORT

ANTARCTIC TREATY MEETING ON TELECOMMUNICATIONS

Washington, D. C. - June 24-28, 1963

FINAL REPORT

The Antarctic Treaty Meeting on Telecommunications was convened in the International Conference Suite of the Department of State at Washington, D. C. at 10:30 a.m. on June 24, 1963. There were representatives from the twelve nations signatory to the Antarctic Treaty and observers from the World Meteorological Organization (WMO), the International Telecommunication Union (ITU) and the Scientific Committee on Antarctic Research (SCAR) in attendance. (See Appendix A for list of participants.)

Mr. John M. Jones, Chairman of the United States Delegation, presided as temporary Chairman and introduced the Honorable Harlan Cleveland, Assistant Secretary of State for International Organization Affairs, who welcomed the representatives on behalf of the United States Government.

Following the order of business, the temporary Chairman called for election of officers. Upon the proposal of the representative of South Africa, seconded by the representative of Chile, Mr. Jones was unanimously elected Chairman of the Meeting. Mr. Henry E. Allen of the Department of State was unanimously appointed Secretary of the Meeting.

The Meeting then proceeded to the consideration of the draft rules of procedure as proposed by the United States. The Representative of the United Kingdom proposed that the name of the Meeting be changed to Antarctic Treaty Meeting on Telecommunications, since the title proposed in the Rules of Procedure referred to radio communications alone and was too limiting. This proposal was unanimously accepted. During a discussion of the desirability of including in the Final Report recommendations which might receive less than unanimous approval, the United Kingdom Representative suggested that if any Representative, although agreeing in principle with a recommendation, wished his comments to appear in the Final Report, this should be done. This was agreed by the Meeting and the Rules of Procedure were adopted. (Appendix B.)

The agenda proposed jointly by the United States and Australia was then considered by the Meeting and, there being no discussion, was adopted unanimously. (Appendix C.)

The Meeting then proceeded during the next seven sessions with a discussion of the several items of the agenda, based on nine draft recommendations which had been submitted by the Australian Delegation, and additional draft recommendations submitted during the Meeting by the French Delegation, by the United Kingdom Delegation, and by New Zealand and South Africa. These discussions, in which all delegations actively participated, resulted in the exchange of views on many detailed facets of communications operations in the Treaty area. Great emphasis was placed on the necessity for prompt transmission of meteorological data and, during the second session, the Observer from the WMO discussed the requirements of his organization and subsequently submitted a statement to the Meeting covering these and other items. (Appendix D.)

The Observer from SCAR introduced for the information of the participating Governments a paper prepared by the Communications Working Group of SCAR which set forth details of the radio stations in Antarctica operated by the countries signatory to the Antarctic Treaty. The document was augmented by both additional and revised information received during the course of the Meeting and is included as Appendix E. (English only.) During the discussion of Recommendation II the United Kingdom delegation presented a memorandum describing the results of their study of other possible methods of passing traffic to the IAWAC, including the use of international cable systems. Some Representatives expressed support of the idea of studying other possible means of passing traffic to the IAWAC.

In connection with the adoption of Recommendation IV the Representative of Norway stated that:

"The Norwegian Government will not object to the adoption of this recommendation, but will reserve the right to establish and operate radio stations in the Antarctica if this should be required for Norwegian activities

- 3 -

in the area and, in particular, to establish radio communications with the homeland. Norway would in that case be willing to discuss her communications requirements with the other contracting parties in view of possible co-ordination."

The Observer from SCAR, in connection with the adoption of this recommendation asked that the record show that he did not consider that the language referring to "the appropriate authority" is sufficiently clear.

Discussion on all draft recommendations was characterized by a marked spirit of co-operation which was perhaps best demonstrated in consideration of the draft recommendation on "Continuing Liaison" presented by the United Kingdom.

In introducing this draft, the United Kingdom Representative said that his government regarded this as one of the most important items to be considered by the Meeting. In his capacity as Chairman of the Communications Working Group of SCAR he had found that a considerable number of problems arose every year which usually demanded immediate attention. These were matters which could not be settled through bilateral action because they concerned all signatory nations or because more than two nations would be involved. SCAR, he said, felt that as a scientific body it should not continue to be responsible for the co-ordination of the operations of the telecommunications network.

The United Kingdom Representative said that his government regarded this Meeting as the first step towards the assumption of responsibility by the Governments signatory to the Antarctic Treaty of the responsibilities in the field of telecommunications now being carried by SCAR. He suggested that, as the experience of SCAR had demonstrated the need for a co-ordinating official, the governments might consider the appointment of one of their officials to undertake this function on a part-time basis and that all governments consider the designation of one official concerned with Antarctic telecommunications to act as correspondent for his country.

- 4 -

The United States spokesman indicated that his government believed that there was no need for the appointment of a co-ordinating official and felt that bilateral action would be sufficient to cover all detailed scheduling between stations. He noted the continued existence of the SCAR Working Group on Communications which has so effectively carried out the co-ordinating function.

New Zealand and South Africa submitted a recommendation to the effect that, since agreement seemed unlikely, the question of continued co-ordination in the field of telecommunications be referred to the next Consultative Meeting.

Following lengthy discussions on this recommendation during both the seventh and eighth sessions, the Chairman appointed a working group to resolve drafting difficulties. This working group, recognizing the basic problems faced by the participating delegations and their governments, presented a revised draft which was at once accepted by all Representatives.

All of the eleven recommendations considered by the Meeting thus were approved unanimously by the twelve Representatives. They present possible solutions to telecommunications problems in the Antarctic. By approving these recommendations, the Representatives recognize that such recommendations are not binding on their respective governments and that their governments may not necessarily implement the provisions thereof.

The Meeting directed the Secretary to transmit a certified copy of the Final Report to the Preliminary Meeting at Brussels for its information.

On this basis the Meeting submits for the consideration of the Governments signatory to the Antarctic Treaty the following Recommendations:

RECOMMENDATION I

CO-ORDINATED TIMETABLE FOR URGENT TRAFFIC

CONSIDERING:

- (a) that meteorological data constitute a large proportion of the total radio traffic handled by operators at Antarctic stations,
- (b) that they lose much of their value for analysis and forecasting if they do not reach the analysis centers within a few hours of the time the observations commence,
- (c) that forecasts for flight and other field operations are an urgent and important requirement at a number of Antarctic stations, and
- (d) that the International Antarctic Weather Analysis Centre (I.A.A.C.) in Melbourne requires all meteorological data collected south of 30°S, to prepare analyses for operational and other uses.

THE MEETING RECOMMENDS:

- 1. that all Antarctic Stations should arrange radio schedules at times which will allow meteorological data collectives to reach the forecasting centers, the Southern Ocean regional analysis centers and the I.A.A.C. in Melbourne as soon as possible, but, in any case, no later than two hours for the surface data obtained from the six-hourly observations, and four hours for upper air data, after the nominal time of commencement of the relevant observation,
- 2. that sufficient time should be allotted in the schedules so arranged to permit the handling of other urgent traffic offering on the same route at the same time,
- 3. that the attached framework for a provisional timetable of schedules should be adopted for these purposes, as may be practicable, and

- 4. that other transmissions which contracting parties arrange for other radio traffic offering should not interfere with this timetable of schedules except in emergency involving the safety of life, subject always to the right of the base leader to decide otherwise.

RECOMMENDATION II

LINK BETWEEN ANTARCTIC PENINSULA AND McMURDO

CONSIDERING:

- (a) that meteorological data collected from the Antarctic peninsula area and McMurdo are required for analysis at the I.A.A.C. and for forecasting at McMurdo and Mirny and occasionally elsewhere in Antarctica,
- (b) that broadcasting of meteorological data across the auroral zone gives a lower degree of circuit reliability than is required, and
- (c) that the provision of a southern hemisphere data exchange network which would meet this requirement satisfactorily is unlikely to be realized for some years.

THE MEETING RECOMMENDS:

that the best method for providing reliable communications to transmit data obtained in the Antarctic peninsula area to McMurdo be investigated as soon as practicable by the nations concerned.

RECOMMENDATION III

TENTATIVE ROUTING OF METEOROLOGICAL DATA

- (a) that the introduction of some new routes is necessary to achieve the desired improvement in the handling of meteorological data,
- (b) that there are nevertheless some important practical limitations to the facilities which can be provided

economically at some Antarctic stations,

- (c) that the Representatives have examined these limitations at each terminal of the new radio circuit paths desired,

THE MEETING RECOMMENDS:

that the attached tentative schedule should be agreed as the normal routing for passing meteorological data from the observing areas to the terminal stations of the Antarctic radio network.

Note: It would be desirable that the forthcoming SCAR meeting could examine whether this tentative routing meets the requirements of the users of scientific information.

RECOMMENDATION IV

RATIONALIZATION OF INTERNATIONAL LINKS

CONSIDERING:

that it is desirable to keep the number of international radio links in Antarctica to the minimum number necessary to handle the traffic authorized by the appropriate authority.

THE MEETING RECOMMENDS:

1. that Antarctic's international radio links should be limited as far as possible to those shown in the attached diagram, and
2. that states which accede to the Antarctic Treaty and are entitled to participate in the meetings referred to in Article IX of the Treaty, should be invited to co-ordinate their communications with those already established in Antarctica.

RECOMMENDATION V

EMERGENCY ROUTES FOR INTERNATIONAL TRAFFIC

CONSIDERING:

that there is a need for a limited number of alternative routes to be kept open in case the route selected for a main link is inoperative for any reason.

THE MEETING RECOMMENDS:

that the following alternate routes should be maintained and that test schedules should be operated on them at regular intervals -

Mawson	-	Perth
Wilkes	-	Esperance

RECOMMENDATION VII

MODES OF TRANSMISSION

CONSIDERING:

the need for co-ordinating the techniques employed at both ends of each international radio link to produce effective communication.

THE MEETING RECOMMENDS:

1. that all modes of transmission on main links shall be in accordance with the recommendations of the International Telegraph and Telephone Consultative Committee (including inter alia the use of 50 baud machine speeds, not 45 baud), and the International Radio Consultative Committee, and
2. that the objective should be to employ five unit RTT operation on all of the following routes as soon as practicable-

McMurdo	-	Decepcion
	-	Melbourne
	-	Mirny

- Port Stanley
- Wilkes
- Mawson - Johannesburg
- Mirny
- New Amsterdam
- Wilkes
- Mirny - Wilkes
- Wilkes - Melbourne

3. that it would be advisable to consider the possibility of utilizing systems that are less susceptible to harmful interference than the amplitude modulation system, such as frequency modulation system.

RECOMMENDATION VIII

SEARCH AND RESCUE PROCEDURES

CONSIDERING :

- (a) that stations requiring search and rescue will be those which themselves cannot provide the means of rescuing or relieving a distressed party within the time required,
- (b) that those stations from which such assistance will be sought will most likely be those operating long-range aircraft in Antarctica,
- (c) that those aircraft are not normally standing ready for an immediate take off on a long transcontinental flight and that some time will be required to prepare them for such an operation, and
- (d) that when the rescue aircraft reaches the area it may have to undertake a search for the party in distress.

- 10 -

THE MEETING RECOMMENDS:

that the following uniform procedure be adopted for the operation of radio equipment involved in search and rescue operations in Antarctica:

- i) The distress traffic shall have absolute priority over all other traffic offering at that time.
- ii) The radio operating procedure shall be that specified for the mobile services, in Chapter VIII, Article 36 of the Radio Regulations, Geneva, 1959, of the International Telecommunication Union.
- iii) Furthermore, after passing the initial request for assistance the station or stations providing the assistance shall maintain continuous communication during the search and rescue operation with the stations requesting assistance until the station requesting assistance is satisfied that the operation is completed.

RECOMMENDATION IX

RADIO AIDS TO AIR NAVIGATION

CONSIDERING:

- (a) that international flights are becoming more frequent in Antarctica,
- (b) that some planned provision of basic radio aids to air navigation at certain ground stations is essential to improve the safety of aircraft operating in the area,
- (c) that it is desirable for the countries to agree on a plan which they may follow in the next five years at least when installing ground-based radio aids to air navigation or modifying any associated facilities at their stations, and

- 11 -

- (d) that the ultimate plan for Antarctica should be developed having regard to the route pattern at the appropriate time and that the International Civil Aviation Organization will probably be required to develop it.

THE MEETING RECOMMENDS:

1. that nondirectional beacons of sufficient power to provide an adequate service for air navigation be provided as soon as practicable at each station offering aircraft landing facilities and that MF nondirectional beacons should be provided at each such station on the coast as soon as practicable,
2. that the details of type, frequency and power of air navigational aids installed shall be listed each year in the information exchanged under the terms of Recommendation I-VI paragraph (8) of the Antarctic Treaty First Consultative Meeting so that parties wishing to equip their aircraft to use the ground aids may do so.

RECOMMENDATION X

TIME FOR BEGINNING RADIO TRANSMISSIONS

CONSIDERING:

- (a) that it is not always possible to avoid harmful interference of ionospheric observations by radio transmissions, since the various installations are located in limited areas for reasons of logistics,
- (b) that an international agreement on this matter is required, since the ionospheric observations must be undertaken simultaneously in all the stations and the transmission of data utilizes the radiocommunications centers of all the bases at the same time,
- (c) that there is extremely heavy traffic at H 4 00 minutes, which decreases very rapidly,

- (d) that the recommendations of the international scientific organizations require categorically that the ionospheric soundings be made at H 4 00 minutes on the world-wide network.

THE MEETING RECOMMENDS:

that, except for distress calls, the beginning of radio transmission schedules of Antarctic stations, on the international Antarctic network, where ionospheric soundings are made should be fixed systematically at H 4 05 minutes wherever the beginning of the schedule lies between H 4 00 and H 05.

RECOMMENDATION XI

CONTINUING LIAISON

CONSIDERING:

- (a) that since the commencement of planning the Antarctic telecommunications network for the International Geophysical Year (IGY), a Communications Working Group has been operating, first under the auspices of the Special Committee for the International Geophysical Year (CSAGI), and since the conclusion of the IGY period under SCAR,
- (b) that the SCAR Observer has reported that in the operation of such a network problems have arisen from day to day which have demanded urgent attention of the Chairman of the Communications Working Group of SCAR,
- (c) that information provided by the SCAR Observer indicates that the SCAR Communications Working Group may wish to limit its responsibilities in the field to the co-ordination of scientific requirements for telecommunication services, and taking into account Recommendation V.C-2 of the Fifth Meeting of SCAR,
- (d) that the question of continued co-ordination in the field of telecommunications has been raised and that there is a need of further consideration.

THE MEETING RECOMMENDS:

that, if deemed necessary at that time, the question of continued co-ordination in the field of telecommunications be discussed at the next consultative meeting under the Antarctic Treaty