

II

RECOMMENDATIONS ADOPTED AT THE  
TWELFTH ANTARCTIC TREATY CONSULTATIVE  
MEETING

## XII-I

THE COLLECTION AND DISTRIBUTION OF ANTARCTIC  
METEOROLOGICAL DATA

The Representatives,

Recalling Recommendation VI-3 and X-3;

Noting Resolutions 4,5,6,7 and 8 of the WMO Executive Committee, Thirty Fourth Session June 1982 concerning meteorological observing networks, collection and transmission of meteorological data and meteorological data processing in Antarctica;

Recognising

- (1) the continuing importance of Antarctic meteorological data for support of operations within Antarctica and for weather forecasting and research, especially climate research in the rest of the world;
- (2) the need to maintain a basic network of meteorological stations providing surface and upper-air synoptic data to meet in so far as possible the requirements of Consultative Parties and of the WMO World Weather Watch;
- (3) the diminished value of meteorological data if it is not available to users within and outside the Antarctic in accordance with the WMO schedules for the receipt of raw and processed data;

- (4) the paucity of Antarctic meteorological surface and upper air data and the consequent importance of maintaining regularity of meteorological observations; and
- (5) that the increasing shipping and aircraft activities in Antarctica will give rise to increasing demands for meteorological support;

Reaffirming the importance of the WMO Global Telecommunications System (GTS) for purposes of transmitting Antarctic meteorological data between Antarctic stations in cases where direct transmission within Antarctica is inhibited by ionospheric conditions, and noting that the adoption by some Consultative Parties of satellite communications may facilitate the reception within Antarctica of meteorological data from the GTS;

Noting:

- (1) that monitoring carried out by WMO in 1982 and 1983 on the flow of Antarctic meteorological data into the GTS indicates that significant deficiencies remain;
- (2) the reactivation of the WMO Executive Committee Working Group on Antarctic Meteorology and the outcome of its Third Session in April 1982, including preliminary work on a review of the requirements for raw and processed data set out in Annexes 1 and 2 of Recommendation VI-3;
- (3) the efforts of the WMO Meeting of Experts on Antarctic Data Telecommunication Arrangements in June 1983, in reviewing and updating the meteorological telecommunications routing diagrams set forth in Annexes 1, 2 and 3 of Recommendation X-3; and

- (4) that the aforesaid WMO Meeting of Experts arrived at a number of conclusions and recommendations aimed at improving Antarctic telecommunications for meteorological purposes, and at improving the manner in which Antarctic meteorological data is transmitted within the GTS of the WMO World Weather Watch;

Recognising the need to keep under review:

- (1) the requirements for raw and processed Antarctic meteorological data; and
- (2) the arrangements for transmission of meteorological data within Antarctica and between Antarctica and the WMO World Weather Watch system;

Recommend to their Governments that they:

- (1) use their best endeavours, subject to any overriding scientific, administrative or budgetary considerations, to secure full implementation of the network of stations and observational programs set forth in Annex 1 of this Recommendation;
- (2) maintain and improve, subject to any overriding scientific, administrative or budgetary considerations, the system for collection and distribution of meteorological data to, from and within Antarctica having regard to the routing arrangements shown in Annexes 2 and 3, which are based on the conclusions of the WMO Meeting of Experts on Antarctic Data Telecommunication Arrangements in June 1983;

- (3) seek, through their Permanent Representatives with WMO, the completion of Annex IV to the Final Report of the aforesaid WMO Meeting of Experts, as a helpful contribution to planning the exchange of available meteorological data;
- (4) seek, through their Permanent Representatives with WMO, to ensure that consideration is given, as appropriate, to other conclusions and recommendations made by the aforesaid WMO Meeting of Experts;
- (5) invite WMO through their Permanent Representatives with that Organisation, to keep under review the arrangements for routing of meteorological data within Antarctica and between Antarctica and the GTS of the World Weather Watch, and to suggest actions which might be taken to improve the timely receipt of data at stations in Antarctica and at World Meteorological Centres Melbourne, Moscow and Washington and other centres in the World Weather Watch System, having particular regard to changing requirements for meteorological information and to opportunities offered by new technology; and
- (6) note that the statements of requirements for raw and processed Antarctic meteorological data provided by the WMO pursuant to Recommendation X-3 paragraph 9 require refinement, and invite WMO, through their Permanent Representatives with that Organization, to undertake such refinement.

STATIONS AND OBSERVATIONAL PROGRAMMES COMPRISING THE BASIC SYNOPTIC NETWORK  
IN THE ANTARCTIC

INDEX NUMBER	NAME OF THE STATION*	SURFACE**								RADIO WIND/ RADIO WENT				RADIO- SONDE	
1		2								3				4	
		00	03	06	09	12	15	18	21	00	06	12	18	00	12
85984	CENTRO MET. ANTARTICO PDTE. EDUARDO FREI***	X		X		X		X							
85986	B.A. ARTURO PRAT	X		X		X		X							
85988	B.A. BERNARDO O'HIGGINS	X		X		X		X							
88925	SIGNY ISLAND	X		X		X		X							
88952	FARADAY (ARGENTINE ISLAND)	X		X		X		X		X		X		X	X
88962	FOSSIL BLUFF	X		X		X		X							
89022	HALLEY	X		X		X		X		X		X		X	X
89062	ROTHERA POINT	X		X		X		X							
88963	ESPERANZA B.E.	X		X		X		X							
88968	ISLAS ORCADAS D.N. (OBSERVATORIO METEOROLOGICO)	X		X		X		X		X		X		X	X
88970	TENIENTE B. MATIENZO B.A.	X		X		X		X							
88971	ALMIRANTE BROWN E.C.	X		X		X		X							

\* The names of stations are considered to be as geographical designators and are not indicative of functions.

\*\* Where possible when other requirements make it desirable, observations should also be made at some or all of the four intermediate standard times of observation, i.e. 0300, 0900, 1500 and 2100 GMT.

\*\*\* Stations carrying out data-processing and meteorological service functions.

\* Note this Annex is reproduced from the Annex to Resolution 5 of the W.M.O. Executive Committee Session of June 1982 (ECXXIV).

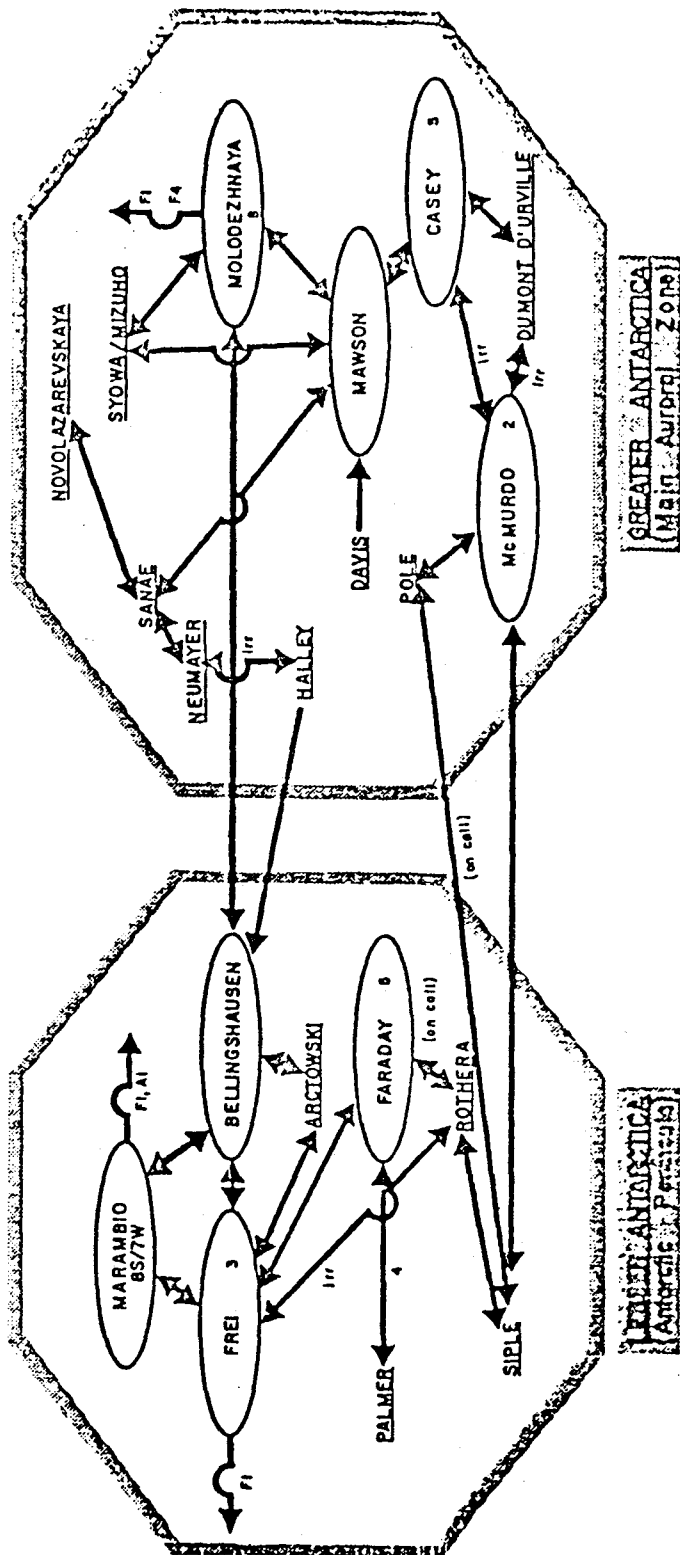
INDEX NUMBER	NAME OF THE STATION*	SURFACE**										RADIOWIND/ RADIOVENT				RADIO- SONDE	
	1	2										3				4	
		00	03	06	09	12	15	18	21	00	06	12	18	00	12		
89034	GENERAL BELGRANO II B.E.	X		X		X		X									
89045	GENERAL BELGRANO III B.E.	X		X		X		X									
89055	VICECOMODORO MARAMBIO B.A. CENTRO METEORO- LOGICO ANTARTICO***	X		X		X		X		X		X		X	X		
89066	GENERAL SAN MARTIN B.E.	X		X		X		X									
89001	S.A.N.A.E. STATION	X		X		X		X		X		X		X	X		
89002	GEORG VON NEUMAYER	X		X		X		X									
89009	AMUNDSEN-SCOTT	X		X		X		X		X		.		X	.		
89664	MCMURDO	X		X		X		X		X		.		X	.		
89050	BELLINGSHAUSEN	X		X		X		X		X		X		X	X		
89132	RUSSKAYA	X		X		X		X									
89512	NOVOLAZAREVSKAJA	X		X		X		X		X		X		X	X		
89542	MOLODEZNAJA***	X		X		X		X		X		X		X	X		
89592	MIRNYJ	X		X		X		X		X		X		X	X		
89606	VOSTOK	X		X		X		X		X		X		X	X		
89657	LENINGRADSKAJA	X		X		X		X		X		X		X	X		
89532	SYOWA	X		X		X		X		X		X		X	X		
89571	DAVIS	X		X		X		X		X		X		X	X		
89611	CASEY	X		X		X		X		X		X		X	X		
94986	MAWSON***	X		X		X		X		X		X		X	X		
95502	DUMONT D'URVILLE	X		X		X		X		X		X		X	X		

\* The names of stations are considered to be as geographical designators and are not indicative of functions.

\*\* Where possible when other requirements make it desirable, observations should also be made at some or all of the four intermediate standard times of observation, i.e. 0300, 0900, 1500 and 2100 GMT.

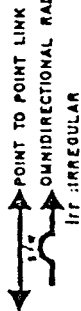
# EXISTING LINKS FOR THE DAILY INTERNATIONAL EXCHANGE OF METEOROLOGICAL DATA WITHIN THE ANTARCTIC (June 1983)

LATITUDE 60° SOUTH



**TRADITIONAL ANTIMONY**  
(Antimonic Pentachloride)

TELECOMMUNICATION MEANS



### RADIO BROADCASTS

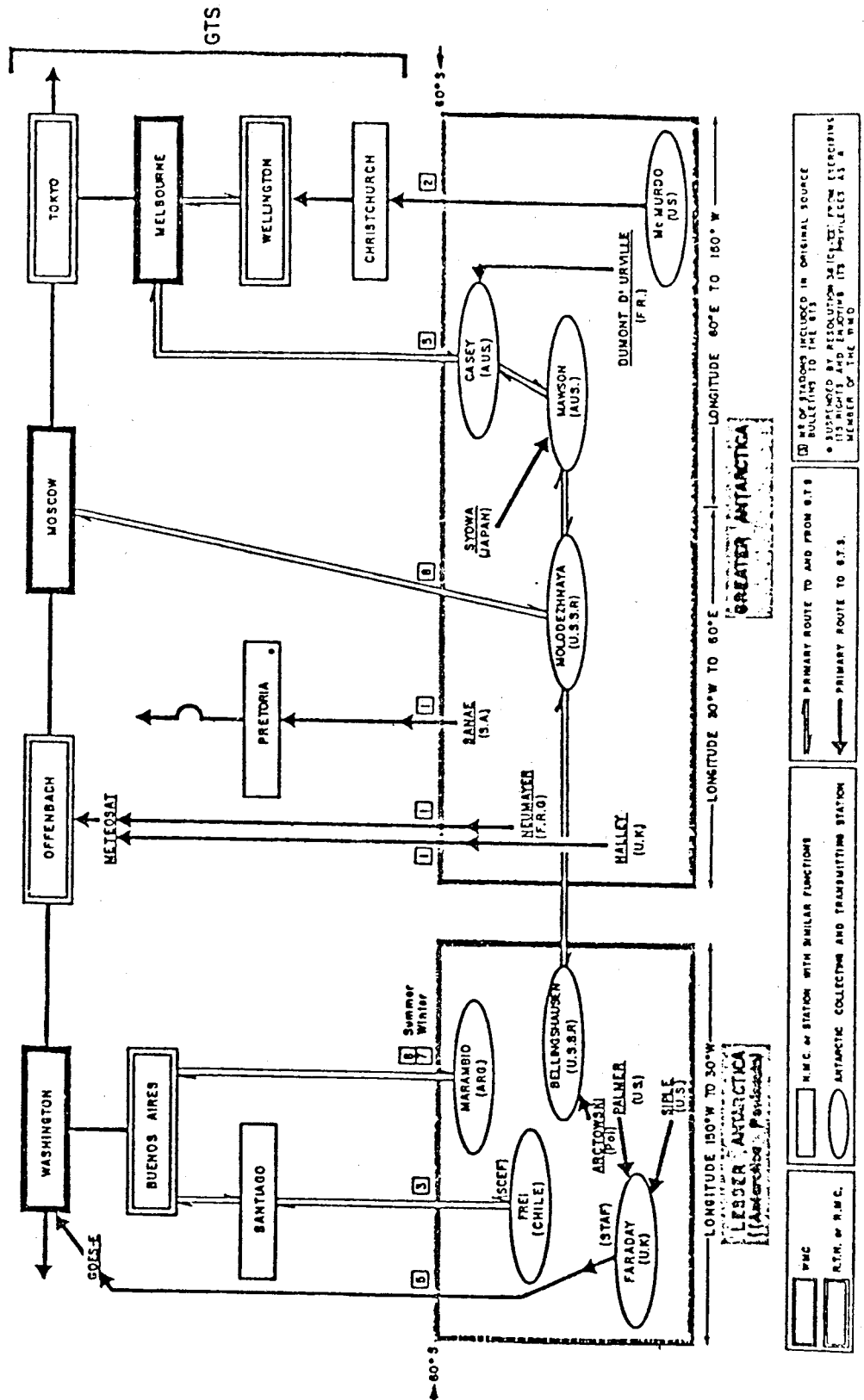
FREE F1 • M + 06 (SYNOPSIS)

**MARAMBIO** Al, Fl, H + 30 (SYNOPSIS), H + 150 (TEMP)

MOLODEZHNYAYA F4.FI: H + 45 (SYNCP L H + 180 TEMP)



# PRINCIPAL ROUTES BY WHICH ANTARCTIC METEOROLOGICAL DATA ENTERS THE GTS



## XII-2

ANTARCTIC TELECOMMUNICATIONS

The Representatives,

Recalling Recommendations VI-1, VII-7 and X-3;

Recognising that Antarctic telecommunications are designed to carry operational, scientific and meteorological traffic and that improvement of the telecommunications system would serve to ensure timely and full exchange of information;

Recognising that recent developments in the use of satellites, of which some Consultative Parties have made use, have improved the reliability of communication links between Antarctic stations and the outside world, but that consequent diminished reliance on conventional telecommunication methods may have affected the capability of stations to communicate with each other;

Noting with appreciation, the response of the SCAR Working Group on Logistics to the request in Recommendation X-3, paragraph 6, to prepare an Antarctic Telecommunications Guidance Manual (SCARCOM);

Noting that the increasing shipping and aircraft activity in Antarctica will require improved telecommunications and meteorological support by Consultative Parties undertaking such increased activity;

Recommend to their Governments that:

- (1) they strive to ensure effective use of the Antarctic telecommunication systems already in existence, and to utilise as appropriate the developing satellite communication systems with a view to achieving improved communications between the Antarctic stations, as well as between those stations and points outside Antarctica;
- (2) they invite SCAR, through their National Antarctic Committees, to:
  - (i) consider, in consultation with agencies responsible for national Antarctic programs (hereinafter referred to as "national Antarctic programs"), how best SCARCOM can be periodically updated so that it may provide adequate guidance to telecommunications operators on telecommunication practices of national Antarctic programs and relevant internationally agreed procedures;
  - (ii) examine issues relating to increased use of satellite communications including:
    - (a) an exchange of information and experience arising out of the adoption of satellite communications for the benefit of those national Antarctic programs which have not adopted this means of telecommunication,
    - (b) the cost-effectiveness of satellite communications and the benefits to operational efficiency and scientific research that may be derived therefrom,

- (c) identification of any problems which may be encountered in communication between the stations of different national Antarctic programs in the event of more widespread adoption of satellite communications, and
- (d) exploration of means by which any such problems might be overcome while maintaining the cost-effectiveness and other benefits of satellite communications;

(iii) examine the adequacy of the Antarctic telecommunications system to meet demands arising from the expansion of shipping and aircraft activity in Antarctica, and to suggest improvements where these might be desirable. In this examination particular attention should be given to:

- (a) communications between Antarctic stations,
- (b) use of the existing facilities for communications between Antarctica and the outside world, and
- (c) communications between stations, ships and aircraft for the purpose of co-ordinating emergency and search and rescue operations.

## XII-3

MAN'S IMPACT ON THE ANTARCTIC ENVIRONMENT

The Representatives,

Recalling Article II of the Antarctic Treaty, Recommendations VI-4, VIII-11, VIII-13 and IX-5;

Noting that in these Recommendations, which have become effective in accordance with Article IX, Paragraph 4 of the Antarctic Treaty, certain principles were elaborated and adopted, namely that:

- (i) the ecosystem of the Antarctic Treaty Area is vulnerable to human interference;
- (ii) the Antarctic derives much of its scientific importance from its uncontaminated and relatively undisturbed condition;
- (iii) in considering measures for the wise use and protection of the Antarctic environment their Governments shall act in accordance with their responsibility for ensuring that such measures are consistent with the interests of all mankind; and
- (iv) no act or activity having an inherent tendency to modify the environment over wide areas within the Antarctic Treaty Area should be undertaken unless appropriate steps have been taken to foresee the probable modifications and

to exercise appropriate controls with respect to the harmful effects such uses of the Antarctic Treaty Area may have;

Recalling that in accordance with these principles there has been established for the Antarctic a substantial series of measures for the protection, conservation and wise use of Antarctic fauna and flora consisting of the Agreed Measures for the Conservation of Antarctic Fauna and Flora, the Convention for the Conservation of Antarctic Seals and the Convention on the Conservation of Antarctic Marine Living Resources;

Noting that the States involved in Antarctic research activities are in the best position to assess potential environmental impacts of such activities and to develop assessment procedures which might, with benefit, be applied to determining whether the activities they plan to conduct are likely to have significant impacts;

Considering that a measure of comparability between such procedures might, in the future, become desirable;

Affirming that environmental assessment procedures should not prejudice one of the fundamental principles of the Antarctic Treaty providing for freedom of scientific investigation as set out in Article II of the Antarctic Treaty and that such procedures should not encroach upon nor prejudice provisions for the protection of the environment and the conservation of living resources contained in instruments that have been or may, in the future, be negotiated as parts of the Antarctic Treaty system;

Recommend to their Governments that:

1. in relation to any scientific activity they plan to conduct, including the planned provision of logistic facilities to support such activity, they urge their respective national organizations responsible for Antarctic activities to continue to scrutinize the plans for such research and logistic activities, in accordance with procedures they have developed or may develop, to determine whether the planned activities are likely to have significant impacts;
2. if a preliminary determination indicates that a planned research or logistic activity could have potentially significant impacts on the environment, their relevant agencies undertake a detailed environmental assessment, in accordance with procedures they have developed or may develop, with a view to determining the factors likely to cause such impacts and, if the seriousness of such impacts so indicates, to elaborating feasible research and logistic alternatives aimed at minimizing harmful effects on the environment. In the event that such an assessment is completed they notify other Consultative Parties;
3. through their National Committees, they invite the Scientific Committee on Antarctic Research (SCAR) to offer:
  - (i) scientific advice regarding the definition of categories of research and logistic activity in Antarctica which might reasonably be expected to have a significant impact on the environment;
  - and

(ii) bearing in mind, inter alia, the discussion at this Meeting as reflected in paragraphs 17 to 19 of its Report, such advice as seems to SCAR to be relevant to the elaboration of assessment procedures which may be applied by the relevant agencies of the Consultative Parties, on an experimental basis, with regard to research and logistic activity; and

4. the question of Man's Impact on the Antarctic Environment should be considered further at the next Consultative Meeting.



## XII-4

MAN'S IMPACT ON THE ANTARCTIC ENVIRONMENTCODE OF CONDUCT FOR ANTARCTIC EXPEDITIONS AND STATION ACTIVITIES

The Representatives,

Recalling Recommendation VIII-11;

Noting a general increase in awareness amongst Consultative Parties of the potential environmental impacts of the disposal of waste in the Antarctic region;

Noting that the increasing level and degree of complexity of Antarctic operations is likely to introduce into the Antarctic a wider range of potentially environmentally damaging substances than previously;

Noting that improvements in logistics and technology increase the feasibility of on-site treatment of human and other waste, and of the removal of solid waste, residues and noxious substances from the Treaty area;

Recommend to their Governments that they seek the advice of their respective Antarctic operating agencies as to:

- (i) any problems which have been experienced in implementing the Code of Conduct for Antarctic Expeditions and Station Activities contained in the Annex to Recommendation VIII-11; and

- (ii) the desirability and feasibility of revising the Code of Conduct in the light of the points noted above, particularly the increased potential for on-site treatment and removal of waste from the Treaty area.

## XII-5

SITES OF SPECIAL SCIENTIFIC INTEREST

The Representatives,

Recalling Recommendations VIII-3, VIII-4 and X-6;

Noting that, pursuant to Recommendation X-6, the designation as Sites of Special Scientific Interest of the Sites numbered 1, 2, 3, 4, 5 and 6 will expire on 30 June 1985, and the designation of Site No. 8 will expire on 31 March 1985, before the probable date of the Thirteenth Antarctic Treaty Consultative Meeting, and that the designation of Site No. 7 expired on 30 June 1983;

Desirous that the designation of these sites as Sites of Special Scientific Interest not be allowed to expire before the Scientific Committee on Antarctic Research (SCAR) has reviewed the Sites and presented the results of its review to the Consultative Parties;

Noting the intention of SCAR to review all Sites of Special Scientific Interest at the Eighteenth Meeting of SCAR in 1984 and to present the results of its comprehensive review to the Consultative Parties for consideration at the Thirteenth Antarctic Treaty Consultative Meeting in 1985;

Recommend to their Governments that:

1. the date of expiry of the following sites should be extended from 30 June 1985 to 31 December 1985:
  - Site No. 1 : Cape Royds, Ross Island,
  - Site No. 2 : Arrival Heights, Hut Point Peninsula, Ross Island,
  - Site No. 3 : Barwick Valley, Victoria Land,
  - Site No. 4 : Cape Crozier, Ross Island,
  - Site No. 5 : Fildes Peninsula, King George Island, South Shetland Islands,
  - Site No. 6 : Byers Peninsula, Livingston Island, South Shetland Islands;
2. the date of expiry of Site No. 7 : Haswell Island, should be extended from 30 June 1983 to 31 December 1985.
3. the date of expiry of Site No. 8: Western Shore of Admiralty Bay, King George Island, should be extended from 31 March 1985 to 31 December 1985; and
4. they use their best endeavours to ensure, in accordance with paragraphs 3 and 4 of Recommendation VIII-3, that the management plans of these sites are observed.

OPERATION OF THE ANTARCTIC TREATY SYSTEM

The Representatives,

Noting that the Antarctic Treaty, based on principles of the United Nations Charter, in the interest of all mankind, establishes Antarctica as an area dedicated exclusively to peaceful purposes, to international harmony and to international scientific cooperation;

Noting further that the Antarctic Treaty, the numerous measures adopted in furtherance of the principles and objectives of the Treaty and other instruments and acts associated with it constitute a far-sighted and effective system of international co-operation, which promotes international peace and security, increase in scientific knowledge and understanding, and effective environmental protection;

Desiring to involve the Contracting Parties to the Antarctic Treaty which are not Consultative Parties more closely with the Antarctic Treaty System;

Conscious of the value of increasing public knowledge of the achievements and operation of the Antarctic Treaty System;

Recalling Article III, paragraph 2 of the Antarctic Treaty which encourages co-operative working relations with those Specialised Agencies of the United Nations and international organisations having a scientific and technical interest in Antarctica;

Recommend to their Governments that:

1. in addition to sending Consultative Parties certified copies of the Report as well as documents of Consultative Meetings as called for in Recommendation I-XIV, paragraph 1, the Government of the host country of each Consultative Meeting shall also send certified copies of the Report as well as documents of that meeting to all other Contracting Parties which were invited to that Meeting;
2. in furtherance of Article III, paragraph 2, of the Treaty, the Government of the host country shall:
  - (a) on behalf of the Consultative Parties send a certified copy of the Final Report and Recommendations of regular Consultative Meetings to the Secretary General of the United Nations, and
  - (b) as and when the Representatives of the Consultative Parties consider it appropriate, draw the attention of any Specialised Agency of the United Nations or other international organisation having a scientific or technical interest in Antarctica to any part of the Report of the Consultative Meeting, or any information document submitted to the Meeting and made available to the public, relevant to the scientific or technical interest which that agency or organisation has in Antarctica;
3. the "Handbook of Measures in Furtherance of the Principles and Objectives of the Antarctic Treaty" be renamed the "Handbook of the Antarctic Treaty" and:

- (a) be brought up to date by the host government as soon as possible after each Consultative Meeting,
- (b) contain an introduction outlining the background and history of the Antarctic Treaty as well as a preface to each section as appropriate giving a brief background to the measures set out in that section. The host government of the Twelfth Consultative Meeting will undertake the necessary consultations with a view to the early preparation of such introduction and prefaces, and
- (c) contain the Final Report (excluding attachments and annexes) from each Consultative Meeting;

- 4.
- (a) starting with the Thirteenth regular Consultative Meeting, Delegations should indicate, when submitting an Information Document, if they intend that document to be publicly available;
  - (b) after the closure of the Meeting and provided no Consultative Party has objected, any Consultative Party or non-Consultative Party which has been invited to that Meeting may make such document publicly available on such terms as it may prescribe;
  - (c) as regards Conference Documents or Information Documents of the First to the Twelfth Consultative Meeting, and Conference Documents of the Thirteenth Consultative Meeting, and subsequent Meetings, as well as Information Documents that have not been identified in accordance with paragraph (a) above as intended to be publicly available, Consultative Parties will consider in what

circumstances such Documents may be made publicly available, with a view to discussing the matter further at the Thirteenth Consultative Meeting;

5. invite the depository Government to examine the question of information about the Antarctic Treaty System, including publicly available documents arising from Consultative Meetings, with a view to identifying and cataloguing publicly available information about the System and identifying the sources from which such information can be obtained; and
6. "The Operation of the Antarctic Treaty System" be included on the Agenda of the Thirteenth Consultative Meeting.



## XII-7

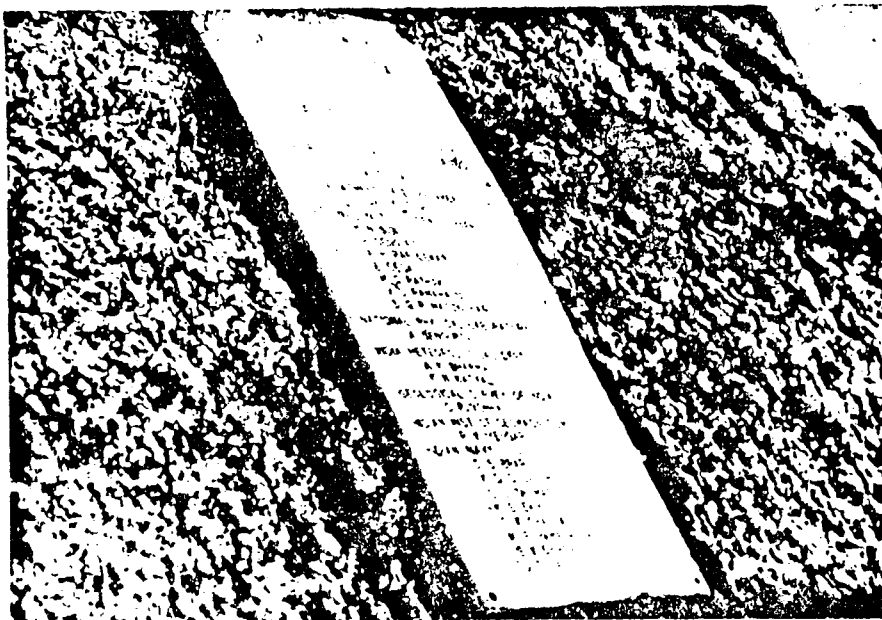
HISTORIC\_SITES\_AND\_MONUMENTS

The Representatives,

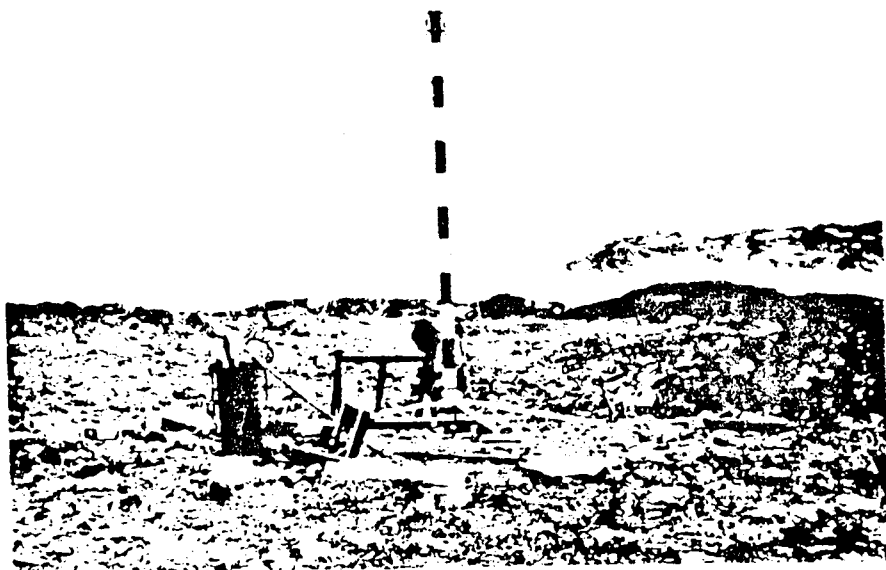
Recalling Recommendations I-IX, V-4, VI-14 and VII-9

Recommend to their Governments that the following historic monument be added to the "List of Historic Monuments Identified and Described by the Proposing Government or Governments" annexed to Recommendation VII-9 and that thereafter it be accorded the respect and protection required by the Recommendations recalled above:

44. Plaque erected at the temporary Indian station "Dakshin Gangotri", Princess Astrid Kyst, Dronning Maud Land, listing the names of the members of the First Indian Antarctic Expedition which landed nearby on 9 January 1982. (Lat. 70°45'S., Long. 11°38'E.)



Plaque installed at *Dakshin Gangotri* in the rock.



Automatic weather recording station at *Dakshin Gangotri* set up by the Indian Team on the foothills of the Antarctic mountain ranges.

SCAR ASSISTANCE TO CONSULTATIVE PARTIES

The Representatives,

Recognising that the Scientific Committee on Antarctic Research (SCAR) of the International Council of Scientific Unions comprises a unique assemblage of knowledge and expertise in Antarctic scientific fields;

Noting with appreciation the advice provided to the Antarctic Treaty Consultative Parties by SCAR in response to various requests;

Being aware that under its Constitution SCAR is charged with "furthering the co-ordination of scientific activity in Antarctica, with a view to framing a scientific program of circumpolar scope and significance";

Being aware also that the assistance requested of SCAR by the Consultative Parties imposes additional demands on scarce resources;

Recommend to their Governments:

That they consider in the light of its expertise and past assistance any requests that may be made by their national committees for additional funding to meet costs to SCAR of responding to requests for advice by the Antarctic Treaty Consultative Parties.