
International Scientific Radio Union

U. R. S. I.

CONTENTS

	Pages
NATIONAL COMMITTEES :	
Australia-Membership	3
ATMOSPHERIC STATION MANUALS :	
6th List	4
INTERNATIONAL GEOPHYSICAL YEAR :	
Membership of C.S.A.G.I.	9
C.S.A.G.I. Reporters	10
C.S.A.G.I. Secretariat	11
Adjoint Secretariat	12
Addresses of World Day Centers	12
List of Auroral Reporters	15
A.G.I. News	18
Instruction Manuals	24
BIBLIOGRAPHY	25

Handwritten text at the top of the page, possibly a title or header, which is mostly illegible due to fading.

1870

Handwritten text in the upper middle section of the page, appearing to be a list or series of entries.

Handwritten text in the middle section of the page, continuing the list or entries.

Handwritten text in the lower middle section of the page.

Handwritten text in the lower section of the page.

Handwritten text at the bottom of the page, possibly a signature or footer.

NATIONAL COMMITTEES

Australia

The Council of the Academy has appointed the following National Committee for Radio Science for a three years term expiring in June 1960.

Dr. D. F. MARTYN,
Mr. R. E. AITCHESON,
Dr. W. G. BAKER,
Mr. W. A. BUTEMENT,
Professor L. G. H. HUXLEY,
Mr. F. G. LEHANY,
Sir John MADSEN,
Mr. N. J. McCAY,
Dr. G. H. MUNRO,
Dr. J. L. PAWSEY,
Dr. J. H. PIDDINGTON,
Mr. L. S. PRIOR,
Mr. J. M. RAYNER,
Professor H. C. WEBSTER,
Dr. F. W. G. WHITE.

ATMOSPHERIC STATION MANUAL

6th List

The following informations are given in this manual :

1. Geographical coordinates.
2. Geomagnetic coordinates.
3. Characteristics measured.
4. Type of apparatus.
5. Frequencies and bandwidths.
6. Other stations of the network.
7. Operating schedule.
8. Publication of results.
9. Responsible authority.
10. Date or report.

In the previous lists the following stations have been mentioned (Numbers between brackets are the numbers of the *Information Bulletin*).

Accra (99)	Byrd Station (101)	Ellsworth (103)
Aden (99)		
Akita (100)	Camborne (99)	Fairbanks (102)
Anchorage (102)	Cape Horn (102)	Falkland Is (100)
Angmassalik (99)	Churchill (100)	Fanning Is (100)
	Colombo (99)	Father Point (102)
Bagneux (99)	Cook (101)	Frobisher Bay (101)
Bangui (99)	Cyprus (99)	Front Royal (101)
Battle Creek (102)		
Bill (101)	Delhi (99)	Gainesville (102)
Bermuda (102)	Dourbes (99)	Godhavn (101)
Boulder (102)	Dunedin (99)	
Brest (99)	Dunstable (99)	Halifax (100)
Brisbane (99)	Durban (99)	Halley Bay (103)

Hanover (102)	Maui (100)	Saskatoon (101)
Hemsby (100)	Mayebashi (100)	Seattle (103)
Huancayo (102)	Narssaq (100)	Singapour (101)
Irvinestown (100)	Nederhorst den Berg (100)	Slough (101)
Ivato (100)	Nome (102)	Stanford (103)
Johannesbourg(100)	Oohira (100)	Stockholm (101)
Kerguelen (100)	Ottawa (101)	Tahiti (101)
King's College (103)	Panama (101)	Tatsfield (103)
Knob Lake (101)	Panska Ves (101)	Thule (103)
Kühlungsborn (102)	Poitiers (101)	Tokyo (103)
Kumamoto (100)	Poona (101)	Toyokawa (103)
Léopoldville (100)	Port Lockroy (102)	Trappes (103)
Leuchars (100)	Potsdam (102)	Tunis (103)
Mabashi (100)	Pruhonice (101)	Unalaska (103)
Macquarie Is (102)	Rabat (101)	Wakkanai (103)
	Rio-de-Janeiro (101)	Washington (103)
		Wellington (103)

In this list informations on the following stations :

Cloncurry	Kampala	Pearce
Coonawarra	Marion Is	Rabat II

We would welcome any informations on gaps or errors in the data we are publishing.

CLONCURRY

1. S 20°40' E 140°30'.
2. —31° 212°.
3. Field strength of slow speed Morse signals giving 95 % intelligibility through the noise. Results converted to equivalent values for 10 kc/s bandwidth.
4. Thomas equipment with pre-amplifier. Vertical aerial (7.6 m), pre-amplifier with 2-20 Mc/s, passband, superhet receiver. Signal generator and keying unit. Aural indication of level using headphones. Manual operation. Provision also for measurements at two medium frequencies by use of passive coupling units to connect aerial and signal generator to receiver.

5. 0.53, 1.55, 2.5, 5, 10, 15, 20 Mc/s.
Bandwidth approximatively 3 kc/s at 3 db attenuation.
6. Coonawarra, Pearce.
7. At two hourly intervals, on the even-numbered hours.
8. At irregular intervals by the Ionospheric Prediction Service, Sydney.
9. Consultative Committee on Radio Research, Attention : Mr. D. E. Yabsley, Radiophysics Laboratory, University Grounds, Sydney, N. S. W., Australia.
10. June 1957.

COONAWARRA (Darwine)

1. S 12°26' E 130°54'.
2. -23° 201°.
3. Field strength of slow speed Morse signal giving 95 % intelligibility through the noise. Results converted to equivalent values for 10 kc/s bandwidth.
4. Thomas equipment with pre-amplifier. Vertical aerial (7.6 m), pre-amplifier with 2-20 Mc/s pass-band, superhet receiver. Signal generator and keying unit. Aural indication of level using headphones. Manuel operation. Provision also for measurements at two medium frequencies by use of passive coupling units to connect aerial and signal generator to receiver.
5. 0.53, 1.55, 2.5, 5, 10, 15, 20 Mc/s.
Bandwidth approximatively 3 kc/s at 3 db attenuation.
6. Pearce, Cloncurry.
7. At two-hourly intervals, on the even-numbered hours.
8. At irregular intervals by the Ionospheric Prediction Service, Sydney.
9. Consultative Committee on Radio Research. Attention : Mr. D. E. Yabsley, Radiophysics Laboratory, University Grounds, Sydney, N. S. W., Australia.
10. June 1957.

KAMPALA (Makerene College)

1. N 00°20' E 32°35'.
2. -2.0° 101.4°.

3. Waveforms of atmospherics.
4. Omni-directional aerial- Low frequency receiver- Cathode-ray tube display, photographed on film.
5. 50 c/s to 50 kc/s for distant atmospherics.
0 c/s to 5 kc/s for electrostatic field changes.
- 6.
7. Hourly if possible.
8. Results sent to W. M.O. when available.
9. Mr. L. E. Harrisson, Makerene College, P. O. Box 262, Kampala, Uganda.
10. May 1957.

MARION ISLAND

1. S 46°51' E 37°52'.
2. —48.9° (1956) 94.3° (1956).
3. Whistling atmospherics.
4. Audio amplifier and magnetic tape recorder.
5. 1-10 kc/s.
6. Poitiers (France) near the conjugate geomagnetic point.
7. Continuous during period of activity.
- 8.
9. Bernard Price Institute of Geophysical Research, University of the Witwatersrand, Johannesburg, Union of South Africa.
10. April 1957.

PEARCE

1. S 31°40' E 115°58'.
2. —43° 186°.
3. Field strength of slow speed Morse signals giving 95 % intelligibility through the noise. Results converted to equivalent values for 10 kc/s bandwidth.
4. Thomas equipment with pre-amplifier. Vertical aerial (7.6m), pre-amplifier with 2-20 Mc/s pass-band, superhet receiver. Signal generator and keying unit. Aural indication of level using headphones. Manual operation. Provision also for measurements

at two medium frequencies by use of passive coupling units to connect aerial and signal generator to receiver.

5. 0.53, 1.55, 2.5, 5, 10, 15, 20 Mc/s.
Bandwidth approximatively 3 kc/s at 3 db attenuation.
6. Coonawarra, Cloncurry.
7. At two hourly intervals, on the even-numbered hours.
8. A irregular intervals by the Ionospheric Prediction Service, Sydney.
9. Consultative Committee on Radio Research, Attention :
Mr. D. E. Yabsley, Radiophysics Laboratory, University Grounds,
Sydney, N. S. W., Australia.
10. Juny 1957.

RABAT II

1. N 34°01' W 06°51'.
 2. +38.7° (1956) 69.9° (1956).
 3. (a) Survey of atmospheric enhancement S.I.D.
(b) Direction of storm centers.
(c) Radio whistlers from natural sources.
 4. (a) Long waves commercial receiver.
(b) Cathode ray direction finder.
(c) Amplifier and magnetic recording.
 5. (a) 27 kc/s.
(b) 27 kc/s.
(c) 1000-10 000 c/s.
 - 6.
 - 7.
 - 8.
 - 9.
 10. May 1957.
-

INTERNATIONAL GEOPHYSICAL YEAR

Special Committee for the International Geophysical Year (C.S.A.G.I.)

Provided by the Secretary General

<i>Union represented</i>	<i>Members</i>	<i>Date</i>
I.C.S.U.	Professeur S. CHAPMAN (<i>President</i>)	March 1953
	(¹) Dr. L. V. BERKNER (<i>Vice President</i>)	May 1952
	(¹) Professeur M. NICOLET (<i>Secretary General</i>)	May 1952
	(¹) Colonel E. HERBAYS	May 1952
I.A.U.	Prof. A. DANJON	July 1953
	Dr. Y. OHMAN	July 1956
I.U.G.G.	(²) Professeur V. V. BELOÛSOV	April 1955
	(²) Professeur J. COULOMB	October 1952
	Professeur G. LACLAVÈRE	July 1953
	(¹) Dr. V. LAURSEN	May 1952
	Professeur N. V. PUSHKOV	April 1955
	Professeur P. TARDI	March 1953
U.R.S.I.	Dr. W. J. G. BEYNON	May 1952
	Professeur M. BOELLA	March 1953
	Father P. LEJAY	January 1956
	Dr. A. H. SHAPLEY	January 1956
I.U.P.A.P.	Dr. J. A. SIMPSON	March 1954
	Dr. S. VALLARTA	February 1954
I.G.U.	(¹) Sir James M. WORDIE	May 1952

(¹) Members, together with Dr. N. E. NORLUND and Dr. J. M. STAGG, of the « Third Polar Year I.C.S.U. Committee » convened in May 1952 by Colonel E. HERBAYS. This Committee subsequently became C.S.A.G.I.

(²) Members of C.S.A.G.I. Bureau.

I.U.B.S.	Dr. A. F. BRUNN	April 1955
W.M.O.	Dr. T. E. W. SCHUMANN	November 1953
	Professeur J. VAN MIEGHEM	March 1953
C.C.I.R.	Professeur B. VAN DER POL	January 1956
	Mr. J. VAN DER MARK	January 1956

C.S.A.G.I. Reporters for Disciplines

I. — World Days and Communications

Dr. A. H. SHAPLEY : National Bureau of Standards, Boulder Laboratories, Boulder, Colorado, U. S. A.

II. — Meteorology

Prof. J. VAN MIEGHEM : Institut Royal Météorologique, 3, Avenue Circulaire, Uccle, Belgium.

III. — Geomagnetism

Dr. V. LAURSEN : Meteorologisk Institut, Charlottenlund, Denmark.

IV. — Aurora and Airglow

Prof. S. CHAPMAN : High Altitude Observatory, Boulder, Colorado, U. S. A.

V. — Ionosphere

Dr. W. J. G. BEYNON : University College of Swansea, Singleton Park, Swansea, Wales.

VI. — Solar Activity

Prof. Y. OHMAN : Stockholm Observatory, Saltsjöbaden, Sweden.

VII. — Cosmic Rays

Prof. J. A. SIMPSON : Institute for Nuclear Studies, University of Chicago, Chicago 37, Illinois, U. S. A.

VIII. — *Longitude and Latitude*

Prof. A. DANJON : Observatoire de Paris, Paris XIV^e, France.

IX. — *Glaciology*

Sir James M. WORDIE : St. John's College, Cambridge, England.

X. — *Oceanography*

Prof. G. R. LACLAVÈRE : Institut Géographique National, 148, rue de Grenelle, Paris VII^e, France.

XI. — *Rockets and Satellites*

Dr. L. V. BERKNER : Associated Universities Inc., 10 Columbus Circle, New-York, 19, N.-Y., U. S. A.

XII. — *Seismology*

Prof. V. V. BELOUSOV : Soviet I.G.Y. Committee, Kaluzhskoye sh. 71a, Moscow, U. S. S. R.

XIII. — *Gravity*

Father P. LEJAY : 35, rue de Sèvres, Paris VI^e, France.

XIV. — *Nuclear Radiation*

Prof. M. NICOLET : Institut Royal Météorologique, 3, Avenue Circulaire, Uccle, Belgium.

C.S.A.G.I. Secretariat

Secretary General : Prof. M. NICOLET, I.R.M., 3, Avenue Circulaire, Uccle, Belgium.

General Editor : Sir Harold Spencer Jones, c/o The Royal Institution, 21, Albemarle Street, London, W. 1., England.

Coordinator : Vice Admiral Sir Archibald Day, 6, Avenue den Doorn, Uccle, Belgium.

Adjoint Secretaries

Antarctic : Prof. G. R. LACLAVÈRE, Institut Géographique National, 148, rue de Grenelle, Paris VII^e, France.

Arctic : Dr. N. HERLOFSON, Department of Electronics, Royal Institute of Technology, Stockholm 70, Sweden.

Eastern Europe : Dr. Y. D. BOULANGER, Bolshaya Gruzinskaya 10, Moscow, D-56, U. S. S. R.

Southern Africa : Dr. T. E. W. SCHUMANN, Department of Transport Weather Bureau, Private Bag 97, Pretoria, South Africa.

Western Hemisphere : Mr. M. MALDONADO-KOERDELL, Ex-Arzo-bispado No 29, Mexico 18, D. F. Mexico.

Addresses of World Day Regional and Associate Regional Warning Centres and National Contents

Argentine : Capitan de Navio D. Enrique G. M. GRUNWALDT, Servicio Meteorologico Nacional, Paseo Colon 317, Buenos Aires. Cable : AGI BUENOS AIRES.

Australia (ARWC) : Dr. W. G. BAKER, Ionospheric Prediction Service, 5, Hickson Road, Millers Point, N. S. W. Cable : IPSO SYDNEY.

Austria : Prof. Dr. F. STEINHAUSER, Direktor, Zentralanstalt für Meteorologie u. Geodynamik, Hohe Warte 38, Wien XIX.

Belgium : Dr. M. NICOLET (Interim), Institut Royal Météorologique, 3, Avenue Circulaire, Uccle. Cable : CSAGISEC BRUSSELS.

Bolivia : Ing. Antonio BERTHIN, Laboratorio de Fisica Cosmica, Universidad Mayor de San Andres, La Paz. Cable : INGEOMIL LA PAZ.

Brazil : J. C. Junquiera SCHMIDT, Servicio de Meteorologia, Praça 15 de Novembro, Edificio de Pesiquas. S. Ano, Rio de Janeiro. Cable : JUNQUIERO RIO.

Bulgaria : Dr. L. KRASTANOV, Service Hydrométéorologique de Bulgarie, Rue Dragan Zankov 6, Sofia. Cable : METEOR SOFIA.

Canada : Ionosphere Station, Department of Transport, c/o Radio Propagation Laboratory, Shirley Bay, Ottawa.

Ceylan : Dr. D. T. E. DASSANAYAKE, Colombo Observatory, Bullers Road, Colombo 7. Cable : IGYNATCOM CEYLON.

- Chile* : Dr. Ubaldo MATASSI L., Casilla 717, Santiagó. Cable : METEO SANTIAGO.
- Chinese Peoples' Republic* : Prof. Chen TSUNG-CHI, Institute of Geophysics and Meteorology, Academia Sinica, Peking. Cable : CNIGY PEKING.
- Colombia* : Capitan de Fregata Augusto O. PORTO, Comando Armada, Carr 10 16-30, Bogota. Cable : COMDEARC BOGOTA.
- Czechoslovakia* : Dr. Jiri MRAZEK, Czechoslovak National Centre, Pruhonice near Praha. Cable : MEGER PRAHA.
- Denmark* : Det Danske Meteorologiske Institut, Charlottenlund. Cable : METOBS COPENHAGEN.
- Ecuador* : Dr. Alfredo SCHMIDT, Director, Observatorio Astronomico, Apartado 165, Quito.
- Egypt* : Mr. A. H. LOTFY, Chief of Telecommunications Division, Meteorological Department, Koubri El Koubba, Cairo. Cable : Mr. LOTFY, WEATHER CAIRO.
- Ethiopia* : Mr. R. L. COLES, Civil Aviation Department, P. O. Box 798, Addis Ababa.
- Finland* : Mr. H. W. SÄLTIN, Finnish Meteorological Office, Vuorikatu 24, Helsinki. Cable : OFKL HELSINKI.
- France (RWC)* : R. P. LEJAY, Jours Mondiaux, 86, rue Jean Marin Naudin, Bagneux (Seine). Cable : GENTELABO PARIS.
- German Democratic Republic* : Dr. H. RUNGE, Hauptwetterdienststelle des Meteorologischen u. Hydrologischen Dienstes der D.D.R., Verlangerte Luckenwalder Strasse, Potsdam. Cable : ZENTROBS POTSDAM.
- German Federal Republic (RWC)* : Herr RICHTER, Fernmeldetechnisches Zentralamt (F.T.Z.), Rheinstrasse 110, Darmstadt. Cable : IONOSPHERE DARMSTADT.
- Great Britain* : Dr. R. L. SMITH-ROSE, Department of Scientific and Industrial Research, Radio Research Station, Ditton Park, Slough, Bucks. Cable : RADSEARCH SLOUGH.
- Guatemala* : Sr. Francis GALL, Secretario del Comité Nacional del A.G.I., Avenida de las Americas 6-76, Zona 13, Guatemala. Cable : AGI GUATEMALA.
- Hungary* : Dr. L. EGYED, Secretary, I.G.Y. National Committee, Muzeum Körut 4/a, Budapest VIII. Cable : AGIMETEOR BUDAPEST.
- Iceland* : Mr. Eysteinn TRYGGVASON, Vedurstofan, Reykjavik. Cable : METEO REYKJAVIK.
- India* : Mr. S. BASU, Director General of Observatories, Lodi Road, New Delhi 3. Cable : METEORS NEW DELHI.
- Indonesia* : Mr. R. KONTA, Lembaga Meteorologi dan Geofisik, Djalan Geredja Ingggris 3, Djakarta. Cable : L. M. G. DJAKARTA.
- Iran* : Mr. A. Parviz NAVAI, Director of Weather Forecast and Communications, Meteorological Department, Teheran Main Airport, Teheran.

- Ireland* : Dr. M. DORRTO, Director; Meteorological Service, 44 Upper O'Connell Street, Dublin. Cable : METEO DUBLIN.
- Israel* : Mr. G. STEINITZ, Meteorological Service, Hakiryá, Tel Aviv. Cable : STEINITZ ISRAMETEOR TEL AVIV.
- Italy* : Prof. Maurizio GIORGI, Comitato Nazionale Italiano A.G.I., Consiglio Nazionale delle Ricerche, Piazzale delle Scienze 7, Roma. Cable : CORICERCHE AGI ROMA.
- Japan* (RWC) : Dr. Hiroyuki UYEDA, Radio Research Laboratories, Ministry of Postal Services, Kokobunji P. O., Kitatama-gun, Tokyo. Cable : AGI KOKOBUNJI.
- Mexico* : Sr. Ing. Carlos NUNEZ A., Jefe del Departamento de Asuntos Internacionales, Direccion General de Telecomunicaciones de la S.C.O.P., Av. Universidad y Xola, Mexico, D. F. Cable : TELESCOP 13-1 AGI MEXICO.
- Morocco* : Mr. HAUBERT, Chef de la Station de sondages ionosphériques, Institut Scientifique Chérifien, Avenue Biarnay, Rabat. Cable : RABAT IONOSONDE.
- Netherlands* (RWC) : Mr. L. D. DE FEITER, Radio Receiving Station NERA, Nederhorst den Berg-Radio. Cable : POSTGEN.
- New Zealand* : Dr. R. G. SIMMERS, New Zealand Meteorological Service, Kelburn, Wellington. Cable : WEATHER WELLINGTON.
- Norway* : Forsvarets Forskningsinstitutt avd. Telekommunikation. Kjellar pr., Oslo.
- Pakistan* : Mr. M. S. HIDAYETULLAH, Deputy Director, Pakistan Meteorological Service, Secretariat Block Nos. 1-3, Frere Road, Karachi 3. Cable : PAKMET KARACHI.
- Peru* : Ing. Alberto A. GIESECKE Jr. (acting), Instituto Geofísico de Huancayo, Apartado 46, Huancayo. Cable : MAGNITIC HUANCAYO.
- Philippines* : Dr. C. DEL ROSARIO, Director, Weather Bureau, Manila.
- Poland* : Prof. Dr. Teodor KOPCEWICZ, Narodowe Centrum Dni Swiatowych, Ul. Partyzantow No. 6, Warszawa. Cable : LOTMET WARSZAWA.
- Rumania* : Dr. S. STOENESCU, Central Meteorological Institute, Central Boulevard Magheru 6-8, Bucarest. Cable : METEOR BUCURESTI.
- Rhodesia and Nyasaland* : Director of Federal Meteorological Services, P. O. Box 8066, Causeway, Salisbury, S. Rhodesia.
- Spain* : Mr. Emilio NOVOA, Secretaria Técnica, Servicios Generales de Telecomunicaciones, Direccion General de Correos y Telecomunicaciones, Madrid.
- Sweden* : Mr. Sven GEJER, The Royal Board of Swedish Telecommunications, Brunkebergstorg 2, Stockholm 16. Cable : IGY CENTRE STOCKHOLM.

Switzerland : Prof. Dr. Ing. J. LUGEON, Directeur de la Station Centrale Suisse de Météorologie, Krähbühlstrasse 58, Zurich 7/44.

U. S. S. R. (RWC) : Prof. N. V. PUSHKOV, Institute of Terrestrial Magnetism, Ionosphere and Radio Propagation, Moscow. Cable : NIZMIR MOSCOW.

Union of South Africa : Mr. J. A. KING, Weather Bureau, Private Bag 97, Pretoria. Cable : MET JAN SMUTS.

U. S. A. (RWC and WWA) : Mr. Roger C. MOORE, I.G.Y. World Warning Agency, National Bureau of Standards, Box 178, Fort Belvoir, Virginia. Cable : AGIWARN WASHINGTON.

U. S. A. (ARWC) : Mr. M. E. NASON, North Pacific Radio Warning Service, National Bureau of Standards, Box 1119, Anchorage, Alaska. Cable : BUSTAN ELMENDORF AFB ALASKA.

U. S. A. (ARWC Antarctica) : Scientific Officer-in-charge. Little America, Antarctica, c/o National Academy of Sciences, 2101 Constitution Avenue N. W., Washington 25. C. D. Cable : NARECO WASHINGTON

Uruguay : Prof. J. A. Battione CHIARINO, Servicio Meteorológico del Uruguay, Cerrito 73, Montevideo. Cable : AGI MONTEVIDEO.

Yugoslavia : Mr. Pero M. DJURKOVIC, Astronomiska Opservatorija, Volgina 7, Beograd.

Note : The following assignment of countries to one of the three Regional Warning Centres in the Western European Region has been proposed to date :

The Hague : Denmark, Egypt, Finland, Iceland, Norway, Sweden.

Paris : India, Iran, Ireland, Israel, Italy, Morocco, Spain.

Darmstadt : Austria.

List of Auroral Reporters

Argentine : Prof. Roberto P. J. HERNANDEZ, Servicio Meteorológico Nacional, Paseo Colon 317, Buenos Aires.

Australia : Dr. F. J. JACKA, Antarctic Division, Department of External Affairs, 187 Collins Street, Melbourne.

Austria : Prof. Dr. M. TOPERCZER, Hohe Warte 38, Wien XIX.

Belgium : Dr. M. NICOLET (Interim), Institut Royal Météorologique, 3, Avenue Circulaire, Uccle.

Brazil : Dr. L. R. RATISBONA, Servicio Météorológico do Brazil, Praça 15 de Novembre No. 2, 5º Andar, Rio de Janeiro.

- Bulgaria* : Dr. L. KRASTANOV, Service Hydrométéorologique de Bulgarie, Rue Dragan Zankov 6, Sofia.
- Canada* : Dr. Peter M. MILLMAN, Auroral Centre I.G.Y., National Research Council, Ottawa.
- Chile* : Dr. D. E. P. HEILMAIER K., Director del Instituto de Física y Astronomía de la Universidad Católica de Chile, Casilla 6014, Santiago.
- Chinese Peoples' Republic* : Mr. Wang SHIH-PING, Central Meteorological Office, c/o I.G.Y. National Committee, Academia Sinica, Peking.
- Colombia* : Sr. José M. BATISTA C., Sección de Meteorología, Empresa Colombiana de Aerodromos, Calle 26, No. 13-B-60, Bogotá.
- Czechoslovakia* : Dr. LINK, Československá Akademie Věd, Astronomický Ústav, Budešská 6, Praha 12.
- Denmark* : Dr. Johannes OLSEN, c/o Det Danske Meteorologiske Institut, Charlottenlund.
- Ecuador* : Prof. Luciano Andrade MARIN, Observatorio Astronómico, Apartado 165, Quito.
- Egypt* : Prof. Ahmed HAMMAD, Faculty of Science, Cairo University, Cairo.
- Ethiopia* : Mr. Pierre GOUIN, Doyen de la Faculté des Sciences, P. O. Box 399, University College, Addis Ababa.
- Finland* : Mr. Christian SUCKSDORFF, Finnish Meteorological Office, Vuorikatu 24, Helsinki.
- France* : Prof. D. BARBIER, Institut d'Astrophysique, 98bis Boulevard Arago, Paris XIV^e.
- German Democratic Republic* : Prof. Dr. C. HOFFMEISTER, Direktor der Sternwarte Sonneberg der Deutschen Akademie der Wissenschaften, Berlin.
- German Federal Republic* : Dr. Günter LANGE-HESE, Max Planck Institut für Physik der Ionosphäre, (20b) Lindau über Northeim.
- Great Britain* : Mr. J. PATON, Balfour Stewart Auroral Laboratory, Drummond Street, Edinburgh 8.
- Greece* : Prof. J. TRIKKALINOS, Massalias 4, Athens.
- Guatemala* : Sr. José VASSAUX, Observatorio Nacional Meteorológico y Sismológico, Guatemala.
- Hungary* : Dr. L. EGYED, Muzeum Korut 4/a, Budapest VIII.
- Iceland* : Mr. Eysteinn TRYGGVASON, Vedurstofan, Reykjavík.
- India* : Dr. A. P. MITRA, National Physical Laboratory, of India, Hillside Road, New Delhi 12.
- Ireland* : Dr. M. DOPORTO, Meteorological Service, 44 Upper O'Connell Street, Dublin.

- Israel* : Dr. J. FRENKIEL, P. O. B. 7052, Hakirya, Tel Aviv.
- Italy* : Prof. Guglielmo RIGHINI, Director, Arcetri Astrophysics Observatory, Firenze.
- Japan* : Dr. M. HURUHATA, Tokyo Astronomical Observatory, Mitaka, Tokyo.
- Mexico* : Mr. Julian ADEM, Instituto Geofisica, Ciudad Universitaria, Mexico D. F.
- Morocco* : Mr. J. DEBRAH, Service de Physique du Globe, 2, rue de Foucauld, B. P. 481, Casablanca.
- Netherlands* : Dr. D. VAN SABBEN, Geophysical Section, Royal Netherlands Meteorological Institute, De Bilt.
- New Zealand* : Mr. I. L. THOMSEN, Director, Carter Observatory, Wellington.
- Norway* : Prof. L. HARANG, Teoretisk Astrofysik Institutt, Universiteit, Oslo.
- Pakistan* : Mr. S. N. NAQVI, Director, Pakistan Meteorological Service, Secretariat Block Nos. 1-3, Frere Road, Karachi 3.
- Peru* : Ing. Alberto A. GIESECKE Jr., Director Tecnico del Instituto Geofisica de Huancayo, Apartado 46, Huancayo.
- Philippines* : Mr. Hugo DE LA CRUZ, Weather Bureau, Manila.
- Poland* : Dr. S. KOSIBAWA, Ul. Kopernika II, Wroclaw.
- Portugal* : Prof. Dr. H. DE AMORIM FERREIRA, Servicio Meteorologico Nacional, Largo de Santa Isabel, Lisboa.
- Rhodesia and Nyasaland* : Mr. A. C. GAULD, P. O. Box 8181, Causeway, Salisbury, Southern Rhodesia.
- Rumania* : Prof. M. STOENESCU, Directeur de l'Institut Météorologique, Central Boulevard Maghery No. 6-8, Bucarest.
- Spain* : Prof. Dr. José BALTO, Isaac Peral 1, Madrid.
- Sweden* : Dr. N. HERLOFSON, Department of Electronics, Royal Institute of Technology, Bergvagen 33, Stockholm 70.
- Switzerland* : Prof. Dr. Ing. J. LUGEON, Station Centrale de Météorologie, Krähbühlstrasse 58, Zurich 7/44.
- Tunisia* : Mr. J. TIXERONT, Ministère des Travaux Publics, Tunis.
- Union of South Africa* : Mr. A. M. VAN WIJK, Magnetic Observatory, Hermanus.
- U. S. S. R.* : Prof. A. LEBEDINSKY, The University, Moscow.
- U. S. A. (continental)* : Dr. C. W. GARTLEIN, Physics Department, Cornell University, Ithaca N. Y.
- U. S. A. (Alaska)* : Dr. C. T. ELVEY, Geophysical Institute, College.
- Yugoslavia* : Prof. Dr. P. VUJEVIC, Conseil des Académies de la République, Bozidara Adzije II, B. P. 794, Beograd.

A.G.I. News

World Days and Communications

Meeting of Eurasian Region Representatives

A meeting on World Days and Communications for the Eurasian Region was held in Moscow during the week commencing 6 May. C.S.A.G.I. was represented by Dr. A. H. Shapley, Reporter for World Days and Communications.

World Days and Communications

WW Circular Letters

The following circular letters in the WW Series have been issued on the dates stated :

- | | | |
|-----------|---------------|---|
| WW-8 | 10 April 1957 | First report on the March Trial Week and second report on the January and February Trial Weeks. |
| WW-9 | 19 April 1957 | Letter of despatch accompanying the first supplement to the « Draft Manual for World Days and Communications ».
The Draft Manual, it will be recalled, was circulated under the cover of WW-4 on 12 December 1956. |
| WW-10 | 8 May 1957 | First report on the April Trial Week and second report on the March Trial Week. |
| WW-11 | 14 May 1957 | Notification of daily initiation of I.G.Y. Warning Messages commencing on 1 June 1957. |
| WW-12 | 6 June 1957 | Guidance on the information to be included in the reports on the June Trial Month. |
| WW-12 (a) | 20 June 1957 | Amendments to the text of Circular Letter WW-12. |
| WW-13 | 7 June 1957 | First report on the May Trial Week and second report on the April Trial Week. |

WW-14 20 June 1957 Current information on plans concerning I.G.Y. Warning Messages following the Meeting of Regional Warning Centres in Paris :

(a) Arrangements for broadcasting Warning Messages.

(b) A reminder that the Warning Messages, and in particular the message « No Alert », do *not* relate to the Regular World Days, which remain as planned in the C.S.A.G.I. programme.

(c) A decision to discontinue the use of code words in the Warning Messages ; but, as an alternative, to abridge the text.

The status of, and plans for the I.G.Y. Manual for World Days and Communications.

WW-15 28 June 1957 Details of the shorter standard texts for the I.G.Y. Warning Messages issued from the World Warning Agency.

This shorter standard text will be used exclusively beginning 1 August 1957. During the period 25-31 July 1957 the I.G.Y. Warning Messages will give both the old and the new texts.

The C.S.A.G.I. Guide to I.G.Y. World Data Centres

The first issue of the C.S.A.G.I. Guide to I.G.Y. World Data Centres was despatched to the following addressees from the Coordinator's office during the week 7-15 June 1957 :

Members of C.S.A.G.I.

I.G.Y. Participating Committees.

I.G.Y. World Data Centres and the Permanent Services.

I.G.Y. Adjoint Secretaries.

The copies addressed to Members of C.S.A.G.I. and to Participating Committees outside Europe were sent by air mail; the remainder by surface mail.

Preliminary report of the Fourth I.G.Y. Antarctic Conference

The Fourth I.G.Y. Antarctic Conference was held at the Institut Géographique National, Paris between 13 and 15 June 1957, under the presidency of the C.S.A.G.I. Adjoint Secretary for the Antarctic, Professor G. Laclavère. The Participating Committees of Argentina, Australia, Belgium, Chile, France, Great Britain, Japan, New Zealand, Union of South Africa, U. S. A. and U. S. S. R. were represented, together with the World Meteorological Organisation, the International Telecommunications Union and Unesco. The C.S.A.G.I. Secretary general and the I.G.Y. Coordinator were also present.

A number of scientific papers on Antarctic investigations were presented by delegates, and films were displayed of the operations of the New Zealand, U. S. A. and U. S. S. R. expeditions during the recent Antarctic summer season. The films provided an interesting supplement to the formal reports by participants in the Conference reviewing the organisation and activities of their expeditions already established in, or shortly to depart for Antarctica.

Concurrently with the work of Conference, the following Working Groups met to examine the problems, each in its own specialised field, or in association with others as appropriate :

Antarctic Radio Transmissions.

Antarctic Mutual Logistic Support.

Antarctic Weather Central.

Arctic Radio Transmissions.

Their resolutions were subsequently presented to the Conference for approval.

Among the difficulties exercising the leaders and organisers of the scientific expeditions has been the efficacy of radio communications within from and Antarctica, on which depend the mutual cooperation and support of the expeditions, and the rapid transmission of scientific data to appropriate destinations. In particular

it has not been possible to ensure the effective interchange of meteorological information within the Antarctic meteorological organisation, and between it and the meteorological organisation elsewhere throughout the Southern Hemisphere. The attack on this problem was defined in a special report on the operations of the Weather Central and in the formal reports by participants in the Conference. One Working Group resolution, arising from an offer made by the U. S. S. R. delegation, and endorsed by the Conference, was that the radio station at Mirny should provide a relay in the Antarctic point to point communications system and should re-broadcast the meteorological transmissions from the Weather Central.

The Conference accepted with approval offers from the New Zealand and Argentine delegations to arrange an Antarctic symposium, each in their own country, in March 1958 and November 1959 respectively. It is hoped that members of the scientific expeditions in transit to and from the Antarctic will be able to participate.

A proposal from the U. S. A. delegation for a continuation for a further year of the scientific observations organised in the I.G.Y. Antarctic programme was referred, after discussion, to the Bureau of C.S.A.G.I. with a recommendation from the Conference regarding its further examination by I.C.S.U.

World Days and Communications Meeting of Regional Warning Centres

Representatives of the I.G.Y. Regional Warning Centres for the Eurasian, Western Pacific, Western Hemisphere and Western European (Darmstadt, The Hague and Paris) Regions met at the Paris R.W.C. on 17 June, under the chairmanship of the C.S.A.G.I. Reporter for World Days and Communications. The World Warning Agency, the World Meteorological Organisation and the I.G.Y. Coordinator were also represented.

The Meeting reviewed the experience gained in the following fields during the development and testing period of the World Days and Communications organisation, and approved the necessary adjustments in readiness for the start of the I.G.Y. programme :

— The criteria for the inception of a state of Alert and of a Special World Interval : the text of the Warning Messages, the

arrangements for broadcasting and distributing them and the supervision of these arrangements : interchange messages : rapid data collection : the codes in use.

The status of and plans for the I.G.Y. Manual for World Days and Communications were also reviewed.

The results of the discussion on certain of the items listed above have already been embodied in Circular Letters WW-14 and WW-15 in the effort to ensure that the information is in the possession of recipients who will require it for the start of the I.G.Y.

Arctic Radio Communications Working Group

The following has been received from the Chairman of Arctic Radio Communications Working Group following the meeting of the Group in Paris, 12-14 June (see Item 40).

« The Group agreed that a list of Arctic radio stations of special interest for I.G.Y. Communications will be prepared. This list will include :

(a) Stations which will broadcast Alerts, S.W.I. Warning Messages, meteorological data and summary survey data of the ice conditions under observation.

(b) Communication circuits to and from the ice-floe stations as well as radio navigation beacon frequencies.

(c) Other communication circuits of interest in the I.G.Y. programme.

When the Working Group members have submitted supplementary data during, it is hoped, the next few weeks, the list will be forwarded, together with other pertinent material, to the C.S.A.G.I. General Secretariat in a form suitable for publication as a C.S.A.G.I. Manual on I.G.Y. Arctic Communications. »

Meeting of the C.S.A.G.I. Bureau

The C.S.A.G.I. Bureau met in Uccle between 16 and 19 June 1957. The results of its deliberations are being promulgated in the usual way by the Secretary General. Included in its agenda were reviews of :

(a) The scientific plans and the list of I.G.Y. Participating Committees at the opening of the I.G.Y. The « I.G.Y. Partici-

pating Committees » (a terminology which is to replace « I.G.Y. National Committees ») now number 64. An up to date list is included in this issue of the I.G.Y. News.

(b) The present position regarding, and the future arrangements for C.S.A.G.I. publications.

(c) The state of the organisation of the I.G.Y. World Data Centres and the measures that should be taken by the Coordinator following the issue of the first edition of the C.S.A.G.I. Guide to I.G.Y. World Data Centres. Among the measures envisaged are the clarification of World Data Centre problems in each discipline by correspondence, coupled with personal visits by the Coordinator to certain W.D.C.s; and the arrangement of discussions during the Toronto I.U.G.G. Assembly which may be followed up at W.D.C.s in the U. S. A. afterwards.

(d) The requirements for meetings of C.S.A.G.I. and A.C.I.G.Y. A proposal was received from the U.S.S.R. Academy of Sciences that Moscow should be the place for a meeting of the two Committees. A date in August 1958 was agreed.

(e) The state of the programmes in Rockets and Satellites. Details of the U. S. S. R. programme were received.

U.S.S.R. Rocket and Satellite Programme

Brief details from the recently received programme in Rockets and Satellites of the U. S. S. R. Participating Committee are as follows :

Rockets : Vertical firings which will reach altitudes up to 200 km will be conducted from three zones approximately along the meridian 50-60 degrees East

1st. Zone : Franz Joseph Land. 80° N. 25 firings in 1958.

2nd. Zone : Middle latitudes of the U. S. S. R. 50-60° N.
30 firings in 1957. 40 firings in 1958.

3rd. Zone : Antarctic in the vicinity of Mirny. 60-70° S. 30 firings in 1957/58.

Satellites : The first launching will be during the I.G.Y. and will be made from the U. S. S. R. at a small angle to the meridian. The satellite will consequently be observed in its orbit from all areas of Earth except the central areas of the Arctic and Antarctic.

Termination of the First Special World Interval during the I.G.Y.

The following telegram, dated 3 July 1957, has been received by the Coordinator from the C.S.A.G.I. Reporter for World Days and Communications :

« For your information A.G.I.W.A.R.N. finished S.W.I. today despite renewed solar activity and consensus R.W.C. advice. Alert continued. Difficult decision because already four consecutive days successful S.W.I. and account World Day policy to keep S.W.I. to reasonable days per month. — Shapley. »

Instruction Manuals received at the General Secretariat

Ionosphère. — II^e partie : La mesure de l'absorption ionosphérique.
III^e partie : La mesure des vents ionosphériques. Editors : W. J. G. BEYNON
and G. M. BROWN. Translation : D. LÉPÉCHINSKY.

Solar Activity, Y. OHMAN.

Activité solaire, Y. OHMAN. Translation : R. COUTREZ.

Seismologie, J. P. ROTHE.

Geomagnetism.

BIBLIOGRAPHY

The International Geophysical Year 1957-58. Bulletin n° 3. — Ionospheric Measurements. I. Vertical Incidence Ionospheric Soundings. Issued by the Indian Committee for the I.G.Y., National Physical Laboratory, New Delhi 12, India.

C.S.A.G.I. Guide to I.G.Y. World Data Centers.

Annals of the International Geophysical Year. Vol. III. Part. I. I.G.Y. Instruction Manual, The Ionosphere. Part II, III and IV, The measurement of Ionospheric Absorption; The Measurement of Ionospheric Drifts, Miscellaneous radio measurements.

International Electrotechnical Commission

First supplement (1957) to Publication n° 64 (Second edition 1954) : International Specification for Tungsten Filament Lamps for General Service. Specification for Tungsten Filament Lamp with a life of 2500 hours). Price Sw. Fr. 2 per copy plus postage.

N° 92. — First edition : Recommendations for electrical installations in ships (French and English versions printed separately) Price Sw. Fr. 18 per copy plus postage.

N° 84. — First edition : Recommendations for mercury-arc convertors. Price Sw. Fr. 15 per copy plus postage.

N° 86. — First edition : Recommendations for primary cells and batteries. Price Sw. Fr. 7.50 per copy plus postage.

N° 50 (15). — Second edition of the International Electrotechnical Vocabulary-Group 15 : Switchboards and apparatus for connection and regulation. Prix Sw. Fr. 8 per copy.

Publications available at the Central Office of the International Electrotechnical Commission, 1, rue de Varembe, Geneva, Switzerland.
