



This electronic version (PDF) was scanned by the International Telecommunication Union (ITU) Library & Archives Service from an original paper document in the ITU Library & Archives collections.

La présente version électronique (PDF) a été numérisée par le Service de la bibliothèque et des archives de l'Union internationale des télécommunications (UIT) à partir d'un document papier original des collections de ce service.

Esta versión electrónica (PDF) ha sido escaneada por el Servicio de Biblioteca y Archivos de la Unión Internacional de Telecomunicaciones (UIT) a partir de un documento impreso original de las colecciones del Servicio de Biblioteca y Archivos de la UIT.

(ITU) للاتصالات الدولي الاتحاد في والمحفوظات المكتبة قسم أجراه الضوئي بالمسح تصوير نتاج (PDF) الإلكترونية النسخة هذه والمحفوظات المكتبة قسم في المتوفرة الوثائق ضمن أصلية ورقية وثيقة من نقلًا.

此电子版（PDF版本）由国际电信联盟（ITU）图书馆和档案室利用存于该处的纸质文件扫描提供。

Настоящий электронный вариант (PDF) был подготовлен в библиотечно-архивной службе Международного союза электросвязи путем сканирования исходного документа в бумажной форме из библиотечно-архивной службы МСЭ.

INTERNATIONAL RADIO CONSULTATIVE COMMITTEE

C.C.I.R.

DOCUMENTS OF THE
IXth PLENARY ASSEMBLY

LOS ANGELES, 1959

VOLUME IV

LIST OF PARTICIPANTS
REPORT BY THE DIRECTOR OF THE C.C.I.R.
REPORT BY THE FINANCE COMMITTEE
REPORT BY THE ORGANIZATION COMMITTEE
PLACE OF THE Xth PLENARY ASSEMBLY
LISTS OF DOCUMENTS
ALPHABETICAL INDEX OF VOLUMES I, II AND III



Published by the
INTERNATIONAL TELECOMMUNICATION UNION
GENEVA, 1960

INTERNATIONAL RADIO CONSULTATIVE COMMITTEE



C.C.I.R.

DOCUMENTS OF THE IXth PLENARY ASSEMBLY

LOS ANGELES, 1959

VOLUME IV

LIST OF PARTICIPANTS

REPORT BY THE DIRECTOR OF THE C.C.I.R.

REPORT BY THE FINANCE COMMITTEE

REPORT BY THE ORGANIZATION COMMITTEE

PLACE OF THE Xth PLENARY ASSEMBLY

LISTS OF DOCUMENTS

ALPHABETICAL INDEX OF VOLUMES I, II AND III



Published by the
INTERNATIONAL TELECOMMUNICATION UNION
GENEVA, 1960

PAGE INTENTIONALLY LEFT BLANK

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

LIST OF PARTICIPANTS

REPORT BY THE DIRECTOR OF THE C.C.I.R

REPORT BY THE FINANCE COMMITTEE

**REPORT BY THE ORGANIZATION COMMITTEE
PLACE OF THE Xth PLENARY ASSEMBLY**

LIST OF DOCUMENTS IN NUMERICAL ORDER

LIST OF DOCUMENTS CLASSIFIED BY STUDY GROUPS

**ALPHABETICAL INDEX OF VOLUMES I, II AND III
ORGANIZATIONS MENTIONED IN VOLUMES I, II AND III**

PAGE INTENTIONALLY LEFT BLANK

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

TABLE OF CONTENTS

	Page:
List of participants	7
Report by the Director of the C.C.I.R.	27
Report by the Finance Committee	55
Report by the Organization Committee	67
Place of the Xth Plenary Assembly	73
List of documents in numerical order	77
List of documents classified by Study Groups	123
Alphabetical index of Volumes I, II and III	179
Organizations mentioned in Volumes I, II and III	219

Note. — *For ease of reference, the page numbering in the English and French editions has been made the same, up to the commencement of the lists of documents.*

PAGE INTENTIONALLY LEFT BLANK

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT



LIST OF PARTICIPANTS

PAGE INTENTIONALLY LEFT BLANK

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

LIST OF PARTICIPANTS

	Page
A. Officers of the IXth Plenary Assembly	9
B. Administrations	10
C. Recognized Private Operating Agencies	22
D. International Organizations	23
Doppler — frequency changes in long-distance communications... Rep. I III III 89	
E. Scientific and Industrial Organizations	24
F. United Nations (Specialized Agencies)	25
G. International Telecommunication Union	25
H. Secretariat	26
I. Liaison with inviting Administration	26

A. OFFICERS OF THE IXth PLENARY ASSEMBLY

Chairman

Dr. A. LEBEL,
Head of the Delegation of
the United States of America

Vice-Chairmen

Mr. J. J. MALONE,
Head of the Delegation of
the Republic of Ireland

Mr. K. SAINIO
Head of the Delegation of Finland

Dr. S. HAMADA
Head of the Delegation of Japan

Mr. C. MORALES
Head of the Delegation of Venezuela

Director of the C.C.I.R.

Dr. E. METZLER

Vice-Director of the C.C.I.R.

Mr. Leslie W. HAYES

Secretary

Mr. Robert V. LINDSEY
Administrative Secretary of the C.C.I.R.

B. ADMINISTRATIONS

ARGENTINE REPUBLIC

Head of delegation

Mr. J. A. AUTELLI,
Dirección General de telecomunicaciones,
Buenos Aires.

AUSTRALIA

Head of delegation

Mr. V. F. KENNA,
Postmaster General's Dept.,
Treasury Gardens,
Melbourne.

Delegates

Mr. N. FELTSCHER,
Postmaster General's Dept.,
Treasury Gardens,
Melbourne.

Mr. R. D. GREEN,
Australian Embassy,
2001, Connecticut Avenue,
Washington, D.C.

Mr. A. J. MCKENZIE,
Australian Broadcasting Control Board
497, Collins Street,
Melbourne, C.1.

AUSTRIA

Head of delegation

Mr. H. PANGRATZ,
Fernmeldetechnisches Zentralamt,
Börseplatz, 1
Wien I.

Delegate

Dr. G. SKALAR,
Oesterreichischer Rundfunk,
Argentinierstrasse, 30 A,
Wien IV.

BELGIUM

Head of delegation

Mr. P. BOUCHIER,
Régie des T.T.,
42, rue des Palais,
Bruxelles, 3.

Delegates

Mr. K. van de WALLE,
Régie des T.T.,
42, rue des Palais,
Bruxelles, 3.

Mr. E. DEKEYSER,
Institut National de Radiodiffusion,
18, Place Eugène Flagey,
Bruxelles, 5.

Mr. M. GEWILLIG,
Institut National de Radiodiffusion,
18, Place Eugène Flagey,
Bruxelles, 5.

BIELORUSSIAN S.S.R.

Head of delegation

Mr. A. KASHEL,
Ministère des télécommunications,
10, Avenue Staline,
Minsk.

Delegate

Mr. A. VROBLEVSKI,
Ministère des télécommunications,
10, Avenue Staline,
Minsk.

BULGARIA (People's Republic of) (Represented by Czechoslovakia)

CANADA

Head of delegation

Mr. K. E. COFFEY,
Department of Transport,
Telecommunications Branch,
Ottawa.

Delegates

Mr. E. J. KLEIN,
Department of Transport,
Telecommunications Branch,
Ottawa.

Mr. J. H. MEEK,
Defence Research Board,
Ottawa.

CHINA

Head of delegation

Mr. T. V. MIAO,
Directorate General of Telecommunications,
P.O. Box 84,
Taipei, Taiwan.

Delegates

Mr. Y. C. TSAI,
Chinese Ministry of Foreign Affairs,
Taipei, Taiwan.

Mr. L. Y. CHEN,
Directorate General of Telecommunications,
P.O. Box 84,
Taipei, Taiwan.

Mr. K. P. LIANG,
Directorate General of Telecommunications,
P.O. Box 84,
Taipei, Taiwan.

DENMARK

Head of delegation

Mr. B. NIELSEN,
Direction générale des P. & T.,
Tietgensgade, 37,
København.

Delegates

Mr. P. HANSEN,
Statsradiofonien,
Rosenørnsalle, 22,
København.

Mr. I. LOENBERG NIELSEN,
Direction générale des P. & T.,
Tietgensgade, 37,
København.

GROUP OF THE DIFFERENT TERRITORIES REPRESENTED BY THE FRENCH OVERSEAS POSTAL AND TELECOMMUNICATION AGENCY

Mr. M. JEUDY,
Office central des Postes et
Télécommunications d'Outre-Mer,
5, rue Oswald-Cruz,
Paris, XVI^e.

ECUADOR

Head of delegation

Mr. V. SALVADOR,
Empresa Comunicaciones,
Quito.

SPAIN

Head of delegation

The Marquis de ALCÁNTARA,
Consul General of Spain,
5525, Wiltshire Boulevard,
Los Angeles, 36.

Delegates

Mr. E. CUBERO,
Dirección General de Correos y
Telecomunicaciones,
Sección Radio,
Madrid.

Mr. P. MAFFEI,
Dirección General de Radiodifusión,
42, Castellana,
Madrid.

Mr. V. QUINTAS,
Dirección General de Radiodifusión,
6, Juan Bravo,
Madrid.

UNITED STATES OF AMERICA

Head of delegation

Dr. A. LEBEL,
Telecommunications Division,
Department of State,
Washington 25, D.C.

Deputy Head of delegation

Mr. E. W. ALLEN, Jr.,
Federal Communications Commission,
Washington 25, D.C.

Delegates

Mr. V. AGY,
National Bureau of Standards,
Boulder, Col.

Mr. H. E. AUSTIN,
Radio Corporation of America,
135, Market Street,
San Francisco, Cal.

Dr. D. K. BAILEY,
Chairman Study Group No. VI.,
National Bureau of Standards, Division 82,
Boulder, Col.

Mr. A. BARNABEL,
Federal Aviation Agency,
Washington 25, D.C.

Mr. J. E. BARR,
Federal Communications Commission,
Washington 25, D.C.

Mr. B. BEAN,
National Bureau of Standards,
Boulder, Col.

Mr. E. W. BEMIS,
American Telephone and Telegraph Co.,
195, Broadway,
New York 7, N.Y.

Mr. E. D. BLODGETT,
Radio Corporation of America,
Moorestown, N.J.

Mr. R. T. BROWN,
Radio Technical Commission for
Marine Services,
Federal Communications Commission,
Washington 25, D.C.

Mr. L. E. BRUNNER,
United States Coast Guard Headquarters,
Department of the Treasury,
Washington 25, D.C.

Mr. T. A. CHANDLER,
American Telephone and Telegraph Co.,
32, Avenue of the Americas,
New York 13, N.Y.

Mr. J. T. CHATTERTON,
American Cable and Radio Corp.,
250, Mission Street,
San Francisco, Cal.

Mr. R. CHIPP,
International Telephone and Telegraph
Laboratories,
Garden State Plaza,
Paramus, N.J.

Mr. I. S. COGGESHALL,
Western Union Telegraph Co.,
60, Hudson Street,
New York 13, N.Y.

Mr. J. CORKILL,
Federal Communications Commission,
Washington 25, D.C.

Mr. R. V. CRAWFORD,
Bell Telephone Laboratories,
Murray Hill, N.J.

Mr. W. Q. CRICHLow,
National Bureau of Standards,
Boulder, Col.

Mr. C. L. G. CUMMING,
Institute of Radio Engineers,
1, East 79 Street,
New York 21, N.Y.

Dr. J. H. DELLINGER,
3900, Connecticut Avenue, N.W.,
Washington 8, D.C.

Mr. F. DICKSON,
U.S. Army Signal Radio Propagation
Agency,
65, Heights Terrace,
Fair Haven, N.J.

Mr. H. E. Dinger,
Naval Research Laboratory,
Code 5416,
Department of the Navy,
Washington 25, D.C.

Mr. D. D. DONALD,
American Telephone and Telegraph Co.,
32, Avenue of the Americas,
New York 13, N.Y.

Mrs. F. T. DOWLING,
Telecommunications Division,
Department of State,
Washington 25, D.C.

Mr. F. B. DUNCAN,
United States Coast Guard,
Department of the Treasury,
1009, W. Greenwich Street,
Falls Church, Va.

Mr. E. B. ENGLISH,
Western Union Telegraph Co.,
60, Hudson Street,
New York 13, N.Y.

Mr. H. W. EVANS,
Bell Telephone Laboratories,
Murray Hill, N.J.

Mr. H. FINE,
Federal Communications Commission,
Washington 25, D.C.

Mr. T. N. GAUTIER,
National Bureau of Standards,
Boulder, Col.

Mr. W. D. GEORGE,
National Bureau of Standards,
Boulder, Col.

Capt. G. V. GRAVES,
United States Coast Guard Headquarters,
Department of the Treasury,
Washington 25, D.C.

Mr. J. E. HACKE Jnr.
General Electric Co.,
P.O. Box 535,
Santa Barbara, Cal.

Mr. A. G. HAILEY,
International Astronautical Federation,
1735 De Sales Street,
Washington 6, D.C.

Mr. V. HALL,
835, Hope Street,
Springdale, Conn.

Mr. H. F. HASTINGS,
Naval Research Laboratory,
Washington 25, D.C.

Mr. G. W. HAYDON,
Radio frequency Engineering Office,
Department of the Army,
Washington 25, D.C.

Mr. J. W. HERBSTREIT,
National Bureau of Standards,
Boulder, Col.

Mr. C. M. HICKS,
Hughes Aircraft Co.,
Culver City, Cal.

Mr. H. R. HUNTLEY,
American Telephone and Telegraph Co.,
195, Broadway,
New York 7, N.Y.

Mr. G. JACOBS,
United States Information Agency,
Washington 25, D.C.

Capt. W. J. KENNEDY,
Office of the Chief Signal Officer,
Department of the Army,
Washington 25, D.C.

Mr. R. C. KIRBY,
National Bureau of Standards,
Boulder, Cal.

Mr. E. C. LAIRD JR.,
American Telephone and Telegraph Co.,
32, Avenue of the Americas,
New York 13, N.Y.

Mr. W. M. MARKOWITZ,
United States Naval Observatory,
Washington 25, D.C.

Mr. W. MASON,
Radio Corporation of America,
60, Broad Street,
New York 4, N.Y.

Mr. C. G. MAYER,
Radio Corporation of America,
30, Rockefeller Plaza,
New York, N.Y.

Mr. G. F. MILLER,
Pacific Telephone and Telegraph Co.,
740, S.Olive Street,
Los Angeles, Cal.

Mr. K. A. NORTON,
National Bureau of Standards,
Boulder, Col.

Mr. J. T. NOURSE,
Electronic Industries Association,
1721 De Sales Street, N.W.,
Washington 6, D.C.

Mr. C. H. PEASE,
United States Information Agency,
330, Independence Avenue, S.W.,
Washington, D.C.

Mr. E. H. PRICE,
American Cable and Radio Co.,
67, Broad Street,
New York 4, N.Y.

Major L. F. RUDOLPH,
United States Army Communication Agency,
Washington 25, D.C.

Mr. F. M. RYAN,
American Telephone & Telegraph Co.,
195, Broadway,
New York 7, N.Y.

Col. F. J. SHANNON, Sr.,
Western Electronics Manufacturers Association,
c/o Packard Bell Electronics Corp.,
12333, W. Olympic Boulevard,
Los Angeles 64, Cal.

Mr. R. SILBERSTEIN,
National Bureau of Standards,
Boulder, Col.

Mr. P. W. SIMMS,
Collins Radio Company,
Cedar Rapids, Iowa.

Mr. A. SKRIVSETH,
Federal Communications Commission,
Washington 25, D.C.

Mr. R. J. SLUTZ,
National Bureau of Standards,
Boulder, Col.

Major D. M. SMITH,
Office of the Chief Signal Officer,
Department of the Army,
Washington 25, D.C.

Dr. E. K. SMITH,
Vice-Chairman, Study Group No. VI,
National Bureau of Standards,
Boulder, Col.

Mr. J. B. SMYTH,
Smyth Research Associates,
3555 Aero Court,
San Diego 11, Cal.

Mr. L. F. SPANGENBERG,
American Cable & Radio Corp.
67, Broad Street,
New York 4, N.Y.

Mr. G. S. TURNER,
Vice-Chairman, Study Group No. VIII,
Federal Communications Commission,
Washington 25, D.C.

Mr. J. P. VEATCH,
Radio Corporation of America,
1625 K. Street, N.W.,
Washington 6, D.C.

Mr. A. P. WALKER,
Chairman, Study Group No. X,
National Association of Broadcasters,
1771, N. Street, N.W.,
Washington 6, D.C.

Mr. A. D. WATT,
National Bureau of Standards,
Boulder, Col.

Mr. W. E. WEAVER,
Aeronautical Radio Inc.,
1700, K. Street, N.W.,
Washington 6, D.C.

Mr. E. WEBER,
Polytechnic Institute of Brooklyn,
333 Jay Street,
Brooklyn 1, N.Y.

Mr. E. WEBSTER,
Western Union Telegraph Co.,
60, Hudson Street,
New York 13, N.Y.

Mr. C. A. WELLS,
Pacific Telephone & Telegraph Co.
740, S. Olive Street,
Los Angeles, Cal.

Mr. I. L. WESTON,
Federal Communications Commission,
Washington 25, D.C.

Mr. F. H. WILLIS,
Bell Telephone Laboratories,
Murray Hill, N.J.

Secretary to the Delegation

Mr. R. C. HAGAN,
Office of International Conferences,
Department of State,
Washington 25, D.C.

FINLAND

Head of delegation

Mr. K. SAINIO,
Ylesradio Ab.,
15, Fabianinkatu,
Helsinki.

Delegate

Mr. P. ARNI,
Ylesradio Ab.,
15, Fabianinkatu,
Helsinki.

FRANCE

Head of delegation

Mr. A. HENRY,
Secrétaire général C.T.T.,
Ministère des P.T.T.,
20, Avenue de Ségur,
Paris, VII^e.

Delegates

Mr. R. CHASTE,
Compagnie générale de T.S.F.,
79, Boulevard Haussmann,
Paris, VIII^e.

Mr. P. DAVID,
Chairman, Study Group No. II,
140, Avenue de Suffren,
Paris, XV^e.

Mr. B. DÉCAUX,
Chairman, Study Group No. VII,
Centre National d'Etudes des
Télécommunications,
196, rue de Paris,
Bagneux (Seine).

Mr. R. GENÈVE,
Laboratoires d'Electronique et de Physique
appliquée,
23, Rue du Retrait,
Paris, XX^e.

Mr. K. GILABERT,
Ministère des P.T.T.,
20, Avenue de Ségur,
Paris, VII^e.

Mr. L. GOUSSOT,
Radiodiffusion Télévision Française,
107, Rue de Grenelle,
Paris, VII^e.

Mr. S. LACHARNAY,
Radiodiffusion Télévision Française,
107, Rue de Grenelle,
Paris, VII^e.

Mr. A. LAURENS,
Télécommunications Radioélectriques et
Téléphoniques,
26, rue Boyer,
Paris, XX^e.

Mr. D. LÉPÉCHINSKY,
Centre National d'Etudes des Télécommuni-
cations,
196, Rue de Paris,
Bagneux (Seine).

Col. J. LOCHARD,
Chairman, Study Group No. I.,
Groupement de contrôle de radioélectricité,
Fort du Mont-Valérien,
Suresnes (Seine).

Mr. M. OLIVIER,
Compagnie française Thomson-Houston,
25, Rue du 18 Juin,
Saint-Cloud (Seine).

Mr. Y. PLACE,
Vice-Chairman, Study Group No. II,
Direction des Services Radioélectriques
des P.T.T.,
5, rue Froidevaux,
Paris, XIV^e.

Mr. M. THUÉ,
Centre National d'Etudes des
Télécommunications,
3, Avenue de la République,
Issy-les-Moulineaux (Seine).

Mr. R. VILLENEUVE,
Chairman, Study Group No. XIV,
Centre National d'Etudes des
Télécommunications,
76, Rue du Général Leclerc,
Issy-les-Moulineaux (Seine).

Mr. J. VOGÉ,
Centre National d'Etudes des
Télécommunications,
3, Avenue de la République,
Issy-les-Moulineaux (Seine).

GUATEMALA

Head of delegation

Mr. O. MENDOZA,
Consulat du Guatemala,
426, S. Spring Street,
Los Angeles 13, Cal.

Delegate

Mr. H. CORDON,
Ministerio de comunicaciones y obras
publicas,
Guatemala City.

INDIA

Head of delegation

Dr M. B. SARWATE, *
Chairman, Study Group No. XII,
Adviser, Wireless Planning and Coordination,
Ministry of Transport & Communications,
New Delhi.

Delegates

Mr. N. K. BASU,
Assistant Director,
Wireless Planning and Coordination,
Ministry of Transport & Communications,
New Delhi.

Mr. L. JOSEPH,
Embassy of India,
Washington, D.C.

Mr. V. V. RAO,
Assistant Director,
Wireless Planning and Coordination,
Ministry of Transport & Communications,
New Delhi.

Mr. M. L. SASTRY,
Deputy Chief Engineer,
All India Radio,
New Delhi.

IRELAND

Head of delegation

Mr. J. J. MALONE,
Department of Posts and Telegraphs,
6, Harcourt Street,
Dublin.

Delegate

Mr. K. RUSH,
Consulate of Ireland,
681 Market Street,
San Francisco, Cal.

ITALY

Head of delegation

Dr F. NICOTERA,
Ministero Poste e Telecomunicazioni,
Via del Seminario,
Roma.

Delegates

Mr. A. ASCIONE,
Istituto Superiore Poste e Telecomunicazioni,
189, Viale di Trastevere,
Roma.

Mr. A. CARUSO,
Ministero Poste e Telecomunicazioni,
Via del Seminario,
Roma.

Mr. A. FERRARI-TONIOLO,
Vice-Chairman, Study Group No. XIV,
Istituto Superiore Poste e Telecomunicazioni,
189, Viale di Trastevere,
Roma.

Prof. A. SABBATINI,
Istituto Superiore Poste e Telecomunicazioni,
189, Viale di Trastevere,
Roma.

* Vice-Secretary General I.T.U., Palais Wilson, Geneva with effect from 1 January 1960.

JAPAN

Head of delegation

Mr. S. HAMADA,
Radio Regulatory Bureau,
Ministry of P. & T.,
Tokyo.

Deputy head of delegation

Mr. T. NIJO,
Radio Regulatory Bureau,
Ministry of P. & T.,
Tokyo.

Delegates

✓ Mr. S. ARITAKE,
Kokusai Denshin Denwa Co. Ltd.,
No. 5, 1-chome, Otemachi Chiyoda-ku,
Tokyo.

✓ Mr. Y. MIYA,
Kokusai Denshin Denwa Co. Ltd.,
No. 5, 1-chome, Otemachi Chiyoda-ku,
Tokyo.

✓ Dr. S. NAMBA,
Vice-Chairman, Study Group No. III,
Kokusai Denshin Denwa Co. Ltd.,
No. 5, 1-chome, Otemachi Chiyoda-ku,
Tokyo.

Mr. Y. NIWA,
Tokyo Electrical Engineering College,
Kanda-Nishikicho, Chiyoda-ku,
Tokyo.

Mr. S. SHIMA,
Nippon Hoso Kyokai,
Technical Research Laboratories,
361, Kinuta-machi, Setagaya-ku,
Tokyo.

Mr. I. SOMEYA,
Nippon Telegraph & Telephone Public Corp.,
11 Takanecho Nakanoku,
Tokyo.

Mr. K. SUZUKI,
Nippon Hoso Kyokai,
361 Kinuta-machi, Setagaya-ku,
Tokyo.

Mr. K. TAKAYANAGI,
Japan Administration of Communication,
902, Kitazawa, 3-chome, Setagaya-ku,
Tokyo.

Mr. H. YUHARA,
Ministry of P. & T.,
Radio Research Laboratories,
Tokyo.

Observer

Mr. S. YASUOKA,
Colour Television Investigation Committee
of Japan,
Kita, 4-chome, Aoyama Minatoku,
Tokyo.

MONACO

Head of delegation

Mr. H. L. HUNT,
Consul de Monaco,
110, South 9th Street,
Las Vegas, Nev.

NORWAY

Head of delegation

Mr. N. J. SØBERG,
Vice-chairman, Study Group No. XIII,
Telegrafstyret,
Oslo.

Delegates

Mr. E. JULSRUD,
Norsk Rikskringkasting,
Marienlyst, V. Aker,
Oslo.

NEW ZEALAND

Head of Delegation

Mr. T. R. CLARKSON,
Engineer-in-Chief's Office,
General Post Office,
Wellington.

Delegates

Mr. H. G. ARTHUR,
Engineer-in-Chief's Office,
General Post Office,
Wellington.

M. N. R. PALMER,
New Zealand Broadcasting Service,
Featherston Street,
Wellington.

PAKISTAN

Mr. M. M. HUSAIN,
Deputy Director General,
Pakistan Posts & Telegraphs Dept.,
Karachi.

NETHERLANDS

Head of Delegation

Mr. A. J. EHNLE,
Directeur des Affaires générales et radio,
Direction générale des P.T.T.,
's Gravenhage.

Deputy Head of Delegation

Mr. J. J. VORMER,
Ingénieur en chef,
Direction générale des P.T.T.,
69, Prins Mauritslaan,
's Gravenhage.

Delegates

Dr H. van DUUREN,
Chairman, Study Group No. III,
Directeur des Laboratoires "Dr Neher"
des P.T.T.,
83, Storm van 's Gravesandeweg,
Wassenaar.

Dr J. J. GELUK,
28, Gabr. Metsulaan,
Hilversum.

Dr J. HAANTJES,
Laboratoire de recherches Philips,
Eindhoven.

Mr. J. HOUTSMULLER,
Direction générale des P.T.T.,
69, Prins Mauritslaan,
's Gravenhage.

Mr. H. KRAMER,
Philips Telecommunication Industry,
114, Berlagelaan,
Hilversum.

Mr. W. LULOFS,
Philips Telecommunication Industry,
9, Derkinderenlaan,
Laren, N.H.

Mr. F. R. NEUBAUER,
Direction générale des P.T.T.,
12, Kortenaerkade,
's Gravenhage.

Mr. H. RINIA,
Laboratoire de recherches Philips,
Eindhoven.

Mr. B. STÖVER,
Ingénieur en chef,
Direction générale des P.T.T.,
24, Marelaan,
Oegstgeest.

Dr F. STUMPERS,
Laboratoire de recherches Philips,
Eindhoven.

Mr. J. VERTON,
Ingénieur en chef,
Direction générale des P.T.T.,
69, Prins Mauritslaan,
's Gravenhage.

POLAND (People's Republic of)

Head of Delegation

Mr. K. KOZŁOWSKI,
Directeur général,
Ministère des P.T.T.,
2, Plac Malachowskiego,
Warszawa.

Delegates

Mr. L. KEDZIERSKI,
Ministère des P.T.T.,
2, Plac Malachowskiego,
Warszawa.

Mr. Z. KOSSAKOWSKI,
Ministère des P.T.T.,
2, Plac Malachowskiego,
Warszawa.

Prof. S. RYŻKO,
Vice-Chairman, Study Group No. I,
Ministère des P.T.T.,
Politechnika Warszawska,
Warszawa.

PORTUGAL

Head of Delegation

Mr. M. A. VIEIRA,
Directeur des Services radioélectriques
des P.T.T.,
37, Rua Duque Palmela,
Lisboa.

Delegates

Mr. A. CUNHA,
Companhia Portuguesa Radio Marconi,
131, Rua S. Julião,
Lisboa.

FEDERAL REPUBLIC OF GERMANY

Head of Delegation

Mr. A. HEILMANN,
Fernmeldetechnisches Zentralamt,
Rheinstrasse 110,
Darmstadt.

Deputy Head of Delegation

Dr W. KRONJÄGER,
Fernmeldetechnisches Zentralamt,
Rheinstrasse 110,
Darmstadt.

Delegates

Mr. W. ARENS,
Siemens & Halske,
Hofbrunnstrasse 46,
München.

Dr B. BECKMANN,
Fernmeldetechnisches Zentralamt,
Rheinstrasse 82,
Darmstadt.

Mr. W. BRUCH,
Telefunken G.m.b.H.,
Gottinger Chaussee 76,
Hannover.

Dr G. BRÜHL,
Telefunken G.m.b.H.,
Zoppoter Strasse 1,
Backnang (Württ.)

Dr H. CARL,
Standard Elektrik Lorenz,
Pforzheim.

Mr. E. DIETRICH,
Vice-Chairman, Study Group No. IX,
Fernmeldetechnisches Zentralamt,
Rheinstrasse 110,
Darmstadt.

Dr GROSSKOPF,
Deutsche Bundespost,
Rheinstrasse 110,
Darmstadt.

Dr F. GUTZMANN,
Institut für Rundfunktechnik,
Norddeutscher Rundfunk,
Mittelweg 113,
Hamburg 13.

Dr W. HASSELBECK,
Telefunken G.m.b.H.,
Elisabethenstrasse 3,
Ulm (Donau)

Dr R. KAISER,
Fernmeldetechnisches Zentralamt,
Rheinstrasse 110,
Darmstadt.

Mr. R. KÖHLER,
Bundesministerium für das Post- und
Fernmeldewesen,
Koblenzerstrasse 81,
Bonn.

Dr H. LEHMANN,
Telefunken G.m.b.H.,
Elisabethenstrasse 3,
Ulm (Donau).

Mr. U. MOHR,
Bundesministerium für das Post- und
Fernmeldewesen,
Bonn.

Dr J. MÜLLER,
Fernmeldetechnisches Zentralamt,
Rheinstrasse 110,
Darmstadt.

Dr E. PROKOTT,
Deutsche Bundespost,
Rheinstrasse 110,
Darmstadt.

Dr RINDFLEISCH,
Vice-Chairman, Study Group No. X,
Norddeutscher Rundfunk,
Rothenbaumchaussee 132-134,
Hamburg 13.

Mr. H. SCHOEN,
Bundesministerium für das Post- und
Fernmeldewesen,
Bonn.

Mr. W. E. STEIDLE,
DEBEG,
Katharinenstrasse 23-25,
Hamburg 11.

Dr H. WERRMANN,
Siemens & Halske,
Zielstattstrasse 133,
München.

Dr R. ZIMMERMANN,
Siemens & Halske,
Specklinplatz 29,
München.

Secretary to the Delegation

Mr. A. SCHAE DLICH,
Fernmeldetechnisches Zentralamt,
Rheinstrasse 110,
Darmstadt.

**FEDERAL PEOPLE'S REPUBLIC
OF YUGOSLAVIA**

Head of Delegation

Prof. V. POPOVIĆ,
Direction des radiocommunications,
Beograd.

Delegate

Mr. F. IVANEK,
Radio-industrie yougoslave,
Linhartova, 35,
Ljubljana.

UKRAINIAN S.S.R.

Head of Delegation

Mr. N. STAVITSKI,
Ministère des P. & T.,
Kiev.

Delegates

Mr. B. AFANASIEV,
Ministère des P. & T.,
Kiev.

Mr. P. GONTCHAR,
Ministère des P. & T.,
Kiev.

Interpreter

Mr. Iu. BLINOV,
Ministère des P. & T.,
Kiev.

RUMANIAN PEOPLE'S REPUBLIC

Head of Delegation

Mr. B. IONITA,
101, Ducești,
București.

Delegate

Mr. P. POSTELNICU,
14, rue P. Mirea,
București.

**UNITED KINGDOM OF GREAT
BRITAIN AND NORTHERN IRELAND**

Head of Delegation

Capt. C. F. BOOTH,
G.P.O., Engineering Department,
2-12 Gresham Street,
London, E.C. 2.

Deputy Head of Delegation

Mr. W. J. BRAY,
Chairman, Study Group No. IX,
G.P.O., Engineering Department (WI Branch),
2-12 Gresham Street,
London, E.C. 2.

Delegates

Mr. D. B. BALCHIN,
G.P.O., Engineering Department (WI Branch),
2-12 Gresham Street,
London, E.C. 2.

Mr. P. A. T. BEVAN,
Independent Television Authority,
14 Princes Gate,
London, S.W. 7.

Mr. W. J. CHALK,
British Broadcasting Corporation,
Broadcasting House,
Portland Place,
London, W.1.

Mr. G. H. M. GLEADLE,
Chairman, Study Group No. XIII,
G.P.O., Radio Services Department,
London, E.C. 1.

Mr. H. L. HAYWARD,
Cable & Wireless Ltd.,
Mercury House,
Theobald's Road,
London, W.C.2.

Mr. R. HOLDEN,
G.P.O., Engineering Department (WO Branch),
2-12, Gresham Street,
London, E.C.2.

Mr. A. HUMBY,
British Joint Communications Electronics
Board,
Storey's Gate,
London, S.W.1.

Mr. B. B. JACOBSEN,
International Marine Radio Company,
63, Aldwych,
London, W.C.2.

Mr. T. KILVINGTON,
G.P.O. Engineering Dept. (RWS),
Dollis Hill,
London, N.W.2.

Mr. D. MAURICE,
British Broadcasting Corp.,
Research Department,
Kingswood Warren,
Tadworth, Surrey.

Mr. F. C. McLEAN,
British Broadcasting Corp.,
Broadcasting House,
Portland Place,
London, W.1.

Mr. L. J. L. NICKELS,
International Marine Radio Co.,
63 Aldwych,
London, W.C.2.

Mr. K. W. PEARSON,
International Marine Radio Co.,
63 Aldwych,
London, W.C.2.

Col. A. H. READ,
British Embassy,
3100, Massachusetts Av., N.W.,
Washington 8, D.C.

Mr. R. A. ROWDEN,
British Broadcasting Corporation,
Research Department,
Kingswood Warren,
Tadworth, Surrey.

Dr J. A. SAXTON,
Radio Research Station,
Department of Scientific and Industrial
Research,
Ditton Park,
Slough, Bucks.

Dr R. L. SMITH-ROSE,
Chairman, Study Group No. V,
Department of Scientific and Industrial
Research,
Radio Research Station,
Slough, Bucks.

Mr. C. W. SOWTON,
G.P.O., Engineering Department (WO Branch),
2-12 Gresham Street,
London, E.C.2.

✓ Mr. A. J. D. WHEELDON,
Marconi International Marine Communication
Co., Ltd.,
Marconi House,
Chelmsford, Essex.

Counsellors

✓ Mr. A. J. BIGGS,
General Electric Company,
Research Laboratories,
Wembley, Middx.

✓ Mr. G. W. S. GRIFFITH,
General Electric Company,
Telephone Works,
Coventry, Warwick.

✓ Mr. E. HICKIN,
General Electric Company,
Research Laboratories,
Wembley, Middx.

✓ Mr. E. P. WETHEY,
Standard Telephone & Cables Ltd.,
Footscray, Kent.

Secretariat to the Delegation

Miss D. BLAND,
Foreign Office,
Conference & Supply Department,
London.

Mr. B. J. PITCHER,
G.P.O., Engineering Department (WO Branch),
2-12 Gresham Street,
London, E.C.2.

SWEDEN

Head of Delegation

Mr. E. ESPING,
Chairman, Study Group No. XI,
Direction générale des télécommunications,
Brunkebergstorg, 2,
Stockholm, 16.

Deputy Head of Delegation

Mr. S. GEJER,
Direction générale des télécommunications,
Brunkebergstorg, 2,
Stockholm, 16.

Delegates

Mr. P. V. ÅKERLIND,
Direction générale des télécommunications,
Textilvägen 7,
Stockholm, 20.

Mr. C. E. BERGLUND,
Direction générale des télécommunications,
Textilvägen, 7,
Stockholm, 20.

Mr. H. BLOMBERG,
Directeur,
Svenska Radio AB,
Lokkatsvägen, 39,
Bromma, Stockholm.

Mr. O. L. FRANZEN,
Vice-President,
Svenska Philips, A.B.,
Gaevlegat, 16,
Stockholm, 16.

Mr. C. G. MÅNSSON,
L.M. Ericsson, Dept. T,
Stockholm, 32.

Mr. J. von UTFALL,
Sveriges Radio,
Vallhallavägen, 117,
Stockholm.

SWITZERLAND

Head of Delegation

Mr. G. A. WETTSTEIN,
Directeur Division T.T.,
Direction générale des P.T.T.,
Speichergasse 6,
Berne.

Deputy Head of Delegation

Mr. W. KLEIN,
Vice-Chairman, Study Group No. IV,
Chef des services Radio et Télévision,
Direction générale des P.T.T.,
Speichergasse 6,
Berne.

Delegates

Mr. B. DELALOYE,
Direction générale des P.T.T.,
Speichergasse 6,
Berne.

Mr. J. DUFOUR,
Direction générale des P.T.T.,
Speichergasse 6,
Berne.

Dr W. GERBER,
Expert en matière de télévision,
Direction générale des P.T.T.,
Speichergasse 6,
Berne.

Mr. F. de LORIOL,
Chef du Service technique de Radio-Suisse,
S.A.,
Berne.

Dr R. SCHÜPBACH,
Brown, Boveri & Co.,
Baden.

CZECHOSLOVAKIA

Head of Delegation

Dr M. JOACHIM,
Ministerstvo Spoju,
Olsanska, 5,
Praha 11.

Delegate

Mr. A. ALTMANN,
Ministerstvo Spoju,
Olsanska, 5,
Praha 11.

TURKEY

Head of Delegation

Mr. G. YENAL,
Ministère des Communications,
Ankara.

Delegate

Mr. A. R. HIZAL,
Direction générale des P.T.T.,
Ankara.

UNION OF SOUTH AFRICA

Head of Delegation

Mr. A. BIRRELL,
Chief Engineer,
G.P.O.,
Pretoria.

Delegates

Mr. D. MILLS,
South African Broadcasting Corporation,
Engineering Division,
P.O. Box 8606,
Johannesburg.

Mr. J. VOLLMER,
South African Broadcasting Corporation,
Engineering Division,
P.O. Box 8606,
Johannesburg.

**UNION OF SOVIET SOCIALIST
REPUBLICS**

Head of Delegation

Mr. N. CHISTIYAKOV,
Ministère des P. & T.,
Moskva.

Deputy Heads of Delegation

Mr. N. KRASNOSEL'SKI,
Ministère des P. & T.,
Moskva.

Mr. Iu. LIKHUSHIN,
Ministère des P. & T.,
Moskva.

Delegates

Mr. S. BORODITCH,
Ministère des P. & T.,
Moskva.

Mr. N. STREL'CHENKO,
Ministère des P. et T.,
Moskva.

Interpreters

Mrs. M. BELIAEVA,
Ministère des P. & T.,
Moskva.

Mrs. A. OGLOBLINA,
Ministère des P. & T.,
Moskva.

VENEZUELA

Head of Delegation

Mr. C. MORALES,
Ministerio de Comunicaciones,
Caracas.

Delegates

Mr. C. RODRÍGUEZ-LÓPEZ,
Ministerio de Comunicaciones,
Caracas.

Mr. G. E. WENZEL,
Ministerio de Comunicaciones,
Caracas.

C. RECOGNIZED PRIVATE OPERATING AGENCIES
(Represented * by)

AMERICAN TELEPHONE
& TELEGRAPH Co. (A.T. & T.)
19, Broadway, New York 7, N.Y.

Mr. E. W. BEMIS,
Mr. T. A. CHANDLER,
Mr. R. V. CRAWFORD,
Mr. D. D. DONALD,
Mr. H. W. EVANS,
Mr. H. R. HUNTLEY,
Mr. E. C. LAIRD JR.,
Mr. G. F. MILLER, } see under
United States.

Mr. L. J. MOORE,
Pacific Telephone and Telegraph Co.,
737, S. Flower Street,
Los Angeles, Cal.

Mr. F. M. RYAN, } see under
Mr. C. A. WELLS, } United States.
Dr F. N. WILLIS, }

BRITISH BROADCASTING
CORPORATION (B.B.C.)
Broadcasting House, London W. 1

Mr. W. J. CHALK,
Mr. D. MAURICE,
Mr. F. C. McLEAN,
Mr. R. A. ROWDEN } see under
United Kingdom.

CABLE & WIRELESS Ltd.
Mercury House
110/124 Theobald's Road, London W.C.1
Mr. H. L. HAYWARD, (see under
United Kingdom)

COMPAGNIE GÉNÉRALE
DE TÉLÉGRAPHIE SANS FIL (C.S.F.)
79, Bd. Haussmann, Paris VIII^e

Mr. J. POLONSKY,
8, rue Voisembert,
Issy-les-Moulineaux, Seine.
Mr. R. CHASTE (see under France)

COMPANHIA PORTUGUESA
RADIO-MARCONI
131, Rua S. Julião, Lisboa

Mr. A. CUNHA, (see under Portugal)

INDEPENDENT TELEVISION
AUTHORITY (I.T.A.)
14 Princes Gate, London S.W. 7

Mr. P. A. T. BEVAN (see under United Kingdom)

INTERNATIONAL MARINE
RADIO COMPANY (I.M.R.C.)
5 Lloyd's Avenue, London E.C. 3

Mr. B. B. JACOBSEN,
Mr. L. J. I. NICKELS,
Mr. K. W. PEARSON,
Mr. E. P. WETHEY } see under
United Kingdom.

KOKUSAI DENSHIN DENWA Co. Ltd.
(K.D.D.)
No. 5, 1-chome, Otemachi Chiyoda-chu,
Tokyo

Mr. S. ARITAKE,
Mr. K. MIYA,
Dr S. NAMBA } see under Japan.

MARCONI INTERNATIONAL MARINE
COMMUNICATION Co. Ltd.
(M.I.M.C.C.)
Marconi House, Chelmsford, Essex

Mr. A. J. D. WHEELDON, (see under
United Kingdom).

NIPPON HOSO KYOKAI (N.H.K.)
361, Kinuta-cho Setagaya-ku, Tokyo

Mr. S. SHIMA,
Mr. K. SUZUKI } see under Japan.

* Unless otherwise indicated, the addresses of the representatives are those of the Recognized Private Operating Agencies concerned.

**NIPPON TELEGRAPH
& TELEPHONE CORPORATION
(N.T.T.)**
Aoicho Minatoku, Tokyo

Mr. I. SOMEYA.

RADIO AUSTRIA A.G.
Renngasse 14, Wien I

Dr. H. SOBOTKA.

**RADIO CORPORATION OF AMERICA
(R.C.A.)**
60 Broad Street, New York 4, N.Y.

Mr. H. E. AUSTIN, } see under
Mr. E. D. BLODGETT, } United States.

Mr. I. K. GIVEN,
R.C.A.,
135, Market Street,
San Francisco, Cal.

Mr. W. MASON, } see under
Mr. C. C. MAYER, } United States.
Mr. J. P. VEATCH, }

RADIO SUISSE S.A.
Viktoriaplatz 1, Berne 25

Mr. F. de LORIOL (see under Switzerland).

**RADIOTELEVISIONE ITALIANA
(R.A.I.)**
9, via Babuino, Roma

Mr. C. TERZANI.

**SOUTH AFRICAN BROADCASTING
CORPORATION
(S.A.B.C.)**
P.O. Box 8606, Johannesburg

Mr. D. MILLS, } see under Union of
Mr. J. VOLLMER, } South Africa.

SVERIGES RADIO
Vallhallavägen, 117, Stockholm

Mr. J. von UTFALL, (see under Sweden).

**D. INTERNATIONAL ORGANIZATIONS
(Observers) ***

**INTERNATIONAL CHAMBER
OF SHIPPING (I.C.S.)**
3-6, Bury Court,
St. Mary Axe, London, E.C. 3

Mr. C. B. BROERSMA.

**INTERNATIONAL RADIO MARITIME
COMMITTEE
(C.I.R.M.)**

Shipping Federation House,
The Minories, London, E.C. 3

Col. J. D. PARKER.

**INTERNATIONAL SPECIAL
COMMITTEE ON RADIO
INTERFERENCE (C.I.S.P.R.)**

British Standards Institution,
2, Park Street, London, W. 1

Mr. P. V. ÅKERLIND (see under Sweden).

Mr. A. J. BIGGS (see under U.K.).

Dr. F. STUMPERS (see under Netherlands).

**INTERNATIONAL ASTRONAUTICAL
FEDERATION (I.A.F.)**

1735, De Sales Street, Washington 6, D.C.

Mr. A. G. HALEY (President),
(see under United States).

**INTERNATIONAL BROADCASTING
AND TELEVISION ORGANIZATION
(I.B.T.O.)**

Liebkechtova 15, Praha XVI

Mr. A. ALTMANN (see under Czechoslovakia).
Mr. W. HOFFMANN,

Dr. M. JOACHIM (see under Czechoslovakia).

Mr. B. IONITA (see under Rumanian P.R.).

Mr. L. KEDZIERSKI (see under P.R. of Poland).

Mr. P. POSTELNICU (see under Rumanian P.R.).

Mr. K. SAINIO (see under Finland).

Mr. H. STIER,

* Unless otherwise indicated the addresses of the Observers are those given beneath the names of the International Organizations.

**INTERNATIONAL ASTRONOMICAL
UNION (I.A.U.)**
Sterrewacht, Leiden

Dr. W. MARKOWITZ (see under
United States).

**EUROPEAN BROADCASTING UNION
(E.B.U.)**

32, avenue Albert Lancaster, Bruxelles

Mr. E. DEKEYSER (see under Belgium),

Mr. G. HANSEN,
Vice-Chairman, Study Group No. XI,
Director, Technical Centre, E.B.U.

Mr. R. A. ROWDEN (see under United
Kingdom).

**INTERNATIONAL RADIO SCIENTIFIC
UNION (U.R.S.I.)**

7, place Emile Danco, Uccle, Bruxelles 18

Dr. J. H. DELLINGER (see under
United States).

E. SCIENTIFIC AND INDUSTRIAL ORGANIZATIONS
(Experts) *

BROWN, BOVERI & Cie,
Baden (Switzerland)

Dr. R. SCHÜPBACH (see under Switzerland).

**ELECTRONIC INDUSTRIES
ASSOCIATION
(E.I.A.)**

1721, De Sales Street, N.W.,
Washington 6, D.C.

Mr. R. BICKEL,
363, E.75 Street,
Chicago, Ill.

Mr. H. GAMMELL,
4545, Augusta Blvd.,
Chicago, Ill.

Mr. A. G. HOLTUM,
Andrew Corp.,
363, E.75 Street,
Chicago, Ill.

Mr. S. S. KRINSKY,
13635, Victory Blvd.,
Van Nuys, Cal.

Mr. J. T. NOURSE (see under United States).

Mr. H. N. SHEPHEND,
General Electric Co.,
Mountainview Road Plant,
Lynchburg, Va.

Mr. A. J. VADASZ,
General Electric Co.,
Electronic Park Bldg. 7,
Syracuse, N.Y.

FACE STANDARD
33-39 Via Luigi Bodio, Milano

Mr. B. FABRI,
Face Standard,
Casella Postale 3598,
Milano (519).

SIEMENS & HALSKE A.G.
ZEA/CCI, Verbindungsstelle, Hofmannstr. 51,
München 25

Mr. W. ARENS,
Mr. T. WERRMANN, } see under Federal
Dr. R. ZIMMERMANN, } Republic of Germany.

**TELEFONAKTIEBOLAGET
L.M. ERICSSON**
Stockholm 32

Mr. H. BLOMBERG,
Mr. C. G. MANSSON } (see under Sweden).

TELEFUNKEN G.m.b.H.
Mehringdamm 32-34, Berlin S.W. 61

Mr. W. BRUCH,
Mr. G. BRÜHL, } see under Federal
Dr. W. HASSELBECK, } Republic of Germany,
Mr. H. LEHMANN, }

* Unless otherwise indicated, the addresses of the Experts are those shown below the names of the Scientific and Industrial Organizations.

**WESTERN ELECTRONICS
MANUFACTURERS ASSOCIATION
(W.E.M.A.)**

1435, South La Cienega Bd, Los Angeles 35, Cal.

Mr. J. BALDWIN,
Ampex International,
Redwood City, Cal.

Mr. K. BREYMEYER,
1755, Lexington Avenue,
San Mateo, Cal.

Mr. J. K. CHATFIELD,
Ampex International,
Redwood City, Cal.

Mr. R. E. ENDERSBY,
13418, Pastel Lane,
Mountainview, Cal.

Mr. P. GUNDY,
Ampex International,
Redwood City, Cal.

Mr. E. HITCHEN,
Ampex International,
Redwood City, Cal.

Mr. J. LIVINGSTON,
Ampex International,
Redwood City, Cal.

Mr. K. L. MACHEIN,
Ampex International,
Redwood City, Cal.

Mr. N. K. McNAUGHTEN,
Ampex International,
Redwood City, Cal.

Mr. R. E. MEYERS,
717, Anderson Way,
San Gabriel, Cal.

Mr. B. PEGLER,
500, 5th Avenue,
New York 36, N.Y.

Mr. L. G. PEW,
Ampex International,
Redwood City, Cal.

Col. F. J. SHANNON Senr.,
c/o Packard Bell Electronics Corp.,
12333, W. Olympic Blvd.,
Los Angeles 64, Cal.

Mr. G. WALLENSTEIN,
W.E.M.A.,
Lenkurt Electric Co.,
San Carlos, Cal.

**F. SPECIALIZED AGENCIES OF THE UNITED NATIONS ORGANIZATION
(Observers)**

**INTERNATIONAL CIVIL AVIATION
ORGANIZATION (I.C.A.O.)**
International Aviation Building, Montreal

Mr. C. C. E. BELLINGER,
I.C.A.O.,
International Aviation Building,
Montreal.

**WORLD METEOROLOGICAL
ORGANIZATION (W.M.O.)**
14, Avenue de la Paix, Genève

Mr. G. W. KARLSTROM,
U.S. Weather Bureau,
P.O. Box 90126,
Los Angeles, Cal.

**G. INTERNATIONAL TELECOMMUNICATION UNION
(I.T.U.)
(Palais Wilson, Genève)**

General Secretariat

Mr. Gerald C. GROSS,
Acting Secretary General. *

I.F.R.B.

Mr. F. DELLAMULLA,
International Member.

Mr. J. H. GAYER,
International Member.

Mr. N. H. ROBERTS,
International Member.

C.C.I.T.T.

Mr. J. ROUVIÈRE,
Director.

* Secretary-General, I.T.U., Palais Wilson, Geneva with effect from 1 January 1960.

Mr. J. BESSEYRE,
Senior Counsellor.

Mr. J. LALOU,
Counsellor.

C.C.I.R.

Dr. E. METZLER,
Director.

Mr. L. W. HAYES,
Vice-Director.

Mr. J. van der MARK,
Counsellor.

Mr. R. V. LINDSEY,
Administrative Secretary.

Mr. H. POULIQUEN,
Engineer.

Mr. R. P. FROOM,
Engineer.

Mr. C. STETTLER,
Technical Assistant.

Miss M. D. KNIGHT,
Secretary to Director.

Miss D. GARETTO,
Secretary to Vice-Director.

Mrs. J. UMBERG,
Secretary-Stenographer.

Miss S. HAEBERLIN,
Secretary-Stenographer.

H. CONFERENCE SECRETARIAT

Conference Secretary

Mr. R. V. LINDSEY,
I.T.U.,
Genève.

Assistant Secretary (Administrative)

Mr. G. KOONTZ,
Office of International Conferences,
Department of State,
Washington 25, D.C.

Assistant Secretary (Documents)

Mr. J. REVOY,
I.T.U.,
Genève.

Assistant Secretary (Finance)

Mr. R. PRELAZ,
I.T.U.,
Genève.

I. LIAISON WITH THE INVITING ADMINISTRATION

Mr. R. C. HAGAN,
Office of International Conferences,
Department of State,
Washington 25, D.C.

Mr. G. A. ELLSWORTH,
Telecommunications Division,
Department of State,
Washington 25, D.C.

Mr. J. H. SOUTHERLAND,
Office of International Conferences,
Department of State,
Washington 25, D.C.

Mr. L. J. MOORE,
Pacific Telephone and Telegraph Co.,
737, S. Flower Street,
Los Angeles, Cal.

REPORT BY THE DIRECTOR OF THE C.C.I.R.

PAGE INTENTIONALLY LEFT BLANK

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

REPORT BY THE DIRECTOR OF THE C.C.I.R. *

(COVERING THE PERIOD BETWEEN THE VIIIth AND IXth PLENARY ASSEMBLIES)

The present Report records the major activities of the C.C.I.R. during the period between the VIIIth and IXth Plenary Assemblies. Moreover, in view of the modifications in the working methods of the C.C.I.R., as decided at the VIIIth Plenary Assembly, it also contains certain proposals based on experience acquired as a result of these modified working methods.

As previously it is divided into four main parts:

1. Activities of the Study Groups,
2. Work of the Specialized Secretariat,
3. Organisation of the Specialized Secretariat,
4. Proposals concerning the future work of the C.C.I.R.

1. Activities of the Study Groups

1.1 *Changes in Chairmanship of Study Groups.*

In November 1957, Professor Tullio Gorio (Italy), Chairman of C.C.I.R. Study Group No. XIV (Vocabulary) announced his retirement as Chairman of the Study Group. In conformity with Chapter 15, paragraph 3 of the General Regulations annexed to the International Telecommunication Convention, the Vice-Chairman of Study Group No. XIV, Mr. R. Villeneuve (France), acceded to the Chairmanship.

In December 1957, Dr. J. H. Dellinger (United States), Chairman of C.C.I.R. Study Group No. VI (Ionospheric Propagation) announced his retirement as Chairman of the Study Group. In conformity with the regulations, the Vice-Chairman of the Study Group, Dr. D. K. Bailey (United States) acceded to the Chairmanship.

The new Chairman announced, in his circular letter dated 25 June, 1958, the election by the Study Group of Dr. E. K. Smith, Jr. (United States), as Vice-Chairman of the Study Group.

In July 1958, Mr. B. V. Baliga (India) announced his retirement as Chairman of C.C.I.R. Study Group No. XII (Tropical Broadcasting). In conformity with the regulations the Vice-Chairman of the Study Group, Dr. M. B. Sarwate, acceded to the Chairmanship.

During the interim meeting of C.C.I.R. Study Group No. IX (Radio-relay systems), held in Geneva (August, 1958), the Chairman of that Study Group, Mr. H. Stanesby (United Kingdom) announced that due to a change of official duties, he was no longer in a position to continue his Chairmanship.

While normally he would have been succeeded by the Vice-Chairman, Mr. G. Pedersen (Denmark), the latter regretted that he was not able to accept the Chairmanship of Study Group No. IX. The Study Group therefore unanimously elected Mr. W. Bray (United Kingdom) as Chairman of Study Group No. IX and also reappointed Mr. Pedersen to the Vice-Chairmanship of that Study Group.

On 2 December, 1958, Mr. G. Millington, Vice-Chairman of C.C.I.R. Study Group No. IV (Ground-Wave Propagation), announced his retirement as Vice-Chairman of that Study Group.

On 21 January, 1959, Mr. A. Cook, Vice-Chairman of Study Group No. III (Fixed Service Systems), announced his retirement as Vice-Chairman of that Study Group.

* This Report, which was originally Doc. No. 15 of Los Angeles, 1959, was adopted unanimously.

By a letter dated 10 February 1959, Professor L. Sacco, Chairman of Study Group No. IV (Ground Wave Propagation), advised the Director that he would be unable to continue in his function as Chairman of Study Group No. IV. This information was included in C.C.I.R. Circular Telegram No. 457 of 19 February, 1959;

By a letter dated 11 March, 1959, Mr. J. D. H. van der Toorn, Chairman of C.C.I.R. Study Group No. XIII (Mobile Services) advised the Director that, due to a change in his official functions, he felt obliged to resign from the position of Chairman of that Study Group;

By a letter dated 23 March, 1959, Mr. G. Pedersen, Vice-Chairman of C.C.I.R. Study Group No. IX (Radio-relay systems), advised the Director that, as he would not be able to take over the Chairmanship should the need arise, he wished to resign as Vice-Chairman of that Study Group;

By a letter dated 1 April, 1959, the State Department informed the Director that Mr. K. W. Miller, Vice-Chairman of C.C.I.R. Study Group No. X (Broadcasting) would not attend the Los Angeles meeting, nor be available for re-appointment to Vice-Chairmanship of that Study Group after the Plenary Assembly.

As the election of Vice-Chairman of Study Groups is, in accordance with paragraph 3 of Chapter 15 of the General Regulations, the prerogative of the Study Groups concerned, it devolves upon the Chairmen of Study Groups Nos. III, IV, IX, XII, XIII and XIV to report to the Plenary Assembly on the results of their consultations.

1.2 Meetings of C.C.I.R. Study Groups

Within the framework of the provisions of paragraph 3 of C.C.I.R. Resolution No. 36, the C.C.I.R. Study Groups mentioned below held interim meetings:

Following the invitation issued at the VIIIth Plenary Assembly by the Administration of the U.S.S.R., C.C.I.R. Study Group No. XI (Television) met in Moscow from 26 May-10 June, 1958, under its Chairman, Mr. Erik Esping (Sweden).

The main purpose of this meeting, besides preparing texts for the IXth Plenary Assembly, was to discuss the utilization for television of Bands IV and V, and the possibility of international standardization in these bands.

As a result of that meeting, and in conformity with Article 7, paragraph 2 of the International Telecommunication Convention, the study of the following new items by Study Group No. XI was requested by 19 Administrations:

Question No. 166 (XI): Single value of signal-to-noise ratio for different television systems;

from which the following new Study Programmes, adopted at the same time, arose,

Study Programme No. 116 (XI): Single value of the signal-to-noise ratio for different television systems;

Study Programme No. 117 (XI): Constitution of a system of stereoscopic television;

Study Programme No. 118 (XI): Ratio of the wanted to the unwanted signal in television;

Study Programme No. 119 (XI): Reduction of the channel capacity required for a television signal;

Study Programme No. 123 (XI): Ratio of the wanted to the unwanted signal in monochrome television.

The texts of this Question and these Study Programmes have been published in Addenda Nos. 2 and 5 to Vol. I of the Warsaw documents.

The other draft findings of Study Group No. XI for presentation to the IXth Plenary Assembly, are contained in Annexes to the Chairman's Report to the IXth Plenary Assembly (Los Angeles Doc. No. 11).

Study Groups Nos. I, II, III, IV, V, VI, VII and IX met, under their respective Chairmen, in Geneva during the period 21 July-29 August, 1958.

These Study Groups prepared draft findings for consideration by the IXth Plenary Assembly, and these are attached as annexes to the respective Chairmen's reports (Los Angeles Docs. Nos. 1, 2, 3, 4, 5, 6, 7 and 9). In addition, the study of the following new Questions was requested, in conformity with the Article referred to above:

- Question No. 168 (V): Protection of frequencies used by artificial earth satellites or other space vehicles for communication and positional observation;
- Question No. 169 (VI): Same title.

These new questions have been published in Addendum No. 3 to Vol. I of the Warsaw documents.

The following three new Study Programmes were also adopted during the interim meeting of Study Group No. IX:

- Study Programme No. 120 (IX): Standardization of multi-channel radio-relay systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s;
- Study Programme No. 121 (IX): Standardization of wide-band radio-relay systems using frequency-division multiplex;
- Study Programme No. 122 (IX): Radio-relay systems employing tropospheric scatter propagation,

they have been published in Addendum No. 4 to Vol. I of the Warsaw documents.

Prior to the above-mentioned interim Study Group meetings, a meeting was held at the C.C.I.R. Secretariat in December 1957 of the Working Party referred to in C.C.I.R. Recommendation No. 177, under the Chairmanship of Dr. Lépéchinisky (France). Although the subject matter of this Working Party: "Methods for estimating sky-wave field strength at frequencies above 1500 kc/s for the I.F.R.B." is an extremely delicate one, it was nevertheless possible for the Sub-Group to draft a preliminary Report, which was subsequently reconsidered by its members during the interim meeting of Study Group VI, and which is now published as one of the findings of C.C.I.R. Study Group No. VI, annexed to Los Angeles Doc. No. 6.

1.3 Meetings of Joint C.C.I.R./C.C.I.T.T. Study Groups

This paragraph deals only with the meetings of those joint groups which were administered by the Secretariat of the C.C.I.R.

There are two such Joint Study Groups, i.e. the Joint Study Group on Technical Assistance (C.M.A.T.) (referred to in C.C.I.R. Resolution No. 38), and the Joint Study Group on television transmission over long distances (C.M.T.T.) (referred to in C.C.I.R. Resolution No. 32).

These two Joint Study Groups came formally into being following the approval of their constitution and terms of reference by the first Plenary Assembly of the C.C.I.T.T. (Geneva, December 1956).

The C.M.A.T. (Resolution No. 38) had only a temporary mandate to study means of increasing the efficiency of Technical Assistance provided by the C.C.I.s in the field of telecommunications, based on Administrative Council Resolution No. 346. A meeting was held in Geneva in the first week of April 1957, and a detailed report was drawn up and submitted to the 12th session of the Administrative Council for consideration.

The Council however felt, that, for various reasons, the majority of the proposals contained in the Report of the C.M.A.T. could not be implemented at that time. A full account of the proposals contained in this Report and the relevant discussions in the Council was given in circular letter CMAT/28 of 20 June, 1957, addressed to all members of the C.C.I.R. and the C.C.I.T.T.

The C.M.T.T. held two meetings, the first in Paris (July, 1957) and the second in Monte Carlo (October, 1958). While not all the problems on the programme of this Group could be fully settled, nevertheless considerable progress was made, and a draft Recommendation (Los Angeles Doc. No. 96) was prepared for presentation to the Plenary Assemblies of the C.C.I.R. and the C.C.I.T.T. To settle the problems still outstanding, the Chairman of the C.M.T.T. has proposed that the work of this joint group should continue.

1.4 *Additional new items*

In addition to the items for study arising from the C.C.I.R. interim Study Group meetings, the following new items were submitted for study by one or other methods provided for in paragraph 2 of Article 7 of the Convention:

Question No. 164 (XIII): Interference due to intermodulation products in the VHF (metric) maritime service.

The study of this Question was requested at the Maritime VHF Radio Telephone Conference (The Hague, 1957) by 13 Administrations, Members of the I.T.U. The text of this Question is published on page 608 of Vol. I of the Warsaw documents.

Question No. 165 (IX): Transmission interruptions due to switching from normal to standby equipment in radio-relay systems including tropospheric scatter systems;

This Question was submitted to the C.C.I.R. by the first Plenary Assembly of the C.C.I.T.T. The text of this Question was published in Addendum No. 1 to Vol. I of the Warsaw documents.

Twelve Administrations submitted, through the Netherlands Administration, a new Question for study, which the Director of the C.C.I.R. assigned to Study Group No. III, and which has become:

Question No. 167 (III): Frequency stability required for single-sideband, independent sideband and telegraph systems, to make the use of automatic frequency control superfluous.

The text has been published in Addendum No. 3 to Vol. I of the Warsaw documents.

Question No. 170 (X): Stereophonic broadcasting.

Following the initiative taken by the Director of the C.C.I.R. (see Technical Circular No. 13 of September 1958), twenty-six Administrations, Members and associate Members of the I.T.U., requested the study of this Question. The text is published in Addendum No. 4 of Vol. I of the Warsaw documents.

1.5 *Organization of Study Group meetings*

As pointed out above, the Study Group meetings held in 1958 are to be considered as interim meetings, as provided for in C.C.I.R. Resolution No. 36.

While the Director has endeavoured to follow paragraph 3 of Resolution No. 36, and in particular the provision that: "... in order to spread the working load all Study Groups should not meet simultaneously. However, in order to secure economy they should not all meet individually ", it should be noted that a preference for simultaneous Study Group meetings as opposed to successive ones is not definite, but depends rather on the size of the respective delegations. It would appear that no provisions as to documentation have been contemplated for Study Groups which do not hold interim meetings.

As the matter of the organization of Study Group meetings is closely linked with the work and therefore with the organisation of the Secretariat, a general consideration of the various aspects of the matter will be given in part 4 of this Report.

1.6 Although administered by the C.C.I.T.T. the Director feels that in view of the exceptional interest it represents for the C.C.I.R., it would be appropriate to mention the meeting of the Committee for the General Development Plan of International Networks, which met in Rome, April 1958. The C.C.I.R. representatives were Messrs. G. Pedersen, Vice-Chairman of Study Group No. IX, and F. Nicotera, member of the special group set up in 1954 to represent the C.C.I.R. in the Plan Committee. A member of the C.C.I.R. secretarial staff also attended. The meeting was very active and the resolution adopted (and endorsed by the Administrative Council at its 13th session) implies not only an intensified cooperation of the C.C.I.R. in the work of the Plan Committee, but also in the general field of Technical Assistance (see Los Angeles Doc. No. 94).

2. Work of the C.C.I.R. Specialized Secretariat

2.1 *In connection with the decisions of the VIIIth Plenary Assembly (Warsaw 1956)*

2.1.1 *Documents of the VIIIth Plenary Assembly*

The Specialized Secretariat, following the VIIIth Plenary Assembly, undertook the editing and arrangements for publication of the following three volumes of the documents of that Assembly:

Vol. I: Recommendations made by the Committee, Reports, Resolutions adopted by the Committee, Questions to be studied and Study Programmes.

Vol. II: List of Participants, Reports by Study Group Chairmen, Report by the Director, C.C.I.R., List of Documents, Place of IXth Plenary Assembly.

Vol. III: Minutes of the Plenary Meetings.

The English and French editions of these volumes (as well as the Spanish edition of Vol. III) were produced locally in Geneva, while the printing of the Spanish editions of Vols. I and II was arranged in Madrid through the good offices of the Spanish Administration. Vol. I of the Warsaw documents is, in the view of the Director, already somewhat too large and could, with advantage, be split into two parts e.g. the Recommendations could be published as a separate volume.

2.1.2 *Directivity of antennae at great distances* (ref. Recommendation No. 102)

The Director of the C.C.I.R. has to report that he has not received any material mentioned in § 3 of Recommendation No. 102, nor, in fact, have any members of the C.C.I.R. requested such material.

2.1.3 *Review of publications on propagation* (ref. Report No. 43)

As information on propagation (in so far as it is not published in the many technical journals throughout the world) which is submitted to the C.C.I.R. Secretariat for publication, may be considered as part of the normal documentation of the Study Groups concerned, or of a Plenary Assembly, it would seem that the last two paragraphs of this Report are superfluous, and that, indeed, the entire Report, which originated in 1948, might well be deleted.

2.1.4 *Ground-wave propagation curves* (ref. Resolutions Nos. 21 and 22)

Resolution No. 21 provides for the publication by the Director of a supplement to the first atlas of ground wave propagation curves published in 1955. This supplement would provide the necessary material for the transformation of the values given in the first atlas for effective earth radii other than $4/3$ and for other values of earth conductivity. Work on this supplement is progressing satisfactorily and occasion was taken to discuss some of its aspects at the interim meeting of Study Group No. IV in Geneva.

Resolution No. 22 provides for the publication by the Director of a second atlas of ground-wave propagation curves for parameters other than those used in the first atlas. This item, too, was discussed at the interim meeting of Study Group No. IV.

These subjects were discussed in Geneva because, some time after the close of the VIIIth Plenary Assembly, doubts were expressed in certain competent quarters as to the suitability of some of the data on which the calculations for both publications were to be based.

In consequence, a Sub-Group of Study Group No. IV, under the Chairmanship of Mr. Herbstreit (U.S.A.) was set up in Geneva, which was to study the matter further and to report to the Director of the C.C.I.R. with a view to taking more recent opinions into account in the preparation of these publications.

2.1.5 *Local lightning-flash counters* (ref. Recommendation No. 121 and Resolution No. 25)

The Sub-Group of Study Group No. VI, mentioned in Resolution No. 25, under the Chairmanship of Mr. Horner (U.K.) has produced specifications for a local lightning-flash counter, which have been forwarded by the Director of the C.C.I.R. to the W.M.O.

The main work of this group has been finished, though some details may still have to be added to the specifications. These specifications, and a short description of the apparatus, have been published in the W.M.O. Bulletin for January 1959. The question of the organization of a world wide network for the use of these flash counters is being studied within the W.M.O.

2.1.6 *Prediction of solar index* (ref. Recommendation No. 172)

The studies by the Director of the C.C.I.R. on this subject have now been in course for a number of years. The subject appears to be exceedingly complex and for this reason a special report on the matter is contained in Doc. No. 148 of Los Angeles 1959.

It might be pointed out that, in the course of these studies, the relationship between certain ionospheric phenomena and solar activity, in particular the critical frequency of the E-layer was considered, and an additional document (Los Angeles Doc. No. 149) is presented on this subject.

In view of the interest that these studies represent it is suggested that Recommendation No. 172 be maintained.

2.1.7 *Standard-frequency transmissions and time signals* (ref. Recommendation No. 179)

In this Recommendation it is requested that each Administration should send to the Director of the C.C.I.R., for distribution, information on their time signal and standard-frequency stations based on a calendar year, in contrast to the previous Recommendation which requested quarterly data. As the present Recommendation was adopted in Warsaw, such data would be required for the year 1957 and subsequently. In fact, to date, no condensed data for 1957 have yet been received. However, in view of the great amount of work involved, this is not unexpected for data for which the basic material could only be available at the end of 1957.

2.1.8 *Antenna diagrams* (ref. Recommendation No. 168 and Report No. 75)

The existing collection of C.C.I.R. antenna diagrams has been extended by the inclusion of those requested in Report No. 75. The request contained in Recommendation No. 168, that the diagrams be reproduced with indications suitable for various measurement systems, has been followed. The second supplement to the C.C.I.R. book of antenna diagrams has just been published.

2.1.9 *Organizations qualified to take action on questions of sound recording* (Resolution No. 31)

As requested, the Director has closely followed the work of Commission 29/1 of the I.E.C. which is concerned with the subject of sound recording, a duplication of effort is thus being avoided.

2.1.10 *Vocabulary* (ref. Report No. 94 and Resolution No. 5)

With regard to the limited vocabulary to be prepared by the national correspondents of the French Administration, reference is made to the Report of the Chairman of Study Group No. XIV (Doc. No. 14).

Concerning graphical and letter symbols, the I.E.C. has been requested to transmit its findings on this subject directly to the Chairman of Study Group No. XIV.

Resolution No. 5 requests that certain work be done for the VIIth Plenary Assembly of the C.C.I.R. It would therefore seem desirable that this Resolution should either be brought up to date or else deleted.

2.1.11 *Technical Assistance*

2.1.11.1 For the action taken in respect of Resolution No. 38, attention is invited to paragraph 1.3 of this Report.

2.1.11.2 A great number of reports from I.T.U. experts on radiocommunications in various countries were examined and comments were made by the Director and Vice-Director.

2.1.11.3 Following proposals made by the Rome meeting of the " Committee for the General Development Plan of International Networks " (April, 1958), the Administrative Council passed two resolutions partially related to I.T.U. Technical Assistance (see item 1.6 of this Report and Los Angeles Doc. No. 94).

2.1.11.4 Cooperation with E.C.A.F.E. (see Los Angeles Doc. No. 94).

2.2 *Work in connection with Study Group activities*

One or more members of the C.C.I.R. technical staff took part in all Study Group meetings. In addition, the secretarial help for the activities mentioned under 1.2 and 1.3 was furnished by the C.C.I.R. Secretariat, with supplementary staff engaged by the General Secretariat of the I.T.U.

Following the various Study Group activities, a number of circulars on technical subjects were despatched by the Director, at the request of the Study Group concerned, for the purpose of obtaining further information on certain topics intended to amplify the findings of those Study Groups, so that the Plenary Assembly might have available the maximum of up-to-date data.

2.2.1 *Technical apparatus at C.C.I.R. headquarters*

At the VIIIth Plenary Assembly, the finance committee, in considering the budget for 1957 and the estimates of expenditure for 1958 and 1959, noted that there was a small provision of Sw. frs. 8,000.— for technical apparatus. The Director was asked to review the item with a view to effecting a reduction (see Warsaw document No. 944, para. 6.3). The Report and Resolution proposed by the Director are contained in Los Angeles Doc. No. 99.

2.3 *Preparatory work for the IXth Plenary Assembly*

It will be recalled that, at the closing session of the VIIIth Plenary Assembly in Warsaw, an invitation by the United States of America to hold the IXth Plenary Assembly of the C.C.I.R. in that country was accepted by acclamation. The preparatory work at this date is progressing well and the Director would like to draw attention to the following points which would appear to be of general interest:

2.3.1 *Documentation*

Shortly after the VIIIth Plenary Assembly, the Director started to receive contributions to the work of various Study Groups, thus to some extent spreading the reproduction and distribution of such documents over a longer period of time, as proposed in Resolution No. 37.

As at that time the programme of interim Study Group meetings had not been fixed, the Director was obliged, in accordance with § 6 of Resolution No. 36, to prepare these documents in separate series for each Study Group. Subsequently, the programme for interim meetings was established, on the basis of consultations with the respective Chairmen, but finally only nine of the fourteen C.C.I.R. Study Groups held interim meetings.

A report by the Chairman of each of these nine Study Groups will be submitted, with, in annex, the Study Group's proposals for consideration by the Plenary Assembly. These reports, with their annexes, will, of course, be documents for the Plenary Assembly. Additional contributions submitted to the work of these Study Groups, in conformity with § 7 of Resolution No. 36, will also be published as documents of the Plenary Assembly to be considered together with the Chairman's Report and its Annexes, at the final Study Group meeting held in conjunction with the Plenary Assembly.

With regard to the position of Study Groups which did not hold interim meetings, the situation is somewhat different, as, in fact, no specific provisions have been made for this eventuality. Section 4 of this Report contains the Director's proposals on the subject. In the interim, the first documents of these Study Groups have been issued in a separate series for each Study Group since at the time the first documents were received the possibility still existed for an interim meeting. The Director has considered it best to continue to publish all the documents of these Study Groups under the same separate series for consideration at the Study Group meetings in Los Angeles. These meetings will, therefore, have to be considered as both the interim and final meetings of these Study Groups.

Although it is too early to reach a final conclusion, it is interesting to note that, to date, it would indeed appear that the purpose of holding interim meetings with a view to decreasing preparatory documentation for the Plenary Assembly has been achieved, as the number of preparatory documents for the Plenary Assembly, as defined above, will probably not exceed 150 and the total volume of paper will also be less.

2.3.2 *Languages*

In accordance with the provisions of Article 14, § 2 (2) of the International Telecommunication Convention (Buenos Aires, 1952), the preparatory documents of the IXth Plenary Assembly are being published in English, French and Spanish, while arrangements have also been made for the use of these three languages at the Plenary Assembly.

2.4 *Participation in activities outside the C.C.I.R.*

2.4.1 *I.T.U. activities*

The Director and the Vice-Director of the C.C.I.R. attended, ex officio, the Twelfth and Thirteenth Sessions of the Administrative Council of the I.T.U., held respectively in the early part of 1957 and 1958.

As members of the Coordination Committee, the Director and the Vice-Director also attended meetings of this body, which was particularly occupied with problems concerning the staff of the I.T.U. in view of the new salary scale introduced on 1 January 1958, and also of the problems connected with the assimilation to U.N. conditions, which will be an important subject on the agenda of the Plenipotentiary Conference in 1959.

The Director also devoted a great amount of time to subjects coming within his competence as President of the Appeal Board of the I.T.U., and also as Member of the Management Board of the Staff Superannuation and Benevolent Funds.

The Vice-Director served on the working groups set up in 1957 by the Secretary-General to study the integration of the I.T.U. posts into a new scale based on that of the United Nations. He has also served as Chairman of the I.T.U. contracts committee since 1958.

The Counsellor of the C.C.I.R. has served on the editorial committee of the I.T.U. journal and on the committee set up to make proposals for the assimilation of the I.T.U. posts into the United Nations scale.

Moreover, one or more members of the C.C.I.R. staff attended the following I.T.U. meetings, where subjects of interest to the C.C.I.R. were discussed:

- VIIIth and last Plenary Assembly of the C.C.I.T. (Geneva, 1956)
- XVIIIth and last Plenary Assembly of the C.C.I.F. (Geneva, 1956)
- First Plenary Assembly of the C.C.I.T.T. (Geneva, 1956)
- Various meetings of the joint C.C.I.T.T./C.C.I.R. Study Groups which were administered by the C.C.I.T.T.
- other meetings of C.C.I.T.T. Study Groups, Working Parties, etc.
- the meeting of the General Interconnection Plan Committee (Rome, April, 1958)
- the Administrative Telegraph and Telephone Conference (Geneva, 1958)

2.4.2 *Other activities*

One or more members of the C.C.I.R. staff attended the following meetings and other manifestations, not organized by the I.T.U.: —

- *Specialized Agencies of the United Nations* :
 - I.C.A.O.: Telecommunication Commission (Montreal, September 1957)
 - W.M.O.: Working Group on Sferics (Zurich, October, 1956)
Commission on Instruments and Aerological Commission (Paris, June, 1957)
- *International Organizations*.
 - I.E.C.: Technical Commission 29 on Electro-Acoustics (Paris, February, 1957)
Technical Commission 29 on Electro-Acoustics (Stockholm, July, 1958)
Commission 12 on transmitters (Paris, March, 1958)
 - C.I.R.M.: Technical Committee (Paris, May, 1958)
Technical Committee (London, November, 1958)

- C.I.S.P.R.: Plenary Assemblies (Brussels, July, 1956)
(The Hague, November, 1958)
- I.B.T.O.: Steering Committee (Stockholm, July, 1958)
Technical Committee (Sofia, March, 1957)
Technical Committee (Moscow, May, 1958)
- E.B.U.: Technical Committee (Aix-en-Provence, September, 1956)
Technical Committee (Berlin, October, 1957)
Technical Committee (Wiesbaden, October, 1958)
Working Parties (Vienna, April, 1957)
(Brussels, March, 1958)
(Helsinki, July, 1958)
- U.R.S.I.: XIIth General Assembly (Boulder, Col., August, 1957)
Mixed Commissions (New York, August, 1957)
Swiss National Committee (December, 1956)
Swiss National Committee (November, 1957)
Swiss National Committee (November, 1958)

2.4.3 *Other International Conferences*

VHF Maritime Mobile Services (The Hague, January, 1957)

2.4.4 *International Colloquia and Symposia*

Electronic calculating machines (Rome, October, 1956)
Physical problems of colour television (Paris, July, 1957)
Cybernetics (Namur, September, 1958)

2.4.5 *Exhibitions*

Scientific instruments (London, March, 1957)
Radio and television (Zurich, August, 1956)
Radio and television (London, September, 1957)
Radio and television (Zurich, August, 1958)

2.4.6 *National meetings and conventions*

I.E.E. convention on ferrites, London (October, 1956)
High frequency meeting of the Swiss electro-technical association (October, 1956, and November, 1957)
Demonstrations of wideband radio-relay links (Chelmsford, January, 1957)
High frequency meeting (Essen, July, 1957)

2.4.7 *International Geophysical Year*

It will be recalled that at the VIIIth Plenary Assembly of the C.C.I.R. the then Director of the C.C.I.R. was confirmed as C.C.I.R. representative of the special committee for the I.G.Y. for the duration of that scientific period running from July, 1957 to December, 1958. As the I.G.Y. has now ended we are attaching, as Annex I, the report of the C.C.I.R. representative on the special committee.

3. **Organization of the Specialized Secretariat**

3.1 *Director*

Following his election at the VIIIth Plenary Assembly, the new Director took up office on 1 January, 1957.

3.2 *Vice-Director*

Under I.T.U. Staff Regulations, as set out in Article 22, § 1, the present Vice-Director of the C.C.I.R. will reach the normal official retirement age in the I.T.U. on 31 December, 1961. As this date falls during the interval between the IXth and Xth Plenary Assemblies of the C.C.I.R. the

IXth Plenary Assembly should consider this matter. Article 22, § 2 makes provision for an extension beyond this age up to a maximum of two years.

3.3 Staff

During the interval between the VIIIth and IXth Plenary Assembly of the C.C.I.R. the amount of work required of the staff of the permanent Secretariat was greatly increased with respect to previous periods between Plenary Assemblies, due to two specific factors:

3.3.1 *The general increase in participation in the work of the C.C.I.R.*; in fact, the total number of participants in the work of the various Study Groups has increased since 1950, when there were 288, to 645 at the time this report was being prepared.

3.3.2 The systematic holding of interim Study Group meetings, as envisaged for the first time by C.C.I.R. Resolution No. 36, adopted in Warsaw, resulted in a considerable redistribution of the work-load. This is evident from the fact that the attendance and documentation at these interim meetings, although only nine of the fourteen Study Groups actually held such meetings, was approximately equal to that of the VIIth Plenary Assembly in London.

In order to carry out this increased administrative work of the Secretariat, supernumerary reinforcement of the staff was required practically throughout the three year period.

4. Proposals concerning the future work of the C.C.I.R.

The activity of the C.C.I.R. Secretariat is conditioned mainly by the Recommendations, Resolutions, etc. of the C.C.I.R. Plenary Assembly, determining the general method of operation, to which should be added the basic texts contained in the International Telecommunication Convention and the General Regulations attached thereto.

It is necessary that sufficient staff should be available to carry out the work resulting from these texts.

4.1 Amendments to texts

It is felt that it would be inappropriate here to suggest modifications to the Convention or the General Regulations, as this is reserved for the Plenipotentiary Conference. However, the Director does feel that he might usefully assist the Plenary Assembly by making certain proposals with regard to the texts emanating from the Plenary Assembly.

The following texts issued by past plenary assemblies of the C.C.I.R. refer:

- Recommendation No. 32 (Use of simultaneous interpretation);
- Resolution No. 35 (Reduction of preparatory documentation);
- Resolution No. 36 (Organization of C.C.I.R. work);
- Resolution No. 37 (Work of C.C.I.R. Study Groups).

Recommendation No. 32 (Simultaneous interpretation)

Since this Recommendation was adopted at the Vth Plenary Assembly in 1948, it has become widely recognized that simultaneous interpretation is useful in meetings where more than one language is used and there are over about 50 participants and essential when more than two languages are used whatever the attendance. Moreover, the substance of this text is, in fact, not suitable for a Recommendation, as at present defined by the C.C.I.R.

It is therefore proposed that Recommendation No. 32 be cancelled, and an appropriate reference to the use of simultaneous interpretation be included in a new Resolution dealing with the work of the C.C.I.R.

Resolution No. 35 (Reduction of preparatory documentation)

This Resolution aims essentially at reducing the size of individual documents by making them more concise, rather than at reducing the number of documents submitted. The Director has to report that, both for the interim Study Groups meetings, as well as for the Plenary Assembly itself, a considerable amount of documentation has been received which still does not conform to the wishes expressed in this Resolution. It is, of course, true that a number of important subjects,

particularly if they are new, may require a description which exceeds the length mentioned in Resolution No. 35, and it is therefore felt that this practice cannot always be avoided.

Moreover, it has been his experience that a new Resolution often takes a considerable time to become effective in practice, and therefore it is proposed that this Resolution be maintained unchanged, in order that further experience may be acquired. An annex should be added to it containing the information on the general presentation of documents, at present appearing in a note by the Director on page 10 of Warsaw Volume I.

Resolution No. 36 (Organization of C.C.I.R. work)

This Resolution, which was drawn up at the VIIIth Plenary Assembly in Warsaw, has given rise to considerable comment from a number of participants in the work of the C.C.I.R., based both on the actual provisions of the text, as well as on the execution of these provisions, notably in connection with the organization of interim Study Group meetings. It is nevertheless felt that the basic purpose of this Resolution — to reduce the peak-load of work by spreading it more equally between Plenary Assemblies — is very desirable, as it would result in a more efficient use of staff and facilities.

With regard to the text itself, it may assist to point out some requirements which are difficult to meet. Thus, for instance, it is stated in § 8 that the Chairmen should send their reports to the Director so that he receives them at least 4 months before the date of the opening of the Plenary Assembly. On the other hand it is stated in § 7 that additional Study Group documents can, in exceptional cases, be distributed, provided they reach members one month before the Plenary Assembly. § 11 requires that the preliminary documentation of the Plenary Assembly consists only of the Chairmen's reports with annexes — i.e., that such reports should include comments on the documents referred to under § 7. However, this is physically impossible in view of the provisions of § 8.

In practice, there is no doubt that it is desirable that C.C.I.R. work should continue after the interim meetings have been held, as the Plenary Assembly should be able to base its conclusions on the latest data. It would therefore seem that the restriction contained in § 11 of Resolution No. 36 is not desirable; on the other hand there is no doubt that the interim meetings do decrease the amount of additional contributions submitted for the Plenary Assembly. Thus, for instance, before the VIIIth Plenary Assembly there were some 500 preparatory documents, whereas to date only some 120 new contributions have been received to the work of those Study Groups which have held interim meetings, i.e. Study Groups Nos. I, II, III, IV, V, VI, VII, IX and XI.

With regard to the planning of interim Study Group meetings, the Director would like to point out, without expressing an opinion, that on this matter there appear to be two schools of thought — the first suggesting that Study Groups with similar subject matter meet simultaneously, in order that mutual consultations may be facilitated on subjects of common interest, while the second prefers that Study Groups having dissimilar programmes meet simultaneously, in order to avoid dispersion of delegates' work over several Study Groups. It is felt that a decision of principle is necessary here, in order that future interim Study Group meetings may be suitably planned.

The experience acquired at the Geneva interim Study Group meetings during the summer of 1958, where eight Study Groups met within a period of six weeks, shows that this concentration was too great for the most efficient working, as in fact the total participation was very close to that at a Plenary Assembly. Moreover, the time which had to be chosen for such a large group of meetings was not entirely satisfactory, as after their close there has not been sufficient time before the Plenary Assembly to finish outstanding documentation and to prepare the findings of the Study Groups for presentation to the Plenary Assembly as annexes to the reports of the respective Chairmen. The latter work was nevertheless undertaken in the hope of simplifying the task of the Plenary Assembly by presenting texts prepared in as definitive a form as possible for consideration by the Plenary Assembly.

To date, the reactions received from the Chairmen have indeed been very favourable to this procedure, and it is therefore proposed that it should be continued.

The shortage of time is because the Plenary Assembly is to be held in the early part of the year instead of in the autumn in order to precede the Administrative Radio Conference. The

preparatory work was therefore concentrated into a shorter period at the end of the year, which period, due to the holidays occurring at that time was even further shortened.

Taking the above remarks into account, the Director would suggest that the practice of interim Study Group meetings should be continued, but that the meetings should be spread over a long period. Further, it is suggested that Plenary Assemblies should be held during the month of September or October with Study Groups holding interim meetings covering a period of, say, six or seven months during the year preceding the Plenary Assembly. The interval between the last interim Study Group meeting and the opening of the Plenary Assembly should be of the order of 8 to 9 months. It should be remembered that, if documentation is to reach participants a month before the opening of the Assembly, and taking into account postal transit times of up to six weeks for countries distant from Geneva, actually only approximately six months will be available for the preparation of the documentation of the Plenary Assembly.

In this manner the work-load would be more evenly divided over the interim period. The first part of the year following the Plenary Assembly would be occupied with the post-conference work resulting from the previous Plenary Assembly, while the second part would be devoted to the detailed preparation of the Study Group meetings to follow.

Taking the various points discussed above into account, the Director feels that it might be helpful to present to the Plenary Assembly the revision of Resolution No. 36, contained in Annex II to the present Report. If the Plenary Assembly could fix in principle the approximate dates of the interim Study Group meetings this would have the advantage that all concerned would be advised well in advance, contributions could be prepared and submitted in time and suitable premises reserved.

Resolution No. 37 (Work of the C.C.I.R. Study Groups)

This Resolution, which has basically the same purpose as Resolution No. 36 — i.e., spreading the work-load of the C.C.I.R. Secretariat — may be considered as being superseded by the proposed new text of Resolution No. 36, and could therefore be deleted.

The Director would report, however, that effect has been given to this Resolution to some extent, as, in fact, contributions have been received throughout the interim period between the VIIIth and IXth Plenary Assemblies. The holding of interim meetings during 1958 has had a considerable bearing on the dates of submission of texts.

In any case, it is felt that every effort should be made to encourage the spread of the work-load, and appropriate staff provisions should be made accordingly. This subject is discussed in § 4.2.

4.2 Staff available for the execution of the work

As a consequence of the increase in work referred to in § 3.3.1, 3.3.2, supernumerary reinforcement of the C.C.I.R. staff for administrative purposes was required throughout most of the interim period. It would appear to the Director that, on the basis of experience acquired, the intermittent engagement on a continuing basis of reinforcements to the permanent staff is not the most economical arrangement, as such staff has to be acquainted with the work before becoming fully efficient.

It is therefore felt that it would be preferable to increase somewhat the permanent administrative staff, in order to aid the general efficiency of the work of the Secretariat, and a proposal to this effect is therefore submitted in Annex III to this Report.

4.3 C.C.I.R. estimates of expenditure

4.3.1 Ordinary budget

Estimates of the ordinary C.C.I.R. expenditure for the years 1960, 1961 and 1962 are given in Annex IV-A. In considering these figures it should be borne in mind that they are based on the present structure and salary scales etc. of the I.T.U. It is not possible to anticipate any changes in this respect which might be made by the Plenipotentiary Conference, which is due to take place in Geneva at the end of 1959. Further, it is possible that during the period between the IXth and Xth Plenary Assemblies of the C.C.I.R., the I.T.U., including the C.C.I.R. Secretariat, will move into the new I.T.U. building, which of course will have certain repercussions on the ordinary budget of the C.C.I.R., notably with respect to rental and other costs relative to the operation of office premises.

Consequently these figures should be considered bearing the above mentioned possibilities in mind.

4.3.2 *Extraordinary budget*

The figures given in Annex IV-B for the years 1960 and 1961 are based on the assumption that during 1960 there will be few meetings of Study Groups but that in 1961 all Study Groups will hold interim meetings.

It was not considered possible to give even approximate figures for 1962 at the present time as the place of the Xth Plenary Assembly, which will normally take place in that year, has not yet been determined.

5. Conclusion

In concluding his Report, the Director would like to emphasise the great collaboration which he has received from all officials of the Union in taking up his new duties: This assistance has proved to be invaluable in familiarizing himself with the often complex task of directing an international body as active as the C.C.I.R.

This great activity, often in new fields of radio-communications, is of course only possible due to the great interest shown in the work of the C.C.I.R. by its members. Here, too, the Director would like to express his thanks for the very effective and ever increasing participation in the work on an always wider international scale, which is making the C.C.I.R. truly universal.

It is hoped that this development may continue and that the means will be found for the C.C.I.R. to face the new tasks before it. These tasks, in the opinion of the Director should also include the sharing, on a world-wide basis, of modern radio-communication techniques through technical assistance.

ANNEX I

REPORT BY THE C.C.I.R. REPRESENTATIVE ON THE SPECIAL COMMITTEE OF THE I.G.Y. (C.S.A.G.I.)

1. When, during my directorship of the C.C.I.R., I heard of the work being undertaken in the I.G.Y., I considered this of such a great scientific value and also of great importance to the C.C.I.R., that I at once took steps and succeeded in making the C.C.I.R. a member of the "Comité Spécial de l'Année Géophysique Internationale" (C.S.A.G.I.), which is the organisational Committee of the I.G.Y.

The other intergovernmental body which is a member of the C.S.A.G.I. is the W.M.O.

Further members are:

International Astronomical Union (I.A.U.), International Union of Biological Sciences (I.U.B.S.), International Union of Geodesy and Geophysics (I.U.G.G.), International Geographical Union (I.G.U.), International Union of Pure and Applied Physics (I.U.P.A.P.) and Union Radio Scientifique Internationale (U.R.S.I.), and some 70 national Committees of different countries.

2. During the C.C.I.R. Plenary Assembly at Warsaw (1956), on your proposal, I was, after my retirement from the C.C.I.R., appointed the official delegate of the C.C.I.R. to the I.G.Y.

3. Since then the work and the scope of the I.G.Y. has been much extended and under its auspices geophysical data have been collected in a splendid international collaboration on an unprecedented scale.

The disciplines covered are: World Days and Communications, Meteorology, Geomagnetism, Aurora and Airglow, Ionosphere, Solar Activity, Cosmic Rays, Longitude and Latitude, Glaciology, Oceanography, Rockets and Satellites, Seismology, Gravimetry and Nuclear Radiation.

4. Very interesting data have been obtained by the I.G.Y., i.e. in its researches on Ionosphere, Solar Activity, Cosmic Rays and Rockets-and-Satellites; all data, which I consider of great importance for the future of Radio-communication and therefore for the C.C.I.R.

Rocket and satellite data have shown amongst other things that the constitution of the ionosphere is materially different from what was thought to be the case, on the basis of classical ionospheric soundings. Thus it now seems that the electronic content above the maximum of the F-layer is considerably greater than below. Further the newly discovered girdle of penetrating radiation outside the ionosphere which is most pronounced round the (magnetic) equator and tapers off somewhat towards the poles, was totally unexpected. Also new round the world signals, emitted by satellites, have been observed and measured. They are all phenomena which will have very marked effects in future terrestrial radio communication via celestial bodies, both natural and artificial.

5. One great advantage of the C.C.I.R. having been a member of the C.S.A.G.I. is that the C.C.I.R. received regularly C.S.A.G.I. documents.

In my view, even more benefit for the C.C.I.R. would have resulted had the C.C.I.R. participated in some of the C.S.A.G.I. meetings.

6. Recently, in the Washington meeting (Sept., Oct., 1958) of the I.C.S.U. executive Board, the important question arose, as to how the work of the I.G.Y. should be terminated and later handed over to the specialized Unions and how all its data should be published. It was decided that the I.G.Y. should terminate its proper work on December 31st 1958. The termination date of C.S.A.G.I. will be June 30th, 1959.

(sgd.) Balth. VAN DER POL

ANNEX II

RESOLUTION NO. . . . *

Organization of C.C.I.R. work

The C.C.I.R.,
CONSIDERING

- (a) the desirability of continuing the efforts to spread the work-load of the Members and the Secretariat as equally as possible over the interval between Plenary Assemblies;
- (b) the experience acquired between the VIIIth and IXth Plenary Assemblies with particular reference to interim Study Group meetings;

RESOLVES

1. that the Plenary Assembly should normally take place during the last part of the year, but sufficiently in advance of the year-end holidays;
2. that, to allow time for the results of interim Study Group meetings to be prepared for the Plenary Assembly, these meetings should take place during the year preceding that in which the Plenary Assembly is held;
3. that, to avoid too many Study Groups meeting simultaneously, and yet to secure economy, the Study Groups shall, in principle, meet in groups of three and four spread over a total period of six to seven months during the year preceding the Plenary Assembly. Suitable groupings would appear to be:

- Nos. I, II and III
- Nos. IV, V, VI and VII
- Nos. VIII, IX, XIII and XIV
- Nos. X, XI and XII

* This Resolution replaces Resolution No. 36.

4. that the necessity for holding an interim meeting, and the exact dates of such meeting, will be decided between the Director of the C.C.I.R. and the Chairman of the Study Group concerned, after the latter has consulted his Members and his Administration;
5. that, in any case, all Study Groups shall hold final meetings at the place of, and immediately preceding, the Plenary Assembly;
6. that documentation for such interim Study Group meetings and the Plenary Assembly shall conform as far as possible to Resolution No. 35 (modified) and its Annex;
7. that, to permit contributions to be prepared by the Secretariat and distributed in time to reach the participants one month in advance of the start of the respective meetings, such contributions shall be submitted, with one copy to the Chairman and three copies to the Director of the C.C.I.R.;
 - for interim Study Group meetings — four months prior to the opening dates of such meetings,
 - for the Plenary Assembly (including the final Study Group meetings) — six months prior to the opening date;
8. that documentation for the Plenary Assembly shall consist of:
 - Reports by the respective Chairmen of the interim Study Group meetings with the findings of those meetings annexed;
 - additional contributions to the work of the respective Study Groups received after the close of their interim meetings;
 - Reports by the Chairmen of any Study Groups which have not held interim meetings;
 - Report by the Director, C.C.I.R. to the Plenary Assembly;
 - the findings of the joint Study Groups;
 - documents bearing on the organisation of the C.C.I.R.;
9. that the organization of these meetings, including the use of simultaneous interpretation, is the responsibility of the Director of the C.C.I.R., in consultation with the Chairmen concerned and, where appropriate, with the inviting Administration.

ANNEX III

C.C.I.R. STAFF PRESENT OR ENVISAGED UP TO 31 DECEMBER 1960

Post No.	Grade	Class	Function
—	Director	A	Director
—	Vice-Director	B	Vice-Director
C.C.I.R. No. 1	Counsellor	D	Technical Counsellor
C.C.I.R. No. 2 ¹	Chief Technical Officer	a	Engineer
C.C.I.R. No. 3 ²	Chief Technical Officer	a	Engineer
C.C.I.R. No. 4	Senior Administrative Officer	b	Administrative Secretary
C.C.I.R. No. 5	Senior Technical Officer	b	Technical Editor (French)
C.C.I.R. No. 6 ³	Senior Technical Officer	b	Technical Editor (English)
C.C.I.R. No. 7	Technical Officer	e	Engineering Assistant
C.C.I.R. No. 8	Administrative Assistant	f	Secretary to Director
C.C.I.R. No. 9	Administrative Assistant	f	Secretary to Vice-Director
C.C.I.R. No. 10	Administrative Assistant	f	Administrative Assistant
C.C.I.R. No. 11	Secretary	g	Senior Shorthand Typist
C.C.I.R. No. 12	Assistant Secretary	h	Junior Shorthand Typist
C.C.I.R. No. 13	Senior Office Assistant	g	Draftsman
C.C.I.R. No. 14	Senior Clerk	i	Mail Clerk and Concierge
C.C.I.R. No. 15	Clerk	j	Roneo Operator

C.C.I.R. STAFF PROPOSED⁴ AS OF 1 JANUARY 1961

—	Director	A	Director
—	Vice-Director	B	Vice-Director
C.C.I.R. No. 1	Counsellor	D	Technical Counsellor
C.C.I.R. No. 2	Chief Technical Officer	a	Engineer
C.C.I.R. No. 3	Chief Technical Officer	a	Engineer
C.C.I.R. No. 4 ⁵	Senior Administrative Officer	b	Administrative Secretary
C.C.I.R. No. 5	Senior Technical Officer	b	Technical Editor (French)
C.C.I.R. No. 6	Senior Technical Officer	b	Technical Editor (English)
C.C.I.R. No. 7	Associate Technical Officer	d	Engineering Assistant
C.C.I.R. No. 8 (N)	Assistant Administrative Officer	e	Senior Administrative Assistant (Conference)
C.C.I.R. No. 9	Administrative Assistant	f	Secretary to Director
C.C.I.R. No. 10	Administrative Assistant	f	Secretary to Vice-Director
C.C.I.R. No. 11	Administrative Assistant	f	Administrative Assistant
C.C.I.R. No. 12	Secretary	g	Senior Shorthand Typist
C.C.I.R. No. 13	Senior Office Assistant	g	Draftsman
C.C.I.R. No. 14	Assistant Secretary	h	Junior Shorthand Typist
C.C.I.R. No. 15 (N)	Assistant Secretary	h	Junior Shorthand Typist
C.C.I.R. No. 16 (N)	Assistant Secretary	h	Junior Shorthand Typist
C.C.I.R. No. 17 ⁶	Senior Clerk	i	Mail Clerk and Concierge
C.C.I.R. No. 18	Clerk	j	Roneo Operator

¹ This post is at present filled by an engineer in Class *b*, which classification is subject to revision in due course.

² To be filled as soon as the budget permits, at present envisaged as of 1 Jan. 1960.

³ To be filled as of 1 March 1959.

⁴ This staffing is proposed without prejudice to any decisions that may be taken by the Plenipotentiary Conference with regard to the organization of the I.T.U. The new posts, indicated by (N), are proposed to avoid continuously engaging supernumerary staff on the extraordinary budget and hence represent a corresponding reduction of that budget.

⁵ Regrading of this post to Class *a* will have to be considered if the work and responsibilities continue to increase as a result of C.C.I.R. development.

⁶ This post can probably be transferred from the C.C.I.R. establishment when the C.C.I.R. offices are moved into the new I.T.U. building.

ANNEX IV-A

C.C.I.R. ORDINARY BUDGET FOR 1960, AS SUBMITTED TO THE 14TH SESSION OF THE ADMINISTRATIVE COUNCIL

ESTIMATES OF C.C.I.R. ORDINARY EXPENDITURE FOR 1961 AND 1962

	1960		1961		1962	
Section 5. C.C.I.R. staff expenses						
.10 Salaries	404 670		439 590		448 540	
.11 Cost of living allowance						
.111 Actively employed staff	20 240		21 980		22 430	
.113 Retired staff (1949 system)	985		1 250		1 250	
.12 Allowances						
.121 Expatriation allowances	4 500		4 500		4 500	
.122 Family allowances	15 200		15 200		15 200	
.123 Children's education allowances						
.123.1 Allowances	7 705		7 705		7 705	
.123.2 Travel	15 000		15 000		15 000	
.13 Removal	9 000					
.14 Home Leave	2 250		34 000		2 250	
.15 Overtime	500		500		500	
.17 Insurance						
.171 Regular contributions Staff Sickness and Benefit funds (15%)	60 705		65 940		67 285	
.172 Other contributions to the Staff Sick- ness and Benefit funds						
.172.1 Single contributions	9 175		2 105		6 630	
.172.2 Entrance fees						
.173 Insurance survivors of retired staff	7 740	557 670	7 740	615 510	7 740	599 030
Section 6. I.T.U. General Services (C.C.I.R. share)						
.1 Social welfare expenses						
.10 Management expenses Staff Sickness and Benefit funds	3 200		3 200		3 200	
.11 Provident Fund	8 000		8 000		8 000	
.12 Contribution joint medical service	1 000		1 000		1 000	
.13 Contribution to sickness insurance fund	3 700		4 400		4 500	
.14 Collective accident insurance	2 200		2 200		2 200	
.15 Language courses	700	18 800	700	19 500	700	19 600
.2 Premises, rent and charges						
.20 Rent	18 000		18 000		18 000	
.21 Heating and lighting	7 500		7 500		7 500	
.22 Service (cleaning, upkeep, insurance)	1 250		1 250		1 250	
.23 Installations and repairs	250	27 000	250	27 000	250	27 000

ANNEX IV-A (continued)

		1960		1961		1962	
.3	Travel expenses						
.31	Travel outside Switzerland	5 000		5 000		5 000	
.32	Travel inside Switzerland	500	5 500	500	5 500	500	5 500
.4	Office expenses						
.401	Maps, bindings, journals	3 800		3 800		3 800	
.402	Furniture, office machinery	6 300		5 000		3 000	
.403	Office supplies	4 000	14 100	4 000	12 800	4 000	10 800
.5	Technical equipment		6 000		6 000		6 000
.6	Stamps and telegraph charges		2 500		2 500		2 500
.7	Telephone (subscription and calls)		3 600		3 600		3 600
.8	Central library		3 300		3 300		3 300
.9	Offset workshop		500		500		500
.D	Miscellaneous and unforeseen		3 000		3 000		3 000
	Totals:		641 970		699 210		680 830

ANNEX IV-B

ESTIMATES OF C.C.I.R. EXTRAORDINARY EXPENDITURE FOR 1960, 1961 AND 1962

		1960	1961	1962
Section 95. C.C.I.R.				
Art. I	Staff expenses			To be determined after place and duration of the Xth Plenary Assembly are known.
.1	Administrative	7 500	25 000	
.2	Linguistic	15 000	250 000	
.3	Document reproduction	6 000	25 000	
.4	Insurance	1 500	5 000	
Art. II	Premises and equipment			
.5	Premises, offices and machines	2 500	30 000	
.6	Document reproduction	5 000	18 000	
.7	Office supplies and overheads	2 500	30 000	
.8	Simultaneous interpretation and other technical equipment		5 000	
.9	Unforeseen	1 000	1 000	
Art. III	Financing			
.10	Interest on advances	2 000	12 000	
Art. IV	Missions			
.11	Attendance at meetings of the C.C.I.T.T. and other International Organizations	12 500	10 000	10 000
	Totals:	55 500	411 000	

ANNEX V

AGREEMENT BETWEEN

THE ADMINISTRATION OF THE UNITED STATES OF AMERICA
AND

THE INTERNATIONAL TELECOMMUNICATION UNION, FOR THE ORGANIZATION
OF THE IXTH PLENARY ASSEMBLY OF THE INTERNATIONAL RADIO CONSULTATIVE COMMITTEE (C.C.I.R.)

1. Introduction

The present Agreement, concluded, in accordance with Resolution No. 83 (amended) of the Administrative Council of the International Telecommunication Union, between the Administration of the United States of America (hereinafter referred to as "the inviting Administration") represented by Walter K. Scott, Assistant Secretary for Administration, of the Department of State, on the one part, and the International Telecommunication Union (hereinafter referred to as the "I.T.U."), represented by the Director of the International Radio Consultative Committee (C.C.I.R.), is designed to facilitate the organization of the IXth Plenary Assembly of the International Radio Consultative Committee of the I.T.U. (hereinafter referred to as the "Assembly"). It is based on the relevant provisions of the International Telecommunication Convention and its annexes, and on the experience acquired at previous I.T.U. conferences and meetings.

2. General Provisions

2.1 *Name of the Assembly*

The Assembly shall be officially known as the IXth Plenary Assembly of the International Radio Consultative Committee (C.C.I.R.).

2.2 *Place and date of the Assembly*

At the invitation of the Administration of the United States of America, the Assembly shall meet at Los Angeles, California, April 1-30, 1959.

The official opening will take place on *Thursday, 2 April 1959*, at 11 a.m., and the closing meeting will take place, unless otherwise decided by the Assembly, on *Wednesday, 29 April 1959*.

2.3 *Invitations*

At a time agreed upon with the inviting Administration, the Director of the C.C.I.R. shall, on behalf of the inviting Administration, invite all Members of the C.C.I.R. as defined in § 1 (1) of Chapter 11 of the General Regulations annexed to the International Telecommunication Convention, Buenos Aires, 1952, the United Nations, the Specialized Agencies in relation with the United Nations, and other international organizations which take part in the work of the C.C.I.R., to attend the Assembly.

2.4 *Languages*

In accordance with Article 14 of the International Telecommunication Convention, Buenos Aires, 1952, arrangements shall be made to enable the use of the working languages of the I.T.U. Other languages may be used subject to Article 14, § 6 (1) of the Convention.

2.5 *Cancellation or change of place and/or date of the Assembly*

Should the Assembly be cancelled at the request of the inviting Administration, all expenses incurred by the inviting Administration for the preparation of the Assembly shall be borne by that Administration. In case of change of the place and/or date of the Assembly at the request of the inviting Administration, the expenses incurred by that Administration as a result of such a change or changes shall be borne by that Administration. In case of a cancellation or change of place or

date resulting from a decision of the I.T.U., the latter shall be responsible to the inviting Administration only for its commitments, or actual expenditure, in preparation for the meeting, and only insofar as the expenses incurred are indispensable and cannot be cancelled or reduced.

3. Financial Provisions

3.1 *Expenses borne by the inviting Administration*

The inviting Administration hereby agrees to bear all expenses in connection with the following:

- the provision of furnished premises for the Assembly and its secretariat, including upkeep and cleaning;
- the staff exclusively at the service of the Chairman and/or his representative(s);
- the United States Liaison Officer between the Administration of the United States of America and the Director of the C.C.I.R. and the staff of the Liaison Officer;
- the Reception Committee;
- any excursions, entertainments and other diversions organized by the inviting Administration;
- installation and operation of an internal telephone service on the premises of the Assembly;
- suitable identification badges and/or cards will be provided by the inviting Administration;
- expenses for general security measures on the premises reserved for the Assembly.

3.2 *Expenses borne by the I.T.U.*

All other expenses incurred by or for the Assembly shall be borne by the I.T.U.

3.3 *Budget Control Committee*

The Assembly will be asked to set up a Budget Control Committee, in accordance with Section C of the Administrative Council Resolution No. 83 (amended). This Committee will include a representative of the inviting Administration, the Secretary General of the I.T.U. or his representative, and the Director of the C.C.I.R. or his representative, in addition to such members as the Assembly may elect.

3.4 *Limit on expenditure*

No financial commitments exceeding the limits of the budget of the Assembly, as approved by the Administrative Council, shall be made without the specific approval of the Plenary Assembly, on a recommendation by the Budget Control Committee and in accordance with Administrative Council Resolution No. 83 (amended).

3.5 *Advance of funds*

As under United States legislation it is not possible for the inviting Administration to advance the funds necessary to cover the operating expenses of the Assembly at the place where it is held, the Secretary General of the I.T.U. shall make available the necessary funds for this purpose.

3.6 The amount obligated under this Agreement for expenditure by the inviting Administration is not to exceed \$50 000.

4. Staff

4.1 *Staff required*

Annex V-A gives a list of staff required for the Assembly. The periods for which this staff shall be at the disposal of the Assembly shall be decided on by agreement between the I.T.U. and the inviting Administration.

4.2 *Recruitment of staff*

The staff in the categories indicated by an asterisk in Annex A to this Agreement shall be supplied by the I.T.U. from its regular staff and the remainder shall be specially engaged by the I.T.U. if necessary with the help of the inviting Administration.

4.3 *Salaries, allowances and other conditions of service*

For the regular staff detached from Geneva, the salaries, the allowances for meetings held in the United States and all conditions of service shall be those in force at the I.T.U. at the time of the Assembly. For the remainder of the staff, the salaries, allowances and conditions of service shall be determined by the I.T.U. in consultation with the inviting Administration. For budgetary estimates only and without prejudice to any change prior to the opening of the Assembly the salary scale and, when appropriate, the per diem rates shall be

- those in force on 1 January 1958, as regards the regular staff detached from Geneva,
- those mentioned in Annex V-B to this Agreement as regards the supernumerary staff to be specially recruited for the Assembly.

5. Premises

5.1 *Availability*

The premises occupied by the Assembly, except those designed for general use (see Annex V-C) shall be exclusively available to it during the period from *Monday 30 March 1959*, to *Wednesday 29 April 1959*, inclusive. The office premises for the Secretariat shall be available to it from *Monday 23 March 1959*, to *Friday 1 May 1959*, inclusive.

Any person officially connected with the Assembly shall have access to these premises at any hour of the day or night; other persons may be admitted in the interest of the Assembly.

5.2 *Description of premises*

The premises of the Assembly shall comprise the rooms, offices and services listed in Annex V-C to this Agreement.

5.3 *Security measures*

The inviting Administration, at its own expense, shall be responsible for general security measures on the premises reserved for the Assembly.

5.4 *Internal communication system*

The inviting Administration shall provide at its own expense an internal telephone system with extensions in all appropriate rooms, offices and places in the premises of the Assembly. This system shall be suitably connected to the general telephone network in order to meet the requirements to be determined by the Director of the C.C.I.R.

5.5 *Maintenance and cleaning*

The inviting Administration shall, at its own expense, be responsible for the maintenance of the premises and shall also arrange for such minor installation as may be required for the Assembly.

5.6 *Furniture*

The inviting Administration shall provide at its own expense suitable furniture for the premises occupied by the Assembly.

6. Office machinery and technical equipment

6.1 The inviting Administration shall help the I.T.U. to obtain the office machinery and equipment listed in Annex V-D to this Agreement. Expenses incurred in this connection shall be borne by the I.T.U.

6.2 The I.T.U. will make arrangements for the supply and operation of the necessary simultaneous interpretation equipment in the Plenary Assembly hall and the three large committee rooms.

7. Office supplies

The inviting Administration shall help the I.T.U. to obtain for the Assembly:

- supplies required for publication of documents;
- miscellaneous office supplies;
- paper with the official heading of the Assembly.

A decision as to what and how much will be required in each of the above classes shall be taken in due course. The cost of these supplies shall be borne by the I.T.U.

8. Miscellaneous

8.1 *Privileges, exemptions and immunities for the delegates, for the I.T.U. and for its staff*

The inviting Administration shall take the necessary steps, within the limits set by the law and the customs regulations of the United States of America, to facilitate, as far as possible, for participants in the Assembly (including the Secretariat), and for the persons accompanying them, delivery of visas and customs formalities in connection with their personal effects, on both entering and leaving the United States of America.

8.2 *Insurance*

All insurance coverage for I.T.U. property and I.T.U. staff (and their property) shall be taken care of by the I.T.U., at its own expense.

8.3 *Hotel accommodation*

Participants in the meeting will be required to arrange their own accommodation. In no case will either the inviting Administration or the I.T.U. be responsible financially or otherwise for any matters relating to hotel accommodation for persons attending the meeting, apart from any measures the I.T.U. might take for the accommodation of its staff.

9. Final Provisions

9.1 *Liaison*

The inviting Administration and the Director of the C.C.I.R. shall each designate an official to make the necessary detailed arrangements within the framework of this Agreement.

9.2 *Amendments to the present Agreement*

Any amendments to this Agreement shall be signed in the same manner as the Agreement itself and be annexed to it. However, as the figures quoted in this Agreement regarding the number of officials, the categories of staff, furniture and equipment, etc., are liable to minor modification in order to meet the actual requirements of the Assembly, such changes may be made by mutual agreement, according to circumstances, without such changes being considered as "amendments" in the sense referred to above.

This Agreement is signed in two copies, one being retained by the Administration of the United States of America, the other by the International Telecommunication Union.

Done in Washington and Los Angeles, the 31 March, 1959.

*For the Administration of the
United States of America*

(Signed) W. K. SCOTT

*For the International
Telecommunication Union*

(Signed) Dr. E. METZLER
Director, C.C.I.R.

ANNEX V-A

REPRESENTATIVES OF THE I.T.U. AND STAFF REQUIRED FOR THE ASSEMBLY (SEE § 4.1)

1. Representatives of the I.T.U.

- For the C.C.I.R.
- For the General Secretariat
- For the I.F.R.B.
- For the C.C.I.T.T.

2. Staff

2.1 Staff provided at the expense of the I.T.U.

Secretaries for the Director and Vice-Director, C.C.I.R.	2 *
Secretary of the Assembly	1 *
Assistants to the Secretary of the Assembly	2 *
Assistant Secretary (delegates)	1
Assistant	1
Assistant Secretaries (documents)	2 *
Assistant	1
Assistant Secretary (finance and staff)	1 *
Assistant	1
Document supervision officer	1 *
Assistants	2
Supply officer	1
Head, document distribution section	1
Document distribution officers	8
Head messenger	1
Messengers	10
Chief interpreter	1 *
Interpreters (English 7, Spanish 5, French 7)	19
Translators-revisors (Minute-writers for plenary meetings)	3 *
Translators (English 2, Spanish 4, French 3)	9
Head of typing pool	1 *
Senior typists (English 2, Spanish 2, French 2)	6 *
Typists (shorthand-typists 6, typists 12)	18
Interpretation system operators	4
Head of mimeograph section	1
Mimeograph operators	6
Documents assembly officers	6
Draftsmen	2
Total	112

2.2 Staff provided at the expense of the inviting Administration

Secretariat of the Chairman of the Assembly	
Liaison officer	1
Reception Committee	
Telephone operators	
Total	

* From the regular I.T.U. staff.

ANNEX V-B *

SALARIES AND PER DIEM RATES (SEE § 4.3)

	<i>Salary</i> (US \$)	<i>Per diem</i> (US \$)
<i>Representatives of the I.T.U.</i>		
Classes A and B	—	
Classes C, D, a	—	
<i>Regular staff of the I.T.U.**</i>		
Classes C, D, a, b	—	
Classes c, d, e, f, g	—	
<i>Supplementary staff</i>		
Interpreters	35	12
Translators	30	12
Chief of duplicating unit	25	—
Secretary	15	—
Shorthand-typist	15	—
Assistant chief duplicating unit	15	—
Assistant chief distribution	15	—
Accountant	15	—
Supply officer	15	—
Head of shifts (duplicating)	15	—
Document officer	15	—
Operator interpretation equipment	15	—
Clerk	12	—
Clerk (duplicating)	12	—
Messenger	11	—

ANNEX V-C

DESCRIPTION OF THE PREMISES REQUIRED (SEE § 5.2)

- 1 hall for the plenary meetings, equipped for simultaneous interpretation in at least four languages with, in addition, a floor channel and containing some 500 seats, without counting the Chairman's dais.
- 3 large committee rooms, each equipped for simultaneous interpretation as described above and each containing some 80 seats.
- 10 smaller committee rooms not equipped for simultaneous interpretation, each containing from 10 to 20 seats.
- 1 document distribution centre conveniently located in respect of the main meeting hall. This centre shall have some 500 pigeon-holes, a distribution counter and the necessary shelves for up to 50 copies of some 600 documents to be stocked.
- 12 offices, at the minimum, for the Chairman of the Assembly, the Directorate and their assistants and secretaries.
 - 1 office for the Chairman of the Assembly.
 - 1 office for the Director, C.C.I.R.
 - 1 office for the Vice-Director, C.C.I.R.
 - 1 office for the technical personnel, C.C.I.R.

* At this stage, the salaries and per diem rates mentioned in this Annex are purely provisional. They will be used only for budgetary estimates.

** The salary of the regular staff of the I.T.U. is not chargeable to the budget of the Plenary Assembly, but it must be noted that if certain of the officials concerned have to be replaced during their absence from Geneva by temporary or supernumerary staff, the cost of the latter is chargeable to the budget of the Assembly.

- 2 offices for the secretaries of the above persons.
- 1 office for the Secretary of the Assembly.
- 1 office for the assistants to the Secretary of the Assembly.
- 1 office for the Assistant Secretary (delegates).
- 1 office for the Assistant Secretary (documents).
- 1 office for the Assistant Secretary (finance and staff).
- 1 office for the official of the inviting Administration, responsible for liaison with the C.C.I.R.
- 1 office for the interpreters
- 1 office for the messenger service

Offices for suitable accommodation of

- 12 translators
- a typing pool of 30 units, with a separate room for the head of the service and two small rooms for proof-reading.
- a mimeograph service of 20 units.
- 2 draftsmen.

Premises for general use including the following:

- Writing room and lounge for delegates
- Cloakroom
- Information counter
- Reception office
- Canteen and bar
- Post Office
- Telegraph office
- Telephone booth
- Bank (exchange)
- Travel Agency
- First-aid post

ANNEX V-D

OFFICE MACHINERY AND EQUIPMENT (SEE § 6.1)

Note by Secretariat : The requirements for office machinery and equipment have been arranged by correspondence.

PAGE INTENTIONALLY LEFT BLANK

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

REPORT BY THE FINANCE COMMITTEE

PAGE INTENTIONALLY LEFT BLANK

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

REPORT BY THE FINANCE COMMITTEE *

1. The IXth Plenary Assembly at its first meeting held on 2 April, 1959, set up a Finance Committee with Dr. M. B. Sarwate (India) as Chairman and Mrs. Dowling and Mr. Southerland (U.S.A.), Captain Booth (United Kingdom), Mr. Caruso (Italy), Mr. Nijo (Japan), Mr. Clarkson (New Zealand) and Mr. Krasnosselski (U.S.S.R.) as members.

2. The Committee held in all five meetings during the period of the Assembly and covered in its discussions:

2.1 The budget and accounts of the IXth Plenary Assembly.

2.2 The agreement with the United States Administration (Doc. 15 Annex V).

2.3 The financial requirements of the C.C.I.R. for the years 1960, 1961 and 1962 (Doc. 15, Annex IV).

The Committee appointed a sub-committee under the chairmanship of Mr. Caruso (Italy) to deal with § 2.1 and 2.2.

3. *Agreement with the U. S. Administration.*

3.1 The Committee examined the agreement with particular reference to the accounts of the IXth Plenary Assembly and found it in order. Accordingly, the Committee recommended to the Plenary Assembly that the agreement should be approved and that the following text should, if it meets with the approval of the Plenary Assembly, be incorporated in Volume IV of the documents of the Assembly:

“ Approval of the agreement between the United States Administration and the I.T.U.

The IXth Plenary Assembly, (unanimously) approved the agreement between the United States Administration and the I.T.U. for the organization of the Assembly. ”

3.2 The Committee noted with pleasure that the United States Administration had provided free of charge spacious and well-appointed accommodation for the meetings of the Assembly and its Committees, for the Assembly and C.C.I.R. Secretariats as well as for the various auxiliary services. The United States Administration had also provided free of charge, official stationery bearing the C.C.I.R. Assembly heading although according to the agreement this item should have been paid for by the I.T.U.

3.3 The Committee recommended that the Assembly express its high appreciation of the excellent and generous provision of facilities and wholehearted cooperation extended by the United States Administration.

4. *Budget and accounts of the IXth Plenary Assembly*

4.1 The Committee noted that a provision of 997 000 Swiss francs had been made in the extraordinary budget of the C.C.I.R. for the year 1959. The total of actual expenditure up to 27 April 1959 and estimated expenditure for the remaining period would amount to 997 000 Swiss francs, leaving no margin in the budget provided for the year.

4.2 In examining the expenditure of the present Assembly, the Committee took into account the decision of the Assembly taken at its Fourth meeting to give gratification to certain categories of staff in recognition of the extraordinary efforts they had made to enable the work of the Plenary Assembly to be completed within the scheduled period. The Committee examined at length the reasons underlying the large increase in the volume of work as well as the under-estimation of staff required for performing it without working unduly long hours. It came to the conclusion

* This Report (Doc. 735 of Los Angeles, 1959) was adopted unanimously.

that there had been inadequate experience of the new methods of working laid down by the VIIIth Plenary Assembly (Resolution No 36, Warsaw 1956) and it had not therefore been possible to make a close estimate of the staff required for the volume of work of the present Assembly. Consequently, the staff in general and the key personnel brought over from Geneva in particular, were obliged to work very long hours to ensure that the work of the Assembly progressed in accordance with the schedule laid down for it.

4.3 The Committee decided to include a sum of 6252 Swiss francs over and above the extraordinary budget for the year 1959 to be used towards an ex-gratia payment for those persons of classes *e* to *k*, or their equivalents (in respect of supernumerary staff) who had worked for more than 45 hours per week integrated over the whole period of the Assembly, The Committee adopted a draft Resolution for inclusion of this amount for consideration and approval by the Plenary Assembly (Resolution No. 65).

4.4 The final accounts of the IXth Plenary Assembly up to and including 29 April 1959 will have to be examined after the closure of the Assembly session. It is recommended that the Plenary Assembly may be pleased to authorize the Chairman of the Finance Sub-committee to carry out this examination and submit his report direct to the C.C.I.R. Secretariat for further action.

5. *List of contributors to the extraordinary expenditure*

5.1 According to Article 19 of the Financial Regulations of the I.T.U., as amplified by Administrative Council Resolution No. 83 (amended), a complete list of the Members, Associate Members, Recognized Private Operating Agencies, International Organization, etc., which are to contribute to the expenses of the conference, or meeting, must to be prepared. Such a list will be found in Annex II.

6. *Financial requirements of the C.C.I.R. for 1960, 1961 and 1962 (Report by the Director, C.C.I.R., Doc. 15, Annex IV).*

6.1 *Ordinary budgets (Doc. No. 15, Annex IV-A)*

6.1.1 In discussing the financial requirements, the Committee noted that the ordinary budget for 1960 was being submitted to the 14th session of the Administrative Council. The budget estimates for the years 1961 and 1962 had been prepared on the basis of certain changes in the staff establishment of the C.C.I.R. Secretariat. As these budgets involved consideration of staff requirements of the specialized Secretariat of the C.C.I.R., which was the responsibility of the Administrative Council of the I.T.U. (Article 5, §12 *d*) of the Buenos Aires Convention 1952), the Committee took the view that it would content itself with emphasizing the need for adequate staff so that the increasing volume of C.C.I.R., work may be carried out efficiently. It decided to recommend to the Plenary Assembly that the attention of the Administrative Council should be drawn to the increasing load of work on the C.C.I.R. Secretariat, with a request that this be taken into account in deciding on the numbers and grading of the staff required for the C.C.I.R. Secretariat.

6.2 *Extraordinary budget (Doc. No. 15, Annex IV-B)*

6.2.1 As a first step in the consideration of the extraordinary budget estimates for the years 1960, 1961 and 1962, the Committee reviewed the statement of budgets and actual expenditure (extraordinary) for the years 1957, 1958 and 1959 (Annex III). It also examined in detail the statement of extraordinary expenditure for the year 1958 (Annex IV), when a large number of interim Study Group meetings took place in accordance with the revised procedure of work laid down in Resolution No. 36 (Warsaw, 1956). It noted with interest that although the total expenditure for the years 1957 to 1959, incurred as a result of following the revised procedure, was likely to exceed that of previous years; there was a corresponding increase in the volume of work.

6.2.2 The Committee noted that for the years 1960 and 1961, provisions of 55 000 and 44 000 Swiss Francs respectively had been made in the budget estimates of extraordinary expenditure. These estimates were based on actual expenditure in the corresponding years 1957 and 1958. The budget estimates for the year 1962 were left to be determined after the place and duration of the Xth Plenary Assembly were known. The large provision for the year 1961 was

based on the requirements of interim Study Group meetings which might be held under conditions similar to those of 1958. The Committee noted in this connection that the Organization Committee had formulated proposals to improve the efficiency of the work of Study Groups. Taking this into account together with the growing volume of work of the C.C.I.R., the Committee decided that the budget estimates as given in Annex IV-B to Doc. No. 15 should be recommended for approval by the Plenary Assembly.

6.2.3 The cordial thanks of the Plenary Assembly are offered to the Administrations of the Soviet Union and Monaco for the generous hospitality which they had shown to Study Group No. XI and the C.M.T.T. respectively.

M. B. SARWATE,
Chairman

ANNEX I

C.C.I.R. EXTRAORDINARY BUDGET 1959
(Position at 27 April 1959)

	Budget 1959	Expenditure on preparatory work	Expenditure IXth Plenary Assembly, Los Angeles	Estimated expenditure IXth Plenary Assembly, Los Angeles	Total expenditure and estimated expenditure
1	2	3	4	5	6
<i>I. Staff</i>					
1. Administration	165 000.—	3 279.05	85 183.—	84 537.95	173 000.—
2. Languages	546 000.—	109 353.—	192 635.20	240 011.80	542 000.—
3. Document reproduction	71 000.—	18 291.—	24 758.65	14 950.35	58 000.—
4. Insurance	12 000.—	3 453.50	1 216.25	11 330.25	16 000.—
<i>II. Premises and equipment</i>					
5. Premises, furniture, machines	16 000.—	1 857.50	3 174.70	6 967.80	12 000.—
6. Document production	56 000.—	20 189.25	22 797.40	5 013.35	48 000.—
7. Office supplies and overheads	44 000.—	7 237.40	5 995.50	15 767.10	29 000.—
8. Simultaneous interpretation and other technical equipment	50 000.—			78 000.—	78 000.—
9. Unforeseen	5 000.—		2 243.20	2 756.80	5 000.—
<i>III. Financial management expenses</i>					
10. Interest on advances	22 000.—		1 000.—	25 000.—	26 000.—
<i>Expenses of an exceptional nature</i>					
<i>IV. Representation</i>					
11. Attendance at meetings of CCIs or other international organisa- tions	10 000.—	638.70		9 361.30	10 000.—
	997 000.—	164 299.40	339 003.90	493 696.70	997 000.—

ANNEX II

LIST OF PARTICIPANTS IN THE EXPENSES OF STUDY GROUPS 1957/1958
AND THE IXth PLENARY ASSEMBLY OF THE C.C.I.R., LOS ANGELES, 1959

	<i>Taking part in the work of the IXth Plenary Assembly</i>	<i>Number of units</i>
I. Members and Associate Members		
Albania (People's Republic of)		1/2
Argentine Republic	x	25
Australia (Commonwealth of)	x	20
Austria	x	1/2
Belgium	x	8
Bielorussian Soviet Socialist Republic	x	3
Bulgaria (People's Republic of)	x	1
Canada	x	20
Ceylon		1
China	x	15
Denmark	x	5
Group of the different territories represented by the French Overseas Postal and Telecommunication Agency	x	20
Ecuador	x	1
Spain	x	3
United States of America	x	30
Finland	x	3
France	x	30
Guatemala	x	1
Hungarian People's Republic		1
India (Republic of)	x	20
Ireland	x	3
Israel (State of)		1
Italy	x	20
Japan	x	25
Laos (Kingdom of)		1/2
Libya (United Kingdom of)		1/2
Morocco (Kingdom of)		1
Monaco	x	1/2
Norway	x	5
New Zealand	x	5
Pakistan	x	15
Netherlands, Surinam, Netherlands Antilles, New-Guinea	x	10
Peru		2
Poland (People's Republic of)	x	10
Portugal	x	8
United Arab Republic		5+1
Federal Republic of Germany	x	20
Federal People's Republic of Yugoslavia	x	1
Ukrainian Soviet Socialist Republic	x	5
Roumanian People's Republic	x	1
United Kingdom of Great Britain and Northern Ireland	x	30
Sweden	x	10
Swiss Confederation	x	10
Czechoslovakia	x	8
Tunisia		1
Turkey	x	5
Union of South Africa and Territory of South-West Africa	x	13

	<i>Taking part in the work of the IXth Plenary Assembly</i>	<i>Number of units</i>
Union of Soviet Socialist Republics	x	30
Uruguay (Oriental Republic of)		3
Venezuela (Republic of)	x	10
British East Africa (Associate Member)		1/2
Malaya British Borneo Group (Associate Member)		1/2
II. <i>Recognized private operating agencies</i>		
American Cable and Radio Corporation	x	1/2
American Telephone and Telegraph Co.	x	1/2
British Broadcasting Corporation	x	1/2
Cable and Wireless Ltd.	x	3
Compagnie générale de T.S.F.	x	1/2
Compania Internacional de Radio S.A.		1/2
Companhia Portuguesa Radio Marconi	x	1/2
Empresa Torres Quevedo S.A.		1/2
Independent Television Authority	x	1/2
International Marine Radio Company, Ltd.	x	1/2
Kokusai Denshin Denwa Co. Ltd.	x	1/2
Marconi International Marine Communication Co. Ltd.	x	1/2
Nippon Hoso Kyokai	x	1/2
Nippon Minka Hoso Remei		1/2
Nippon Telegraph & Telephone Public Corporation	x	1
Radio Austria A.G.	x	1/2
Radio Corporation of America	x	1/2
Radio Televisione Italiana	x	1
Radio-Suisse S.A. de télégraphie et téléphonie sans fil	x	1/2
Redifon Ltd.		5
Siemens Edison Swan Ltd.		1/2
Società Italcable		1/2
South African Broadcasting Corporation	x	1/2
Swedish Broadcasting Corporation	x	1/2
Transradio Española S.A.		1/2
III. <i>Scientific or industrial organizations</i>		
Ateliers de construction électriques de Charleroi, Charleroi		1
Brown, Boveri & Cie., Baden	x	1/2
Electronic Industries Association	x	1/2
Hasler S.A., Berne		1
Telecommunication Research Institute, Budapest		1/2
Manufacture belge de lampes et de matériel électronique, Brussels		1/2
Siemens & Halske A.G., Munich	x	3
Società Face Standard, Milan	x	1/2
Società Italiana Reti Telefoniche Interurbane, Milan		1/2
Società Magneti Marelli, Milan		1/2
Società Telettra, Milan		1/2
Telefon A. B., L. M. Ericsson, Stockholm	x	1
Telefunken G.m.b.H., Berlin	x	1
West Coast Electronics Manufacturers Association, Los Angeles	x	1/2
IV. <i>International Organizations</i>		
Association internationale des intérêts radio-maritimes (A.I.I.R.M.)		1/2
Bureau international de l'heure (B.I.H.)		*
International Chamber of Shipping (I.C.S.)	x	*

	<i>Taking part in the work of the IXth Plenary Assembly</i>	<i>Number of units</i>
International Radio Maritime Committee (C.I.R.M.)	X	*
International Special Committee on Radio Interference (C.I.S.P.R.)	X	*
International Electrotechnical Commission (I.E.C.)		*
International Astronautical Federation (I.A.F.)	X	*
International Civil Aviation Organization (I.C.A.O.)	X	*
International Broadcasting and Television Organization (I.B.T.O.)	X	*
World Meteorological Organization (W.M.O.)	X	*
European Broadcasting Union (E.B.U.)	X	*
International Amateur Radio Union (I.A.R.U.)		*
International Scientific Radio Union (U.R.S.I.)	X	*
Total units		501

* Exempted from all contributions by Administrative Council Resolution No. 222 (amended).

ANNEX III

STATEMENT OF EXTRAORDINARY BUDGET AND EXPENDITURE FOR 1957, 1958 AND 1959

	1957 Study Groups		1958 Study Groups and preparatory work		1959 Preparatory work and IXth Plenary Assembly, Los Angeles	
	Budget	Expenditure	Budget	Expenditure	Budget	Exp.
<i>I. Staff</i>						
.1 Administration	8 500.—	9 381.35	45 000.—	35 284.45	165 000.—	
.2 Languages	31 000.—	6 696.—	165 000.—	267 424.30	546 000.—*	
.3 Document reproduction	9 500.—	7 203.60	15 000.—	26 903.60	71 000.—	
.4 Insurance	500.—	1 358.70	1 500.—	5 536.20	12 000.—	
<i>II. Premises and equipment</i>						
.5 Premises, furniture, machines	2 000.—	2 270.10	10 000.—	32 459.55	16 000.—	
.6 Document production	4 500.—	335.10	20 000.—	19 126.95	56 000.—	
.7 Office supplies and overheads	4 000.—	3 114.45	12 500.—	39 199.—	44 000.—	
.8 Simultaneous interpretation and other technical equipment				4 569.75	50 000.—	
.9 Unforeseen	500.—	25.—	1 000.—	173.25	5 000.—	
<i>III. Financial management expenses</i>						
.10 Interest on advances	3 000.—	1 120.45	5 000.—	6 507.60	22 000.—	
<i>Special expenditure</i>						
<i>IV. Representation</i>						
.11 Participation in meetings of C.C.I.s or other international organizations	14 500.—	20 633.25	10 000.—	9 959.90	10 000.—	
	78 000.—	52 138.—	285 000.—	447 144.55	997 000.—	
1956		7 483.95				
1957		44 654.05				

for details, see Annex I

* Including 50 000.— Swiss francs for participation by the C.C.I.R. in the expenses of the language staff of the General Secretariat.

ANNEX IV

STATEMENT SHOWING EXTRAORDINARY EXPENDITURE FOR STUDY GROUP MEETINGS AND PREPARATORY WORK IN THE YEAR 1958

	Budget	Study Group No. XI, Moscow	Joint Study Group (C.M.T.T.), Monte-Carlo	Study Groups Geneva	Preparatory work IXth Plenary Assembly	Sundry	Total expenditure 1958
<i>I. Staff</i>							
.1 Administration	45 000.—	10 197.45	6 052.—	8 497.50	10 537.50		35 284.45
.2 Languages	165 000.—	48 721.40	7 119.35	123 985.65	37 597.90	50 000.—	267 424.30
.3 Document reproduction	15 000.—	2 683.25	392.—	16 496.35	7 332.—		26 903.60
.4 Insurance	1 500.—			2 799.45	2 380.80	355.95	5 536.20
<i>II. Premises and equipment</i>							
.5 Premises, furniture, machines	10 000.—			31 499.95	959.60		32 459.55
.6 Document production	20 000.—		1 277.35	17 296.80	552.80		19 126.95
.7 Office supplies and overheads	12 500.—	5 497.05	759.70	24 084.10	8 858.15		39 199.—
.8 Simultaneous interpretation and other technical equipment				4 569.75			4 569.75
.9 Unforeseen	1 000.—	22.10	151.15				173.25
<i>III. Financial management expenses</i>							
.10 Interest on advances	5 000.—					6 507.60	6 507.60
<i>Special expenditure</i>							
<i>IV. Representation</i>							
.11 Participation in meetings of C.C.I.s or other international organizations	10 000.—					9 959.90	9 959.90
	285 000.—	6 7121.25	15 751.55	229 229.55	68 218.75	66 823.45	447 144.55
		15%	4%	51%	15%	15%	100%

ANNEX V

REPORT OF THE CHAIRMAN OF THE WORKING GROUP
OF THE FINANCE COMMITTEE

Verification of Accounts of the IXth Plenary Assembly, C.C.I.R.

In accordance with the task entrusted to the Chairman of the Working Group by the Finance Committee, and confirmed by the Plenary Assembly at its closing meeting, the final accounts of the IXth Plenary Assembly have been examined by the undersigned, who has no remark to make in this connection.

The final accounts are as follows:

	Budget 1959	Expenses 1959
<i>Art. I. Staff</i>		
1. Administrative services	165 000.—	171 512.75
2. Linguistic services	546 000.—	555 946.30
3. Document reproduction	71 000.—	57 207.45
4. Insurance	12 000.—	13 546.75
<i>Art. II. Premises and supplies</i>		
5. Premises, furniture, machines	16 000.—	10 255.45
6. Document reproduction	56 000.—	48 005.70
7. Office supplies and overheads	44 000.—	27 442.95
8. Simultaneous interpretation and other technical equip- ment	50 000.—	77 940.—
9. Unforeseen	5 000.—	8 357.40
<i>Art. III. Financial management expenses</i>		
10. Interest on advances	22 000.—	23 740.75
<i>Expenses of an exceptional nature</i>		
<i>Art. IV. Representation</i>		
11. Participation in meetings of another C.C.I. or other international organisations	10 000.—	9 260.95
	997 000.—	1 003 216.45
Additional credit as requested by the IXth Plenary Assembly	6 252.—	
	1 003 252.—	1 003 216.45

The accounts thus show a margin of S. Fr. 35.55,

A. CARUSO
*Chairman of the Working Group
of the Finance Committee.*

REPORT BY THE ORGANIZATION COMMITTEE



PAGE INTENTIONALLY LEFT BLANK

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

REPORT BY THE ORGANIZATION COMMITTEE *

The Organization Committee was set up at the first Plenary meeting with the terms of reference given in the minutes of that meeting (Doc. 223). Specific subjects were defined for study. In addition, the documents referred to the Committee, (notably the Director's Report) introduced additional topics on the subject of organization.

In the course of the Committee's work, two subjects were recognized as being more conveniently dealt with directly in a Plenary meeting. These were, the preparation of a list of candidates for the Chairmanship and Vice-Chairmanship of Study Groups, and certain action proposed in connection with the position of Vice-Director.

On the question of technical apparatus of the C.C.I.R.: while it was at first thought appropriate to refer certain aspects of this to the Finance Committee, examination of the question revealed that this would be unnecessary.

The Technical Assistance Committee referred to the Organization Committee the matter of C.C.I.R. participation in forthcoming meetings in Tokyo.

The Chairman of Study Group No. XI has requested that note be taken of additional aspects of work in the C.M.T.T. This was raised in a Plenary meeting.

The results of the studies of the Organization Committee appear in two draft Resolutions:

1. Organization of work between Plenary Assemblies (see Resolution No. 67).
2. Technical Apparatus of the C.C.I.R. (see Resolution No. 66).

and in the four Annexes to this report. Since these matters are of a domestic nature, this procedure is believed to be an appropriate method of presentation to the Assembly. They all relate to action by the Director. The subjects of these Annexes are:

- I. Study Group structure,
- II. Presentation of results,
- III. Collaboration of the C.C.I.R. with the C.C.I.T.T. and E.C.A.F.E.,
- IV. Special Committee structure of the C.C.I.R. Assembly.

The first three of the above subjects arise directly from the specific tasks assigned to the Committee. Details are referred to in the summary records of the meetings. The last one arose indirectly. On this subject some comments arising from the work of the Organization Committee are offered.

Organizational matters coming under notice during this Assembly disclosed a need for improved methods of handling such matters in the future. There has been insufficient time for some important subjects to be studied and brought to fruition within the duration of the Assembly. One such matter is the possibility of the C.C.I.R. having an organization to facilitate work such as Technical Assistance which continues between Plenary Assemblies. This does not appear to fit in very well with present arrangements, but it may well receive consideration in view of the new activities of the I.T.U. and the important function that falls to its technical consultative committees. It is clear that opinions and recommendations can stem only from Plenary Assemblies, and to be effective, a continuing function other than that under the Director would need some new approach. A small, but nevertheless definite, step can be taken by improving the effectiveness of our Plenary Assemblies for such studies, and by encouraging Administrations to bring forward prepared proposals concerning the organizational side of the C.C.I.R., and for means to be adopted

* This Report (Doc. 679 of Los Angeles, 1959) was adopted unanimously.

to expedite the work at the Assembly (in particular, by making known which Special Committees would be set up well in advance of the next Plenary Assembly, and by drawing the attention of the Administrations to the necessity of referring their propositions to the Committees concerned). This should permit them to start effective work at an early period of the Assembly. The committees would be as constituted at this Assembly (see Annex V). In the future it may prove expedient to have a complete pattern of structure and procedure laid down, for use at all Plenary Assemblies.

T. R. CLARKSON
Chairman

ANNEX I

STUDY GROUP STRUCTURE

AMENDMENTS TO THE TERMS OF REFERENCE OF THE STUDY GROUPS (Vol. I of Warsaw, p. 11)

1. Proposed terms of reference for the new Study Group No. IV — Space Systems. “To study technical questions regarding systems of telecommunications with and between locations in space.”
2. Proposed terms of reference for the new Study Group No. V — Propagation, including the effects of earth and troposphere: “To study the propagation of radio waves over the surface of the earth, taking into account changes in the electrical constants of the earth and irregularities of terrain, and including the effects of the troposphere.”
3. Proposed new terms for reference of Study Group No. X — Broadcasting: “To study the technical aspects of transmission and reception in the sound-broadcasting service (except tropical broadcasting), including standards of sound recording and sound reproduction, to facilitate the international exchange of programmes; to study also technical aspects of video recording in liaison with Study Group No. XI.”
4. Proposed new terms of reference for Study Group No. XI. — Technical aspects of television.

ANNEX II

PRESENTATION OF THE PUBLISHED DOCUMENTS OF THE IXTH PLENARY ASSEMBLY

The Organization Committee, having considered Doc. 293, proposes that the published documents of the IXth Plenary Assembly should contain the following information and that this information should be divided into separate volumes as follows:

Volume I :

1. Table of contents of all volumes.
2. General layout of the work in each volume, based on the information on layout included on page 13 of Vol. I of Warsaw, and upon the present document.
3. Definitions of Recommendations, Reports, Resolutions, Questions and Study Programmes of the C.C.I.R. (Warsaw, Vol. I, page 13).
4. Origin of documents (Warsaw, Vol. I, page 14).
5. Numbering of documents (Warsaw, Vol. I, page 14).

6. A section containing an index and all Recommendations and an individual index for each group of Recommendations, classified under the following subject headings:
 - A — Transmission.
 - B — Reception.
 - C — Fixed services.
 - D — Mobile services and space systems.
 - E — Sound-broadcasting and television.
 - F — Radio relay systems.
 - G — Propagation.
 - H — Standard frequencies and time signals.
 - J — Monitoring of transmissions.
 - K — Vocabulary.
7. A section containing an index and all Resolutions of a general nature and those concerning organizations other than the C.C.I.R.

Volume II :

1. to 5. the same as for Vol. I.
6. Information notes by the Director of the C.C.I.R. relating to the work of the C.C.I.R. and its Study Groups, including if desired portions of the present document. (Consideration is being given to the possibility that Information Notes by the Director or a Section on Documentation may be used in place of Resolutions referring to the internal work of the C.C.I.R. The Note at page 10 of Warsaw, Vol. I, explains and expands Resolutions Nos. 36 and 37).
7. List of Study Groups, indicating the title of the Group, the terms of reference, and the names and addresses of the International Chairman and Vice-Chairman.
8. Sections, one for each Study Group, containing the Questions, Study Programmes and Resolutions relative to the work of each Study Group together with a list of contents.

Note 1 : Volume I, paragraph 1 — “ Table of contents of all Volumes ” is intended to indicate in which Volume various types of document were to be found (see page 7 of Volume I of the Warsaw documents).

Note 2 : If the Secretariat should have doubts as to the listing of any Recommendation that concerned more than one subject, they should include it under the subject to which it mainly referred, adding a cross-reference to the other subjects concerned.

Volume III :

- 1 to 5. The same as for Vol. I.
6. A section containing an index and all Reports and an individual index for each group of Reports classified under the same subject headings as are the Recommendations in Vol. I. (The publication of the Reports in a separate volume is a problem additional to the reproduction of the documents of the IXth Plenary Assembly, as some Reports may be approved by circulation to Administrations rather than by the Assembly, resulting in a delay of some months. This delay would not apply to the other categories of documents).

Volume IV :

1. Report by the Director, C.C.I.R.
2. Report by the Finance Committee
3. Report by the Technical Assistance Committee
4. Report by the Organization Committee

5. List of Participants
6. List of Documents in Numerical Order.
7. List of Documents classified by Study Groups
8. Place of the Xth Plenary Assembly.

Volume V :

Minutes of Plenary meetings.

ANNEX III

COLLABORATION WITH THE C.C.I.T.T. and E.C.A.F.E.

A proposal was referred to the Organization Committee (Doc. 294) to change the status of Resolution No. 32 of Buenos Aires insofar as the C.C.I.R. is concerned. After discussion, it was considered advisable to let the matter stand, and to withdraw the draft Resolution.

Note was taken of Administrative Council Resolution No. 292, which states that the Plenary Assemblies of the C.C.I.s should organize representation at the meeting of Committee for the General Plan for Development of the International Network.

On the matter of the C.C.I.R. participation in the Plan Sub-Group meeting in Tokyo in May 1959, the Organization Committee, after discussion, concluded that the Director, who is attending the meeting would contact there other participants who represent the C.C.I.R. members and with them would serve as the liaison with this meeting, on behalf of the C.C.I.R. The same form of representation of the C.C.I.R. would be applied to the next meeting of the Plan Committee in 1962.

ANNEX IV

SPECIAL COMMITTEE STRUCTURE SET UP AT THE IXTH PLENARY ASSEMBLY OF THE C.C.I.R.

The Special Committees proposed for setting up by the Plenary Assembly were:

- Finance Committee.
- Drafting Committee.
- Organization Committee.
- Technical Assistance Committee.
- Coordination Committee.

Note : Experience at the IXth Plenary Assembly has shown the wisdom of setting up Committees of this nature immediately. The immediate setting up of an Organization Committee is of particular importance and subsequent Plenary Assemblies are urged to do so at the earliest possible date. The Director would invite Administrations to prepare any proposals on administrative matters well in advance.

PLACE OF THE Xth PLENARY ASSEMBLY

During the twelfth and last meeting, the IXth Plenary Assembly of the C.C.I.R. accepted unanimously and with acclamation, the invitation of the Indian Administration to hold the Xth Plenary Assembly of the C.C.I.R. in that country.

PAGE INTENTIONALLY LEFT BLANK

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

**LISTS OF DOCUMENTS
OF THE IXth PLENARY ASSEMBLY**

- A. Classified in numerical order**
- B. Classified by Study Groups**

PAGE INTENTIONALLY LEFT BLANK

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

LISTS OF DOCUMENTS OF THE IXth PLENARY ASSEMBLY

Note 1 : The number of certain documents is followed by an index, the meaning of which is:

- * documents mentioned in Volumes I, II and III of Los Angeles
- ¹ documents having an addendum
- ² documents having a corrigendum
- ³ documents which have been issued in a revised version
- ⁴ documents, the figures for which were issued separately
- ⁵ documents having two addenda
- ⁶ documents having two corrigenda

Note 2 : In addition to those documents of the IXth Plenary Assembly which are numbered consecutively from 1 to 777, there are documents emanating from those Study Groups which did not hold an interim meeting between the VIIIth and IXth Plenary Assemblies. These documents are listed in the "Documents of the Study Groups of the C.C.I.R. — period 1956-1959", and in Volumes I, II and III of the documents of the IXth Plenary Assembly they are referred to separately, for example "Doc. No. VIII/23 of Los Angeles, 1959".

Since the numbering system used for these documents automatically classifies them by the Study Groups to which they refer, they are listed at the beginning of the list of documents of the relevant Study Groups, but they have not been included in the list of documents classified in numerical order.

Note 3 : Throughout the lists, the following abbreviations have been used.

- Rec. signifies Recommendation No.
- Rep. — Report No.
- Res. — Resolution No.
- Q. — Question No.
- S.P. — Study Programme No.

Note 4 : The distribution of the documents among the Study Group is in accordance with the terms-of-reference of the Study Groups as they existed prior to the IXth Plenary Assembly.

A. CLASSIFIED IN NUMERICAL ORDER

No.	Submitted by	Title	Subject	Study Group No.
1 ¹	Chairman, Study Group No. I	Report by Chairman of Study Group No. I (Col. J. Lochard).	—	I
2	Chairman, Study Group No. II	Report by Chairman of Study Group No. II (Mr. P. David).	—	II
3	Chairman, Study Group No. III	Report by Chairman of Study Group No. III (Dr. H. C. A. van Duuren).	—	III
4	Chairman, Study Group No. IV	Report by Chairman of Study Group No. IV (Prof. L. Sacco).	—	IV
5 ²	Chairman, Study Group No. V	Report by Chairman of Study Group No. V (Dr. R. L. Smith-Rose).	—	V
6*	Chairman, Study Group No. VI	Report by Chairman of Study Group No. VI (Dr. D. K. Bailey).	—	VI
7 ²	Chairman, Study Group No. VII	Report by Chairman of Study Group No. VII (Mr. B. Decaux).	—	VII

No.	Submitted by	Title	Subject	Study Group No.
8	Chairman, Study Group No. VIII	Report by Chairman of Study Group No. VII (M. J. D. Campbell).	—	VIII
9	Chairman, Study Group No. IX	Report by Mr. H. Stanesby (Chairman of Study Group No. IX until August 1958).	—	IX
10	Chairman, Study Group No. X	Report by Chairman of Study Group No. X (Mr. A. Prose Walker).	—	X
11	Chairman, Study Group No. XI	Report by Chairman of Study Group No. XI (Mr. E. Esping).	—	XI
12 ¹	Chairman, Study Group No. XII	Report of Chairman of Study Group XII (Dr. M. B. Sarwate).	—	XII
13 ¹	Chairman, Study Group No. XIII	Report by Chairman of Study Group No. XIII (Mr. J. D. H. van der Toorn).	—	XIII
14*	Chairman, Study Group No. XIV	Report by Chairman of Study Group No. XIV (Mr. R. Villeneuve).	—	XIV
15 ⁵	Director, C.C.I.R.	Report by Director, C.C.I.R. (Dr. E. Metzler).	—	—
16	Czechoslovakia	Organization of C.C.I.R. work.	Res. 36	—
17	Czechoslovakia	Terms of references of C.C.I.R. Study Group No. XI.	Warsaw Doc. 995	XI
18 ²	New Zealand	The need for a number of standard two-path ground field-intensity decay and recovery curves.	S.P. 88	IV
19	Federal Republic of Germany	Frequency stabilization of transmitters.	S.P. 3	I
20	Federal Republic of Germany	Bandwidth and signal-to-noise ratios in complete systems.	S.P. 45	III
21	European Broadcasting Union	Tropospheric propagation at VHF and UHF over distance ranges up to 200 kilometres.	Draft S.P.	V
22*	Switzerland	Comparison of predicted data (MUF) with the reception of WWV.	S.P. 60 Rep. 55	VI
23	United States of America	Arrangement of channels in multi-channel radiotelegraph systems for long-range circuits operating on frequencies below about 30 Mc/s.	Q. 74 Rec. 153	I
24	Netherlands	Frequency stability required for single-sideband, independent-sideband and telegraph systems, to make the use of automatic frequency control superfluous.	Q. 167	III
25 ²	Working Group on Radioclimatology	Report.	S.P. 90	V

No.	Submitted by	Title	Subject	Study Group No.
26*	Federal Republic of Germany and Kingdom of Morocco	Pulse-transmission tests at oblique incidence.	S.P. 97	VI
27	United Kingdom	Transmission of monochrome and colour television signals over long distances. Requirements for the transmission of television over long distances.	Q. 121 S.P. 32	XI
28	Federal Republic of Germany	The estimation of sky-wave field strengths on frequencies above 1500 kc/s.	S.P. 99	VI
29*	Federal Republic of Germany	Basic prediction information for ionospheric propagation.	S.P. 60	VI
30* ²	Japan	Response of frequency-shift radio telegraph receivers to atmospheric noise. Interference effects of atmospheric noise on radio reception.	Q. 125 (II) Q. 82 (III) S.P. 49 (III)	II and III
31*	Japan	Methods of measuring effective selectivity of VHF/FM communication receivers.	Rec. 155	II
32*	Japan	Representation of single signal selectivity characteristics.	Rec. 155 Doc. II/59 (Geneva, 1958)	II
33	Japan	Theory of radio-wave propagation over inhomogeneous earth, including diffraction by hills or mountains.	S.P. 88 S.P. 89	IV
34*	Japan	Height distribution of refractive indices.	S.P. 90 Doc. V/66 (Geneva, 1958)	V
35*	Japan	Propagation data required for wide-band radio systems.	Q. 136	V
36*	Japan	A practical method of estimating the effect of modulation conditions on rapid fading.	S.P. 66, § 6	VI
37*	Japan	Improvement of the expression of propagation forecasts.	Doc. VI/117 (Geneva, 1958)	VI
38	Japan	Development of JJY standard-frequency transmissions and time signals.	Rec. 179 Q. 142	VII
39*	Japan	Assessment of the quality of television pictures.	Q. 152	XI
40	Japan	Resolving power and differential sensitivity of the human eye.	Q. 153	XI
41 ²	Japan	Single value of signal-to-noise ratio for different television systems.	Q. 117	XI
42 ^{1,2}	Japan	Reduction of the channel capacity required for a television signal.	S.P. 119	XI
43	Japan	Colour television standards.	Q. 118	XI
44*	Federal Republic of Germany	Radio propagation at frequencies below 1500 kc/s.	S.P. 63	VI

No.	Submitted by	Title	Subject	Study Group No.
45	United Kingdom	Proposed revision of Rec. No. 111.	Rec. 111	V
46	Japan	Frequency stability of transmitters.	Doc. I/48 (Geneva, 1958)	I
47	Japan	Details of spurious-radiation power measuring equipment.	Q. 1, S.P. 2 Doc. I/22 (Geneva, 1958)	I
48	Federal Republic of Germany	The estimation of sky-wave field strengths on frequencies above 1500 kc/s.	S.P. 99	VI
49	Federal Republic of Germany	Measurement of the performance of multi-channel telephone circuits on radio-relay systems with the help of a signal with a continuous uniform spectrum.	Rec. 197 Doc. IX/133 (Geneva, 1958)	IX
50	C.C.I.R. Secretariat	List of documents issued (Docs. Nos. 1-50).	—	—
51	Federal Republic of Germany	Standardization of multi-channel radio-relay systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	Q. 93	IX
52	Federal Republic of Germany	Arrangement of channels in multi-channel radio-telephone transmitters for long range circuits operating on frequencies below about 30 Mc/s.	Rec. 149	I
53*	Netherlands	Draft amendment to Recommendation No. 189	Rec. 189	IX
54*	European Broadcasting Union	Ionospheric propagation on kilometric and hectometric waves.	S.P. 63	VI
55 ²	Czechoslovakia	Main characteristics of the Czech standard frequency and time signal station OMA.	Rep. 66	VII
56	Czechoslovakia	Transmission on 2.5 Mc/s in Europe.	—	VII
57 ²	Czechoslovakia	Narrow-band transmission and reception of standard-frequencies and time signals.	Doc. VII/14, § 3 (Geneva, 1958)	VII
58*	United States of America	Night field-strengths, 540 to 1600 kc/s.	Rep. 56 Annex, Q.(c)	VI
59	United States of America	Spurious radiation. Draft revision of Rec. 147.	Q. 1 Rec. 147	I
60	United States of America	Radio systems employing ionospheric-scatter propagation.	Q. 132	III
61	France	Standardization of multi-channel radiotelephone systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	Q. 93 S.P. 120	IX

No.	Submitted by	Title	Subject	Study Group No.
62	France	Standardization of multi-channel radio-relay systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	Q. 93 S.P. 120	IX
63	France	Standardization of multi-channel radio-relay systems using frequency-division multiplex en frequencies above about 30 Mc/s.	Q. 93 S.P. 121	IX
64	France	Maintenance procedure for wide-band radio-relay systems.	Q. 96	IX
65	France	Preferred characteristics of radio-relay systems for the transmission of monochrome television. Noise permissible in television.	Q. 146	IX
66	France	Service channels for wide-band radio-relay systems.	Q. 147	IX
67	France	Radio-relay systems employing tropospheric-scatter propagation.	Q. 148	IX
68	France	Radio-relay systems employing tropospheric-scatter propagation.	Q. 148 S.P. 122	IX
69	France	Interruptions in transmission when switching over normal and standby equipment.	Q. 165	IX
70	Federal Republic of Germany	Tropospheric-wave propagation.	S.P. 90	V
71	Federal Republic of Germany	Standardization of multi-channel radio-relay systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	Q. 93 Doc. IX/115 (Geneva, 1958)	IX
72	Federal Republic of Germany	Standardization of multi-channel radio-relay systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	Q. 93	IX
73	Federal Republic of Germany	Standardization of multi-channel radio-relay systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	Q. 93 S.P. 120 Doc. IX/105 (Geneva, 1958)	IX
74	Federal Republic of Germany	Preferred characteristics of radio-relay systems for the transmission of monochrome television.	Q. 146 Doc. IX/117 (Geneva, 1958)	IX
75	United States of America	Protection of frequencies used with artificial earth satellites or other space objects for communication, navigation and guidance.	Draft Rec. (Q. 168 and 169)	V and VI
76	Japan	Preferred characteristics of radio-relay systems for the transmission of monochrome television.	Q. 146	IX

No.	Submitted by	Title	Subject	Study Group No.
77	United Kingdom	Radio-relay systems of very large capacity.	Draft S.P.	IX
78	United Kingdom	Preferred frequency bands and centre frequencies for international radio-relay links.	Draft Res.	IX
79	United Kingdom	Preferred characteristics of radio-relay systems for the transmission of monochrome television.	Draft S.P. (Q. 146)	IX
80	United Kingdom	Frequency tolerance of transmitters.	—	I
81	United Kingdom	Radio-frequency interconnection of systems with capacities of from 600- to 1800-telephone channels, or for television and telephony, on the same radio-frequency carrier.	Rec. 194 Docs. IX/131 and IX/106 (Geneva, 1958)	IX
82	United Kingdom	Radio-frequency channel arrangements for 60- and 120-channel telephony radio-relay systems within the band 5925-8500 Mc/s.	Draft Rec. Doc. IX/105 (Geneva, 1958)	IX
83	United Kingdom	Baseband characteristics of larger capacity radio-relay systems for the simultaneous transmission of television and telephony.	Q. 146	IX
84	Federal Republic of Germany	Maintenance procedure for wide-band radio-relay systems. Measurement of noise in actual traffic.	Q. 96 Doc. IX/132 (Geneva, 1958)	IX
85	Federal Republic of Germany	Service channels for wide-band radio-relay systems.	Q. 147 Doc. IX/125 and IX/130 (Geneva, 1958)	IX
86	Federal Republic of Germany	Standardization of multi-channel radio-relay systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	Q. 93 S.P. 121 Doc. IX/131 (Geneva, 1958)	IX
87	Federal Republic of Germany	Comments regarding Doc. XI/68 (Moscow) on the television standards to be applied in bands IV and V.	Doc. XI/68 (Moscow, 1958)	XI
88*	India	Study of fading.	S.P. 66	VI
89*	India	Selectivity of sound broadcast receivers.	Rec. 155	II
90*	India	Best method for calculating the sky-wave field produced by a tropical broadcasting transmitter.	Q. 154 (XII) S.P. 99 (VI)	VI and XII
91*	India	A preliminary report on the statistical analysis of fading on short wave transmissions.	S.P. 66 (VI) Q. 157 (XII)	VI and XII

No.	Submitted by	Title	Subject	Study Group No.
92*	India	Determination of noise level for tropical broadcasting.	Q. 155 (XII) S.P. 96 (VI)	VI and XII
93	India	Preliminary investigation of the revision of noise grades for India.	S.P. 96 Rec. 175	VI
94	C.C.I.R.	Collaboration of the C.C.I.R. in development of national and international telecommunication networks.	—	—
95	India	Indications towards the required revision of C.C.I.R. Report No. 65 for atmospheric radio noise in India.	Rec. 174 and 175 Rep. 65 S.P. 96 (Q. 155 (XII))	VI
96	C.C.I.R. Secretariat	C.M.T.T. Doc. 31 (Monte-Carlo, 1958). Requirements for the transmission of monochrome television signals over long distances.	Draft Rec.	—
97	Netherlands	Remarks on colour television standards and exchange of programmes.	Q. 118 and 120	XI
98	Netherlands	Investigations on the statistical properties of colour television signals.	Q. 118 and 119 S.P. 80	XI
99	Director, C.C.I.R.	Report by the Director of the C.C.I.R. on C.C.I.R. technical apparatus.	—	—
100	C.C.I.R. Secretariat	List of documents issued (Docs. Nos. 51-100).	—	—
101*	U.S.S.R.	Reduction of interference from the mains via the power pack of radio receivers.	Q. 125 Rec. 159	II
102*	U.S.S.R.	Expansion of Q. 128.	Q. 128	II
103*	U.S.S.R.	Results of experimental study of the tropospheric propagation of super-high frequencies on paths close to Moscow.	S.P. 55, 90, 91	V
104*	U.S.S.R.	Results from the "coherent theory" of long-distance VHF tropospheric propagation.	S.P. 55, 90, 91	V
105*	U.S.S.R.	Improvement of the selectivity and other quality characteristics of receivers in the long-wave band.	Q. 78 Rec. 155	II
106*	U.S.S.R.	VHF broadcast receivers. Possibility of reducing the IF bandwidth and increasing the selectivity.	Q. 78 Rec. 155	II
107*	U.S.S.R.	Spurious emissions from broadcast receivers in the VHF band: measurement and diminution.	Q. 126	II
108*	U.S.S.R.	Protection against interference due to combination frequencies in receivers.	Q. 78	II

No.	Submitted by	Title	Subject	Study Group No.
109*	U.S.S.R.	Overall criterion of selectivity.	Doc. II/59 (Geneva, 1958)	II
110*	U.S.S.R.	Improvement in the selectivity of narrow-band filters, by compensation of internal losses.	Q. 78 Q. 128 Rec. 155	II
111	U.S.S.R.	Frequency stability required of HF radio generators (including broadcasting).	S.P. 3 Q. 124	I and II
112	U.S.S.R.	Assessment of the mean telegraph speed with FSK and intermittent communication.	New Q.	III
113	U.S.S.R.	Autocorrelation characteristics of received signal and interference levels and their influence on the stability of radiotelegraph circuits.	New Q.	III
114	U.S.S.R.	Conditions and advantages of the use of intermittency in radiotelegraphy.	New Q.	III
115	U.S.S.R.	Autocorrelation of signals received on the Washington-Moscow path.	New Q.	III
116	U.S.S.R.	Simulator of telegraph transmissions.	Q. 3	III
117	U.S.S.R.	Possibilities of reducing actual interference and measuring actual traffic spectra. Proposals referring to Rep. 38 and Doc. Nos. I/39 and I/52 of the Period 1956-1959.	Rep. 38	I, II, III
118	U.S.S.R.	Bandwidth occupied by the transmission of a random succession of signals.	S.P. 82	I
119*	U.S.S.R.	Levels for measuring the bandwidth occupied by an emission.	S.P. 40	I
120	U.S.S.R.	Bandwidth occupied by an A1 transmission of \cos^2 -rounded pulses.	S.P. 82	I
121*	U.S.S.R.	Triode transistors used as capacitors in the design of oscillating circuits.	Q. 124 Docs. II/39 and II/40 (Geneva, 1958)	II
122*4	U.S.S.R.	Astatic system for automatic control of the frequency and phase of independent oscillators.	Q. 124	II
123*	U.S.S.R.	Band-filters for electric adjustment of bandwidth and their stability.	Q. 78, 124 Rec. 155	II
124*	U.S.S.R.	Method of measuring the numeral characteristics of gamma correctors.	Q. 152	XI
125*	U.S.S.R.	Influence of the colour parameters of the television receiver on the quality of colour reproduction.	Q. 152	XI

No.	Submitted by	Title	Subject	Study Group No.
126*	U.S.S.R.	Effect of sub-carrier frequency on luminance.	Q. 152	XI
127	U.S.S.R.	Comparative efficiency of colour television channels.	Q. 119	XI
128	U.S.S.R.	New video recording and cine projection systems.	Q. 66	XI
129*	U.S.S.R.	Dependence of the number of errors on $(I_{s+n})Med./I_nMed.$	Q. 3 S.P. 45	III
130*	U.S.S.R.	A new method for taking local measurements of the earth's conductivity based on wave attenuation.	Q. 135, § 1, 3 and 5	IV
131*	U.S.S.R.	Results of the theory of tropospheric propagation over long distance based on the assumption of reflection from discontinuities of the troposphere.	S.P. 55 S.P. 90 S.P. 91	V
132*	U.S.S.R.	Results of experimental study of UHF propagation over long-distance paths across mountains.	S.P. 79 S.P. 89	IV, V
133*	U.S.S.R.	Phase-shift telegraphy in short wave communication.	New Q.	III
134	U.S.S.R.	Results obtained with phototelegraph transmission by frequency-modulation of the carrier.	Q. 130	III
135	U.S.S.R.	Combined accurate frequency apparatus and its basic characteristics.	Q. 124 S.P. 3 •	I, II
136	U.S.S.R.	Application of the theory of potential interference stability to problems of short wave telegraphy.	Q. 123	II
137*	U.S.S.R.	Stability of electro-mechanical filters.	Q. 124 Doc. II/40 (Geneva, 1958)	II
138*	U.S.S.R.	Intermediate frequencies for monochrome television receivers.	Rep. 41 (Rev.)	II
139	U.S.S.R.	Standard-frequency transmissions and time signals. Phase method of standard-frequency measurement.	S.P. 101	VII
140	U.S.S.R.	Method for calculating the frequency separation of short-wave radiotelegraph stations.	S.P. 44	III
141	U.S.S.R.	Generator with fixed line-frequency and field-pulses synchronized with the mains-frequency.	Q. 152	XI
142	U.S.S.R.	A comparison between field-pulse separation by integration and by differentiation.	Q. 152	XI

No.	Submitted by	Title	Subject	Study Group No.
143	U.S.S.R.	Evaluation of distortion in the exchange of colour television programmes with different chrominance signals.	Q. 120	XI
144*	U.S.S.R.	Method of simultaneous transmission of two sound signals in television.	Rep. 83	XI
145*	U.S.S.R.	Assessment of the luminance and chrominance of television pictures.	Q. 152	XI
146	U.S.S.R.	Coincidence of special world intervals with magnetic storms.	S.P. 93	VI
147*	U.S.S.R.	Formula for the law of distribution.	S.P. 96	VI
148	Director, C.C.I.R.	Prediction of solar index.	Rec. 172	VI and Plenary Assembly
149*	C.C.I.R. Secretariat	Index of solar activity.	S.P. 92 and 100	VI
150	C.C.I.R. Secretariat	List of documents issued (Docs. Nos. 101-150).	—	—
151	United Kingdom	Requirements for the transmission of monochrome television signals over long distances (Doc. 73, revised).	—	IX
152	United Kingdom	Impedance of the intermediate frequency circuit. Nominal value of impedance 75 ohms, unbalanced.	—	IX
153	United Kingdom	Proposed amendments to Doc. IX/78 (Geneva, 1958), to meet the views of C.C.I.R./C.C.I.T.T. noise working party, Geneva, November 1958).	—	IX
154*	U.S.S.R.	Correlation of foF2 with the indices of solar activity.	S.P. 93	VI
155	People's Republic of Poland	Reply to the report by the Chairman of Study Group No. XI concerning television standard for bands IV and V.	Q. 118 Rep. 83	XI
156	U.S.S.R.	Preferred characteristics of radio-relay systems for the transmission of monochrome television. Transmission of the sound channel.	Q. 146	IX
157	U.S.S.R.	The application of pre-emphasis in multi-channel radio-relay systems, using frequency division multiplex.	Q. 93	IX
158	U.S.S.R.	Use of pre-emphasis for television.	Q. 146	IX
159	Netherlands	Stereophonic broadcasting.	—	X

No.	Submitted by	Title	Subject	Study Group No.
160	Sweden	Report on Document No. XI/68, Moscow 1958, on television standards for bands IV and V.	—	XI
161	Switzerland	Report on colour television tests in Switzerland.	—	XI
162*	Netherlands	The calculation of the MUF, "hop"-length, travelling time, etc. by means of ionospheric models.	S.P. 60	VI
163	Sweden	Frequency stabilization of transmitters.	Rec. 148 Q. 1 c S.P. 3	I
164	C.C.I.R. Secretariat	Note by the Secretariat (Doc. I/42 rev., Geneva, 1958, and Doc. 23 C.M.T.T., Monte-Carlo, 1958).	—	XI
165 ²	Report of Working Group II	Sensitivity in the presence of quasi-impulsive interference.	Q. 125	II
166*	France	Usable sensitivity of radio receivers in the presence of quasi-impulsive interference.	Q. 125	II
167	United Kingdom	Single value of signal-to-noise ratio for different television systems. Transmission of monochrome television-signals over long distances.	Q. 166 and 121	XI
168	C.C.I.R. Secretariat	Note by the Secretariat.	Q. 11 of S.G.I. of C.C.I.T.T.	III
169	United Kingdom	Technical characteristics of single-sideband aeronautical mobile and maritime radiotelephone equipment.	Q. 162	XIII
170	People's Republic of Poland	Ratio of wanted to unwanted signal in television. Use of the offset method when there are great differences between the carrier frequencies of the interfering stations.	Q. 119 S.P. 118	XI
171	People's Republic of Poland	Radiation on sub-harmonic frequencies.	S.P. 2	I
172	U.R.S.I.	Report on frequency allocations for radio astronomy. Radio Communications and Radio Astronomy.	Rec. 173	VI
173	Netherlands	Stereophonic broadcasting.	—	X
174	European Broadcasting Union	Modification of Rec. 209	Rec. 209	X
175	I.F.R.B.	Comments on Recommendations of the C.C.I.R. within the scope of work of C.C.I.R. Study Group No. VIII which might be incorporated into the Radio Regulations.	Los Angeles Doc. No. 8	VIII
176	Federal Republic of Germany	Stereophonic broadcasting.	Q. 170	X

No.	Submitted by	Title	Subject	Study Group No.
177	United Kingdom	Single value of signal-to-noise ratio for different television systems. Transmissions of monochrome television signals over long distances.	Q. 166 and 121	XI
178	United Kingdom	Draft Recommendation. Radio-frequency channel arrangement for tropospheric-scatter systems.	Draft Rec.	IX
179 ⁴	United Kingdom	Television standards in band V.	—	XI
180*	Sweden	Characteristics of equipments and principles governing the allocation of frequency channels in the VHF and UHF land mobile services.	Q. 163	XIII
181	Sweden	The introduction of local lightning-flash counters in Sweden during 1958.	Rec. 121 Res. 25	VI
182*	Sweden	Investigation of beyond the horizon propagation at 3000 Mc/s.	Rec. 111	V
183*	Gen. Admin. of Post and Telecommunications and Radio Marconi Co. of Portugal	Report on the identification of radio stations.	Q. 104 S.P. 115	VIII
184*	Czechoslovakia	Radio-frequency spectrograph.	—	VIII
185	C.C.I.R. Secretariat	Note by the Director, C.C.I.R.	—	—
186*	United States of America	Automatic monitoring of occupancy of the radio-frequency spectrum. Automatic occupancy-vacancy recorder and multiple field-strength recorder.	Q. 143	VIII
187	European Broadcasting Union	Ratio of the wanted to the unwanted signal in monochrome television.	Q. 119	XI
188	United States of America	Identification of sources of interference to radio reception.	Draft S.P.	VIII
189	Netherlands	Selective calling devices for use in the international VHF (metric) maritime mobile service.	Q. 160	XIII
190	United States of America	Technical characteristics of single-sideband aeronautical mobile and maritime radiotelephone equipments.	Q. 162	XIII
191	United States of America	Draft Recommendation on maritime aspects of technical characteristics of single-sideband aeronautical mobile and maritime radiotelephone equipments.	Q. 162	XIII
192	United States of America	Transmission loss in radio systems studies. (Q. 81 and S.P. 85)	Draft Rec.	III
193	United States of America	Transmission loss in radio systems studies.	Draft Rep. Q. 81 S.P. 85	III

No.	Submitted by	Title	Subject	Study Group No.
194	United States of America	Draft Report on the aeronautical aspects of C.C.I.R. Q. 162.	Q. 162	XIII
195	United States of America	Preliminary study of the power requirements and choice of an optimum frequency for a world wide standard-frequency broadcasting station.	Q. 141 Q. 142	VII
196*	United States of America	Draft Resolution in reply to Doc. V/63 of Geneva (Los Angeles, Doc. 5).	S.P. 90	V
197*	United States of America	Draft Report in reply to Doc. V/63 of Geneva.	S.P. 90	V
198	United Kingdom	Summary of modifications proposed to texts prepared by C.C.I.R. Study Group No. IX.	Texts of S.G. IX	IX
199	United Kingdom	Proposal for modifications of the conclusions of the interim meeting of C.C.I.R. Study Group No. II (Geneva 1958).	Texts of S.G. II	II
200	C.C.I.R. Secretariat	List of documents issued (Docs. Nos. 151-200).	—	—
201	United Kingdom	The B.B.C. television standards-converter at Swingate.	—	XI
202 ³	Austria	Television standards for bands IV and V.	—	XI
203	Italy	Phase pre-correction in television.	S.P. 110 (XI) Q. 128 (II)	II, XI
204	Italy	Presentation of results for "single signal" selectivity.	Doc. 2	II
205	Italy	Editorial remarks to Doc. 2 of Los Angeles.	Doc. 2	II
206	U.S.S.R.	Selective calling devices for use in the international VHF (metric) maritime mobile service.	Q. 160	XIII
207	U.S.S.R.	Marine identification devices.	Q. 158	XIII
208	U.S.S.R.	Variation of ionospheric parameters.	S.P. 60	VI
209* ²	U.S.S.R.	Some results of ionosphere studies with rockets and sputniks carried out in the Soviet Union.	—	VI
210*	People's Republic of Poland	Long distance ionospheric propagation without intermediate ground reflections (S.P. 97 and 98).	Doc. VI/130 (Geneva, 1958)	VI
211*	People's Republic of Poland	Possibilities of the propagation of ionospheric waves on paths deviated from the great circle. Essay of explanation and mathematical interpretation.	S.P. 97 and 98	VI

No.	Submitted by	Title	Subject	Study Group No.
212*	People's Republic of Poland	Distortion in frequency-modulation VHF receivers due to multipath propagation.	Q. 127 (Rev.)	II
213	Netherlands	Reservation of frequency bands for radio astronomy.	—	VI
214*	Japan	Standard of sound recording for the international exchange of programmes. Measurement of wow and FLUTTER. The tolerable limits of wow and flutter in programme sounds.	S.P. 74	X
215	Working Group VI-A	Choice of a basic index for ionospheric propagation. Chairman's Report on Working Group VI-A (Special).	S.P. 92	VI
216	U.R.S.I.	Radio and optical tracking and telemetering.	—	VI
217	India	Report on standard-frequency and time signal transmission.	Rep. 66	VII
218	Drafting Committee	Submission of documents to the Drafting Committee.	—	—
219	India	Report on the measurement of atmospheric radio noise.	S.P. 96	VI
220	United States of America	Visual monitoring of the radio-frequency spectrum.	New Q.	VIII
221	Study Group No. IX	Summary record of the 1st meeting (3 April 1959).	—	IX
222	France	An index of solar activity-chromospheric eruptions associated with type IV radio bursts.	—	VI
223	C.C.I.R. Secretariat	Minutes of the 1st Plenary Meeting (2 April 1959).	—	Plenary Assembly
224	Study Group No. XII	Summary record of the 1st meeting (3 April 1959).	—	XII
225	Study Group No. VII	Summary record of the 1st meeting (3 April 1959).	—	VII
226	Canada	Prediction of ionospheric disturbances by radio observations of the sun.	S.P. 92	VI
227	Study Group No. XIII	Summary record of the 1st meeting (3 April 1959).	—	XIII
228	Japan	Proposal for the transmission of monochrome signals over long distances.	S.P. 32	XI and IX
229*	Netherlands	A simplified general index of solar activity.	S.P. 92	VI

No.	Submitted by	Title	Subject	Study Group No.
230	Sub-Group IX-C	Wide-band radio-relay systems. Noise tolerable during very short periods of time on line-of-sight systems (S.P. 105).	Draft Rep.	IX
231	Study Group No. VI	Whistler mode propagation (Doc. 232).	Draft Res.	VI
232	Study Group No. VI	Study of the whistler mode of propagation.	Draft S.P.	VI
233	Study Group No. VI	Questions submitted by the I.F.R.B.	Draft Rep.	VI
234	Study Group No. VI	Study of sky-wave propagation on frequencies between the approximate limits of 1.5 and 40 Mc/s for the estimation of field strength.	Draft S.P.	VI
235	Study Group No. VI	Radio propagation at frequencies below 1500 kc/s.	Draft S.P.	VI
236	Study Group No. II	Summary record of the 1st meeting (3 April 1959).	—	II
237	Study Group No. VI	Summary record of the 1st meeting (3 April 1959).	—	VI
238	Study Group No. XII	Summary record of the 2nd meeting (6 April 1959).	—	XII
239	United States of America	Measurement of field-strength, field-intensity, radiated power, available power from the receiving antenna and the transmission loss.	Q. 8	V
240	United States of America	Television recording.	Q. 66	XI
241	Study Group No. III	Summary record of the 1st meeting (6 April 1959).	—	III
242	Study Group No. X	Summary record of the 1st meeting (3 April 1959).	—	X
243	Australia	Comments on Annex A to Doc. 11. Distortion of television signals due to the use of vestigial-sideband transmission.	Annex A to Doc. 11	XI
244	C.C.I.R. Secretariat	Minutes of the official opening of the IXth Plenary Assembly (2 April 1959).	—	Plenary Assembly
245	Sub-Group II-C	Assessment of receiver stability.	Draft Q.	II
246	Sub-Group XII-A	Report (Docs. X/1 and X/6).	Q. 102, R. 89 S.P. 112, 113, 114	XII
247	Study Group No. V	Tropospheric-wave propagation curves.	Draft Rec.	V

No.	Submitted by	Title	Subject	Study Group No.
248	Sub-Group VII-A	Standard frequency transmissions and time signals.	Draft Rec. Q. 140	VII
249	United States of America	Compatible single-sideband transmissions for amplitude modulation broadcast services.	Draft S.P.	X
250	C.C.I.R. Secretariat	List of documents issued (Docs. Nos. 201-250).	—	—
251	United States of America	Compatible single-sideband transmission (CSSB) for amplitude-modulation broadcast services.	Draft Q.	X
252	Study Group No. I	Definition of bandwidth occupied by an emission (S.P. 82).	Draft Rec.	I
253	Study Group No. I	Spectra and bandwidth of emissions (Q. 1).	Draft Rec.	I
254	Study Group No. IX	Radio-relay systems for telephony using frequency-division multiplex. Interconnection at baseband frequencies (Q. 93).	Draft Rec.	IX
255	Study Group No. IX	Duration of interruptions on radio links when switching from normal to standby equipment (Q. 165).	Draft Rep.	IX
256	Study Group No. IX	Service channels for radio relay systems. Type of service channels to be provided (Q. 147).	Draft Rec.	IX
257	United States of America	Atomic time, A.1.	Rec. 179	VII
258	Sub-Group V-A	Proposed revision of draft Reports Annex E(V) and F(V) to Doc. No. 5. Measurement of field-strength for VHF (metric) and UHF (decimetric) broadcast services, including television (Q. 138).	Draft Rep.	V
259	Study Group No. I	Measurement of spectra and bandwidth of emissions.	Draft Rec.	I
260	Working-Group V-D	Tropospheric wave propagation. Climatic charts of refractive index parameter ΔN (S.P. 90).	Draft Rep.	V
261	Study Group No. IX	Summary record of the 2nd meeting (7 April 1959).	—	IX
262	Study Group No. III	Influence on long-distance high-frequency communication using frequency-shift keying of frequency deviations associated with passage through the ionosphere.	Draft Q.	III
263	Sub-Group VII-A	Standard-frequency transmissions and time signals in additional frequency bands (Q. 142).	Draft Rec.	VII

No.	Submitted by	Title	Subject	Study Group No.
264	Study Group No. XIII	Selective calling devices for use in the international VHF (metric) maritime mobile service (Q. 160).	Draft Rec.	XIII
265	Study Group No. XIII	Selective calling devices for use in the international VHF (metric) maritime mobile service (Q. 160).	Draft S.P.	XIII
266	Sub-Group VI-B	Basic prediction information for ionospheric propagation.	Draft Rep.	VI
267	Sub-Group VI-B	Pulse-transmission tests at oblique incidence.	Draft Rep.	VI
268	Study Group No. XIII	Draft Revision of Recommendation No. 223 (Warsaw, 1956).	Rec. No. 223	XIII
269	Study Group No. V	Propagation at VHF and UHF over distances up to 200 kilometres.	Draft Res.	V
270	Study Group No. V	Propagation at VHF and UHF over distances up to 200 kilometres.	Draft S.P.	V
271	Study Group No. XIII	Interference due to intermodulation products in the VHF (metric) maritime service (Q. 164).	Draft Rec.	XIII
272	Study Group No. XIII	Characteristics of equipments and principles governing the allocation of channels in the VHF and UHF land mobile service (Q. 163).	Draft Rec.	XIII
273	Study Group No. XIII	Characteristics of equipments and principles governing the allocation of frequency channels in the VHF and UHF land mobile services (Q. 163).	Draft Rep.	XIII
274	Organization Committee	Summary record of the 1st meeting (7 April 1959).	—	—
275	Study Group No. VIII	Summary record of the 1st meeting (6 April 1959).	—	VIII
276 ³	United States of America	Standards and related specifications for compatible stereophonic aural transmission in the sound broadcasting bands (medium wave-AM, VHF-FM) and the aural channel of television.	Q. 170	X
277	Study Group No. I	Possibilities of reducing interference and of measuring actual traffic spectra. (Q. I (I) and 133 (III)).	Draft Rep.	I, III
278	Study Group No. VI	Meaning of "MUF".	Draft Rec.	VI
279	Study Group No. V	Tropospheric wave propagation curves for distances well beyond the horizon (S.P. 55).	Draft Rep.	V
280	Study Group No. XIII	Marine identification devices (Q. 158).	Draft Rec.	XIII

No.	Submitted by	Title	Subject	Study Group No.
281	Study Group No. I	Frequency stabilization of transmitters (Q. 1, §A (c)).	Draft S.P.	I
282	Study Group No. I	Measurement and limitation of unwanted radiations from industrial installations (Q. 75).	Draft Res.	I
283	Italy	Draft Resolution.	—	—
284	Study Group No. V	Summary record of the 1st meeting (6 April 1959).	—	V
285	Study Group No. I	Summary record of the 1st meeting (3 April 1959).	—	I
286	Study Group No. I	Bandwidth of telegraphic emissions A1 and F1. Evaluation of interference produced by these emissions (S.P. 82).	Draft Rep.	I
287	Drafting Committee	Requirements for the transmission of monochrome television signals over long distances.	Rec. 267 (Doc. 31, C.M.T.T.)	—
288	Drafting Committee	Atmospheric noise data (S.P. 96).	Rec. 315	VI
289	Drafting Committee	Measurement of atmospheric radio noise (Doc. 295).	Rep. 165	VI
290	Drafting Committee	Revision of atmospheric radio noise data (Doc. 295).	Rep. 65	VI
291	Drafting Committee	Measurement of atmospheric radio noise (Doc. 295).	Res. 46	VI
292	Drafting Committee	Design and use of local lightning flash counters.	Res. 51	VI
293	Drafting Committee	Proposals by the Drafting Committee for the Organization Committee. Presentation of Volume I.	—	—
294 ²	Drafting Committee	(Concerning Resolution No. 32 annexed to the International Telecommunication Convention (Buenos Aires, 1952).	Draft Res.	VI
295	Drafting Committee	Measurement of atmospheric radio noise.	S.P. 154	VI
296	Study Group No. X	Summary record of the 2nd meeting. (10 April 1959)	—	X
297	Study Group No. XIV	Summary record of the 1st meeting. (3 April 1959).	—	XIV
298	Sub-Group II-C	Frequency stability of receivers. Stability of IF amplifiers with electro-mechanical filters, semiconductor capacitors and ferromagnetic tuning (Doc. 245).	Draft Rep.	II
299	Sub-Group XI-C	Assessment of the quality of television pictures (Q. 152).	Draft Rep.	XI
300	C.C.I.R. Secretariat	List of documents issued (Nos. 251-300).	—	—

No.	Submitted by	Title	Subject	Study Group No.
301	Study Group No. VII	Summary record of the 2nd meeting (9 April 1959).	—	VII
302	Study Group No. II	Selectivity of receivers.	Draft Q.	II
303	Study Group No. XIII	Bearing and position classification for direction-finding (Q. 159).	Draft Rec.	XIII
304	Study Group No. XIII	Direction finding by ships in the 2 Mc/s band.	Draft Q.	XIII
305	Study Group No. VI	Long distance ionospheric propagation without intermediate ground reflections.	Draft Rep.	VI
306	Study Group No. I	Telegraphic distortion (Q. 18).	Draft Rec.	I
307	Study Group No. I	Spectra and bandwidths of emissions (Q. 1 §A (a) and Recs. 145 and 146).	Draft S.P.	I
308	Study Group No. I	Telegraphic distortion, quality index, error rate, efficiency factor.	Draft S.P.	I
309	Study Group No. I	Arrangement of channels in multichannel radiotelephone transmitters for long range circuits operating on frequencies below about 30 Mc/s (Q. 46).	Draft Rec.	I
310 ³	Study Group No. I	Classification of multi-channel radiotelegraph systems for long-range circuits operating on frequencies below about 30 Mc/s, and designation of the channels in these systems.	Draft Rec.	I
311	Study Group No. XI	Summary record of the 1st meeting (6 April 1959).	—	XI
312	Study Group No. I	Summary record of the 2nd meeting (9 April 1959).	—	I
313	Drafting Committee	Standard-frequency transmissions and time signals (Q. 140).	Rec. 319	VII
314	Drafting Committee	Stability of standard-frequency transmissions and time signals as received.	Q. 186	VII
315	Drafting Committee	Ionospheric-scatter and meteor-burst propagation.	Res. 52	VI
316	Drafting Committee	Ionospheric-scatter propagation.	S.P. 147	VI
317	Drafting Committee	Intermittent communication by meteor-burst propagation.	S.P. 146	VI
318	Drafting Committee	Radio-relay systems for telephony using time-division multiplex. Technical characteristics to be specified in order to be able to interconnect any two systems (Q. 92).	Rep. 134	IX

No.	Submitted by	Title	Subject	Study Group No.
319	Drafting Committee	Intermittent long-distance radio communication in the VHF band by means of scattering from columns of ionization in the lower ionosphere produced by meteors.	Rep. 157	VI
320	Drafting Committee	Radio-relay systems for telephony using frequency division multiplex. Hypothetical reference circuit for radio relay systems with capacity of 12 to 120 telephone channels. (Q. 97)	Rec. 285	IX
321	Drafting Committee	Radio-relay systems for telephony using frequency-division multiplex. Hypothetical reference circuit for radio relay systems with capacity of more than 120 channels. (Q. 97)	Rec. 286	IX
322	Drafting Committee	Radio-relay systems for telephony using frequency-division multiplex. Frequency deviation. (Q. 93)	Rec. 274	IX
323	Drafting Committee	Radio-relay systems for telephony. Preferred characteristics. (Q. 92)	Rec. 298	IX
324	Drafting Committee	Maintenance procedure for FDM radio-relay systems for telephony. Measurements to be made. (Q. 96)	Rec. 290	IX
325	Drafting Committee	Multi-channel radio-relay systems for telephony using time-division multiplex. Agreement on major characteristics. (Q. 92)	Rec. 299	IX
326	Drafting Committee	Interconnection of radio-relay and line systems. Line-regulating and other pilots. (S.P. 28 and Q. 96)	Rec. 291	IX
327	Study Group No. VIII	Identification of radio stations.	S.P. 115	VIII
328	Study Group No. VIII	Identification of radio stations.	Draft Q.	VIII
329	Study Group No. VIII	Identification of radio stations. (Q. 104)	Draft Rec.	VIII
330	Study Group No. VIII	Identification of radio stations. (Q. 104)	Draft Rep.	VIII
331	Study Group No. VIII	Automatic monitoring of occupancy of the radio frequency spectrum. (Q. 143)	Draft Rep.	VIII
332	Study Group No. VIII	Spectrum measurement by monitoring stations. (S.P. 103)	Draft Rep.	VIII
333	Austria	Automatic monitoring of occupancy of the radio-frequency spectrum. Monitoring of "offset" between television transmitters.	—	VIII
334	Study Group No. V	Measurement of field-strength, field-intensity, radiated power, available power from the receiving antenna and the transmission loss.	Draft Rep.	V

No.	Submitted by	Title	Subject	Study Group No.
335	Finance Committee	Summary record of the 1st meeting (10 April 1959).	—	—
336 ²	Sub-Group VI-C	Sky-wave absorption of frequencies between the approximate limits of 1.5 and 40 Mc/s.	Draft S.P. Doc. VI/89 (Geneva, 1958)	VI
337	Study Group No. VI, VII	Draft. Standard-frequency transmission and time signals.	—	VI and VII
338	Study Group No. VI	Draft. Organization of work on the choice and evaluation of ionospheric indices. (S.P. 92)	—	VI
339	Study Group No. VI	Draft. Choice of a basic index for ionospheric propagation.	—	VI
340	Study Group No. VI	Draft. Availability and exchange of a basic data and reliability of radio propagation forecasts.	—	VI
341	Study Group No. I	Frequency stabilization of transmitters. (Q. 1 §A (c))	Draft Rec.	I
342	Sub-Group X-D	Compatible single-sideband transmission (CSSB) for amplitude-modulation broadcast services.	Draft Q.	X
343	Sub-Group X-D	Compatible single-sideband transmissions (CSSB) for amplitude-modulation broadcast services.	Draft S.P.	X
344	Sub-Group X-D	Long- and medium-wave broadcasting. Quality of reception.	Draft S.P.	X
345	Sub-Group X-D	Long- and medium-wave broadcasting. Quality of reception.	Draft Q.	X
346	Sub-Group X-D	Long- and medium-wave broadcasting. Bandwidth of emissions.	Draft Q.	X
347	Sub-Group X-D	Draft.	Draft S.P.	X
348	Study Group No. XIII	Selective calling devices for use in the international VHF (metric) maritime mobile service. (Q. 160)	Draft S.P.	XIII
349	Working Group VI D-1	Measurement of man-made radio noise.	Draft S.P.	VI
350	C.C.I.R. Secretariat	List of documents issued. (Docs. Nos. 301-350)	—	—
351	Study Group No. VI	Identification of precursors indicative of short-term variations of ionospheric propagation conditions.	S.P. 93	VI
352	Study Group No. VI	Summary record of the 2nd meeting (7 April 1959).	—	VI

No.	Submitted by	Title	Subject	Study Group No.
353	Study Group No. V	Influence of the troposphere on frequencies used for telecommunication with space vehicles.	Draft Res.	V
354	Study Group No. I	Spurious emissions. (Q. 1 §A (b))	Draft S.P.	I
355	Study Group No. IX	Summary record of the 3rd meeting (10 April 1959).	—	IX
356	Study Group No. IX	Radio-relay systems for television. Simultaneous transmission of a monochrome television signal and a single sound channel. Preferred characteristics of the sound channel. (Q. 146)	Draft Rec.	IX
357	Study Group No. IX	Draft reply concerning Question No. 11 of the 3rd Study Group of the C.C.I.T.T..	—	IX
358	Study Group No. IX	Radio-relay systems for television and telephony. Frequencies and deviations of continuity pilots. (Q. 96)	Draft Rec.	IX
359	Study Group No. IX	Radio-relay systems for telephony using frequency division multiplex. Maintenance measurements in actual traffic. (Q. 96)	Draft Rec.	IX
360	Study Group No. IX	Radio-relay systems for telephony using frequency division multiplex. Measurements of the performance with the help of a signal consisting of a continuous uniform spectrum. (S.P. 28 and Q. 96)	Draft Rec.	IX
361	Study Group No. IX	Radio-relay systems for telephony using frequency division multiplex. Allowable noise power in the hypothetical reference circuit. (Q. 97 and S.P. 105)	Draft Rec.	IX
362	Study Group No. IX	Radio-relay systems for telephony using time-division multiplex. Allowable noise power in the hypothetical reference circuit. (Q. 97, S.P. No. 105)	Draft Rec.	IX
363	Study Group No. XI	Summary record of the 2nd meeting (9 April 1959).	—	XI
364	Study Groups Nos. IV and V	Joint meeting (10 April 1959).	—	IV and V
365	Study Group No. XII	Summary record of the 3rd meeting (9 April 1959).	—	XII
366	Study Group No. X	Standards of sound recording for the international exchange of programmes. (Rec. 208)	Draft Res.	X
367 ⁴	Study Group No. X	Measurement of wow and flutter in equipment for sound recording and reproduction. (S.P. 74)	Draft Rep.	X
368	Sub-Group XII-A	Second report.	Draft S.P. Draft Rep.	XII

No.	Submitted by	Title	Subject	Study Group No.
369	Study Group No. XIII	Single-sideband aeronautical and maritime mobile radiotelephone equipments. (Q. 162)	Draft Rec.	XIII
370	Study Group No. II	Summary record of the 2nd meeting. (8 April 1959).	—	II
371	Study Group No. XIII	Summary record of the 2nd meeting (8 April 1959).	—	XIII
372	Drafting Committee	Radio-relay systems for telephony using frequency-division multiplex. Interconnection at baseband frequencies. (Q. 93)	Rec. 269	IX
373	Drafting Committee	Duration of interruptions on radio links when switching from normal to standby equipment. (Q. 165)	Rep. 137	IX
374	Drafting Committee	Service channels for radio-relay systems. Type of service channels to be provided. (Q. 147)	Rec. 295	IX
375	Drafting Committee	Definition of a basic reference atmosphere.	Rec. 309	V
376	Drafting Committee	Influence of the troposphere on wave propagation across mountain ridges. (S.P. 79)	Rep. 144	V
377	Drafting Committee	Propagation data required for wide-band radio systems.	Q. 185	V
378	Drafting Committee	Whistler mode propagation.	Res. 42	VI
379	Drafting Committee	Study of the whistler mode of propagation.	S.P. 144	VI
380	Drafting Committee	Questions submitted by the I.F.R.B.	Rep. 150	VI
381	Drafting Committee	Study of sky-wave propagation on frequencies between 1.5 and 40 Mc/s approximately for the estimation of field strength.	S.P. 144	VI
382	Drafting Committee	Radio propagation at frequencies below 1500 kc/s.	S.P. 142	VI
383	Drafting Committee	Study of fading.	S.P. 148	VI
384	Drafting Committee	Measurement of spectra and bandwidths of emission.	Rec. 299	I
385	Drafting Committee	Spurious emissions from broadcast and television receivers. (Q. 80)	Rec. 239	II
386	Drafting Committee	Radio transmission utilizing inhomogeneities in the troposphere (commonly termed "scattering").	S.P. 139	V

No.	Submitted by	Title	Subject	Study Group No.
387	Drafting Committee	Influence of the troposphere on propagation across mountain ridges. (Q. 136)	S.P. 136	V
388	Drafting Committee	Advantages to be obtained by using orthogonal wave polarizations in the planning of broadcasting services in the VHF (metric) and UHF (decimetric) bands. Television and sound. (Q. 101)	Rep. 122	V
389	Sub-Group VII-A	Frequency spectrum conservation with high precision time signals. (Q. 141)	Draft S.P.	VII
390	Sub-Group VI-C	Radio propagation at frequencies below 1500 kc/s.	Draft Rep.	VI
391	Sub-Group XI-B	Report by Sub-Group XI-B.	—	XI
392	Technical Assistance Committee	Summary record of the 1st meeting (8 April 1959).	—	—
393	Study Group No. V	Summary record of the 2nd meeting (13 April 1959).	—	V
394	Study Group No. IV	Summary record of the meeting of 13 April 1959.	—	IV
395	Study Group No. XIII	Signals MAYDAY and PAN.	Rec. 23 (Rev.)	XIII
396	Sub-Group XIII-D	Report.	—	XIII
397	Sub-Group XIII-D	Recommendation No. 221 (revised).	Rec. 221	XIII
398 ³	Study Group No. XIV	Nomenclature of the frequency and wavelength bands used in radiocommunications. (Q. 73)	Draft Rec.	XIV
399	Study Group No. X	Standards of sound recording for the international exchange of programmes. (Q. 42 and 63)	Draft Rec.	X
400	C.C.I.R. Secretariat	List of documents issued (Docs. Nos. 351-400).	—	—
401	Study Group No. XIII	Spurious emissions from frequency-modulated VHF (metric) maritime equipment. (Q. 161)	Draft Rep.	XIII
402	Study Group No. XIII	Spurious emissions from frequency-modulated VHF (metric) maritime equipment. (Q. 161)	Draft Rec.	XIII
403	Study Group No. XIII	Draft revision of Recommendation No. 223 (Warsaw, 1956).	Rec. 223	XIII
404	Study Group No. VIII	Frequency measurements at monitoring stations. (Q. 145)	Draft Rep.	VIII

No.	Submitted by	Title	Subject	Study Group No.
405	Sub-Group VI-C	Study of sky-wave propagation on frequencies between the approximate limits of 1.5 and 40 Mc/s for the estimation of field strength.	Draft Rep.	VI
406	Study Group No. I	Telegraphic distortion. (Q. 18)	Draft Rec.	I
407	Study Group No. VIII	Visual monitoring of the radio-frequency spectrum.	Draft Q.	VIII
408	Drafting Committee	Frequency stability of receivers.	Rec. 236	II
409	Drafting Committee	Choice of intermediate frequency and protection against undesired responses of superheterodyne receivers.	Rep. 98	II
410	Drafting Committee	Methods of measuring phase/frequency or group-delay/frequency characteristics of receivers.	Rep. 104	II
411	Drafting Committee	Spurious emissions from receivers of special types. (Q. 126)	Rep. 102	II
412	Study Group No. III	Amendment to Annex F(III) to Doc. 3. Bandwidths and signal-to-noise ratios in complete systems. The prediction of telegraph system performance in terms of bandwidth and signal-to-noise ratios.	S.P. 45	III
413 ³	Study Group No. X	Measurement of programme level in sound broadcasting. (Q. 151)	Draft Rep.	X
414	Study Group No. II	Selectivity of receivers.	Draft Rec.	II
415	Study Group No. XII	Summary record of the 4th meeting (13 April 1959).	—	XII
416	Study Group No. VIII	Identification of sources of interference to radio reception.	Draft S.P.	VIII
417	Study Group No. VIII	Monitoring at fixed monitoring stations of radio transmissions from space vehicles.	Draft Q.	VIII
418	Study Group No. VIII	Measurement of S-values at monitoring stations.	Draft Q.	VIII
419	Sub-Group VI-D-3	Propagation by way of sporadic-E and other anomalous ionization in the E and F regions of the ionosphere.	Draft S.P.	VI
420	Study Group No. VI	Draft Report by Working Group for methods of estimating sky-wave field strength on frequencies between the approximate limits of 1.5 and 40 Mc/s. (Rec. 177)	Draft Rep.	VI
421	Study Group No. III	Bandwidths and signal-to-noise ratios in complete systems. (Q. 3)	Draft S.P.	III

No.	Submitted by	Title	Subject	Study Group No.
422	Study Group No. IX	Radio-relay systems for telephony using frequency-division multiplex. Pre-emphasis for frequency modulation systems. (Q. 93)	Draft Rec.	IX
423	Study Group No. IX	Radio-relay systems for television and telephony. Radio-frequency interconnection of systems for 600 to 1800 telephone channels, or the equivalent, operating in the 6000 Mc/s band. (Q. 93)	Draft Rec.	IX
424	Study Group No. IX	Radio-relay systems for television and telephony. Intermediate frequency characteristics. (Q. 93)	Draft Rec.	IX
425	Study Group No. IX	Radio-relay systems for telephony and television. Radio-frequency interconnection of systems for 600 to 1800 telephone channels, or the equivalent, operating in the 2000 and 4000 Mc/s band. (Q. 93)	Draft Rec.	IX
426	Study Group No. IX	Radio-relay systems for television. Frequency deviation and the sense of modulation. (Q. 146)	Draft Rec.	IX
427	Study Group No. IX	Radio-relay systems for television. Pre-emphasis characteristics for frequency-modulation systems. (Q. 146)	Draft Rec.	IX
428	Study Group No. I	Four-frequency duplex systems. (Q. 20)	Draft Rec.	I
429	Study Group No. I	Frequency-shift keying. (Q. 20)	Draft Rec.	I
430	Finance Committee	Summary record of the 2nd meeting (14 April 1959)	—	—
431	Finance Committee	First Report by the Finance Committee Working Group	—	—
432	Finance Committee	Note by the Director, C.C.I.R.	—	—
433	Working Group VI/D-3	Long distance propagation of waves of 30 to 300 Mc/s by way of ionization in the E and F regions of the ionosphere. (Q. 7, § 3)	Draft Rep.	VI
434	Sub-Group VII-A	Standard-frequency and time signals transmissions in band 4. (Q. 142)	Draft Res.	VII
435	Study Group No. IX	Summary record of the 4th meeting. (14 April 1959).	—	IX
436	Drafting Committee	Ground-wave propagation over inhomogeneous earth. (Q. 134)	S.P. 135	IV
437 ^{2,3}	Drafting Committee	Protection of frequencies used for radio astronomical measurements.	Rec. 134	VI
438	Drafting Committee	Presentation of data in studies of tropospheric-wave propagation.	Rec. 311	V

No.	Submitted by	Title	Subject	Study Group No.
439	Drafting Committee	Radio transmission utilizing inhomogeneities in the troposphere. (Commonly termed "scattering"). (S.P. 91)	Rep. 148	V
440	Drafting Committee	Protection against keyed interfering signals.	S.P. 127	II
441	Drafting Committee	Frequency stabilization of transmitters. (Q. 1, §A (c))	S.P. 125	I
442	Drafting Committee	Measurement and limitation of unwanted radiations from industrial installations. (Q. 75)	Res. 39	I
443	Drafting Committee	Ground-wave propagation curves below 10 Mc/s. (Q. 134)	Rec. 307	IV
444	Drafting Committee	Ground-wave propagation over inhomogeneous earth.	Rec. 308	IV
445	Drafting Committee	Ground-wave propagation over inhomogeneous earth.	Rep. 141	IV
446	Sub-Group VII-A	Standard-frequency and time signal transmissions.	Draft Rep.	VII
447 ⁶	Sub-Group VII-A	Main characteristics of standard-frequency and time signal stations in April 1959.	—	VII
448	Study Group No. VIII	Accuracy of frequency measurements at monitoring stations.	Draft Rec.	VIII
449	Drafting Committee	Frequency shift keying.	Q. 183	I
450	C.C.I.R. Secretariat	List of documents issued. (Docs. Nos. 401-450)	—	—
451	Drafting Committee	Four frequency duplex systems. (Q. 20)	S.P. 134	I
452	Drafting Committee	Frequency shift keying. (Q. 20)	S.P. 133	I
453	Drafting Committee	Tropospheric propagation curves for distances well beyond the horizon.	S.P. 137	V
454	Drafting Committee	Assessment of receiver stability.	Q. 174	II
455	Drafting Committee	Characteristics of equipments and principles governing the allocation of channels in the VHF and UHF land mobile service. (Q. 163)	Rec. 60	XIII
456	Drafting Committee	Characteristics of equipments and principles governing the allocation of frequency channels in the VHF and UHF land mobile services. (Q. 163)	Rep. 114	XIII

No.	Submitted by	Title	Subject	Study Group No.
457	Drafting Committee	Spurious emissions from receivers excluding sound-broadcast and television.	Q. 176	I
458	Drafting Committee	Propagation data required for wide band radio systems. (Q. 136)	Rep. 143	V
459	Drafting Committee	Frequency stability of receivers.	Q. 173	II
460	Drafting Committee	Sensitivity and noise factor.	Q. 172	II
461	Study Group No. VI	Directivity of antennae at great distances. (Rec. 102)	Draft Rep.	VI
462	Study Group No. II	Summary record of the 3rd meeting (13 April 1959).	—	II
463	Study Group No. VIII	Summary record of the 2nd meeting (13 April 1959).	—	VIII
464	Study Group No. III	Factors affecting quality of performance of complete systems of the fixed services; signal-to-noise and signal-to-interference protection ratios for fading signals, bandwidth and adjacent channel spacing. (Q. 3)	Draft S.P.	III
465	Study Group No. III	Summary record of the 2nd meeting. (13 April 1959).	—	III
466	Study Group No. X	Summary record of the 3rd meeting.	—	X
467	Study Group No. VI	Summary record of the 3rd meeting. (9 April 1959).	—	VI
468	Drafting Committee	Proposed modification to Recommendation No. 168 (does not concern the English text).	—	IV
469	Study Group No. X	HF broadcasting: Effects of different spacings between carrier frequencies.	Draft Q.	X
470	Study Group No. X	HF broadcasting reception. (Q. 39)	Draft Rep.	X
471	Study Group No. X	HF broadcasting. Justification for use of more than one frequency per programme. (Q. 37)	—	X
472	Study Group No. X	HF broadcasting: Effects of closer spacing between carriers. (Q. 149)	Draft Rec.	X
473	Study Group No. X	Standards for F.M. sound broadcasting in the VHF (metric) band. (Q. 150)	Draft Rec.	X
474	Study Group No. I	Spurious emissions (Q. 1 §A (b))	Draft Rec.	I
475	Study Group No. X	Standards of sound recording for the international exchange of programmes.	Draft S.P.	X
476	Study Group No. XIV	Summary record of the 2nd meeting (16 April 1959).	—	XIV

No.	Submitted by	Title	Subject	Study Group No.
477	Sub-Group X-A	Recording standards for the international exchange of television programmes. Film recording.	Draft Rec.	X
478	Drafting Committee	Selectivity of receivers.	Q. 178	II
479	Drafting Committee	Distortion in frequency-modulation receivers due to multipath propagation.	Q. 177	II
480	Drafting Committee	Ground-wave propagation.	Q. 184	IV
481	Drafting Committee	Propagation at VHF and UHF over distances up to 200 kilometres. (Doc. 482)	Res. 41	V
482	Drafting Committee	Propagation at VHF and UHF over distances up to 200 kilometres. (Doc. 481)	Res. 140	V
483	Drafting Committee	Radio-relay systems for telephony using frequency-division multiplex. Noise in real circuits. (Q. 97, S.P. 105)	Rec. 288	IX
484	Drafting Committee	Radio-relay systems employing tropospheric-scatter propagation. Limitation of interference. (Q. 148)	Rec. 302	IX
485	Drafting Committee	Frequency stability of receivers. Stability of IF amplifiers with electro-mechanical filters, semiconductor capacitors and ferromagnetic tuning. (Doc. 245)	Rep. 101	II
486	Drafting Committee	Definition of bandwidth occupied by an emission. (S.P. 82)	Rec. 231	I
487	Drafting Committee	Spectra and bandwidths of emission. (Q. 1)	Rec. 230	I
488	Drafting Committee	Study of relationships between peak power and mean power. (Q. 22)	Rec. 228	I
489	Drafting Committee	Definitions of terms relating to propagation in the troposphere.	Rec. 310	V
490	Drafting Committee	Choice of intermediate frequency and protection against undesired response of maritime mobile superheterodyne receivers.	Q. 171	II
491	Drafting Committee	Determination of the electrical characteristics of the surface of the earth. (Q. 135)	Rep. 139	IV
492	Drafting Committee	Influence of frequency changes due to passage through the ionosphere on long-distance high-frequency communications. (Q. 139)	Rep. 111	III

No.	Submitted by	Title	Subject	Study Group No.
493	Study Group No. III	Frequency stability required for single-sideband, independent-sideband and telegraph systems, to make the use of automatic frequency control superfluous.	Draft Q.	III
494	Drafting Committee	Noise and sensitivity of receivers.	Rec. 234	II
495	Study Group No. III	The use of automatic error correction of telegraph signals transmitted over radio circuits.	Draft Rep.	III
496	Sub-Group X-A	International exchange of television programmes. Film recording. (Q. 100)	Draft Rec.	X
497	Study Group No. XI	Phase correction of television transmitters due to the use of vestigial-sideband transmission.	Draft Rec.	XI
498	Study Group No. X	Standards of sound recording for the international exchange of programmes.	Draft Rec.	X
499	Study Group No. XI	Television standards for bands IV and V. (Q. 118)	Draft Rep.	XI
500	C.C.I.R. Secretariat	List of documents issued. (Docs. Nos. 451-500).	—	—
501	Study Group No. X	Standards of sound recording for the international exchange of programmes.	Draft Rec.	X
502	Organization Committee	Summary records of the 2nd meeting (15 April 1959).	—	—
503	Drafting Committee	Tropospheric wave propagation. (S.P. 90)	Rep. 146	V
504	Study Group No. II	Usable sensitivity of radio receivers in the presence of quasi-impulsive interference.	Draft Q.	II
505	Study Group No. II	Sensitivity, selectivity and stability of vision broadcasting receivers.	Draft Rec.	II
506	Study Group No. II	Sensitivity, selectivity and stability of amplitude modulation and frequency-modulation sound-broadcast receivers.	Draft Rec.	II
507	Study Group No. II	Usable sensitivity of radio receivers in the presence of quasi-impulsive interference. (Q. 125)	Draft Rep.	II
508	Study Group No. XII	Best method for calculating the field strength produced by a tropical broadcasting transmitter. (Q. 154)	Draft Rep.	XII
509	Study Group No. XII	Determination of noise level for tropical broadcasting. (Q. 155)	Draft Rep.	XII
510	Study Group No. XII	Fading allowances for tropical broadcast transmitters. (Q. 157)	Draft Rep.	XII

No.	Submitted by	Title	Subject	Study Group No.
511	Study Group No. IX	Radio-relay systems using frequency-division multiplex. Radio-frequency channel arrangement for 60- and 120-channel telephony systems operating in the 2000 Mc/s band. (Q. 93 and S.P. 104)	Draft Rec.	IX
512	Study Group No. IX	Radio-relay systems for television. Interconnection at video signal frequencies. (Q. 146)	Draft Rec.	IX
513	Study Group No. IX	Radio-relay systems for television and telephony. Simultaneous transmission by the same radio-frequency carrier. Baseband arrangements. (Q. 146)	Draft Rec.	IX
514	Study Group No. IX	Radio-relay systems for television and telephony. Preferred characteristics for the transmission of more than one sound channel. (Q.146)	Draft S.P.	IX
515	Study Group No. IX	Radio-relay systems using tropospheric scatter propagation. Radio-frequency channel arrangements. (S.P. 122 and Q. 148)	Draft Rec.	IX
516	Study Group No. IX	Radio-relay systems for television, maintenance procedures.	Draft Res.	IX
517	Drafting Committee	Telegraphic distortion, quality index, error rate, efficiency factor.	S.P. 132	I
518	Drafting Committee	Arrangement of channels in multi-channel radio-telephone transmitters for long range circuits operating on frequencies below about 30 Mc/s. (Q. 46)	Rec. 249	I
519	Drafting Committee	Signal-to-interference protection ratios. (Q. 3 and S.P. 45)	Rec. 240	III
520	Drafting Committee	Standardized radiotelephone speech test recordings for the fixed service.	Q. 179	III
521	Drafting Committee	Voice-frequency (carrier) telegraphy on radio circuits. (Q. 43)	S.P. 129	III
522	Drafting Committee	Improvement obtainable from the use of directional antennae.	S.P. 130	III
523	Drafting Committee	Directivity of antennae for fixed services using ionospheric scatter propagation.	S.P. 131	III
524	Drafting Committee	Use of intermittent communication in radio-telegraphy.	Q. 180	III
525	Drafting Committee	Influence on long-distance high-frequency communication using frequency-shift keying of frequency deviations associated with passage through the ionosphere.	Q. 181	III

No.	Submitted by	Title	Subject	Study Group No.
526	Drafting Committee	Tropospheric wave propagation curves.	Rec. 312	V
527	Drafting Committee	Tropospheric wave propagation.	S.P. 138	V
528	Drafting Committee	Propagation at VHF and UHF over distances up to 200 kilometres.	Draft Res.	V
529	Drafting Committee	Propagation at VHF and UHF over distances up to 200 kilometres.	Draft S.P.	V
530	Drafting Committee	Influence of the troposphere on frequencies used for telecommunication with and between space vehicles.	Res. 140	V
531	Drafting Committee	Selection of frequencies used in telecommunication with and between artificial earth satellites and other space vehicles. (Q. 168 (V) and 169 (VI))	Rec. 259	V, VI
532	Drafting Committee	Exchange of information for the preparation of short-term forecasts and the transmission of ionospheric disturbance warnings.	Rec. 313	VI
533	Drafting Committee	Basic prediction information for ionospheric propagation.	Rec. 316	VI
534	Drafting Committee	Systematic sky-wave field strength measurements on frequencies between the approximate limits of 1.5 and 40 Mc/s.	Rec. 317	VI
535	Drafting Committee	The study of sky-wave field strengths on frequencies between the approximate limits of 1.5 and 40 Mc/s.	Rec. 48	VI
536	Drafting Committee	Organization of work on the choice and evaluation of ionospheric indices. (S.P. 92)	Rec. 50	VI
537	Drafting Committee	Radio propagation at frequencies below 1500 kc/s.	Res. 43	VI
538	Drafting Committee	Effects of the ionosphere on radio waves used for telecommunication with and between space-vehicles beyond the lower atmosphere.	Res. 47	VI
539	Drafting Committee	Identification of precursors indicative of short-term variations of ionospheric propagation conditions. (S.P. 93)	Res. 45	VI
540	Drafting Committee	Choice of a basic index for ionospheric propagation. (S.P. 92)	Res. 44	VI
541	Drafting Committee	Basic prediction information for ionospheric propagation.	S.P. 149	VI

No.	Submitted by	Title	Subject	Study Group No.
542	Drafting Committee	Choice of a basic index for ionospheric propagation.	S.P. 150	VI
543	Drafting Committee	Pulse-transmission tests at oblique incidence.	S.P. 151	VI
544	Drafting Committee	Back scattering.	S.P. 152	VI
545	Drafting Committee	Sky-wave absorption on frequencies between the approximate limits of 1.5 and 40 Mc/s.	S.P. 145	VI
546	Drafting Committee	Measurement of man-made radio noise.	S.P. 153	VI
547	Drafting Committee	Avoidance of external interference with transmissions of the standard-frequency service in the bands allocated to that service. (Q. 140)	Rec. 321	VII
548	Drafting Committee	Standard-frequency transmissions and time signals in additional frequency bands. (Q. 142)	Rec. 320	VII
549	Drafting Committee	Identification of radio stations. (Q. 104 rev.)	Rec. 323	VIII
550	C.C.I.R. Secretariat	List of documents issued. (Docs. Nos. 501-550)	—	—
551	Drafting Committee	Radio-relay systems for telephony and television. Use of special radio frequency arrangements. (Q. 93 and 146)	Rec. 282	IX
552	Drafting Committee	Radio-relay systems for telephony using frequency division multiplex. Radio-frequency interconnection of 300-channel systems operating in the 2000 and 4000 Mc/s bands. (Q. 93)	Rec. 279	IX
553	Drafting Committee	Radio-relay systems for television and telephony. Preferred radio frequency arrangements for television. (Q. 93 and 146)	Rec. 281	IX
554	Drafting Committee	Radio-relay systems for telephony using time-division multiplex. Hypothetical reference circuit for radio-relay systems with capacity of 60 telephone channels or less. (Q. 97)	Rec. 300	IX
555	Drafting Committee	Selective calling devices for use in the international VHF (metric) maritime mobile radio-telephone service. (Q. 160)	Rec. 257	XIII
556	Drafting Committee	Selective calling devices for use in the international VHF (metric) maritime mobile radio-telephone service. (Q. 160)	Draft S.P.	XIII
557	Drafting Committee	Interference due to intermodulation products in the VHF (metric) mobile maritime radiotelephone service. (Q. 164)	Rec. 256	XIII

No.	Submitted by	Title	Subject	Study Group No.
558	Drafting Committee	Marine identification devices. (Q. 158)	Rec. 61	XIII
559	Drafting Committee	Bearing and position classification for direction-finding. (Q. 159)	Rec. 253	XIII
560	Drafting Committee	Direction finding by ships in the 2 Mc/s band.	Q. 206	XIII
561	Study Group No. VIII	Measurements at mobile monitoring stations. (Q. 144)	Draft Rep.	VIII
562	Study Group No. VIII	Field strength measurements at monitoring stations. (S.P. 102)	Draft Rep.	VIII
563	Study Group No. XIV	Means of expression. Terms, definitions, graphical and letter symbols and their conventional usage. (Rec. 26, 34 and 144 of the C.C.I.R. and Res. 66, 67, 175 and 283 of the Administrative Council of the I.T.U.).	Draft Res.	XIV
564	Study Group No. XIV	Summary record of the 3rd meeting (17 April 1959).	—	XIV
565	Study Group No. VIII	Summary record of the 3rd meeting (15 April 1959).	—	VIII
566	Study Group No. IX	Amendments to existing Recommendations, Reports, Study Programmes, Questions, Resolutions.	—	IX
567	Study Group No. VIII	Summary record of the 4th meeting (20 April 1959).	—	VIII
568	Study Group No. X	Stereophonic broadcasting.	Draft Q.	X
569	Study Group No. III	Amendment to the Annex to Rec. 162.	Rec. 162	III
570	Drafting Committee	Classification of multi-channel radio-telegraph systems for long-range circuits operating on frequencies below about 30 Mc/s. and designation of the channels in these systems.	Rec. 248	I
571	Drafting Committee	Spurious emissions. (Q. 1, §A (b))	S.P. 124	I
572	Drafting Committee	Telegraphic distortion. (Q. 18)	Rec. 245	I
573	Drafting Committee	Meaning of MUF.	Rec. 318	VI
574	Drafting Committee	Study of fading. (S.P. 66)	Res. 49	VI
575	Drafting Committee	Standard-frequency transmissions and time signals.	S.P. 155	VII
576	Drafting Committee	Frequency spectrum conservation for high precision time signals. (Q. 141)	S.P. 156	VII
577	Drafting Committee	Identification of radio stations.	Q. 187	VIII

No.	Submitted by	Title	Subject	Study Group No.
578	Drafting Committee	Identification of radio stations. (Q. 104)	Rep. 111	VIII
579	Drafting Committee	Radio-relay systems for television. Simultaneous transmission of a monochrome television signal and a single sound channel. Preferred characteristics of the sound channel. (Q. 146)	Rec. 272	IX
580	Drafting Committee	Selective calling devices for use in the international VHF (metric) maritime mobile radio-telephone service. (Q. 160)	S.P. 168	XIII
581	Drafting Committee	Single sideband aeronautical and maritime mobile radio-telephone equipments. (Q. 162)	Rec. 258	XIII
582	Drafting Committee	Signals MAYDAY and PAN.	Rec. 250	XIII
583	Drafting Committee	Spurious emissions from frequency-modulated VHF (Metric) maritime mobile equipment. (Q. 161)	Rec. 255	XIII
584	Drafting Committee	Frequency stabilization of transmitters. (Q. 1 § A (c))	Rec. 253	I
585	Organization Committee	Summary record of the 3rd meeting (20 April 1959).	—	—
586	Organization Committee	Summary record of the 4th meeting (21 April 1959).	—	—
587	Study Group No. XII	Summary record of the 5th meeting (16 April 1959).	—	XII
588	Finance Committee	Summary record of the 3rd meeting (17 April 1959).	—	—
589	Study Group No. XIV	Decimal classification. Supplements to Reports Nos. 37 and 95. (Q. 72)	Draft Rep.	XIV
590	Drafting Committee	Spectra and bandwidths of emissions. (Q. 1 § A (a) and Recs. 145 and 146)	S.P. 126	I
591	Drafting Committee	Facsimile transmission of meteorological charts over radio circuits. (Q. 94 and 130)	Rec. 243	III
592	Drafting Committee	Radio-relay systems for television and telephony. Radio-frequency interconnection of systems for 600 to 1800 telephone channels, or the equivalent, operating in the 6000 Mc/s band. (Q. 93)	Rec. 280	IX
593	Drafting Committee	Radio-relay systems for television and telephony. Intermediate frequency characteristics. (Q. 93)	Rec. 273	IX

No.	Submitted by	Title	Subject	Study Group No.
594	Drafting Committee	Radio-relay systems for television and telephony. Preferred characteristics of auxiliary radio-relay systems operating in the 2000, 4000 or 6000 Mc/s bands. (Q. 147)	Rec. 296	IX
595	Drafting Committee	Radio-relay systems for telephony using frequency division multiplex. Radio-frequency channel arrangement for 60- and 120-channel telephony systems operating in the 7000 Mc/s band. (Q. 93 and S.P. 120)	Rec. 284	IX
596	Drafting Committee	Radio-relay systems for television and telephony. Systems of capacity greater than 1800 telephone channels or the equivalent. (Q. 93)	S.P. 157	IX
597	Drafting Committee	Radio-relay systems for television and telephony. Preferred characteristics for auxiliary radio-relay systems for the provision of service channels. (Q. 147)	S.P. 160	IX
598	Drafting Committee	Radio-relay systems for monochrome television. Permissible noise in the hypothetical reference circuit. (Q. 97 and 146)	Rec. 289	IX
599	Drafting Committee	Radio-relay systems for telephony using frequency division multiplex. Methods for the computation of the intermodulation noise due to non-linearity. (Q. 115)	Res. 57	IX
600	C.C.I.R. Secretariat	List of documents issued. (Docs. Nos. 551-600)	—	—
601	Drafting Committee	Radio-relay systems for telephony and television. Frequencies and deviations of continuity pilots. (Q. 96)	Rec. 292	IX
602	Drafting Committee	Radio-relay systems for telephony using frequency division multiplex. Maintenance measurements in actual traffic. (Q. 96)	Rec. 293	IX
603	Drafting Committee	Radio-relay systems for telephony using frequency division multiplex. Measurements of the performance with the help of a signal consisting of a continuous uniform spectrum. (S.P. 28 and Q. 96)	Rec. 294	IX
604	Drafting Committee	Modifications to Study Programme No. 118. Ratio of the wanted to the unwanted signal in television.	S.P. 166	XI
605	Drafting Committee	Ratio of the wanted to the unwanted signal in monochrome television. (Q. 119)	Rep. 125	XI
606	Drafting Committee	Interference in the bands shared with broadcasting. (Rec. 216 and Q. 102)	S.P. 167	XII
607	Drafting Committee	The use of radio circuits in association with 5-unit start-stop telegraph apparatus. (Q. 129)	Rec. 242	III

No.	Submitted by	Title	Subject	Study Group No.
608	Drafting Committee	Standardization of phototelegraph systems for use on combined radio and metallic circuits.	Rec. 244	III
609	Drafting Committee	Factors affecting quality of performance of complete systems of the fixed services. Signal-to-noise- and signal-to-interference protection ratios for fading signals, bandwidths and adjacent channel spacing. (Q. 3)	S.P. 128	III
610	Drafting Committee	Frequency stability required for single-sideband, independent-sideband and telegraph systems to make the use of automatic frequency control superfluous.	Q. 182	III
611	Drafting Committee	Propagation by way of the sporadic-E region and other anomalous ionization in the E and F regions of the ionosphere.	S.P. 143	VI
612	Drafting Committee	Standard-frequency and time signals transmissions in band 4. (Q. 142)	Res. 53	VII
613	Drafting Committee	Radio-relay systems for television and telephony. Preferred frequency bands and centre frequencies for radio-relay links for international connections.	Res. 55	IX
614	Drafting Committee	Radio-relay systems for telephony C.C.I.T.T./C.C.I.R. Joint Working Group on circuit noise. (Q. 47 and 148)	Res. 56	IX
615	Drafting Committee	Nomenclature of the frequency and wavelength bands used in radiocommunications. (Q. 73)	Rec. 324	XIV
616	Drafting Committee	Means of expression. Terms, definitions, graphical and letter symbols and their conventional usage.	Res. 62	XIV
617	Drafting Committee	Bandwidth of telegraphic emissions A1 and F1, evaluation of interference produced by these emissions. (S.P. 82)	Rep. 97	I
618	Drafting Committee	The concept of transmission loss in radio systems studies. (Q. 81 and S.P. 85)	Rec. 241	III
619	Drafting Committee	Radio-relay systems for telephony using frequency-division multiplex. Pre-emphasis characteristic for frequency modulation systems. (Q. 93)	Rec. 275	IX
620	Drafting Committee	Radio-relay systems for television. Interconnection at video signal frequencies. (Q. 146)	Rec. 270	IX
621	Drafting Committee	Radio-relay systems for television and telephony. Simultaneous transmission by the same radio frequency carrier. Baseband arrangements. (Q. 146)	Rec. 271	IX

No.	Submitted by	Title	Subject	Study Group No.
622	Drafting Committee	Radio-relay systems for television and telephony. Preferred characteristics for the transmission of more than one sound channel. (Q.146)	S.P. 159	IX
623	Drafting Committee	Radio-relay systems for television. Maintenance procedures.	Res. 54	IX
624	Drafting Committee	Radio-relay systems for television. Pre-emphasis characteristics for frequency modulation systems. (Q. 146)	Rec. 277	IX
625	Drafting Committee	Radio-relay systems for television. Frequency deviation and the sense of modulation. (Q. 146)	Rec. 276	IX
626	Drafting Committee	Phase correction of television transmitters necessiated by the use of vestigial-sideband transmission.	Rec. 266	XI
627	Drafting Committee	On I.T.U. Technical Assistance.	Res. 63	Tech. Assist. Comm.
628	Drafting Committee	On I.T.U. Technical Assistance.	Res. 64	Tech. Assist. Comm.
629	C.C.I.R. Secretariat	Minutes of the 2nd Plenary Meeting (20 April 1959).	—	Plenary Assembly
630	Drafting Committee	Standards of sound recording for the international exchange of programmes. (Rec. 208)	Res. 58	X
631	Drafting Committee	Standards of sound recording for the international exchange of programmes.	S.P. 161	X
632	Drafting Committee	Standards of sound recording for the international exchange of programmes. Single track recording on magnetic tape.	Rec. 261	X
633	Drafting Committee	High frequency broadcasting. Justification for use of more than one frequency per programme. (Q. 37)	Rep. 118	X
634	Drafting Committee	Measurement of wow and flutter in equipment for sound recording and reproduction. (S.P. 74)	Rep. 116	X
635	Drafting Committee	High frequency broadcasting reception. (Q. 39)	Rep. 119	X
636	Drafting Committee	Standards of sound recording for the international exchange of programmes.	Res. 59	X
637	Drafting Committee	Recording standards for the international exchange of television programmes. Film recording. (Q. 100)	Rec. 264	X
638	Drafting Committee	HF broadcasting. Effects of different spacings between carrier frequencies.	Q. 203	X

No.	Submitted by	Title	Subject	Study Group No.
639	Drafting Committee	Measurement of programme level in sound broadcasting. (Q. 151)	Rep. 117	X
640	Drafting Committee	Sound recording for the international exchange of programmes. (Q. 42 and 63)	Rec. 260	X
641	Drafting Committee	Radio-relay systems for telephony using time-division multiplex. Allowable noise power in the hypothetical reference circuit. (Q. 97, S.P. 105)	Rec. 301	IX
642	Drafting Committee	Radio-relay systems for telephony using frequency-division multiplex. Radio-frequency channel arrangement for 60- and 120-channel telephony systems operating in the 2000 Mc/s band. (Q. 93, S.P. 104)	Rec. 283	IX
643	Drafting Committee	Radio-relay systems for telephony and television. Radio-frequency interconnection of systems for 600 to 1800 telephone channels, or the equivalent, operating in the 2000 and 4000 Mc/s band. (Q. 93)	Rec. 278	IX
644	Drafting Committee	Radio-relay systems for telephony using frequency-division multiplex. Allowable noise power in the hypothetical reference circuit. (Q. 97 and S.P. 105)	Rec. 287	IX
645	Drafting Committee	Technical characteristics of frequency-modulated VHF (metric) maritime equipments. (Q.107 and 164)	Rec. 254	XIII
646	Drafting Committee	Four-frequency duplex systems. (Q. 20)	Rec. 247	I
647	Drafting Committee	Spectrum measurement by monitoring stations. (S.P. 103)	Rep. 172	VIII
648	Drafting Committee	The use of automatic error correction of telegraph signals transmitted over radio circuits.	Rep. 108	III
649	Drafting Committee	Tropospheric wave propagation curves for distances well beyond the horizon. (S.P. 55)	Rep. 145	V
650	C.C.I.R. Secretariat	List of documents issued. (Docs. Nos. 601-650)	—	—
651	Drafting Committee	Spurious emissions. (Q. 1, § A (b))	Rec. 232	I
652	Drafting Committee	Frequency-shift keying. (Q. 20)	Rec. 246	I
653	Drafting Committee	Stereophonic broadcasting. Standards for compatible systems in sound and television broadcasting. (Doc. 568)	S.P. 163	X

No.	Submitted by	Title	Subject	Study Group No.
654	Drafting Committee	Compatible single sideband (CSSB) transmission for amplitude modulation sound broadcast services.	Q. 205	X
655	Drafting Committee	Compatible single sideband (CSSB) transmissions for amplitude modulation sound broadcast services. (Doc. 654)	S.P. 165	X
656	Drafting Committee	Long- and medium-wave sound broadcasting. Bandwidth of emissions.	Q. 201	X
657	Drafting Committee	HF Broadcasting. Effects of closer spacing between carriers. (Q. 149)	Rec. 262	X
658	Drafting Committee	Standards for frequency-modulation sound broadcasting in the VHF (metric) band. (Q.150)	Rec. 263	X
659	Drafting Committee	Addition to Appendix 9 of the Radio Regulations.	Rec. 251	XIII
660	Drafting Committee	Transmission loss in radio systems studies. (Q. 81, S.P. 85)	Rep. 112	III
661	Drafting Committee	Possibilities of reducing interference and of measuring actual traffic spectra. (Q. 1 and 133)	Rep. 96	I
662	Drafting Committee	Factors affecting the selection of frequencies for telecommunication with and between space vehicles. (Q. 168 and 169)	Rep. 115	V, VI
663	Drafting Committee	Sensitivity, selectivity and stability of television receivers.	Rec. 238	II
664	Drafting Committee	Sensitivity, selectivity and stability of amplitude-modulation and frequency-modulation sound-broadcast receivers.	Rec. 237	II
665	Drafting Committee	Radio-relay systems using tropospheric or ionospheric forward-scatter. Reply to Question No. 11 of the 3rd Study Group of the C.C.I.T.T.	Rep. 135	IX
666	Drafting Committee	Long distance propagation of waves of 30 to 300 Mc/s by way of ionization in the E and F regions of the ionosphere. (Q. 7, § 3)	Rep. 149	VI
667	Drafting Committee	Radio propagation at frequencies below 1500 kc/s. (Doc. 235)	Rep. 154	VI
668	Drafting Committee	Measurement of field strength, power flux-density (field intensity), radiated power, available power from the receiving antenna and the transmission loss.	Rep. 138	V
669	Drafting Committee	Usable sensitivity of radio receivers in the presence of quasi-impulsive interference.	Q. 175	II

No.	Submitted by	Title	Subject	Study Group No.
670	Drafting Committee	Monitoring at fixed monitoring stations of radio transmissions from space vehicles.	Q. 188	VIII
671	Drafting Committee	Measurement of S-values at monitoring stations.	Q. 189	VIII
672	Drafting Committee	Identification of sources of interference to radio reception.	Q. 190	VIII
673	Drafting Committee	Accuracy of frequency measurements at monitoring stations.	Rec. 322	VIII
674	Drafting Committee	Visual monitoring of the radio-frequency spectrum.	Q. 191	VIII
675	Drafting Committee	Automatic monitoring of occupancy of the radio frequency spectrum. (Q. 143)	Rep. 167	VIII
676	Drafting Committee	Determination of noise level in tropical broadcasting. (Q. 155)	Rep. 120	XII
677	Drafting Committee	Fading allowances for tropical broadcast transmitters. (Q. 157)	Rep. 121	XII
678	Drafting Committee	Spurious emissions from frequency-modulated VHF (metric) maritime mobile equipment. (Q. 161)	Rep. 113	XIII
679	Organization Committee	Report by the Chairman to the Plenary Assembly.	—	—
680	Drafting Committee	Stereophonic broadcasting.	Q. 199	X
681	Organization Committee	Summary record of the 5th meeting (23 April 1959).	—	—
682	Drafting Committee	Interference in the bands shared with broadcasting. (Q. 102 and S.P. 113)	Rep. 127	XII
683	Drafting Committee	Frequency measurements at monitoring stations. (Q. 145)	Rep. 169	VIII
684	Drafting Committee	Study of sky-wave propagation on frequencies between the approximate limits of 1.5 and 40 Mc/s for the estimation of field strength. (Doc. 381)	Rep. 155	VI
685	Drafting Committee	Study of methods for estimating sky-wave field strength on frequencies between the approximate limits of 1.5 and 40 Mc/s. (Rec. 177)	Rep. 152	VI
686	Drafting Committee	Bandwidths and signal-to-noise ratios in complete systems. The prediction of telegraph system performance in terms of bandwidth and signal-to-noise ratios. (S.P. 45)	Rep. 105	III

No.	Submitted by	Title	Subject	Study Group No.
687	Drafting Committee	Best method for calculating the field strength produced by a tropical broadcasting transmitter. (Q. 154)	Rep. 128	XII
688	Drafting Committee	Tropospheric wave propagation. Climatic charts of refractive index parameter ΔN . (S.P. 90)	Rep. 147	V
689	C.C.I.R. Secretariat	Minutes of the 3rd Plenary Meeting (22 April 1959).	—	Plenary Assembly
690	C.C.I.R. Secretariat	Minutes of the 4th Plenary Meeting (23 April 1959).	—	Plenary Assembly
691	C.C.I.R. Secretariat	Minutes of the 5th Plenary Meeting (24 April 1959).	—	Plenary Assembly
692	Technical Assistance Committee	Summary record of the 2nd meeting (21 April 1959).	—	Tech. Assist. Comm.
693	Drafting Committee	Radio-relay systems using tropospheric scatter propagation. Radio-frequency channel arrangements. (S.P. 122 and Q. 148)	Rec. 303	IX
694	Drafting Committee	Medium-wave broadcasting. Quality of reception in the secondary service area.	Q. 202	X
695	Drafting Committee	Medium-wave broadcasting. Quality of reception in the secondary service area.	S.P. 164	X
696	Drafting Committee	Simultaneous transmission of two sound channels in television.	Q. 198	X
697	Drafting Committee	High frequency broadcasting. The effect of propagation path length and direction on protection ratios.	Q. 204	X
698	Drafting Committee	Measurement of noise in the audio channels of broadcasting systems and in sound recording systems. (Rep. 33)	S.P. 162	X
699	Drafting Committee	Stereophonic recording for broadcasting.	Q. 200	X
700	C.C.I.R. Secretariat	List of documents issued. (Docs. Nos. 651-700)	—	—
701	Drafting Committee	Standard-frequency and time signals transmissions. (Q. 140)	Rep. 166	VII
702	Drafting Committee	International exchange of television programmes. Film recording. (Q. 100)	Rec. 265	X
703	Drafting Committee	Organization of C.C.I.R. work.	Res. 67	—

No.	Submitted by	Title	Subject	Study Group No.
704	Drafting Committee	Technical apparatus.	Res. 66	—
705	Drafting Committee	Ionospheric sounding stations after the I.G.Y. (Res. 26)	Rep. 151	VI
706	Drafting Committee	Sky-wave absorption on frequencies between the approximate limits of 1.5 and 40 Mc/s. (Doc. 545)	Rep. 156	VI
707	Drafting Committee	Choice of a basic index for ionospheric propagation. (Doc. 542)	Rep. 162	VI
708	Drafting Committee	Pulse-transmission tests at oblique incidence. (Doc. 543)	Rep. 163	VI
709	Drafting Committee	Basic prediction information for ionospheric propagation. (Doc. 541)	Rep. 161	VI
710	Drafting Committee	Directivity of antennae at great distances. (Rec. 102)	Rep. 107	VI
711	Drafting Committee	Regular long-distance transmission in the VHF (metric) band by means of scattering from inhomogeneities in the lower ionosphere. (S.P. 95)	Rep. 158	VI
712	Drafting Committee	Availability and exchange of basic data and reliability of radio propagation forecasts.	Rep. 160	VI
713	Drafting Committee	Identification of precursors indicative of short-term variations of ionospheric propagation conditions. (S.P. 93)	Rep. 153	VI
714	Drafting Committee	Measurement of field strength for VHF (metric) and UHF (decimetric) broadcast services, including television. (Q. 138)	Rep. 142	V
715	Drafting Committee	Ground-wave propagation over irregular terrain. (S.P. 86)	Rep. 140	IV
716	Drafting Committee	Radio systems employing ionospheric scatter propagation. (Q. 132)	Rep. 109	III
717	Drafting Committee	Improvement obtainable from the use of directional antennae. (Q. 81, S.P. 85 and Rec. 162)	Rep. 106	III
718	Drafting Committee	The relation between permissible delay and residual uncertainty and its dependence on bandwidth utilization. (Q. 133)	Rep. 110	III
719	Drafting Committee	Television standards for bands IV and V. (Q. 118)	Rep. 123	XI
720	Drafting Committee	Long distance ionospheric propagation without intermediate ground reflections.	Rep. 164	VI
721	Drafting Committee	Recommended methods for measuring amplitude-modulation suppression in frequency-modulation receivers.	Rep. 103	II

No.	Submitted by	Title	Subject	Study Group No.
722	Drafting Committee	Assessment of the quality of television pictures. (Q. 152)	Rep. 126	XI
723	Drafting Committee	Usable sensitivity of radio receivers in the presence of quasi-impulsive interference. (Q. 125)	Rep. 99	II
724	Drafting Committee	Field strength measurements at monitoring stations. (S.P. 102)	Rep. 170	VIII
725	Drafting Committee	Selectivity of receivers.	Rec. 235	II
726	Drafting Committee	Radio-relay systems for telephony using frequency division multiplex. Design objectives for voice-frequency (VF) telegraphy on telephone channels.	Rep. 132	IX
727	Drafting Committee	Radio-relay systems using tropospheric scatter propagation. Radio-frequency channel arrangements for systems using frequency modulation. (S.P. 122, Q. 148)	Rep. 136	IX
728	Drafting Committee	Radio-relay systems for telephony. Noise tolerable during very short periods of time on line-of-sight systems. (S.P. 105)	Rep. 130	IX
729	Drafting Committee	Measurements at mobile monitoring stations (Q. 144)	Rep. 168	VIII
730	Drafting Committee	Fading of signals propagated by the ionosphere. (Doc. 383)	Rep. 159	VI
731	C.C.I.R. Secretariat	Minutes of the 6th Plenary Meeting (24 April 1959).	—	Plenary Assembly
732	C.C.I.R. Secretariat	Minutes of the 7th Plenary Meeting (25 April 1959).	—	Plenary Assembly
733	C.C.I.R. Secretariat	Draft list of C.C.I.R. Study Group Chairmen and Vice-Chairmen.	—	—
734	C.C.I.R. Secretariat	List of Reports adopted by Study Groups and examined by the Drafting Committee but not published in their final form (pink document) during the Plenary Assembly of Los Angeles (decision of a special meeting of Heads of Delegations and Chairmen, held on 17 April, 1959)	—	—
735	Finance Committee	Chairman's Report to the IXth Plenary Assembly.	—	—
736	Drafting Committee	Tolerable receiver frequency instability.	Rep. 100	II
737	Drafting Committee	Characteristics of monochrome television systems.	Rep. 124	XI
738	Drafting Committee	Ex-gratia payment to the Geneva staff at the IXth Plenary Assembly of the C.C.I.R.	Res. 65	—

No.	Submitted by	Title	Subject	Study Group No.
739	C.C.I.R. Secretariat	Minutes of the 8th Plenary Meeting (27 April 1959).	—	Plenary Assembly
740	C.C.I.R. Secretariat	Minutes of the 9th Plenary Meeting (28 April 1959).	—	Plenary Assembly
741	C.C.I.R. Secretariat	Minutes of the 10th Plenary Meeting (28 April 1959).	—	Plenary Assembly
742	Study Group No. XI	Report, present situation of colour television in the following countries: Belgium, U.S.A., France, Italy, Japan, Norway, Netherlands, P.R. of Poland, Federal Republic of Germany, Roumanian People's Republic, United Kingdom, Switzerland, Czechoslovakia, U.S.S.R.	—	XI
743	C.C.I.R. Secretariat	Minutes of the 11th Plenary Meeting (29 April 1959).	—	Plenary Assembly
744	C.C.I.R. Secretariat	Minutes of the 12th and last Plenary Meeting (29 April 1959).	—	Plenary Assembly
745	Study Group No. I	Summary record of the 3rd Meeting (14 April 1959).	—	I
746	Study Group No. I	Summary record of the 4th Meeting (17 April 1959).	—	I
747	Study Group No. I	Summary record of the 5th Meeting (22 April 1959).	—	I
748	Study Group No. II	Summary record of the 4th (and final) Meeting (16 April 1959).	—	II
749	Study Group No. III	Summary record of the 3rd Meeting (16 April 1959).	—	III
750	C.C.I.R. Secretariat	List of documents issued. (Nos. 700-750)	—	—
751	Study Group No. III	Summary record of the 4th meeting (21 April 1959).	—	III
752	Study Group No. V	Summary record of the 3rd meeting (16 April 1959).	—	V
753	Study Group No. VI	Summary record of the 4th meeting (14 April 1959).	—	VI
754	Study Group No. VI	Summary record of the 5th meeting (17 April 1959).	—	VI
755	Study Group No. VI	Summary record of the 6th meeting (20 April 1959).	—	VI
756	Study Group No. VII	Summary record of the 3rd meeting (15 April 1959).	—	VII
757	Study Group No. VII	Summary record of the 4th meeting (20 April 1959).	—	VII
758	Study Group No. VIII	Summary record of the 5th meeting (22 April 1959).	—	VIII

No.	Submitted by	Title	Subject	Study Group No.
759	Study Group No. IX	Summary record of the 5th meeting (17 April 1959).	—	IX
760	Study Group No. X	Summary record of the 4th meeting (22 April 1959).	—	X
761	Study Group No. X	Summary record of the 5th meeting (27 April 1959).	—	X
762	Study Group No. XI	Summary record of the 3rd meeting (13 April 1959).	—	XI
763	Study Group No. XI	Summary record of the 4th meeting (14 April 1959).	—	XI
764	Study Group No. XII	Summary record of the 6th meeting (23 April 1959).	—	XII
765	Study Group No. XIII	Summary record of the 4th meeting (15 April 1959).	—	XIII
766	Study Group No. XIII	Summary record of the 5th meeting (17 April 1959).	—	XIII
767	Study Group No. XIII	Summary record of the 6th meeting (20 April 1959).	—	XIII
768	Finance Committee	Summary record of the 4th meeting.	—	—
769	Finance Committee	Summary record of the 5th meeting (27 April 1959).	—	—
770	Study Group No. XIV	Summary record of the 4th meeting (24 April 1959).	—	XIV
771	Drafting Committee	Radio-relay systems for telephony using frequency-division multiplex. Methods for the computation of intermodulation noise due to non-linearity. (Q. 115)	Rep. 129	IX
772	Drafting Committee	Radio-relay systems for television and telephony. Alternative transmission of telephony and television. (Q. 146)	Rep. 133	IX
773	Drafting Committee	Radio-relay systems for telephony using frequency-division multiplex. Technical characteristics to be specified in order to interconnect any two systems. (Q. 93)	Rep. 131	IX
774 ^a	Drafting Committee	Possible amendments to the definitions in the Radio Regulations, Art. 1.	Rep. 173	XIV
775	Finance Committee	Report of the Chairman of the Working Group of the Finance Committee. Verification of accounts of the IXth Plenary Assembly, C.C.I.R.	—	—
776	C.C.I.R. Secretariat	List of addenda, corrigenda, revised documents and figures.	—	—
777	C.C.I.R. Secretariat	List of documents issued. (Nos. 751-777)	—	—

B. CLASSIFIED BY STUDY GROUPS

No.	Subject	Submitted by	Reference	Other Study Groups concerned
STUDY GROUP No. I				
1 ¹	Report by the Chairman of Study Group No. I. (Col. J. Lochard)	Chairman, Study Group No. I	—	—
19	Frequency stabilization of transmitters.	Federal Republic of Germany	S.P. 3	—
23	Arrangement of channels in multi-channel radiotelegraph systems for long-range circuits operating on frequencies below about 30 Mc/s.	United States of America	Q. 74 Rec. 153	—
46	Frequency stability of transmitters.	Japan	Doc. I/48 (Geneva, 1958)	—
47	Details of spurious radiation power measuring equipment.	Japan	Q. 1, S.P. 2 Doc. I/22 (Geneva, 1958)	—
52	Arrangement of channels in multi-channel radiotelephone transmitters for long-range circuits operating on frequencies below about 30 Mc/s.	Federal Republic of Germany	Rec. 149	—
59	Spurious radiation. Draft revision of Recommendation No. 147.	United States of America	Q. 1 Rec. 147	—
80	Frequency tolerance of transmitters.	United Kingdom	—	—
111	Frequency stability required for HF radio generators (including broadcasting).	U.S.S.R.	S.P. 3 Q. 124	II
117	Possibilities of reducing actual interference and measuring actual spectra. Proposals referring to Rep. 38 and Docs. Nos. I/39 and I/52 of the period 1956-1959.	U.S.S.R.	Rep. 38	II, III
118	Bandwidth occupied by the transmission of a random succession of signals.	U.S.S.R.	S.P. 82	—
119*	Levels for measuring the bandwidth occupied by an emission.	U.S.S.R.	S.P. 40	—
120	Bandwidth occupied by an A1 transmission of cos ² -rounded pulses.	U.S.S.R.	S.P. 82	—
135	Combined accurate frequency-apparatus and its basic characteristics.	U.S.S.R.	Q. 124 S.P. 3	II
163	Frequency stabilization of transmitters.	Sweden	Rec. 148 Q. 1.c. S.P. 3	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
171	Radiation on sub-harmonic frequencies.	People's Republic of Poland	S.P. 2	—
252	Definition of bandwidth occupied by an emission. (S.P. 82)	S.G. I	Draft. Rec.	—
253	Spectra and bandwidth of emissions. (Q. 1)	S.G. I	Draft. Rec.	—
259	Measurement of spectra and bandwidth of emissions.	S.G. I	Draft. Rec.	—
277	Possibilities of reducing interference and of measuring actual traffic spectra. (Q. 1 and 133)	S.G. I	Draft. Rep.	III
281	Frequency stabilization of transmitters. (Q. 1 § A (c))	S.G. I	Draft. S.P.	—
282	Measurement and limitation of unwanted radiations from industrial installations. (Q. 75)	S.G. I	Draft. Res.	—
285	Summary record of the 1st meeting (3 April 1959).	S.G. I	—	—
286	Bandwidth of telegraphic emissions A1 and F1. Evaluation of interference produced by these emissions. (S.P. 82)	S.G. I	Draft. Rep.	—
306	Telegraphic distortion. (Q. 18)	S.G. I	Draft Rec.	—
307	Spectra and bandwidths of emissions. (Q. 1 § A (a) and Recs. 145 and 146)	S.G. I	Draft S.P.	—
308	Telegraphic distortion, quality index, error rate, efficiency factor.	S.G. I	Draft S.P.	—
309	Arrangement of channels in multi-channel radio telephone transmitters for long range circuits operating on frequencies below about 30 Mc/s. (Q. 46)	S.G. I	Draft Rec.	—
310 ^s	Classification of multi-channel radio telegraph systems for long-range circuits operating on frequencies below about 30 Mc/s, and designation of the channels in these systems.	S.G. I	Draft Rec.	—
312	Summary record of the 2nd meeting (9 April 1959).	S.G. I	—	—
341	Frequency stabilization of transmitters. (Q. 1 § A (c))	S.G. I	Draft Rec.	—
354	Spurious emissions. (Q. 1 § A (b))	S.G. I	Draft S.P.	—
384	Measurement of spectra and bandwidth of emissions.	Drafting Committee	Rec. 229	—
406	Telegraphic distortion. (Q. 18)	S.G. I	Draft Rec.	—
428	Four-frequency duplex systems. (Q. 20)	S.G. I	Draft Rec.	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
429	Frequency-shift keying. (Q. 20)	S.G. I	Draft Rec.	—
441	Frequency stabilization of transmitters. Q. 1 § A (c)	Drafting Committee	S.P. 125	—
442	Measurement and limitation of unwanted radiations from industrial installations. (Q. 75)	Drafting Committee	Res. 39	—
449	Frequency-shift keying.	Drafting Committee	Q. 183	—
451	Four-frequency duplex systems. (Q. 20)	Drafting Committee	S.P. 134	III
452	Frequency-shift keying. (Q. 20)	Drafting Committee	S.P. 133	III
474	Spurious emissions. (Q. 1 § A (b))	S.G. I	Rec.	—
486	Definition of bandwidth occupied by an emission. (S.P. 82)	Drafting Committee	Rec. 231	—
487	Spectra and bandwidths of emissions. (Q. 1)	Drafting Committee	Rec. 230	—
488	Study of relationships between peak power and mean power. (Q. 22)	Drafting Committee	Rec. 288	—
517	Telegraphic distortion, quality index, error rate, efficiency factor.	S.G. I	S.P. 132	—
518	Arrangement of channels in multichannel radio-telephone transmitters for long-range circuits operating on frequencies below about 30 Mc/s. (Q. 46)	Drafting Committee	Rec. 249	—
570	Classification of multi-channel radiotelegraph systems for long-range circuits operating on frequencies below about 30 Mc/s, and designation of the channels in these systems.	Drafting Committee	Rec. 248	—
571	Spurious emissions. (Q. 1 § A (b))	Drafting Committee	S.P. 124	—
572	Telegraphic distortion. (Q. 18)	Drafting Committee	Rec. 245	—
584	Frequency stabilization of transmitters.	Drafting Committee	Rec. 233	—
590	Spectra and bandwidths of emissions. (Q. 1 § A (a) and Recs. 145, 146)	Drafting Committee	S.P. 126	—
617	Bandwidth of telegraphic emissions A1 and F1, evaluation of interference produced by these emissions.	Drafting Committee	Rep. 97	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
646	Four-frequency duplex systems. (Q. 20)	Drafting Committee	Rec. 247	—
651	Spurious emissions. (Q. 1, § A (b))	Drafting Committee	Rec. 232	—
652	Frequency-shift keying. (Q. 20)	Drafting Committee	Rec. 246	—
661	Possibilities of reducing interference and of measuring actual traffic spectra. (Q. 1 and 133)	Drafting Committee	Rep. 96	—
745	Summary record of the 3rd meeting (14 April 1959).	S.G. I	—	—
746	Summary record of the 4th meeting (17 April 1959).	S.G. I	—	—
747	Summary record of the 5th meeting (22 April 1959).	S.G. I	—	—
STUDY GROUP No. II				
2	Report by the Chairman of Study Group No. II. (Mr. P. David)	Chairman, Study Group No. II	—	—
30* ²	Response of frequency-shift radiotelegraph receivers to atmospheric noise. Interference effects of atmospheric noise on radio reception.	Japan	Q. 125 (II) Q. 82 (III) S.P. 149 (III)	III
31*	Methods of measuring effective selectivity of VHF/FM communication receivers.	Japan	Rec. 155	—
32	Representation of single signal selectivity characteristics.	Japan	Rec. 155 Doc. II/59 (Geneva, 1958)	—
89*	Selectivity of sound broadcast receivers.	India	Rec. 155	—
101*	Reduction of interference from the mains via the power pack of radio receivers.	U.S.S.R.	Q. 125 Rec. 159	—
102*	Expansion of Question No. 128.	U.S.S.R.	Q. 128	—
105*	Improvement of the selectivity and other quality characteristics of receivers in the long-wave band.	U.S.S.R.	Q. 78 Rec. 155	—
106*	VHF broadcast receivers. Possibility of reducing the IF bandwidth and increasing the selectivity.	U.S.S.R.	Q. 78 Rec. 155	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
107*	Spurious emissions from broadcast receivers in the VHF band: measurement and diminution.	U.S.S.R.	Q. 126	—
108*	Protection against interference due to combination frequencies in receivers.	U.S.S.R.	Q. 78	—
109*	Overall criterion of selectivity.	U.S.S.R.	Doc. II/59 (Geneva, 1958)	—
110*	Improvement in the selectivity of narrow-band filters, by compensation of internal losses.	U.S.S.R.	Q. 78 Q. 128 Rec. 155	—
111	Frequency stability required of HF radio generators (including broadcasting).	U.S.S.R.	S.P. 3 Q. 124	I
117	Possibilities of reducing actual interference and measuring actual traffic spectra. Proposals referring to Rep. 38 and Docs. Nos. I/39 and I/52 of the period 1956-1959.	U.S.S.R.	Rep. 38	I, III
121	Triode transistors used as capacitors in the design of oscillating circuits.	U.S.S.R.	Q. 124 Docs. II/39 and II/40 (Geneva, 1958)	—
122*4	Astatic system for automatic control of the frequency and phase of independent oscillators.	U.S.S.R.	Q. 124	—
123*	Band-filters for electric adjustment of bandwidth and their stability.	U.S.S.R.	Rec. 155 Q. 78 Q. 124	—
135	Combined accurate frequency apparatus and its basic characteristics.	U.S.S.R.	Q. 124 (II) S.P. 3 (I)	I
136	Application of the theory of potential interference stability to problems of short wave telegraphy.	U.S.S.R.	Q. 123	—
137*	Stability of electromechanical filters.	U.S.S.R.	Q. 124 Doc. II/40 (Geneva, 1958)	—
138*	Intermediate frequencies for monochrome television receivers.	U.S.S.R.	Rep. 41 (Rev.)	—
165 ²	Sensitivity in the presence of quasi-impulsive interference.	Record of Working Group II	Q. 125	—
166*	Usable sensitivity of radio receivers in the presence of quasi-impulsive interference.	France	Q. 125	—
199	Proposal for modifications of the conclusions of the interim meeting of C.C.I.R. Study Group No. II (Geneva, 1958).	United Kingdom	Texts of S.G. II	—
203	Phase pre-correction in television.	Italy	S.P. 110 (XI) Q. 128 (II)	XI

No.	Subject	Submitted by	Reference	Other Study Groups concerned
204	Presentation of results for "single signal" selectivity.	Italy	Doc. 2	—
205	Editorial remarks to Doc. 2 of Los Angeles.	Italy	Doc. 2	—
212*	Distortion in frequency-modulation VHF receivers due to multipath propagation.	P.R. of Poland	Q. 127 (Rev.)	—
236	Summary record of the 1st meeting (3 April 1959).	S.G. II	—	—
245	Assessment of receiver stability.	Sub-Group. II-C	Draft Q.	—
298	Frequency stability of receivers. Stability of IF amplifiers with electro-mechanical filters, semiconductor capacitors and ferromagnetic tuning. (Doc. 245)	Sub-Group. II-C	Draft Rep.	—
302	Selectivity of receivers.	S.G. II	Draft Q.	—
370	Summary record of the 2nd meeting (8 April 1959).	S.G. II	—	—
385	Spurious emissions from broadcast and television receivers. (Q. 80)	Drafting Committee	Rec. 239	—
408	Frequency stability of receivers.	Drafting Committee	Rec. 236	—
409	Choice of intermediate frequency and protection against undesired responses from super-heterodyne receivers.	Drafting Committee	Rep. 98	—
410	Methods of measuring phase/frequency and group-delay/frequency characteristics of receivers.	Drafting Committee	Rep. 104	—
411	Spurious emissions from receivers of special types. (Q. 126)	Drafting Committee	Rep. 102	—
414	Selectivity of receivers.	S.G. II	Draft Rec.	—
440	Protection against keyed interfering signals.	Drafting Committee	S.P. 127	—
454	Assessment of receiver stability.	Drafting Committee	Q. 174	—
457	Spurious emissions from receivers excluding sound-broadcast and television.	Drafting Committee	Rep. 176	—
459	Frequency stability of receivers.	Drafting Committee	Q. 173	—
460	Sensitivity and noise factor.	Drafting Committee	Q. 172	—
462	Summary record of the 3rd meeting (13 April 1959).	S.G. II	—	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
478	Selectivity of receivers.	Drafting Committee	Q. 178	—
479	Distortion in frequency-modulation receivers due to multipath propagation.	Drafting Committee	Q. 177	—
485	Frequency stability of receivers. Stability of IF amplifiers with electro-mechanical filters, semiconductor capacitors and ferromagnetic tuning. (Doc. 245)	Drafting Committee	Rep. 101	—
490	Choice of intermediate frequency and protection against undesired response of maritime mobile superheterodyne receivers.	Drafting Committee	Q. 171	—
494	Noise and sensitivity of receivers.	Drafting Committee	Rec. 234	—
504	Usable sensitivity of radio receivers in the presence of quasi-impulsive interference.	S.G. II	Draft Q.	—
505	Sensitivity, selectivity and stability of vision broadcasting receivers.	S.G. II	Draft Rec.	—
506	Sensitivity, selectivity and stability of amplitude-modulation and frequency-modulation sound-broadcast receivers.	S.G. II	Draft Rec.	—
507	Usable sensitivity of radio receivers in the presence of quasi-impulsive interference. (Q. 125)	S.G. II	Draft Rec.	—
663	Sensitivity, selectivity and stability of television receivers.	Drafting Committee	Rec. 238	—
664	Sensitivity, selectivity and stability of amplitude-modulation and frequency-modulation sound-broadcast receivers.	Drafting Committee	Rec. 237	—
669	Usable sensitivity of radio receivers in the presence of quasi-impulsive interference.	Drafting Committee	Q. 175	—
721	Recommended methods of measuring amplitude-modulation suppression in frequency-modulation receivers.	Drafting Committee	Rep. 103	—
723	Usable sensitivity of radio receivers in the presence of quasi-impulsive interference. (Q. 125)	Drafting Committee	Rep. 99	—
725	Selectivity of receivers.	Drafting Committee	Rec. 235	—
736	Tolerable receiver frequency instability.	Drafting Committee	Rep. 100	—
748	Summary record of the 4th meeting (16 April 1959).	S.G. II	—	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
STUDY GROUP No. III				
3	Report by the Chairman of Study Group No. III (Dr. H.C.A. van Duuren)	Chairman, Study Group No. III		—
20	Bandwidth and signal-to-noise ratios in complete systems.	Federal Republic of Germany	S.P. 45	—
24	Frequency stability required for single-sideband, independent-sideband and telegraph systems, to make the use of automatic frequency control superfluous.	Netherlands	Q. 167	—
30* ²	Response of frequency-shift radiotelegraph receivers to atmospheric noise. Interference effects of atmospheric noise on radio reception.	Japan	Q. 125 (II) Q. 82 (III) S.P. 49 (III)	II
60	Radio systems employing ionospheric scatter propagation.	United States of America	Q. 132	—
112	Assessment of the mean telegraph speed with FSK and intermittent communication.	U.S.S.R.	New Q.	—
113	Autocorrelation characteristics of received signal and interference levels and their influence on the stability of radiotelegraph circuits.	U.S.S.R.	New Q.	—
114	Conditions and advantages of the use of intermittency in radiotelegraphy.	U.S.S.R.	New Q.	—
115	Autocorrelation of signals received on the Washington-Moscow path.	U.S.S.R.	New Q.	—
116	Simulator of telegraph transmissions.	U.S.S.R.	Q. 3	—
117	Possibilities of reducing actual interference and measuring actual traffic spectra. Proposals referring to Rep. 38 and Docs. Nos. I/39 and I/52 of the period 1956-1959.	U.S.S.R.	Rep. 38	I, II
129*	Dependence of the number of errors on $(I_{s+n})_{med.}/(I_n)_{med.}$	U.S.S.R.	Q. 3 S.P. 45	—
133*	Phase-shift telegraphy in short wave communication.	U.S.S.R.	New Q.	—
134	Results obtained with phototelegraph transmission by frequency-modulation of the carrier.	U.S.S.R.	Q. 130	—
140	Method for calculating the frequency separation of short-wave radiotelegraph stations.	U.S.S.R.	S.P. 44	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
168	Note by the Secretariat.	C.C.I.R. Secretariat	Q. 11 of S.G. I of C.C.I.T.T.	—
192	Transmission loss in radio systems studies. (Q. 81 and S.P. 85)	U.S.A.	Draft Rec.	—
193	Transmission loss in radio systems studies.	U.S.A.	Draft. Rep. Q. 81 S.P. 85	—
241	Summary record of the 1st meeting (6 April 1959).	S.G. III	—	—
262	Influence on long-distance high-frequency communication using frequency-shift keying of frequency deviations associated with passage through the ionosphere.	S.G. III	Draft Q.	—
277	Possibilities of reducing interference and of measuring actual traffic spectra. (Q. 1 and 133)	S.G. I	Draft. Rep.	I
412	Corrections to Annex F (III) to Doc. 3. Bandwidths and signal-to-noise ratios in complete systems. The prediction of telegraph system performance in terms of bandwidth and signal-to-noise ratios.	S.G. III	S.P. 45	—
421	Bandwidths and signal-to-noise ratios in complete systems. (Q. 3)	S.G. III	Draft S.P.	—
451	Four-frequency duplex systems. (Q. 20)	Drafting Committee	S.P. 134	I
452	Frequency-shift keying. (Q. 20)	Drafting Committee	S.P. 133	I
464	Factors affecting quality of performance of complete systems of the fixed service. Signal-to-noise and signal-to-interference protection ratios for fading signals, bandwidth and adjacent channel spacing. (Q. 3)	S.G. III	Draft S.P.	—
465	Summary record of the 2nd meeting (13 April 1959).	S.G. III	—	—
492	Influence of frequency changes due to passage through the ionosphere on long-distance, high-frequency communications. (Q. 139)	Drafting Committee	Rep. 111	—
493	Frequency stability required for single-sideband, independent-sideband and telegraph systems to make the use of automatic frequency control superfluous.	S.G. III	Draft Q.	—
495	The use of automatic error correction of telegraph signals transmitted over radio circuits.	S.G. III	Draft Rep.	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
519	Signal-to-interference protection ratios. (Q. 3 and S.P. 45)	Drafting Committee	Rec. 240	—
520	Standardized radiotelephone speech test recordings for the fixed service.	Drafting Committee	Q. 179	—
521	Voice-frequency (carrier) telegraphy on radio circuits. (Q. 43)	Drafting Committee	S.P. 129	—
522	Improvement obtainable from the use of directional antennae.	Drafting Committee	S.P. 130	—
523	Directivity of antennae for the fixed services using ionospheric-scatter propagation.	Drafting Committee	S.P. 131	—
524	Use of intermittent communication in radiotelegraphy.	Drafting Committee	Q. 180	—
525	Influence on long-distance, high-frequency communication using frequency-shift keying of frequency deviations associated with passage through the ionosphere.	Drafting Committee	Q. 181	—
569	Amendment to the Annex to Rec. 162.	S.G. III	Rec. 162	—
591	Facsimile transmission of meteorological charts over radio circuits. (Q. 94 and 130)	Drafting Committee	Rec. 243	—
607	The use of radio circuits in association with 5-unit start-stop telegraph apparatus. (Q. 129)	Drafting Committee	Rec. 242	—
608	Standardization of phototelegraph systems for use on combined radio and metallic circuits.	Drafting Committee	Rec. 244	—
609	Factors affecting quality of performance of complete systems of the fixed service. Signal-to-noise and signal-to-interference protection ratios for fading signals, bandwidth and adjacent channel spacing. (Q. 3)	Drafting Committee	S.P. 128	—
610	Frequency stability required for single-sideband, independent-sideband and telegraph systems to make the use of automatic frequency control superfluous.	Drafting Committee	Q. 182	—
618	The concept of transmission loss in radio system studies. (Q. 81, S.P. 85)	Drafting Committee	Rec. 241	—
648	The use of automatic error-correction of telegraph signals transmitted over radio circuits.	Drafting Committee	Rep. 108	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
660	Transmission loss in radio systems studies. (Q. 81, S.P. 85)	Drafting Committee	Rep. 112	—
686	Bandwidths and signal-to-noise ratios in complete systems. The prediction of telegraph system performance in terms of bandwidth and signal-to-noise ratios. (S.P. 45)	Drafting Committee	Rep. 105	—
716	Radio systems employing ionospheric scatter propagation. (Q. 132)	Drafting Committee	Rep. 109	—
717	Improvement obtainable from the use of directional antennae. (Q. 81, S.P. 85, and Rec. 162)	Drafting Committee	Rep. 106	—
718	The relation between permissible delay and residual uncertainty, and its dependence on bandwidth utilization. (Q. 133)	Drafting Committee	Rep. 110	—
749	Summary record of the 3rd meeting (16 April 1959).	S.G. III	—	—
751	Summary record of the 4th meeting (21 April 1959).	S.G. III	—	—

STUDY GROUP No. IV

4	Report by the Chairman of Study Group No. IV. (Prof. L. Sacco)	Chairman, Study Group No. IV	—	—
18 ²	The need for a number of standard two-path ground field intensity decay and recovery curves.	New Zealand	S.P. 88	—
33	Theory of radio-wave propagation over inhomogeneous earth, including diffraction by hills or mountains.	Japan	S.P. 88 S.P. 89	—
130*	A new method for taking local measurements of the conductivity of the earth based on wave attenuation.	U.S.S.R.	Q. 135 (§ 1, 3 and 5)	—
132	Results of experimental study of UHF propagation over long distance paths across mountains.	U.S.S.R.	S.P. 79 (V) S.P. 89 (IV)	V
364	Joint meeting (10 April 1959).	S.G. IV and V	—	V
394	Summary record of the meeting of 13 April 1959.	S.G. IV	—	—
436	Ground-wave propagation over inhomogeneous earth. (Q. 134)	Drafting Committee	S.P. 135	—
443	Ground-wave propagation curves below 10 Mc/s. (Q. 134)	Drafting Committee	Rec. 307	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
444	Ground-wave propagation over inhomogeneous earth.	Drafting Committee	Rec. 308	—
445	Ground-wave propagation over inhomogeneous earth.	Drafting Committee	Rep. 141	—
468	Proposed modification to Rec. 168 (does not concern the English text).	Drafting Committee	Rec. 168	—
480	Ground-wave propagation.	Drafting Committee	Q. 184	—
491	Determination of the electrical characteristics of the surface of the earth. (Q. 135)	Drafting Committee	Rep. 139	—
715	Ground-wave propagation over irregular terrain. (S.P. 86)	Drafting Committee	Rep. 140	—

STUDY GROUP No. V

5 ²	Report by the Chairman of Study Group No. V. (Dr. R. L. Smith-Rose)	Chairman, Study Group No. V	—	—
21	Tropospheric propagation at VHF and UHF over distance ranges up to 200 kilometres.	E.B.U.	Draft S.P.	—
25 ²	Report.	Working Group on Radioclimatology	S.P. 90	—
34*	Height distribution of refractive indices.	Japan	S.P. 90 Doc. V/66 (Geneva, 1958)	—
35*	Propagation data required for wide-band radio systems.	Japan	Q. 136	—
45	Proposed revision of Rec. 111.	United Kingdom	Rec. 111	—
70	Tropospheric wave propagation.	Federal Republic of Germany	S.P. 90	—
75	Protection of frequencies used with artificial earth satellites or other space objects for communication, navigation and guidance.	United States of America	Draft Rec. (Q. 168 and 169)	VI
103*	Results of experimental study of the tropospheric propagation of super-high frequencies on paths close to Moscow.	U.S.S.R.	S.P. 55, 90, 91	—
104*	Results from the "coherent theory" of long-distance VHF tropospheric propagation.	U.S.S.R.	S.P. 55, 90, 91	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
131*	Results of the theory of tropospheric propagation over long distance based on the assumption of reflection from the discontinuities of the troposphere.	U.S.S.R.	S.P. 55, 90, 91	—
132*	Results of experimental study of UHF propagation over long-distance paths across mountains.	U.S.S.R.	S.P. 79 (V) S.P. 89 (IV)	IV
182*	Investigation of beyond the horizon propagation at 3000 Mc/s.	Sweden	Rec. 111	—
196*	Draft Resolution in reply to Doc. V/63 of Geneva. (Los Angeles Doc. 5)	United States of America	S.P. 90	—
197*	Draft Report in reply to Doc. V/63 of Geneva.	United States of America	S.P. 90	—
239	Measurement of field strength, field intensity, radiated power, available power from the receiving antenna and the transmission loss.	United States of America	Q. 8	—
247	Tropospheric wave propagation curves.	S.G. V	Draft Rec.	—
258	Proposed revision of draft Reports Annex E (V) and F (V) to Doc. No. 5. Measurement of field strength for VHF (metric) and UHF (decimetric) broadcast services, including television. (Q. 138)	Sub-Group V-A	Draft Rep.	—
260	Tropospheric wave propagation. Climatic charts of refractive index parameter ΔN . (S.P. 90)	Working Group V-D	Draft Rep.	—
269	Propagation at VHF and UHF over distances up to 200 kilometres.	S.G. V	Draft Res.	—
270	Propagation at VHF and UHF over distances up to 200 kilometres.	S.G. V	Draft S.P.	—
279	Tropospheric wave propagation curves for distances well beyond the horizon. (S.P. 55)	S.G. V	Draft Rep.	—
284	Summary record of the 1st meeting (6 April 1959).	S.G. V	—	—
334	Measurement of field strength, field intensity, radiated power, available power from the receiving antenna and the transmission loss.	S.G. V	Draft Rep.	—
353	Influence of the troposphere on frequencies used for telecommunication with space vehicles.	S.G. V	Draft Res.	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
364	Joint meeting of S.G. IV and V (9 April 1959).	S.G. IV and V	—	IV
375	Definition of a basic reference atmosphere.	Drafting Committee	Rec. 309	—
376	Influence of the troposphere on wave propagation across mountain ridges. (S.P. 79)	Drafting Committee	Rep. 144	—
377	Propagation data required for wideband radio systems.	Drafting Committee	Q. 185	—
386	Radio transmission utilizing inhomogeneities in the troposphere (commonly called "scattering").	Drafting Committee	S.P. 139	—
387	Influence of the troposphere on propagation across mountain ridges. (Q. 136)	Drafting Committee	S.P. 136	—
388	Advantages to be gained from the use of orthogonal wave polarizations in the planning of broadcast services in the VHF (metric) and UHF (decimetric) bands. Television and sound. (Q. 101)	Drafting Committee	Rep. 122	—
393	Summary record of the 2nd meeting (13 April 1959).	S.G.V.	—	—
438	Presentation of data in studies of tropospheric-wave propagation.	Drafting Committee	Rec. 311	—
439	Radio transmission utilizing inhomogeneities in the troposphere (commonly called "scattering"). (S.P. 91)	Drafting Committee	Rep. 148	—
453	Tropospheric propagation curves for distances well beyond the horizon.	Drafting Committee	S.P. 137	—
458	Propagation data required for wideband radio systems. (Q. 136)	Drafting Committee	Rep. 143	—
481	Propagation at VHF and UHF over distances up to 200 km. (Doc. 482)	Drafting Committee	Res. 41	—
482	Propagation at VHF and UHF over distances up to 200 km. (Doc. 481)	Drafting Committee	S.P. 140	—
489	Definition of terms relating to propagation in the troposphere.	Drafting Committee	Rec. 310	—
503	Tropospheric-wave propagation. (S.P. 90)	Drafting Committee	Rep. 146	—
526	Tropospheric-wave propagation curves.	Drafting Committee	Rec. 312	—
527	Tropospheric-wave propagation.	Drafting Committee	S.P. 138	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
528	Propagation at VHF and UHF over distances up to 200 km.	Drafting Committee	Draft Res.	—
529	Propagation at VHF and UHF over distances up to 200 km.	Drafting Committee	Draft S.P.	—
530	Influence of the troposphere on frequencies used for telecommunication with and between space vehicles.	Drafting Committee	Res. 40	—
531	Selection of frequencies used in telecommunication with and between artificial earth satellites and other space vehicles. (Q. 168, 169)	Drafting Committee	Rec. 259	VI
649	Tropospheric-wave propagation curves for distances well beyond the horizon. (S.P. 55)	Drafting Committee	Rep. 145	—
662	Factors affecting the selection of frequencies for telecommunication with and between space vehicles. (Q. 168 and 169)	Drafting Committee	Rep. 115	VI
668	Measurement of field strength, power flux density (field intensity), radiated power, available power from the receiving antenna and the transmission loss.	Drafting Committee	Rep. 138	—
688	Tropospheric-wave propagation. Climatic charts of refractive index parameter ΔN . (S.P. 90)	Drafting Committee	Rep. 147	—
714	Measurement of field strength for VHF (metric) and UHF (decimetric) broadcast services including television. (Q. 138)	Drafting Committee	Rep. 142	—
752	Summary record of the 3rd meeting (16 April 1959).	S.G.V.	—	—
STUDY GROUP No. VI				
6*	Report by the Chairman of Study Group No. VI (Dr. D.K. Bailey).	Chairman, Study Group No. VI	—	—
22*	Comparison of predicted data (MUF) with the reception of WWV.	Switzerland	S.P. 60 Rep. 55	—
26*	Pulse-transmission tests at oblique incidence.	Federal Republic of Germany and Kingdom of Morocco	S.P. 97	—
28	The estimation of sky-wave field strengths on frequencies above 1500 kc/s.	Federal Republic of Germany	S.P. 99	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
29*	Basic prediction information for ionospheric propagation.	Federal Republic of Germany	S.P. 60	—
36*	A practical method of estimating the effect of modulation conditions on rapid fading.	Japan	S.P. 66 (§ 6)	—
37*	Improvement of the expression of propagation forecasts.	Japan	Doc. VI/117 (Geneva 1958)	—
44*	Radio propagation at frequencies below 1500 kc/s.	Federal Republic of Germany	S.P. 63	—
48	The estimation of sky-wave field strengths on frequencies above 1500 kc/s.	Federal Republic of Germany	S.P. 99	—
54*	Ionospheric propagation on kilometric and hectometric waves.	European Broadcasting Union	S.P. 63	—
58*	Night field strengths, 540 to 1600 kc/s.	United States of America	Rep. 56 Annex Q (c)	—
75	Protection of frequencies used with artificial earth satellites or other space objects for communication, navigation and guidance.	United States of America	Proposed new Rec. (Q. 168 and 169)	V
88*	Study of fading.	India	S.P. 66	—
90*	Best method for calculating the sky-wave field produced by a tropical broadcasting transmitter.	India	Q. 154 (XII) S.P. (VI)	XII
91*	A preliminary report on the statistical analysis of fading on short wave transmissions.	India	S.P. 66 (VI) Q. 157 (XII)	XII
92*	Determination of noise level for tropical broadcasting.	India	Q. 155 (XII) S.P. 96 (VI)	XII
93	Preliminary investigation of the revision of noise grades for India.	India	S.P. 96 Rec. 175	—
95	Indications towards the required revision of Rep. 65 for atmospheric radio noise in India.	India	Rec. 174 Rec. 175 Rep. 65 S.P. 96 (Q. 155 (XII))	XII
146	Coincidence of special world intervals with magnetic storms.	U.S.S.R.	S.P. 93	—
147*	Formula for the law of distribution.	U.S.S.R.	S.P. 96	—
148	Prediction of solar index.	Director, C.C.I.R.	Rec. 172	Plenary Assembly
149*	Index of solar activity.	C.C.I.R. Secretariat	S.P. 92 S.P. 100	—
154	Correlation foF2 with the indices of solar activity.	U.S.S.R.	S.P. 93	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
162*	The calculation of the MUF, "hop"-length, travelling time, etc., by means of ionospheric models.	Netherlands	S.P. 60	—
172	Report on frequency allocations for radio astronomy. Radio Communications and Radio Astronomy.	U.R.S.I.	Rec. 173	—
181	The introduction of local lightning-flash counters in Sweden during 1958.	Sweden	Rec. 121 Res. 25	—
208	Variation of ionospheric parameters.	U.S.S.R.	S.P. 60	—
209*	Some results of ionosphere studies with rockets and sputniks carried out in the Soviet Union.	U.S.S.R.	—	—
210*	Long distance ionospheric propagation without intermediate ground reflections. (S.P. 97 and 98)	P.R. of Poland	Doc. VI/130 Geneva 1958	—
211*	Possibilities of the propagation of ionospheric waves on paths deviated from the great circle. Essay of explanation and mathematical interpretation.	P.R. of Poland	S.P. 97 S.P. 98	—
213	Reservation of frequency bands for radio astronomy.	Netherlands	—	—
215	Choice of a basic index for ionospheric propagation. Chairman's Report on Working-Group VI-A (Special).	Working-Group VI-A	S.P. 92	—
216	Radio and optical tracking and telemetering.	U.R.S.I.	—	—
219	Report on the measurement of atmospheric radio noise.	India	S.P. 96	—
222	An index of solar activity. Chromospheric eruptions associated with type IV radio bursts.	France	—	—
226*	Prediction of ionospheric disturbances by radio observations of the sun.	Canada	S.P. 92	—
229	A simplified general index of solar activity.	Netherlands	S.P. 92	—
231	Whistler mode propagation. (Doc. 232)	S.G. VI	Draft Res.	—
232	Study of the whistler mode of propagation.	S.G. VI	Draft S.P.	—
233	Questions submitted by the I.F.R.B.	S.G. VI	Draft Rep.	—
234	Study of sky-wave propagation on frequencies between the approximate limits of 1.5 and 40 Mc/s for the estimation of field strength.	S.G. VI	Draft S.P.	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
235	Radio propagation at frequencies below 1500 kc/s.	S.G. VI	Draft S.P.	—
237	Summary record of the 1st meeting (3 April 1959).	S.G. VI	—	—
266	Basic prediction information for ionospheric propagation.	Sub-Group VI-B	Draft Rep.	—
267	Pulse-transmission tests at oblique incidence.	Sub-Group VI-B	Draft Rep.	—
278	Meaning of MUF.	S.G. VI	Draft Rec.	—
288	Atmospheric noise data. (S.P. 96)	Drafting Committee	Rec. 315	—
289	Measurement of atmospheric radio noise. (Doc. 295)	Drafting Committee	Rep. 165	—
290	Revision of atmospheric radio noise data. (Doc. 295)	Drafting Committee	Rep. 65	—
291	Measurement of atmospheric radio noise. (Doc. 295)	Drafting Committee	Res. 46	—
292	Design and use of local lightning-flash counters.	Drafting Committee	Res. 51	—
294 ²	(Concerning Resolution No. 32 annexed to the International Telecommunication Convention, Buenos Aires, 1952.)	Drafting Committee	Draft Res.	—
295	Measurement of atmospheric radio noise.	Drafting Committee	S.P. 154	—
305	Long distance ionospheric propagation without intermediate ground reflections.	S.G. VI	Draft Rep.	—
315	Ionospheric-scatter and meteor-burst propagation.	Drafting Committee	Res. 52	—
316	Ionospheric-scatter propagation.	Drafting Committee	S.P. 147	—
317	Intermittent communication by meteor-burst propagation.	Drafting Committee	S.P. 146	—
319	Intermittent long-distance communication in the VHF band by means of scattering from columns of ionization in the lower ionosphere produced by meteors.	Drafting Committee	Rep. 157	—
336 ²	Sky-wave absorption of frequencies between the approximate limits of 1.5 and 40 Mc/s.	Sub-Group VI-C	Draft S.P. (Doc. VI/89 Geneva)	—
337	Draft. Standard-frequency transmission and time signals.	S.G. VI, VII	—	VII

No.	Subject	Submitted by	Reference	Other Study Groups concerned
338	Draft. Organization of work on the choice and evaluation of ionospheric indices.	S.G. VI	—	—
339	Draft. Choice of a basic index for ionospheric propagation.	S.G. VI	—	—
340	Draft. Availability and exchange of basic data and reliability of radio propagation forecasts.	S.G. VI	—	—
349	Measurement of man-made radio noise.	Working Group VI-D-1	Draft S.P.	—
351	Identification of precursors indicative of short-term variations of ionospheric propagation conditions.	S.G. VI	S.P. 93	—
352	Summary record of the 2nd meeting (7 April 1959).	S.G. VI	—	—
378	Whistler mode propagation. (S.P. 141, Doc. 379)	Drafting Committee	Res. 42	—
379	Study of the whistler mode of propagation.	Drafting Committee	S.P. 141	—
380	Questions submitted by the I.F.R.B.	Drafting Committee	Rep. 150	—
381	Study of sky-wave propagation on frequencies between 1.5 and 40 Mc/s approximately for the estimation of field-strength.	Drafting Committee	S.P. 144	—
382	Radio propagation at frequencies below 1500 kc/s.	Drafting Committee	S.P. 142	—
383	Study of fading.	Drafting Committee	S.P. 148	—
390	Radio propagation at frequencies below 1500 kc/s.	Sub-Group VI-C	Draft Rep.	—
405	Study of sky-wave propagation on frequencies between the approximate limits of 1.5 and 40 Mc/s for the estimation of field strength.	Sub-Group VI-C	Draft Rep.	—
419	Propagation by way of sporadic E and other anomalous ionization in the E and F regions of the ionosphere.	Sub-Group VI-D-3	Draft S.P.	—
420	Draft Report by Working Group for methods of estimating sky-wave field strength on frequencies between the approximate limits of 1.5 and 40 Mc/s. (Rec. 177)	S.G. VI	Draft Rep.	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
433	Long distance propagation of waves of 30 to 300 Mc/s by way of ionization in the E and F regions of the ionosphere. (Q. 7, § 3)	Working Group VI-D-3	Draft Rep.	—
437 ^{2,3}	Protection of frequencies used for radio-astronomical measurements.	Drafting Committee	Rec. 314	—
461	Directivity of antennae at great distances. (Rec. 102)	S.G. VI	Draft Rep.	—
467	Summary record of the 3rd meeting (9 April 1959).	S.G. VI	—	—
531	Selection of frequencies used in telecommunication with and between artificial earth satellites and other space vehicles. (Q. 168 and 169)	Drafting Committee	Rec. 259	V
532	Exchange of information for the preparation of short-term forecasts and the transmission of ionospheric disturbance warnings.	Drafting Committee	Rec. 313	—
533	Basic prediction information on ionospheric propagation.	Drafting Committee	Rec. 316	—
534	Systematic sky-wave field-strength measurements on frequencies between the approximate limits of 1.5 and 40 Mc/s.	Drafting Committee	Rec. 317	—
535	The study of sky-wave field-strengths on frequencies between the approximate limits of 1.5 and 40 Mc/s.	Drafting Committee	Res. 48	—
536	Organization of work on the choice and evaluation of ionospheric indices. (S.P. 92)	Drafting Committee	Res. 50	—
537	Radio propagation at frequencies below 1500 kc/s.	Drafting Committee	Res. 43	—
538	Effects of the ionosphere on radio waves used for telecommunication with and between space vehicles beyond the lower atmosphere.	Drafting Committee	Res. 47	—
539	Identification of precursors indicative of short-term variations of ionospheric propagation conditions. (S.P. 93)	Drafting Committee	Res. 45	—
540	Choice of a basic index for ionospheric propagation. (S.P. 92)	Drafting Committee	Res. 44	—
541	Basic prediction information for ionospheric propagation.	Drafting Committee	S.P. 149	—
542	Choice of a basic index for ionospheric propagation.	Drafting Committee	S.P. 150	—
543	Pulse-transmission tests at oblique incidence.	Drafting Committee	S.P. 151	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
544	Back scattering.	Drafting Committee	S.P. 152	—
545	Sky-wave absorption on frequencies between the approximate limits of 1.5 and 40 Mc/s.	Drafting Committee	S.P. 145	—
546	Measurement of man-made radio noise.	Drafting Committee	S.P. 153	—
573	Meaning of MUF.	Drafting Committee	Rec. 318	—
574	Study of fading. (S.P. 66)	Drafting Committee	Res. 49	—
611	Propagation by way of the sporadic E region and other anomalous ionization in the E and F regions of the ionosphere.	Drafting Committee	S.P. 143	—
662	Factors affecting the selection of frequencies for telecommunication with and between space vehicles. (Q. 168 and 169)	Drafting Committee	Rep. 115	V
666	Long-distance propagation of waves of 30 to 300 Mc/s by way of ionization in the E and F regions of the ionosphere. (Q. 7, § 3)	Drafting Committee	Rep. 149	—
667	Radio propagation at frequencies below 1500 kc/s. (Doc. 235)	Drafting Committee	Rep. 154	—
684	Study of sky-wave propagation on frequencies between the approximate limits of 1.5 and 40 Mc/s for the estimation of field-strength. (Doc. 381)	Drafting Committee	Rep. 155	—
685	Study of methods for estimating sky-wave field-strength on frequencies between the approximate limits of 1.5 and 40 Mc/s. (Rec. 177)	Drafting Committee	Rep. 152	—
705	Ionospheric sounding stations after the I.G.Y. (Res. 26)	Drafting Committee	Rep. 151	—
706	Sky-wave absorption on frequencies between the approximate limits of 1.5 and 40 Mc/s. (Doc. 545)	Drafting Committee	Rep. 156	—
707	Choice of a basic index for ionospheric propagation. (Doc. 542)	Drafting Committee	Rep. 162	—
708	Pulse-transmission tests at oblique incidence. (Doc. 543)	Drafting Committee	Rep. 163	—
709	Basic prediction information for ionospheric propagation. (Doc. 541)	Drafting Committee	Rep. 161	—
710	Directivity of antennae at great distances. (Rec. 102)	Drafting Committee	Rep. 107	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
711	Regular long-distance transmission in the VHF (metric) band by means of scattering from inhomogeneities in the lower ionosphere. (S.P. 95)	Drafting Committee	Rep. 158	—
712	Availability and exchange of basic data and reliability of radio propagation forecasts.	Drafting Committee	Rep. 160	—
713	Identification of precursors indicative of short-term variations of ionospheric propagation conditions. (S.P. 93)	Drafting Committee	Rep. 153	—
720	Long-distance ionospheric propagation without intermediate ground reflections.	Drafting Committee	Rep. 164	—
730	Fading of signals propagated by the ionosphere. (Doc. 383)	Drafting Committee	Rep. 159	—
753	Summary record of the 4th meeting (14 April 1959).	S.G. VI	—	—
754	Summary record of the 5th meeting (17 April 1959).	S.G. VI	—	—
755	Summary record of the 6th meeting (20 April 1959).	S.G. VI	—	—
STUDY GROUP No. VII				
7 ²	Report by the Chairman of Study Group No. VII (Mr. B. Decaux).	Chairman, Study Group No. VII	—	—
38	Development of JJY standard frequency transmissions and time signals.	Japan	Rec. 179 Q. 142	—
55 ²	Main characteristics of the Czech standard frequency and time signal station OMA.	Czechoslovakia	Rep. 66	—
56	Transmission on 2.5 Mc/s in Europe.	Czechoslovakia	—	—
57 ²	Narrow-band transmission and reception of standard-frequencies and time signals.	Czechoslovakia	Doc. VII/14, §3 (Geneva, 1958)	—
139	Standard-frequency transmissions and time signals. Phase method of standard frequency measurement.	U.S.S.R.	S.P. 101	—
195	Preliminary study of the power requirements and choice of an optimum frequency for a worldwide standard-frequency broadcasting station.	United States of America	Q. 141 Q. 142	—
217	Report on standard-frequency and time signal transmission.	India	Rep. 66	—
225	Summary record of the 1st meeting (3 April 1959).	S.G. VII	—	—
248	Standard-frequency transmissions and time signals. (Q. 140)	Sub-group VII-A	Draft Rec.	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
257	Atomic time A. 1	United States of America	Rec. 179	—
263	Standard-frequency transmissions and time signals in additional frequency bands. (Question No. 142)	Sub-Group VII-A	Draft Rec.	—
301	Summary record of the 2nd meeting (9 April 1959).	S.G. VII	—	—
313	Standard-frequency transmissions and time signals. (Q. 140)	Drafting Committee	Rec. 319	—
314	Stability of standard-frequency transmissions and time signals as received.	Drafting Committee	Q. 186	—
337	Draft. Standard-frequency transmission and time signals.	S.G. VII	—	VI
389	Frequency spectrum conservation with high precision time signals. (Q. 141)	Sub-Group VII-A	Draft S.P.	—
434	Standard-frequency and time signals transmissions in band 4. (Q. 142)	Sub-Group VII-A	Draft Res.	—
446	Standard-frequencies and time signal transmissions.	Sub-Group VII-A	Draft Rep.	—
447 ⁶	Main characteristics of standard-frequency and time signal stations in April 1959.	Sub-Group VII-A	—	—
547	Avoidance of external interference with transmissions in the standard-frequency service in the bands allocated to that service. (Q. 140)	Drafting Committee	Rec. 321	—
548	Standard-frequencies transmissions and time-signals in additional frequency bands. (Q. 142)	Drafting Committee	Rec. 320	—
575	Standard-frequencies transmissions and time signals.	Drafting Committee	S.P. 155	—
576	Frequency-spectrum conservation for high-precision time signals. (Q. 141)	Drafting Committee	S.P. 156	—
612	Standard-frequency and time signals transmissions in band 4. (Q. 142)	Drafting Committee	Res. 53	—
701	Standard-frequency and time signals transmissions. (Q. 140)	Drafting Committee	Rep. 166	—
756	Summary record of the 3rd meeting (15 April 1959).	S.G. VII	—	—
757	Summary record of the 4th meeting (20 April 1959).	S. G. VII	—	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
STUDY GROUP No. VIII				
VIII/1*	Measurements at mobile monitoring stations.	Federal Republic of Germany	Q. 144	—
VIII/2*	Frequency measurements at monitoring stations.	Federal Republic of Germany	Q. 145	—
VIII/3*	Measurements at mobile monitoring stations.	United States of America	Q. 144	—
VIII/4*	Frequency measurements at monitoring stations.	United States of America	Q. 145	—
VIII/5*	Identification of radio stations.	United States of America	Q. 104 S.P. 115	—
VIII/6*	Field-strength measurements at monitoring stations.	Federal Republic of Germany	S.P. 102	—
VIII/7*	Automatic monitoring of occupancy of the radio-frequency spectrum.	Federal Republic of Germany	Q. 143	—
VIII/8*	Calibration of field strength measuring apparatus by the internal currents method.	Czechoslovakia	Rep. 49 (V)	—
VIII/9*	Automatic monitoring of occupancy of the radio-frequency spectrum.	United States of America	Q. 143	—
VIII/10*	Spectrum measurements at monitoring stations.	Federal Republic of Germany	S.P. 103	—
VIII/11*	Automatic monitoring of occupancy of frequency bands.	Belgium	Q. 143	—
VIII/12*	Direct VHF measurement of the transmission frequency of aircraft in flight.	Belgium	Q. 145 (§ 4 b, iii)	—
VIII/13*	Spectrum measurement at monitoring stations. Comment.	United States of America	S.P. 103	—
VIII/14*	Measurement at mobile monitoring stations.	Japan	Q. 144	—
VIII/15*	Frequency measurements at monitoring stations.	Japan	Q. 145	—
VIII/16*	Field-strength measurements at monitoring stations.	Japan	S.P. 102	—
VIII/17	Opinion on C.C.I.R. Recommendations.	Japan	Recs. 22, 180, 181, 182, 220 and 221	—
VIII/18	The relation between QSA-values and measured signal strength for the purpose of observations in monitoring stations.	Federal Republic of Germany	New Q.	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
VIII/19*	Frequency measurements at monitoring stations.	U.S.S.R.	Q. 145	—
VIII/20*	Frequency measurements at monitoring stations.	U.S.S.R.	S.P. 102	—
VIII/21	Monitoring at fixed monitoring stations of radio transmissions from space vehicles.	United States of America	New Q.	—
VIII/22*	Field-strength measurements at monitoring stations.	United States of America	S.P. 102	—
VIII/23	List of documents issued. (Docs. Nos. VIII/1-VIII/23)	C.C.I.R. Secretariat	—	—
8	Report by the Chairman of Study Group No. VIII. (Mr. J.D. Campbell)	Chairman, Study Group No. VIII	—	—
175	Comments on Recommendations of the C.C.I.R. within the scope of work of C.C.I.R. Study Group No. VIII which might be incorporated into the Radio Regulations.	I.F.R.B.	(Los Angeles Doc. 8)	—
183*	Report on the identification of radio stations.	Gen. Admin. of Post and Telecommunications and Radio Marconi Co. of Portugal	Q. 104 S.P. 115	—
184*	Radio-frequency spectrograph.	Czechoslovakia	—	—
186*	Automatic monitoring of occupancy of the radio-frequency spectrum. Automatic occupancy-vacancy recorder and multiple field strength recorder.	United States of America	Q. 143	—
188	Identification of sources of interference to radio reception.	United States of America	Draft S.P.	—
220	Visual monitoring of the radio-frequency spectrum.	United States of America	Draft Q.	—
275	Summary record of the 1st meeting (6 April 1959).	S.G. VIII	—	—
327	Identification of radio stations.	S.G. VIII	S.P. 115	—
328	Identification of radio stations.	S.G. VIII	Draft Q.	—
329	Identification of radio stations. (Q. 104)	S.G. VIII	Draft Rec.	—
330	Identification of radio stations. (Q. 104)	S.G. VIII	Draft Rep.	—
331	Automatic monitoring of occupancy of the radio-frequency spectrum. (Q. 143)	S.G. VIII	Draft Rep.	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
332	Spectrum measurement by monitoring stations. (S.P. 103)	S.G. VIII	Draft Rep.	—
333	Automatic monitoring of occupancy of the radio-frequency spectrum. Monitoring of "offset" between television transmitters.	Austria	—	—
404	Frequency measurements at monitoring stations. (Q. 145)	S.G. VIII	Draft Rep.	—
407	Visual monitoring of the radio-frequency spectrum	S.G. VIII	Draft Q.	—
416	Identification of sources of interference to radio reception.	S.G. VIII	Draft S.P.	—
417	Monitoring at fixed monitoring stations of radio transmissions from space vehicles.	S.G. VIII	Draft Q.	—
418	Measurement of S-values at monitoring stations.	S.G. VIII	Draft Q.	—
448	Accuracy of frequency measurements at monitoring stations.	S.G. VIII	Draft Rec.	—
463	Summary record of the 2nd meeting (13 April 1959).	S.G. VIII	—	—
549	Identification of radio stations. (Q. 104 Rev.)	Drafting Committee	Rec. 323	—
561	Measurements at mobile monitoring stations. (Q. No. 144)	S.G. VIII	Draft Rep.	—
562	Field strength measurements at monitoring stations. (S.P. 102)	S.G. VIII	Draft Rep.	—
565	Summary record of the 3rd meeting (15 April 1959).	S.G. VIII	—	—
567	Summary record of the 4th meeting (20 April 1959).	S.G. VIII	—	—
577	Identification of radio stations.	Drafting Committee	Q. 187	—
578	Identification of radio stations. (Q. 104)	Drafting Committee	Rep. 171	—
647	Spectrum measurement by monitoring stations. (S.P. 103)	Drafting Committee	Rep. 172	—
670	Monitoring at fixed monitoring stations of radio transmission from space vehicles.	Drafting Committee	Q. 188	—
671	Measurement of S-values at monitoring stations.	Drafting Committee	Q. 189	—
672	Identification of sources of interference to radio reception.	Drafting Committee	Q. 190	—
673	Accuracy of frequency measurements at monitoring stations.	Drafting Committee	Rec. 322	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
674	Visual monitoring of the radio-frequency spectrum.	Drafting Committee	Q. 191	—
675	Automatic monitoring of occupancy of the radio-frequency spectrum. (Q. 143)	Drafting Committee	Rep. 167	—
683	Frequency measurements at monitoring stations. (Q. 145)	Drafting Committee	Rep. 169	—
724	Field-strength measurements at monitoring stations. (S.P. 102)	Drafting Committee	Rep. 170	—
729	Measurements at mobile monitoring stations. (Q. 144)	Drafting Committee	Rep. 168	—
758	Summary record of the 5th meeting (22 April 1959).	S.G. VIII	—	—
STUDY GROUP No. IX				
9	Report by Mr. H. Stanesby (Chairman of S.G. No. IX until August 1958).	Chairman, Study Group No. IX	—	—
49	Measurement of the performance of multi-channel telephone circuits on radio-relay systems with the help of a signal with a continuous uniform spectrum.	Federal Republic of Germany	Rec. 197 Doc. IX/133 (Geneva, 1958)	—
51	Standardization of multi-channel radio-relay systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	Federal Republic of Germany	Q. 93	—
53*	Draft amendment to Recommendation No. 189.	Netherlands	Rec. 189	—
61	Standardization of multi-channel radiotelephone systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	France	Q. 93 S.P. 120	—
62	Standardization of multi-channel radio-relay systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	France	Q. 93 S.P. 120	—
63	Standardization of multi-channel radio-relay systems using frequency-division multiplex on frequencies above about 30 Mc/s.	France	Q. 93 S.P. 121	—
64	Maintenance procedure for wide-band radio-relay systems.	France	Q. 96	—
65	Preferred characteristics of radio-relay systems for the transmission of monochrome television. Noise permissible in television.	France	Q. 146	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
66	Service channels for wideband radio-relay systems.	France	Q. 147	—
67	Radio-relay systems employing tropospheric-scatter propagation.	France	Q. 148	—
68	Radio-relay systems employing tropospheric-scatter propagation.	France	Q. 148 S.P. 122	—
69	Interruptions in transmission when switching over normal and standby equipment.	France	Q. 165	—
71	Standardization of multi-channel radio-relay systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	Federal Republic of Germany	Q. 93 Doc. IX/115 (Geneva, 1958)	—
72	Standardization of multi-channel radio-relay systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	Federal Republic of Germany	Q. 93	—
73	Standardization of multi-channel radio-relay systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	Federal Republic of Germany	Q. 93 S.P. 120 Doc. IX/105 (Geneva, 1958)	—
74	Preferred characteristics of radio-relay systems for the transmission of monochrome television.	Federal Republic of Germany	Q. 146 Doc. IX/117 (Geneva, 1958)	—
76	Preferred characteristics of radio-relay systems for the transmission of monochrome television.	Japan	Q. 146	—
77	Radio-relay systems of very large capacity.	United Kingdom	Draft S.P.	—
78	Preferred frequency bands and centre frequencies for international radio-relay links.	United Kingdom	Draft Res.	—
79	Preferred characteristics of radio-relay systems for the transmission of monochrome television.	United Kingdom	Draft S.P. (Q. 146)	—
81	Radio-frequency interconnection of systems with capacities of from 600- to 1800-telephone channels, or for television and telephony, on the same radio-frequency carrier.	United Kingdom	Rec. 194 Docs. IX/131 and IX/106 (Geneva, 1958)	—
82	Radio-frequency channel arrangements for 60- and 120-channel telephony radio-relay systems within the band 5925-8500 Mc/s.	United Kingdom	Draft Rec. Doc. IX/105 (Geneva, 1958)	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
83	Baseband characteristics of larger capacity radio-relay systems for the simultaneous transmission of television and telephony.	United Kingdom	Q. 146	—
84	Maintenance procedure for wide-band radio-relay systems. Measurement of noise in actual traffic.	Federal Republic of Germany	Q. 96 Doc. IX/132 (Geneva, 1958)	—
85	Service channels for wide-band radio-relay systems.	Federal Republic of Germany	Q. 147 Doc. IX/125 Doc. IX/130 (Geneva, 1958)	—
86	Standardization of multi-channel radio-relay systems using frequency-division multiplex and operating at frequencies above about 30 Mc/s.	Federal Republic of Germany	Q. 93 S.P. 121 Doc. IX/131 (Geneva, 1958)	—
151	Requirements for the transmission of monochrome television signals over long distances. (Doc. 73, revised)	United Kingdom	—	—
152	Impedance of the intermediate frequency circuit. Nominal value of impedance 75 ohms, unbalanced.	United Kingdom	—	—
153	Proposed amendments to Doc. IX/78 (Geneva, 1958) to meet the views of C.C.I.R./C.C.I.T.T. Noise Working Party. (Geneva, Nov. 1958)	United Kingdom	—	—
156	Preferred characteristics of radio-relay systems for the transmission of monochrome television. Transmission of the sound channel.	U.S.S.R.	Q. 146	—
157	The application of pre-emphasis in multi-channel radio-relay systems, using frequency division multiplex.	U.S.S.R.	Q. 93	—
158	Use of pre-emphasis for television.	U.S.S.R.	Q. 146	—
178	Radio-frequency channel arrangement for tropospheric-scatter systems	United Kingdom	Draft Rec.	—
198	Summary of modifications proposed to texts prepared by C.C.I.R. Study Group No. IX.	United Kingdom	Texts of S.G. IX	—
221	Summary record of the 1st meeting (3 April 1959).	S.G. IX	—	—
228	Proposal for the transmission of monochrome television signals over long distances.	Japan	S.P. 32	XI
230	Wide-band radio-relay systems. Noise tolerable during very short periods of time on line-of-sight systems. (S.P. 105)	Sub-Group IX-C	Draft Rep.	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
254	Radio-relay systems for telephony using frequency-division multiplex. Interconnection at baseband frequencies.	S.G. IX	Draft Rec.	—
255	Duration of interruptions on radio links when switching from normal to stand-by equipment. (Q. 165)	S.G. IX	Draft Rep.	—
256	Service channels for radio-relay systems. Type of service channels to be provided. (Q. 147)	S.G. IX	Draft Rec.	—
261	Summary record of the 2nd meeting (7 April 1959).	S.G. IX	—	—
318	Radio-relay systems for telephony using time-division multiplex. Technical characteristics to be specified in order to be able to connect any two systems. (Q. 92)	Drafting Committee	Rec. 314	—
320	Radio-relay systems for telephony using frequency-division multiplex. Hypothetical reference circuit for radio-relay systems with capacity of 12 to 120 channels. (Q. 97)	Drafting Committee	Rec. 285	—
321	Radio-relay systems for telephony using frequency-division multiplex. Hypothetical reference circuit for radio-relay systems with capacity of more than 120 channels. (Q. 97)	Drafting Committee	Rec. 286	—
322	Radio-relay systems for telephony using frequency-division multiplex. Frequency deviation. (Q. 93)	Drafting Committee	Rec. 274	—
323	Radio-relay systems for telephony. Preferred characteristics. (Q. 92)	Drafting Committee	Rec. 298	—
324	Maintenance procedure for FDM radio-relay systems for telephony. Measurements to be made. (Q. 96)	Drafting Committee	Rec. 290	—
325	Multi-channel radio-relay systems for telephony using time-division multiplex. Agreement on major characteristics. (Q. 92)	Drafting Committee	Rec. 299	—
326	Interconnection of radio-relay and line systems. Line-regulating and other pilots. (S.P. 28, Q. 96)	Drafting Committee	Rec. 291	—
355	Summary record of the 3rd meeting (10 April 1959).	S.G. IX	—	—
356	Radio-relay systems for television. Simultaneous transmission of a monochrome television signal and a single sound channel. Preferred characteristics of the sound channel. (Q. 146)	S.G. IX	Draft Rec.	—
357	Draft reply concerning Q. 11 of the 3rd Study Group of the C.C.I.T.T.	S.G. IX	—	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
358	Radio-relay systems for television and telephony. Frequencies and deviations of continuity pilots. (Q. 96)	S.G. IX	Draft Rec.	—
359	Radio-relay systems for telephony using frequency division multiplex. Maintenance measurements in actual traffic. (Q. 96)	S.G. IX	Draft Rec.	—
360	Radio-relay systems for telephony using frequency division multiplex. Measurements of the performance with the help of a signal consisting of a continuous uniform spectrum. (S.P. 28 and Q. 96)	S.G. IX	Draft Rec.	—
361	Radio-relay systems for telephony using frequency division multiplex. Allowable noise power in the hypothetical reference circuit. (Q. 97 and S.P. 105)	S.G. IX	Draft Rec.	—
362	Radio-relay systems for telephony using time division multiplex. Allowable noise power in the hypothetical reference circuit. (Q. 97, S.P. 105)	S.G. IX	Draft Rec.	—
372	Radio-relay systems for telephony using frequency-division multiplex. Interconnection at baseband frequencies. (Q. 93)	Drafting Committee	Rec. 269	— —
373	Durations of interruptions on radio links when switching from normal to standby equipment. (Q. 165)	Drafting Committee	Rep. 137	—
374	Service channels for radio-relay systems. Type of service channel to be provided. (Q. 147)	Drafting Committee	Rec. 295	—
422	Radio-relay systems for telephony using frequency-division multiplex. Pre-emphasis for frequency modulation systems. (Q. 93)	S.G. IX	Draft Rec.	—
423	Radio-relay systems for television and telephony. Radio-frequency interconnection of systems for 600 to 1800 telephone channels, or the equivalent, operating in the 600 Mc/s band. (Q. 93)	S.G. IX	Draft Rec.	—
424	Radio-relay systems for television and telephony. Intermediate frequency characteristics. (Q. 93)	S.G. IX	Draft Rec.	—
425	Radio-relay systems for telephony and television. Radio-frequency interconnection of systems for 600 to 1800 telephone channels, or the equivalent, operating in the 2000 and 4000 Mc/s band (Q. 93)	S.G. IX	Draft Rec.	—
426	Radio-relay systems for television. Frequency deviation and the sense of modulation. (Q. 146)	S.G. IX	Draft Rec.	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
427	Radio-relay systems for television. Pre-emphasis characteristics for frequency modulation systems. (Q. 146)	S.G. IX	Draft Rec.	—
435	Summary record of the 4th meeting (14 April 1959).	S.G. IX	—	—
483	Radio-relay systems for telephony using frequency-division multiplex. Noise in real circuits. (Q. 97, S.P. 105)	Drafting Committee	Rec. 288	—
484	Radio-relay systems employing tropospheric-scatter propagation. Limitation of interference. (Q. 148)	Drafting Committee	Rec. 302	—
511	Radio-relay systems using frequency-division multiplex. Radio-frequency channel arrangement for 60- and 120- channel telephony systems operating in the 2000 Mc/s band. (Q. 93 and S.P. 104)	S.G. IX	Draft Rec.	—
512	Radio-relay systems for television. Interconnection at video-signal frequencies. (Q. 146)	S.G. IX	Draft Rec.	—
513	Radio-relay systems for television and telephony. Simultaneous transmission by the same radio-frequency carrier. Baseband arrangements. (Q. 146)	S.G. IX	Draft Rec.	—
514	Radio-relay systems for television and telephony. Preferred characteristics for the transmission of more than one sound channel. (Q. 146)	S.G. IX	Draft S.P.	—
515	Radio-relay systems using tropospheric scatter propagation. Radio-frequency channel arrangements. (S.P. 122 and Q. 148)	S.G. IX	Draft Rec.	—
516	Radio-relay systems for television. Maintenance procedures.	S.G. IX	Draft Res.	—
551	Radio-relay systems for telephony and television. Use of special radio-frequency arrangements. (Q. 93 and 146)	Drafting Committee	Rec. 282	—
552	Radio-relay systems for telephony using frequency-division multiplex. Radio-frequency interconnection of 300-channel systems operating in the 2000 and 4000 Mc/s bands. (Q. 93)	Drafting Committee	Rec. 279	—
553	Radio-relay systems for television and telephony. Preferred radio-frequency arrangements for television. (Q. 93, 146)	Drafting Committee	Rec. 281	—
554	Radio-relay systems for telephony using time-division multiplex. Hypothetical reference circuit for radio relay systems with capacity of 60 telephone channels or less. (Q. 97)	Drafting Committee	Rec. 300	—
566	Amendments to existing Recommendations, Reports, Questions, Resolutions and Study Programmes.	S.G. IX	—	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
579	Radio-relay systems for television. Simultaneous transmission of a monochrome television signal and a single sound channel. Preferred characteristics of the sound channel. (Q. 146)	Drafting Committee	Rec. 272	—
592	Radio-relay systems for television and telephony. Radio-frequency interconnection of systems for 600 to 1800 telephone channels, or the equivalent, operating in the 6000 Mc/s band. (Q. 93)	Drafting Committee	Rec. 280	—
593	Radio-relay systems for television and telephony. Intermediate frequency characteristics. (Q. 93)	Drafting Committee	Rec. 273	—
594	Radio-relay systems for television and telephony. Preferred characteristics of auxiliary radio-relay systems operating in the 2000, 4000 and 6000 Mc/s bands. (Q. 147)	Drafting Committee	Rec. 296	—
595	Radio-relay systems for telephony using frequency-division multiplex. Radio-frequency channel arrangement for 60- and 120-channel telephony systems operating in the 7000 Mc/s band. (Q. 93, S.P. 120)	Drafting Committee	Rec. 284	—
596	Radio-relay systems for television and telephony. Systems of capacity greater than 1800 telephone channels or the equivalent. (Q. 83)	Drafting Committee	S.P. 157	—
597	Radio-relay systems for television and telephony. Preferred characteristics for auxiliary radio-relay systems for the provision of service channels. (Q. 147)	Drafting Committee	S.P. 160	—
598	Radio-relay systems for monochrome television. Permissible noise in the hypothetical reference circuit. (Q. 97, 146)	Drafting Committee	Rec. 289	—
599	Radio-relay systems for telephony using frequency-division multiplex. Methods for the computation of the intermodulation noise due to non-linearity. (Q. 115)	Drafting Committee	Res. 57	—
601	Radio-relay systems for television and telephony. Frequencies and deviations of continuity pilots. (Q. 96)	Drafting Committee	Rec. 292	—
602	Radio-relay systems for telephony using frequency-division multiplex. Maintenance measurements in actual traffic. (Q. 96)	Drafting Committee	Rec. 293	—
603	Radio-relay systems for telephony using frequency-division multiplex. Measurements of performance with the help of a signal consisting of a continuous uniform spectrum. (Q. 96, S.P. 28)	Drafting Committee	Rec. 294	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
613	Radio-relay systems for television and telephony. Preferred frequency bands and centre-frequencies for radio-relay links for international connection.	Drafting Committee	Res. 55	—
614	Radio-relay systems for telephony. C.C.I.T.T.-C.C.I.R. Joint Working Group on circuit noise. (Q. 97, 148)	Drafting Committee	Res. 56	—
619	Radio-relay systems for telephony using frequency-division multiplex. Pre-emphasis characteristic for frequency-modulation systems. (Q. 93)	Drafting Committee	Rec. 275	—
620	Radio-relay systems for television. Interconnection at video-signal frequencies. (Q. 146)	Drafting Committee	Rec. 270	—
621	Radio-relay systems for television and telephony. Simultaneous transmission by the same radio-frequency carrier. Baseband arrangements. (Q. 146)	Drafting Committee	Rec. 271	—
622	Radio-relay systems for television and telephony. Preferred characteristics for the transmission of more than one sound channel. (Q. 146)	Drafting Committee	S.P. 159	—
623	Radio-relay systems for television. Maintenance procedures.	Drafting Committee	Res. 54	—
624	Radio-relay systems for television. Pre-emphasis characteristics for frequency-modulation systems. (Q. 146)	Drafting Committee	Rec. 277	—
625	Radio-relay systems for television. Frequency-deviation and the sense of modulation. (Q. 146)	Drafting Committee	Rec. 206	—
641	Radio-relay systems for telephony using time-division multiplex. Allowable noise power in the hypothetical reference circuit. (Q. 97, S.P. 105)	Drafting Committee	Rec. 301	—
642	Radio-relay systems for telephony using frequency-division multiplex. Radio-frequency channel arrangements for 60- and 120-channel telephony systems operating in the 2000 Mc/s Band. (Q. 93, S.P. 104)	Drafting Committee	Rec. 283	—
643	Radio-relay systems for television and telephony. Radio-frequency interconnection for systems for 600 to 1800 telephone channels, or the equivalent, operating in the 2000 and 4000 Mc/s bands. (Q. 93)	Drafting Committee	Rec. 278	—
644	Radio-relay systems for telephony using frequency-division multiplex. Allowable noise power in the hypothetical reference circuit. (Q. 93, S.P. 105)	Drafting Committee	Rec. 287	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
665	Radio-relay systems using tropospheric or ionospheric forward scatter. Reply to Question No. 11 of the 3rd Study Group of the C.C.I.T.T.	Drafting Committee	Rep. 135	—
693	Radio-relay systems using tropospheric scatter propagation. Radio-frequency channel arrangements. (Q. 148, S.P. 122)	Drafting Committee	Rec. 303	—
726	Radio-relay systems for telephony using frequency-division multiplex. Design objectives for V.F. telegraphy on telephone channels.	Drafting Committee	Rep. 132	—
727	Radio-relay systems using tropospheric scatter propagation. Radio-frequency channel arrangements for systems using frequency-modulation. (S.P. 122, Q. 148)	Drafting Committee	Rep. 136	—
728	Radio-relay systems for telephony. Noise tolerable during very short periods of time on line-of-sight systems. (S.P. 105)	Drafting Committee	Rep. 130	—
759	Summary record of the 5th meeting (7 April 1959).	S.G. IX	—	—
771	Radio-relay systems for telephony using frequency-division multiplex. Methods for the computation of intermodulation noise due to non-linearity (Q. 115)	Drafting Committee	Rep. 129	—
772	Radio-relay systems for television and telephony. Alternative transmission of telephony and television. (Q. 146)	Drafting Committee	Rep. 133	—
773	Radio-relay systems for telephony using frequency-division multiplex. Technical characteristics to be specified in order to interconnect any two systems. (Q. 93)	Drafting Committee	Rep. 131	—
STUDY GROUP No. X				
X/1	High-frequency broadcasting protection ratios.	United Kingdom	Q. 149	—
X/2	Frequency-modulation broadcasting in the VHF (metric) band.	Federal Republic of Germany	Q. 150	—
X/3*	Standards of sound recording for the international exchange of programmes.	Federal Republic of Germany	S.P. 74	—
X/4	Sound recording on film for the international exchange of television programmes. (C.C.I.R. Rec. 211)	European Broadcasting Union	Draft Rec.	—
X/5	Measurement of programme level in sound broadcasting.	Federal Republic of Germany	Q. 151 S.P. 109	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
X/6	Standards of sound recording for the international exchange of programmes.	United Kingdom	Rec. 208	—
X/7	Standards of sound recording for the international exchange of programmes.	United Kingdom	Rec. 209	—
X/8	Directional antenna systems.	United Kingdom	S.P. 106	—
X/9	VHF-FM broadcasting.	United Kingdom	Q. 150	—
X/90	Standards of sound recording for the international exchange of programmes. Use of 16 inch discs.	New Zealand	S.P. 74	—
X/11	Standards of sound recording for the international exchange of programmes. Disc recording characteristics.	New Zealand	S.P. 74	—
X/12	Standards of sound recording for the international exchange of programmes. Standard tape speeds.	New Zealand	S.P. 74	—
X/13*	Directional antenna systems for reception areas of unusual shape or size.	Czechoslovakia	Q. 37 S.P. 107	—
X/14	Sound recording on film for the international exchange of television programmes.	Japan	Rep. 81	—
X/15*	Standards of sound recording for the international exchange of programmes.	Japan	S.P. 74	—
X/16	Width of magnetic tape.	Japan	Res. 30	—
X/17*	Measurement of programme level in sound broadcasting.	France	S.P. 109	—
X/18	Standards of sound recording for the international exchange of programmes.	France	Rec. 209 S.P. 74	—
X/19	High-frequency broadcasting. Effects of closer spacing between carrier frequencies.	France	Q. 149	—
X/20	Determination of the protection required for a broadcast signal in the presence of interference.	India	Q. 149	—
X/21	Measurement of low frequency interference in broadcasting paths.	U.S.S.R.	Rep. 33 Q. 15	—
X/22*	Standards of sound recording for the international exchange of programmes.	U.S.S.R.	S.P. 74	—
X/23	Standards of sound recording for the international exchange of programmes.	U.S.S.R.	Rec. 208	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
X/24	Standards of sound recording for the international exchange of programmes.	U.S.S.R.	Rec. 209	—
X/25	List of documents issued. (Docs. Nos. X/1-X/25)	C.C.I.R. Secretariat	—	—
10	Report by the Chairman of Study Group No. X. (Mr. A. Prose Walker)	Chairman of Study Group No. X	—	—
159	Stereophonic broadcasting.	Netherlands	—	—
173	Stereophonic broadcasting.	Netherlands	—	—
174	Modification to Rec. 209.	European Broadcasting Union	Rec. 209	—
176	Stereophonic broadcasting.	Federal Republic of Germany	Q. 170	—
214*	Standard of sound recording for the international exchange of programmes. Measurement of "wow" and "flutter". The tolerable limits of wow and flutter in programme sounds.	Japan	S.P. 74	—
242	Summary record of the 1st meeting (3 April 1959).	S.G. X	—	—
249	Compatible single sideband transmission for amplitude modulation broadcast services.	United States of America	Draft S.P.	—
251	Compatible single sideband transmission (CSSB) for amplitude modulation broadcast services.	United States of America	Draft Q.	—
276 ³	Standards and related specifications for compatible stereophonic aural transmission in the sound broadcasting bands (medium wave AM, VHF FM) and the aural channel of television.	United States of America	Q. 170	—
296	Summary record of the 2nd meeting (10 April 1959).	S.G. X	—	—
342	Compatible single sideband transmission (CSSB) for amplitude modulation broadcast services.	Sub-Group X-D	Draft Q.	—
343	Compatible single sideband transmissions (CSSB) for amplitude modulation broadcast services.	Sub-Group X-D	Draft S.P.	—
344	Long- and medium-wave broadcasting. Quality of reception.	Sub-Group X-D	Draft S.P.	—
345	Long- and medium-wave broadcasting. Quality of reception.	Sub-Group X-D	Draft Q.	—
346	Long- and medium-wave broadcasting. Bandwidth of emissions.	Sub-Group X-D	Draft Q.	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
347	Draft.	Sub-Group X-D	Draft S.P.	—
366	Standards of sound recording for the international exchange of programmes. (Rec. 208)	S.G. X	Draft Res.	—
367 ⁴	Measurement of wow and flutter in equipment for sound recording and reproduction. (S.P. 74)	S.G. X	Draft Rep.	—
399	Standards of sound recording for the international exchange of programmes. (Q. 42, 63)	S.G. X	Draft Rec.	—
413 ³	Measurement of programme level in sound broadcasting. (Q. 151)	S.G. X	Draft Rep.	—
466	Summary record of the 3rd meeting.	S.G. X	—	—
469	HF broadcasting: Effects of different spacings between carrier frequencies.	S.G. X	Draft Q.	—
470	HF broadcasting reception. (Q. 39)	S.G. X	Draft Rep.	—
471	HF broadcasting: Justification for use of more than one frequency per programme. (Q. 37)	S.G. X	Draft Rep.	—
472	HF broadcasting: Effects of closer spacing between carriers. (Q. 149)	S.G. X	Draft Rec.	—
473	Standards for FM sound broadcasting in the VHF (metric) band. (Q. 150)	S.G. X	Draft Rec.	—
475	Standards of sound recording for the international exchange of programmes.	S.G. X	Draft S.P.	—
477	Recording standards for the international exchange of television programmes. Film recording.	Sub-Group X-A	Draft Rec.	—
496	International exchange of television programmes. Film recording. (Q. 100)	Sub-Group X-A	Draft Rec.	—
498	Standards of sound recording for the international exchange of programmes.	S.G. X	Draft Res.	—
501	Standards of sound recording for the international exchange of programmes.	S.G. X	Draft Rec.	—
568	Stereophonic broadcasting.	S.G. X	Draft Q.	—
630	Standards of sound recording for the international exchange of sound programmes. (Rec. 208)	Drafting Committee	Res. 58	—
631	Standards of sound recording for the international exchange of programmes.	Drafting Committee	S.P. 161	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
632	Standards of sound recording for the international exchange of programmes. Single track recording on magnetic tape.	Drafting Committee	Rec. 261	—
633	High-frequency broadcasting. Justification for the use of more than one frequency per programme. (Q. 37)	Drafting Committee	Rep. 118	—
634	Measurement of wow and flutter in equipment for sound recording and reproduction. (S.P. 74)	Drafting Committee	Rep. 116	—
635	High-frequency broadcasting reception. (Q. 39)	Drafting Committee	Rep. 119	—
636	Standards of sound recording for the international exchange of programmes.	Drafting Committee	Res. 59	—
637	Recording standards for the international exchange of television programmes. Film recording. (Q. 100)	Drafting Committee	Rec. 264	—
638	HF broadcasting. Effects of different spacings between carrier frequencies.	Drafting Committee	Q. 203	—
639	Measurement of programme level in sound broadcasting. (Q. 151)	Drafting Committee	Rep. 117	—
640	Sound recording for the international exchange of programmes. (Q. 42, 63)	Drafting Committee	Rec. 260	—
653	Stereophonic broadcasting. Standards for compatible systems in sound and television broadcasting. (Doc. 568)	Drafting Committee	S.P. 163	—
654	Compatible single-sideband (CSSB) transmission for amplitude-modulation sound broadcast services.	Drafting Committee	Q. 205	—
655	Compatible single-sideband (CSSB) transmission for amplitude-modulation sound broadcast services. (Doc. 654)	Drafting Committee	S.P. 165	—
656	Long- and medium-wave sound broadcasting. Bandwidth of emissions.	Drafting Committee	Q. 201	—
657	HF broadcasting. Effects of closer spacing between carriers. (Q. 149)	Drafting Committee	Rec. 262	—
658	Standards for frequency-modulation sound broadcasting in the VHF (metric) band. (Q. 150)	Drafting Committee	Rec. 263	—
680	Stereophonic broadcasting.	Drafting Committee	Q. 199	—
694	Medium-wave broadcasting. Quality of reception in the secondary service area.	Drafting Committee	Q. 202	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
695	Medium-wave broadcasting. Quality of reception in the secondary service area.	Drafting Committee	S.P. 164	—
696	Simultaneous transmission of two sound channels in television.	Drafting Committee	Q. 198	—
697	High-frequency broadcasting. The effect of propagation path length and direction on protection ratios.	Drafting Committee	Q. 204	—
698	Measurement of noise in the audio channels of broadcasting systems and in sound recording systems. (Rep. 33)	Drafting Committee	S.P. 162	—
699	Stereophonic recording for broadcasting.	Drafting Committee	Q. 200	—
702	International exchange of television programmes. (Q. 100)	Drafting Committee	Rec. 265	—
760	Summary record of the 4th meeting (22 April 1959).	S.G. X	—	—
761	Summary record of the 5th meeting (27 April 1959).	S.G. X	—	—
STUDY GROUP No. XI				
11	Report by the Chairman of Study Group No. XI (Mr. E. Esping).	Chairman of Study Group No. XI	—	—
17	Terms of reference of C.C.I.R. Study Group XI	Czechoslovakia	Warsaw Doc. 995	—
27	Transmission of monochrome and colour television signals over long distances. Requirements for the transmission of television over long distances.	United Kingdom	Q. 121 S.P. 32	—
39*	Assessment of the quality of television pictures.	Japan	Q. 152	—
40	Resolving power and differential sensitivity of the human eye.	Japan	Q. 153	—
41 ²	Single value of signal-to-noise ratio for different television systems.	Japan	Q. 117	—
42 ^{1, 2}	Reduction of the channel capacity required for a television signal.	Japan	S.P. 119	—
43	Colour television standards.	Japan	Q. 118	—
87	Comments regarding Doc. XI/68 (Moscow) on the television standards to be applied in bands IV and V.	Federal Republic of Germany	Doc. XI/68 (Moscow 1958)	—

No.	Subject	Submitted by.	Reference	Other Study Groups concerned
97	Remarks on colour television standards and exchange of programmes.	Netherlands	Q. 118 and 119	—
98	Investigations on the statistical properties of colour television signals.	Netherlands	Q. 118, 119 S.P. 80	—
124*	Method of measuring the numerical characteristics of gamma correctors.	U.S.S.R.	Q. 152	—
125*	Influence on the colour parameters of the television receiver on the quality of colour reproduction.	U.S.S.R.	Q. 152	—
126*	Effect of sub-carrier frequency on luminance.	U.S.S.R.	Q. 152	—
127	Comparative efficiency of colour television channels.	U.S.S.R.	Q. 119	—
128	New video recording and cine projection systems.	U.S.S.R.	Q. 66	—
141	Generator with fixed line frequency and field pulses synchronized with the mains frequency.	U.S.S.R.	Q. 152	—
142	A comparison between field pulse separation by integration and by differentiation.	U.S.S.R.	Q. 152	—
143	Evaluation of distortion in the exchange of colour television programmes with different chrominance signals.	U.S.S.R.	Q. 120	—
144*	Method of simultaneous transmission of two sound signals in television.	U.S.S.R.	Rep. 83	—
145*	Assessment of the luminance and chrominance of television pictures.	U.S.S.R.	Q. 152	—
155	Reply to the report by the Chairman of S.G. XI concerning television standards for bands IV and V.	P.R. of Poland	Q. 118 Rep. 83	—
160	Report on Doc. XI/68 (Moscow) on television standards for bands IV and V.	Sweden	—	—
161	Report on colour television tests in Switzerland.	Switzerland	—	—
164	Note by the Secretariat (Doc. I/42 rev. Geneva, 1958 and Doc. 23 C.M.T.T., Monte-Carlo, 1958)	C.C.I.R. Secretariat	—	—
167	Single value of signal-to-noise ratio for different television systems. Transmission of monochrome television signals over long distances.	United Kingdom	Q. 166 Q. 121	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
170	Ratio of wanted to unwanted signal in television. Use of the offset method when there are great differences between the carrier frequencies of the interfering stations.	P.R. of Poland	Q. 119 S.P. 118	—
177	Single value of signal-to-noise ratio for different television systems. Transmission of monochrome television signals over long distances.	United Kingdom	Q. 166 Q. 121	—
179 ⁴	Television standards in band V.	United Kingdom	—	—
187	Ratio of the wanted to the unwanted signal in monochrome television.	E.B.U.	Q. 119	—
201	The B.B.C. television standards converter at Swingate.	United Kingdom	—	—
202 ³	Television standards for bands IV and V.	Austria	—	—
203	Phase correction in television.	Italy	S.P. 110 (XI) Q. 128 (II)	II
228	Proposal for the transmission of monochrome signals over long distances.	Japan	S.P. 32	IX
240	Television recording.	United States of America	Q. 66	—
243	Comments on Annex A to Doc. 11. Distortion of television signals due to the use of vestigial sideband transmission.	Australia	Annex A to Doc. 11	—
299	Assessment of the quality of television pictures. (Q. 152)	Sub-Group XI-C	Draft Rep.	—
311	Summary record of the 1st meeting (6 April 1959).	S.G. XI	—	—
363	Summary record of the 2nd meeting (9 April 1959).	S.G. XI	—	—
391	Report by Sub-group XI-B.	Sub-group XI-B	—	—
497	Phase correction of television transmitters due to the use of vestigial sideband transmission.	S.G. XI	Draft Rec.	—
499	Television standards for bands IV and V. (Q. 118)	S.G. XI	Draft Rep.	—
604	Modifications to Study Programme No. 118. Ratio of the wanted to the unwanted signal in television.	Drafting Committee	S.P. 116	—
605	Ratio of the wanted to the unwanted signal in monochrome television. (Q. 119)	Drafting Committee	Rep. 125	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
626	Phase correction in television transmitters necessitated by the use of vestigial-sideband transmission.	Drafting Committee	Rec. 266	—
719	Television standards for bands IV and V. (Q. 118)	Drafting Committee	Rep. 123	—
722	Assessment of the quality of television pictures. (Q. 152)	Drafting Committee	Rep. 126	—
737	Characteristics of monochrome television systems.	Drafting Committee	Rep. 124	—
742	Report, present situation of colour television in the following countries: Belgium, U.S.A., France, Italy, Japan, Norway, Netherlands, P.R. of Poland, Federal Republic of Germany, Roumanian Peoples' Republic, U.K., Switzerland, Czechoslovakia, U.S.S.R.	S.G. XI	—	—
762	Summary record of the 3rd meeting (13 April 1959).	S.G. XI	—	—
763	Summary record of the 4th meeting (14 April 1959).	S.G. XI	—	—

STUDY GROUP No. XII

XII/1*	High-frequency broadcasting protection ratios.	United Kingdom	Q. 102 S.P. 113	—
XII/2*	Best method for calculating the field strength produced by a tropical broadcasting transmitter.	United Kingdom	Q. 154	—
XII/3*	Calculation of the field strength produced by a tropical broadcasting transmitter.	French Overseas Territories	Q. 154	—
XII/4	Field strength measurements of short-distance, high-frequency broadcasting in the tropical zone.	United Kingdom	S.P. 112	—
XII/5*	Fading allowances for tropical broadcast transmissions.	United Kingdom	Q. 157	—
XII/6*	Determination of the protection required for a broadcast signal in the presence of interference.	India	Q. 102 S.P. 113	—
XII/7*	Best method for calculating the sky-wave field produced by a tropical broadcasting transmitter.	India	Q. 154 S.P. 99	VI
XII/8*	A preliminary report on the statistical analysis of fading on short wave transmissions.	India	Q. 157 S.P. 66	VI

No.	Subject	Submitted by	Reference	Other Study Groups concerned
XII/9	Determination of noise level for tropical broadcasting.	India	Q. 155 S.P. 96	VI
XII/10	List of documents issued. (Nos. 1-10)	C.C.I.R. Secretariat	—	—
12 ¹	Report by the Chairman of Study Group No. XII. (Dr. M. B. Sarwate)	Chairman, Study Group No. XII	—	—
90*	Best method for calculating the sky-wave field produced by a tropical broadcasting transmitter.	India	Q. 154 (XII) S.P. 99 (VI)	VI
91*	A preliminary report on the statistical analysis of fading on short wave transmissions.	India	S.P. 66 (VI) Q. 157 (XII)	VI
92*	Determination of noise level for tropical broadcasting.	India	Q. 155 (XII) S.P. 96 (VI)	VI
224	Summary record of the 1st meeting (3 April 1959).	S.G. XII	—	—
238	Summary record of the 2nd meeting (6 April 1959).	S.G. XII	—	—
246	Report. (Docs. X/1 and X/6)	Sub-Group XII-A	Q. 102, Rep. 89 S.P. 112, 113, 114	—
365	Summary record of the 3rd meeting (9 April 1959).	S.G. XII	—	—
368	Second report.	Sub-Group XII-A	Draft S.P. Draft Rep.	—
415	Summary record of the 4th meeting (13 April 1959).	S.G. XII	—	—
508	Best method for calculating the field strength produced by a tropical broadcasting transmitter. (Q. 154)	S.G. XII	Draft Rep.	—
509	Determination of noise level for tropical broadcasting. (Q. 155)	S.G. XII	Draft Rep.	—
510	Fading allowances for tropical broadcast transmitters. (Q. 157)	S.G. XII	Draft Rep.	—
587	Summary record of the 5th meeting (16 April 1959).	S.G. XII	—	—
606	Interference in the bands shared with broadcasting. (Rec. 216, Q. 102)	Drafting Committee	S.P. 167	—
676	Determination of the noise level in tropical broadcasting. (Q. 155)	Drafting Committee	Rep. 120	—
677	Fading allowances for tropical broadcasting transmitters. (Q. 157)	Drafting Committee	Rep. 121	—
682	Interference in the bands shared with broadcasting. (Q. 102, S.P. 113)	Drafting Committee	Rep. 127	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
687	Best method for calculating the field-strength produced by a tropical broadcasting transmitter. (Q. 154)	Drafting Committee	Rep. 128	—
764	Summary record of the 6th meeting (23 April 1959).	S.G. XII	—	—
STUDY GROUP No. XIII				
XIII/1*	Spurious emissions from frequency-modulated VHF (metric) maritime equipment.	Federal Republic of Germany	Q. 161	—
XIII/2	Bearing and position classification for direction finding in the VHF (metric), HF (decametric) and the 2 Mc/s bands.	New Zealand	Q. 159	—
XIII/3	Selective calling devices for use in the international VHF (metric) maritime mobile services.	New Zealand	Q. 160	—
XIII/4*	Characteristics of equipments and principles governing the allocation of channels in the VHF (metric) and UHF (decimetric) land mobile services.	New Zealand	Q. 163	—
XIII/5	Interference due to intermodulation products in the VHF (metric) maritime service.	New Zealand	Q. 164	—
XIII/6	Draft supplement to C.C.I.R. Rec. 221.	Czechoslovakia	Rec. 221	—
XIII/7	Selective calling devices for use in the international VHF (metric) maritime mobile service.	Japan	Q. 160	—
XIII/8*	Interference due to intermodulation products in the VHF (metric) maritime service.	United Kingdom	Q. 164	—
XIII/9*	Spurious emissions from frequency-modulated VHF (metric) maritime equipment.	United Kingdom	Q. 161	—
XIII/10*	Selective calling devices for use in the international VHF (metric) maritime mobile service.	Federal Republic of Germany	Q. 160	—
XIII/11*	Characteristics of equipments and principles governing the allocation of channels in the VHF (metric) and UHF (decimetric) land mobile services.	Federal Republic of Germany	Q. 163	—
XIII/12	Selective calling devices for use in the international VHF (metric) maritime mobile service.	C.I.R.M.	Q. 160	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
XIII/13*	Spurious emissions from frequency-modulated VHF (metric) maritime equipment.	C.I.R.M.	Q. 161	—
XIII/14	Bearing and position classification for direction finding in the VHF (metric), HF (decametric) and the 2 Mc/s bands.	Federal Republic of Germany	Q. 159	—
XIII/15 16	Technical characteristics of single-sideband aeronautical mobile and maritime radiotelephone equipments.	C.I.R.M.	Q. 162	—
XIII/17	Bearing and position classification for direction finding in the VHF (metric), HF (decametric) and the 2 Mc/s bands.	United States of America	Draft Rec. (Q. 159)	—
XIII/18*	Selective calling devices for use in the international VHF (metric) maritime mobile service.	United States of America	Draft Rec. (Q. 160)	—
XIII/19*	Numbering system for selective signalling in maritime mobile service.	United States of America	Draft Q.	—
XIII/20	Interference due to intermodulating products in the VHF (metric) maritime service.	C.I.R.M.	Q. 164	—
XIII/21	Technical characteristics of frequency-modulated VHF (metric) maritime equipments.	United States of America	Rec.223 (Rev.) (Q. 164)	—
XIII/22	Interference due to intermodulating products in the VHF (metric) maritime service.	United States of America	Draft Rep. (Q. 164)	—
XIII/23	Technical characteristics of single-sideband aeronautical mobile and maritime radiotelephone equipments.	Federal Republic of Germany	Q. 162	—
XIII/24	Technical characteristics of single-sideband aeronautical mobile and maritime radiotelephone equipments.	Japan	Q. 162	—
XIII/25	Marine identification device.	C.I.R.M.	Q. 158	—
XIII/26*	Selective calling devices for use in the international VHF (metric) maritime mobile service.	France	Q. 160	—
XIII/27	Technical characteristics of single-sideband aeronautical mobile and maritime radiotelephone equipments.	France	Q. 162	—
XIII/28	Bearing and position classification for direction finding in the VHF (metric), HF (decametric) and the 2 Mc/s bands.	Federal Republic of Germany	Q. 159	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
XIII/29	Technical characteristics of single-sideband aeronautical mobile and maritime radiotelephone equipments.	Netherlands	Q. 162	—
XIII/30*	Characteristics of equipments and principles governing the allocation of channels in the VHF (metric) and UHF (decimetric) land mobile services.	Japan	Q. 163	—
XIII/31	Bearing and position classification for direction finding in the VHF (metric), HF (decametric) and the 2 Mc/s bands.	United States of America	Draft Rep. (Q. 159)	—
XIII/32*	Characteristics of equipments and principles governing the allocation of channels in the VHF (metric) and UHF (decimetric) land mobile services.	United Kingdom	Q. 163	—
XIII/33	Technical characteristics of single-sideband aeronautical and maritime mobile radiotelephone equipments.	United Kingdom	Q. 162	—
XIII/34	Marine identification device.	United Kingdom	Q. 158	—
XIII/35	Bearing and position classification for direction finding in the VHF (metric), HF (decametric) and the 2 Mc/s bands.	United Kingdom	Q. 159	—
XIII/36	Technical characteristics of frequency-modulated VHF (metric) maritime equipment.	Italy	Draft revision Rec. 223 (Q. 161)	—
XIII/37	Selective calling devices for use in the international VHF (metric) maritime mobile service.	United Kingdom	Q. 160	—
XIII/38	List of documents issued. (Docs. Nos. XIII/1-XIII/38)	C.C.I.R. Secretariat	—	—
13 ¹	Report by the Chairman of Study Group No. XIII. (Mr. J. D. H. van Toorn)	Chairman of Study Group No. XIII	—	—
169	Technical characteristics of single sideband aeronautical mobile and maritime radiotelephone equipment.	United Kingdom	Q. 162	—
180*	Characteristics of equipments and principles governing the allocation of frequency channels in the VHF and UHF land mobile services.	Sweden	Q. 163	—
189	Selective calling devices for use in the international VHF (metric) maritime mobile service.	Netherlands	Q. 160	—
190	Technical characteristics of single sideband aeronautical mobile and maritime radiotelephone equipments.	United States of America	Q. 162	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
191	Draft Recommendation on maritime aspects of technical characteristics of single-sideband aeronautical mobile and maritime radiotelephone equipments.	United States of America	Q. 162	—
194	Draft Report on the aeronautical aspects of C.C.I.R. Question No. 162.	United States of America	Q. 162	—
206	Selective calling devices for use in the international VHF (metric) maritime mobile service.	U.S.S.R.	Q. 160	—
207	Marine identification devices.	U.S.S.R.	Q. 158	—
227	Summary record of the 1st meeting (3 April 1959).	S.G. XIII	—	—
264	Selective calling devices for use in the international VHF (metric) maritime mobile service. (Q. 160)	S.G. XIII	Draft Rec.	—
265	Selective calling devices for use in the international VHF (metric) maritime mobile service. (Q. 160)	S.G. XIII	Draft S.P.	—
268	Draft Revision of Rec. 223. (Warsaw, 1956)	S.G. XIII	Rec. 223	—
271	Interference due to intermodulation products in the VHF (metric) maritime mobile service. (Q. 164)	S.G. XIII	Draft Rec.	—
272	Characteristics of equipments and principles governing the allocation of channels in the VHF and UHF land mobile service. (Q. 163)	S.G. XIII	Draft Rec.	—
273	Characteristics of equipments and principles governing the allocation of frequency channels in the VHF and UHF land mobile services. (Q. 163)	S.G. XIII	Draft Rep.	—
280	Marine identification devices. (Q. 158)	S.G. XIII	Draft Rec.	—
303	Bearing and position classification for direction-finding. (Q. 159)	S.G. XIII	Draft Rec.	—
304	Direction finding by ships in the 2 Mc/s band.	S.G. XIII	Draft Q.	—
348	Selective calling devices for use in the international VHF (metric) maritime mobile service. (Q. 160)	S.G. XIII	Draft S.P.	—
369	Single-sideband aeronautical and maritime radiotelephone equipments. (Q. 162)	S.G. XIII	Draft Rec.	—
371	Summary record of the 2nd meeting (8 April 1959).	S.G. XIII	—	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
395	Signals MAYDAY and PAN.	S.G. XIII	Rec. 23 (rev.)	—
396	Report.	Sub-Group XIII-D	—	—
397	Draft revision of Rec. 221.	Sub-Group XIII-D	Rec. 221	—
401	Spurious emissions from frequency-modulated VHF (metric) maritime equipment (Q. 161).	S.G. XIII	Draft Rep.	—
402	Spurious emissions from frequency-modulated VHF (metric) maritime equipment (Q. 161)	S.G. XIII	Draft Rec.	—
403	Draft revision of Rec. 223. (Warsaw, 1956)	S.G. XIII	Rec. 223	—
455	Characteristics of equipments, and principles governing the allocation of channels in the VHF and UHF land mobile services. (Q. 163)	Drafting Committee	Res. 60	—
456	Characteristics of equipments and principles governing the allocation of frequency channels in the VHF and UHF land mobile services. (Q. 163)	Drafting Committee	Rep. 114	—
555	Selective calling devices for use in the international VHF (metric) maritime mobile radiotelephone service. (Q. 160)	Drafting Committee	Rec. 257	—
556	Selective calling devices for use in the international VHF (metric) maritime mobile radiotelephone services. (Q. 160)	Drafting Committee	Draft S.P.	—
557	Interference due to intermodulation products in the VHF (metric) mobile maritime radiotelephone service. (Q. 164)	Drafting Committee	Rec. 256	—
558	Marine identification devices. (Q. 158)	Drafting Committee	Res. 61	—
559	Bearing and position classification for direction-finding. (Q. 159)	Drafting Committee	Rec. 253	—
560	Direction finding by ships in the 2 Mc/s band.	Drafting Committee	Q. 206	—
580	Selective calling devices for use in the international VHF (metric) maritime mobile radiotelephone service. (Q. 160)	Drafting Committee	S.P. 168	—
581	Single-sideband aeronautical and maritime mobile radiotelephone equipments. (Q. 162)	Drafting Committee	Rec. 258	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
582	Signals MAYDAY and PAN.	Drafting Committee	Rec. 250	—
583	Spurious emissions from frequency-modulated VHF (metric) maritime mobile equipment. (Q. 162)	Drafting Committee	Rec. 255	—
645	Technical characteristics of frequency-modulated VHF (metric) maritime equipments. (Q. 107, 164)	Drafting Committee	Rec. 254	—
659	Addition to Appendix 9 of the Radio Regulations.	Drafting Committee	Rec. 251	—
678	Spurious emissions from frequency-modulated VHF (metric) maritime mobile equipment. (Q. 161)	Drafting Committee	Rep. 113	—
765	Summary record of the 4th meeting (15 April 1959).	S.G. XIII	—	—
766	Summary record of the 5th meeting (17 April 1959).	S.G. XIII	—	—
767	Summary record of the 6th meeting (20 April 1959).	S.G. XIII	—	—

STUDY GROUP No. XIV

XIV/1	Nomenclature of the frequency and wavelength bands used in radiocommunications. (Q. 73)	Czechoslovakia	Rec. 225	—
14*	Report by the Chairman of Study Group No. XIV (Mr. R. Villeneuve)	Chairman, Study Group No. XIV	—	—
297	Summary record of the 1st meeting (3 April 1959).	S.G. XIV	—	—
398 ^a	Nomenclature of the frequency and wavelength bands used in radiocommunications. (Q. 73)	S.G. XIV	Draft Rec.	—
476	Summary record of the 2nd meeting (16 April 1959).	S.G. XIV	—	—
563	Means of expression. Terms definitions, graphical and letter symbols and their conventional usage. (Recs. 26, 34 and 144 of the C.C.I.R. and Res. 66, 67, 175 and 283 of the Administrative Council of the I.T.U.)	S.G. XIV	Draft Res.	—
564	Summary record of the 3rd meeting (17 April 1959).	S.G. XIV	—	—
589	Decimal classification. Supplements to Rep. 37 and 95. (Q. 72)	S.G. XIV	Draft Rep.	—
615	Nomenclature of the frequency and wavelength bands used in radiocommunications. (Q. 73)	Drafting Committee	Rec. 324	—

No.	Subject	Submitted by	Reference	Other Study Groups concerned
616	Means of expression. Terms, definitions, graphical and letter symbols and their conventional usage.	Drafting Committee	Res. 62	—
770	Summary record of the 5th meeting (27 April 1959).	S.G. XIV	—	—
774 ²	Possible amendments to the Radio Regulations Art. 1	Drafting Committee	Rep. 173	—

GENERAL

(Documents not directly concerned with a Study Group)

No.	Submitted by	Subject	Reference
15 ⁵	Director C.C.I.R.	Report by the Director, C.C.I.R. (Dr. E.Metzler)	—
16	Czechoslovakia	Organization of C.C.I.R. work.	Res. 36
50	C.C.I.R. Secretariat	List of documents issued. (1-50)	—
94	C.C.I.R. Secretariat	Collaboration of the C.C.I.R. in development of national and international telecommunication networks.	—
96	C.C.I.R. Secretariat	C.M.T.T. Doc. 31 (Monte Carlo, 1958) Requirements for the transmission of monochrome television signals over long-distances.	Draft Rec.
99	Director C.C.I.R.	Report by the Director, C.C.I.R., on C.C.I.R. technical apparatus.	—
100	C.C.I.R. Secretariat	List of documents issued. (51-100)	—
150	C.C.I.R. Secretariat	List of documents issued. (101-150)	—
185	C.C.I.R. Secretariat	Note by the Director, C.C.I.R.	—
200	C.C.I.R. Secretariat	List of documents issued. (151-200)	—
218	Drafting Committee	Submission of documents to the Drafting Committee.	—
223	C.C.I.R. Secretariat	Minutes of the 1st Plenary Meeting (2 April 1959).	—
244	C.C.I.R. Secretariat	Minutes of the official opening of the IXth Plenary Assembly (2 April 1959).	—
250	C.C.I.R. Secretariat	List of documents issued. (201-250)	—

No.	Submitted by	Subject	Reference
274	Organization Committee	Summary record of the 1st meeting (7 April 1959).	—
283	Italy	Draft Recommendation.	—
287	Drafting Committee	Requirements for the transmission of monochrom-television signals over long distances.	Rec. 267 (C.M.T.T. Doc. 31)
293	Drafting Committee	Proposals by the Drafting Committee for the Orga-nization Committee. Presentation of Volume 1.	—
300	C.C.I.R. Secretariat	List of Documents issued. (251-300)	—
335	Finance Committee	Summary record of the 1st meeting (10 April 1959).	—
350	C.C.I.R. Secretariat	List of Documents issued. (301-350)	—
392	Technical Assistance Committee	Summary record of the 1st meeting (8 April 1959).	—
400	C.C.I.R. Secretariat	List of Documents issued. (351-400)	—
430	Finance Committee	Summary record of the 2nd meeting (14 April 1959).	—
431	Finance Committee	First report by the Finance Committee Working Group.	—
432	Finance Committee	Note by the Director, C.C.I.R.	—
450	C.C.I.R. Secretariat	List of Documents issued. (401-450)	—
500	C.C.I.R. Secretariat	List of Documents issued. (451-500)	—
502	Organization Committee	Summary record of the 2nd meeting (15 April 1959).	—
550	C.C.I.R. Secretariat	List of Documents issued. (501-550)	—
585	Organization Committee	Summary record of the 3rd meeting (20 April 1959).	—
586	Organization Committee	Summary record of the 4th meeting (21 April 1959).	—
588	Finance Committee	Summary record of the 3rd meeting (17 April 1959).	—
600	C.C.I.R. Secretariat	List of Documents issued. (551-600)	—
627	Drafting Committee	On I.T.U. Technical Assistance.	Res. 63
628	Drafting Committee	On I.T.U. Technical Assistance.	Res. 64

No.	Submitted by	Subject	Reference
629	C.C.I.R. Secretariat	Minutes of the 2nd Plenary Meeting (20 April 1959).	—
650	C.C.I.R. Secretariat	List of Documents issued. (601-650)	—
679	Organization Committee	Report by the Chairman to the Plenary Assembly.	—
681	Organization Committee	Summary record of the 5th meeting (23 April 1959).	—
689	C.C.I.R. Secretariat	Minutes of the 3rd Plenary Meeting (22 April 1959).	—
690	C.C.I.R. Secretariat	Minutes of the 4th Plenary Meeting (23 April 1959).	—
691	C.C.I.R. Secretariat	Minutes of the 5th Plenary Meeting (24 April 1959).	—
692	Technical Assistance Committee	Summary record of the 2nd meeting (21 April 1959).	—
700	C.C.I.R. Secretariat	List of Documents issued. (651-700)	—
703	Drafting Committee	Organization of C.C.I.R. work.	Res. 67
704	Drafting Committee	Technical apparatus.	Res. 66
731	C.C.I.R. Secretariat	Minutes of the 6th Plenary Meeting (24 April 1959).	—
732	C.C.I.R. Secretariat	Minutes of the 7th Plenary Meeting (25 April 1959).	—
733	C.C.I.R. Secretariat	Draft list of C.C.I.R. Study-Group Chairmen and Vice-Chairmen.	—
734	C.C.I.R. Secretariat	List of Reports adopted by Study-Groups and examined by the Drafting Committee but not published in their final form (pink document) during the Plenary Assembly of Los Angeles. (Decision of a special meeting of Heads of Delegations and Chairmen, held on 17 April 1959)	—
735	Finance Committee	Report by the Chairman to the IXth Plenary Assembly.	—
738	Drafting Committee	Ex-gratia payment to the Geneva staff at the IXth Plenary Assembly of the C.C.I.R.	Res. 65
739	C.C.I.R. Secretariat	Minutes of the 8th Plenary Meeting (27 April 1959).	—
740	C.C.I.R. Secretariat	Minutes of the 9th Plenary Meeting (28 April 1959).	—
741	C.C.I.R. Secretariat	Minutes of the 10th Plenary Meeting (29 April 1959).	—

No.	Submitted by	Subject	Reference
743	C.C.I.R. Secretariat	Minutes of the 11th Plenary Meeting (29 April 1959).	—
744	C.C.I.R. Secretariat	Minutes of the 12th and last Plenary Meeting (29 April 1959).	—
750	C.C.I.R. Secretariat	List of Documents issued. (701-750)	—
768	Finance Committee	Summary record of the 4th meeting.	—
769	Finance Committee	Summary record of the 5th meeting.	—
775	Finance Committee	Report by the Chairman of the Working Group of the Finance Committee. Verification of accounts of the IXth Plenary Assembly, C.C.I.R.	—
776	C.C.I.R. Secretariat	List of Agenda, Corrigenda, revised documents and figures.	—
777	C.C.I.R. Secretariat	List of Documents issued. (751-777)	—

ALPHABETICAL INDEX OF VOLUMES I, II AND III

ORGANIZATIONS MENTIONED IN VOLUMES I, II AND III

PAGE INTENTIONALLY LEFT BLANK

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

ALPHABETICAL INDEX TO VOLUMES I, II AND III
(Los Angeles, 1959)

In this list, each of the texts relating to a subject is given in numerical order, preceded by one of the following abbreviations:—

Rec. for a Recommendation
Rep. for a Report
Res. for a Resolution
Q. for a Question
S.P. for a Study Programme

Subject	Text	Vol.	Page
A			
Absorption			
— sky-wave, on frequencies between the approximate limits of 1.5 and 40 Mc/s.	S.P. 145 (VI) Rep. 156	II III	115 354
Accuracy			
— of field-strength measurements by monitoring stations	Rec. 181 S.P. 102 (VIII)	I II	325 140
— of frequency measurements by monitoring stations	Rec. 322	I	328
Adjacent channel spacing			
— and bandwidth. Signal-to-noise and signal-to-interference protection ratios for fading signals. Factors affecting the quality of performance of complete systems of the fixed service	S.P. 128 (III)	II	73
Aeronautical mobile radio telephone equipments			
— single sideband. Also maritime mobile equipments	Rec. 258	I	169
Alarm signal			
— for use on the maritime mobile radiotelephony distress frequency of 2182 kc/s	Rec. 219	I	155
Amplifiers			
— intermediate frequency, with electro-mechanical filters, semiconductor capacitors and ferromagnetic tuning. Frequency stability of receivers with	Rep. 101	III	51
Amplitude modulation			
— and frequency modulation sound broadcast receivers. Sensitivity, selectivity and stability of	Rec. 237	I	106
— suppression in frequency modulation receivers. Recommended methods for measurement of	Rep. 103	III	52
— sound broadcast services. Compatible single-sideband transmission for	Q. 205 (X) S.P. 165 (X)	II II	165 166
Antenna(e)			
— directional, use of	Rec. 162	I	121

Subject	Text	Vol.	Page
Antenna(e) (continued)			
— systems directional, for high-frequency broadcasting	Q. 23 (X) S.P. 106 (X) Rep. 32	II II III	157 158 127
— directional with reduced subsidiary lobes for high-frequency broad- casting	Rep. 75	III	130
— directivity of, at great distances	Rec. 102	I	117
	Q. 81 (III) Rep. 107	II III	78 69
— for fixed services using ionospheric propagation, directivity of . . .	S.P. 131 (III)	II	80
— power supplied by a radio transmitter to. Methods of specifying . .	Rec. 129	I	25
— radiation data, presentation of	Rec. 168	I	283
— receiving, for tropical broadcasting, design of	Rec. 140	I	178
— transmitting, for tropical broadcasting, design of	Rec. 139 Q. 156 (XII) Rep. 86 Rep. 87	I II III III	177 187 136 142
— type of and site of station, choice of, to avoid interference in the bands shared with tropical broadcasting	Rec. 149	I	176
Arrangement of channels in multi-channel telegraph systems]			
— for long-range radio circuits operating on frequencies below about 30 Mc/s	Q. 74 (III)	II	78
Artificial earth satellites			
— and other space vehicles. Selection of frequencies used in telecom- munication with and between	Rec. 259	I	172
Assessment of receiver stability			
	Q. 174 (II)	II	65
Assistance, technical (I.T.U.)			
	Res. 38 Res. 63 Res. 64	II II II	31 41 42
Atlantic City Recommendation No. 4. Revision of,			
	Q. 1 (I) Q. 3 (III)	II II	51 73
Atmosphere(ic)			
— basic, reference, definition of	Rec. 309	I	297
— noise data	Rec. 315	I	309
— radio noise data, revision of	Rep. 65	III	223
— radio noise, measurement of	Res. 46 S.P. 154 (VI) Rep. 165	II II III	35 125 381
Audio frequency(ies)			
— interconnection at, for radio-relay systems for telephony using frequency-division multiplex	Rec. 268	I	229
— interconnection at, for radio-relay systems for telephony using time-division multiplex	Rec. 297	I	273
— noise in broadcasting and sound recording systems, measurement of	S.P. 162 (X)	II	161
Automatic error correction			
— of telegraph signals transmitted over radio circuits, use of	Rep. 108	III	70
Automatic frequency control			
— to make use of superfluous. Frequency stability required for single sideband, independent sideband and telegraph systems	Q. 182 (III)	II	86

Subject	Text	Vol.	Page
Automatic monitoring			
— of occupancy of the radio frequency spectrum	Rec. 182 Q. 143 (VIII) Rep. 167	I II III	327 135 395
Auto-alarm receiving equipment (500 kc/s) on board ships			
— testing of	Rec. 224	I	157
Auxiliary radio-relay systems			
— preferred characteristics of, operating in the 2000, 4000, or 6000 Mc/s bands	Rec. 296	I	271
— preferred characteristics of, for the provision of service channels on radio-relay systems for television and telephony	S.P. 160 (IX)	II	150
B			
Back-scattering	S.P. 152 (VI)	II	123
Bandwidth			
— and adjacent channel spacing, signal-to-noise and signal-to-interference protection ratios for fading signals. Factors affecting quality of performance of complete systems of the fixed services	S.P. 128 (III) Rec. 161	II I	73 119
— and signal-to-noise ratios in complete systems	Rep. 105 Rec. 230	III I	59 36
— and signal-to-noise ratios in complete systems. The prediction of telegraph system performance in terms of	S.P. 126 (I) Rec. 229	II I	54 32
— and spectra of emissions	Rec. 231	I	43
— and spectra of emissions. Measurement of	Rec. 100	I	116
— occupied by an emission. Definition of	Q. 201 (X) Rep. 174	II III	163 187
— occupied and transmitter power in radiotelephony. Reduction of	Rep. 97	III	30
— of emissions for long- and medium-wave sound broadcasting	Rec. 101	I	117
— of emissions for high-frequency broadcasting	Rep. 110	III	87
— of telegraph emissions A1 and F1. Evaluation of interference produced by these emissions			
— required at a telegraph or telephone receiver output			
— utilization, dependence on. The relation between permissible delay and residual uncertainty			
Bands shared with tropical broadcasting			
— choice of frequency to avoid interference in	Rec. 48	I	175
— choice of site of station and type of antenna to avoid interference in	Rec. 49	I	176
— interference in	Q. 102 (XII) S.P. 167 (XII) Rep. 89 Rep. 127	II II III III	181 185 142 176
— limitation of the power of transmitters in tropical zones to avoid interference in	Rec. 214	I	180
— Minimum permissible protection ratio to avoid interference in	Rec. 216	I	183
Baseband			
— arrangements, in radio-relay systems for television and telephony. Simultaneous transmission by the same radio-frequency carrier	Rec. 271	I	231
— frequencies, interconnection at, in radio-relay systems for telephony using frequency-division multiplex	Rec. 269	I	229
Basic			
— data, availability and exchange of, and reliability of radio propagation forecasts	Rep. 160	III	367

Subject	Text	Vol.	Page
Basic (continued)			
— index for ionospheric propagation, choice of	Res. 44 S.P. 150 (VI)	II II	34 121
— prediction information for ionospheric propagation	Rep. 162 S.P. 149 (VI)	III II	373 119
— propagation prediction charts, presentation of	Rep. 161 Rec. 116	III I	372 283
— words used in the International Telecommunication Convention, definitions of	Res. 34	II	199
Broadcasting			
— use of 26 Mc/s band	Res. 17	II	27
— and sound recording systems. Measurement of audio noise in	S.P. 162 (X)	II	161
— services including television, VHF (metric) and UHF (decimetric), measurement of field-strength for	Q. 138 (V) Rep. 142	II III	96 280
— services, television and sound, in the VHF (metric) and UHF (deci- metric) bands. Advantages to be gained from the use of orthogonal wave polarizations in the planning of	Rep. 122	III	155
— medium-wave. Quality of reception in the secondary service area	Q. 202 (X) S.P. 164 (X)	II II	164 164
Broadcasting, high-frequency			
— bandwidth of emissions	Rep. 174	III	187
— conditions for satisfactory reception	Q. 39 (X) Rep. 119	II III	158 151
— directional antenna systems	Q. 23 (X) S.P. 106 (X) Rep. 32 Rep. 75	II II III III	157 158 127 130
— Effects of different spacings between the carrier frequencies	Q. 203 (X)	II	165
— Effects of propagation path length and direction on protection ratios	Q. 204 (X)	II	165
— Justification for the use of more than one frequency per programme	Rep. 118	III	150
— short-distance, in the tropical zone	S.P. 112 (XII)	II	182
— synchronized transmitters, use of	Rec. 205	I	179
Broadcasting, interference caused by electrical installations.			
Methods of measurement and limits of tolerances	Rec. 27	I	55
Broadcasting, sound			
— amplitude-modulation, compatible single-sideband transmission for	Q. 205 (X) S.P. 165 (X)	II II	165 166
— frequency-modulation in the VHF (metric) band	Q. 150 (X) Rep. 77	II III	159 133
— long- and medium-wave, bandwidth of emissions	Q. 201 (X)	II	163
— measurement of programme level in	Q. 151 (X) S.P. 109 (X) Rep. 117	II II III	160 160 150
— frequency-modulation, in the VHF (metric) band, standards for	Rec. 263	I	198
Broadcasting, stereophonic			
— recording for	Q. 199 (X)	II	162
— standards for compatible systems in	Q. 200 (X) S.P. 163 (X)	II II	163 162

Subject	Text	Vol.	Page
Broadcasting, tropical			
— design of transmitting antennae for	Rec. 139	I	177
	Q. 156 (XII)	II	187
	Rep. 86	III	136
	Rep. 87	III	142
— determination of noise level for	Q. 155 (XII)	II	186
	Rep. 120	III	153
— fading allowances for	Q. 157 (XII)	II	188
	Rep. 121	III	154
— interference in the bands used for	S.P. 114 (XII)	II	184
— transmitter, best method for calculating the field-strength produced by	Q. 154 (XII)	II	185
	Rep. 128	III	180
Broadcasting, tropical, interference in the bands shared with			
	Q. 102 (XII)	II	181
	S.P. 167 (XII)	II	185
	Rep. 89	III	142
	Rep. 127	III	176
— choice of frequency, to avoid	Rec. 48	I	175
— choice of site of stations and type of antenna, to avoid	Rec. 49	I	176
C			
C.C.I.F. Questions Nos. 14 and 15	Rep. 33	III	129
C.C.I.R. work, organization of	Res. 67	II	44
Carrier spacing			
— effects of closer, between carriers in HF broadcasting	Rec. 262	I	198
— effects of different, in HF broadcasting	Q. 203 (X)	II	165
Centre frequencies			
— and frequency bands for radio-relay systems for television and telephony. Preferred values for radio-relay links for international connections	Res. 55	II	39
Channel allocation			
— in the VHF (metric) and UHF (decimetric) and mobile services. Characteristics of equipments and principles governing the	Q. 163 (XIII)	II	194
	Res. 60	II	195
	Rep. 114	III	114
Channel arrangement(s)			
— in multi-channel radiotelephone transmitters for long range circuits operating on frequencies below about 30 Mc/s	Rec. 249	I	143
— in multi-channel telegraph systems for long range radio circuits operating on frequencies below about 30 Mc/s	Q. 74 (III)	II	78
— radio-frequency, for frequency-modulation radio-relay systems using tropospheric-scatter propagation	Rec. 303	I	277
Channel capacity required for a television signal, reduction of	S.P. 119 (XI)	II	175
Channel designation in multi-channel radiotelegraph systems			
— and classification of these systems for long range circuits operating on frequencies below 30 Mc/s	Rec. 248	I	141

Subject	Text	Vol.	Page
Channels, individual in multichannel telephone systems. Signal amplitudes in	Q. 111	II	205
Channel separation	Rec. 97	I	114
— achieved in practice	Rec. 98	I	115
Channel spacing, adjacent			
— and bandwidth. Signal-to-noise and signal-to-interference protection ratios for fading signals. Factors affecting quality of performance of complete systems of the fixed service	S.P. 128 (III)	II	73
Characteristics			
— of equipments and principles governing the allocation of channels in the VHF (metric) and UHF (decimetric) land mobile services	Q. 163 (XIII) Res. 60 Rep. 114 Rep. 124	II II III III	194 195 114 165
— of monochrome television systems	Rec. 273	I	234
— intermediate frequency, of radio-relay systems for television and telephony	Rec. 299	I	274
— major, agreement on, for radio-relay systems for telephony using time-division multiplex	Rep. 104	III	54
— phase/frequency or group delay/frequency of receivers. Methods of measuring.			
Characteristics, preferred			
— for auxiliary radio-relay systems for the provision of service channels in radio-relay systems for television and telephony	S.P. 160 (IX)	II	150
— for the transmission of monochrome television, on radio-relay systems for television	Q. 194 (IX)	II	148
— for the transmission of more than one sound channel in radio-relay systems for television and telephony	S.P. 159 (IX)	II	148
— of auxiliary radio-relay systems operating in the 2000, 4000 and 6000 Mc/s bands. Radio-relay systems for television and telephony	Rec. 296 Rec. 298	I I	271 273
— of radio-relay systems for telephony using time-division multiplex			
— of the sound channel. Simultaneous transmission of a monochrome television signal and a single sound channel on radio-relay systems for television	Rec. 272	I	233
Characteristics, technical			
— to be specified in order to be able to interconnect any two radio-relay systems for telephony using frequency-division multiplex	Rep. 131	III	195
— to be specified in order to interconnect any two radio-relay systems for telephony using time-division multiplex	Rep. 134	III	203
— transmission, of line systems. Information required for use in the design of radio-relay systems	Q. 112	II	206
Charts			
— basic propagation prediction. Presentation of	Rec. 116	I	283
— climatic, of refractive index parameter ΔN . Tropospheric wave propagation	Rep. 147	III	299
— meteorological, transmission over radio circuits by direct frequency-modulation of the carrier	Rec. 243 Q. 130 (III)	I II	133 81

Subject	Text	Vol.	Page
Classification			
— bearing and position, for direction-finding	Rec. 253	I	163
— of multi-channel radiotelegraph systems for long-range circuits operating on frequencies below 30 Mc/s and the designation of channels in these systems	Rec. 248	I	141
Climatic charts			
— of refractive index parameter ΔN . Tropospheric-wave propagation	Rep. 147	III	299
Colour television			
— and monochrome television signals. Transmission over long distances	Res. 32 Q. 121 (XI)	II II	30 174
— signals, radiated, standards for	S.P. 81 (XI)	II	170
— signals, video standards for	S.P. 80 (XI)	II	169
— standards	Q. 118 (XI)	II	169
Combined radio and metallic circuits			
— facsimile transmission of documentary matter over	Q. 94 (III)	II	80
Communication theory			
	Rec. 165	I	125
	Q. 133 (III)	II	82
	S.P. 86 (III)	II	83
Compatible single-sideband			
— transmission for amplitude-modulation, sound-broadcast services.	Q. 205 (X) S.P. 165 (X)	II II	165 166
Compatible systems			
— in sound and television broadcasting. Standards for stereophonic broadcasting	S.P. 163 (X)	II	162
Complete systems			
— bandwidths and signal-to-noise ratios in	Rec. 161	I	119
— bandwidths and signal-to-noise ratios in. The prediction of telegraph system performance in terms of bandwidth and signal-to-noise ratios	Rep. 105	III	59
— of the fixed service. Factors affecting the quality of performance. Signal-to-noise and signal-to-interference protection ratios for fading signals, bandwidth and adjacent channel spacing	S.P. 128 (III)	II	73
— maximum tolerable interference levels, determination of	Q. 84 (I)	II	59
Calculation (computation)			
— of intermodulation noise due to non-linearity in radio-relay systems for telephony using frequency-division multiplex.	Res. 57 Rep. 129	II III	40 191
— of the field-strength produced by a tropical broadcasting transmitter. Best method of	Q. 154 (XII) Rep. 128	II III	185 180
Conservation of frequency spectrum			
— for high precision time signals	S.P. 156 (VII)	II	131
Conversion of a television signal from one standard to another			
	S.P. 36 (XI)	II	175

Subject	Text	Vol.	Page
Curves, tropospheric-wave propagation	Rec. 312 S.P. 137 (V) Res. 23 Rep. 145	I II II III	303 101 102 293
D			
Decimal classification	Q. 72 (XIV) Rep. 37 Rep. 95	II III III	202 419 420
Definition(s)			
— in the Radio Regulations, Art 1, possible amendments to	Rep. 173	III	421
— of a basic reference atmosphere	Rec. 309	I	297
— of certain basic words used in the International Telecommunication Convention	Res. 34	II	199
— of terms relating to propagation in the troposphere	Rec. 310	I	298
Design objectives			
— for voice frequency telegraphy on telephone channels, on radio-relay systems for telephony using frequency division multiplex	Rep. 132	III	198
— of radio-relay systems. Information required on the transmission characteristics of line systems	Q. 112	II	206
Design of antennae			
— transmitting, for tropical broadcasting	Rec. 139 Q. 156 (XII) Rep. 86 Rep. 87 Rep. 140	I II III III I	177 187 136 142 178
— receiving, for tropical broadcasting			
Determination			
— of maximum interference levels tolerable in complete systems	Q. 84 (I)	II	59
— of noise level for tropical broadcasting	Q. 155 (XII) Rep. 120	II III	186 153
Deviation			
— and frequency of continuity pilots in radio-relay systems for television and telephony	Rec. 292	I	264
— of frequency associated with passage through the ionosphere. Influence on long-distance high-frequency communication using frequency-shift keying	Rep. 111 Q. 181 (III)	III II	89 85
Deviation, frequency			
— and sense of modulation in radio-relay systems for television	Rec. 276	I	239
— in radio-relay systems for telephony using frequency-division multiplex	Rec. 274	I	235
Differential sensitivity and resolving power of the human eye	Q. 153 (XI)	II	176
Direction-finding			
— bearing and position classification for	Rec. 253	I	163
— by ships in the 2 Mc/s band	Q. 206 (XIII)	II	196

Subject	Text	Vol.	Page
Direction finding (continued)			
— HF (decametric) and VHF (metric)	Rep. 93	III	109
— pulse transmission for	Rec. 126	I	152
— use of 8364 kc/s for	Rec. 252	I	161
Directional antennae			
— high-frequency broadcasting	Rec. 80	I	176
— improvement obtainable from the use of	S.P. 130 (III)	II	79
	Rep. 106	III	64
— systems for high-frequency broadcasting	Q. 23 (X)	II	157
	S.P. 106 (X)	II	158
	Rep. 32	III	127
	Rep. 75	III	130
— use of	Rec. 162	I	121
Directivity of antennae			
— at great distances	Rec. 102	I	117
	Q. 81 (III)	II	78
	Rep. 107	III	69
— for fixed services using ionospheric-scatter propagation	S.P. 131 (III)	II	80
Distortion			
— in frequency-modulation receivers due to multipath propagation	Q. 177 (II)	II	67
— of television signals due to the use of vestigial-sideband transmission	S.P. 110 (XI)	II	170
Distortion, telegraphic			
— quality index, error rate, efficiency factor	Rep. 245	III	136
	S.P. 132 (III)	II	86
Distress frequency, radiotelephony 2182 kc/s			
— maritime, alarm signal for use on	Rec. 219	I	155
— watch on	Rec. 124	I	151
Disturbances in television receivers resulting from harmonics and other non-essential radiations from radio transmitters			
	Rec. 83	I	25
Documentary matter, facsimile transmission of, over combined radio and metallic circuits			
	Q. 94 (III)	II	80
Documentation preparatory, reduction of			
Doppler	Res. 35	II	31
— frequency changes in long-distance communications	Rep. I II	III	89
E			
Efficiency factor, telegraphic distortion, quality index, error rate			
	S.P. 132 (III)	II	86
Electrical characteristics of the surface of the earth			
— determination of	Rep. 139	III	267
	Q. 135 (V)	II	95
Electro-mechanical filters,			
— semi-conductor capacitors and ferromagnetic tuning, stability of IF amplifiers with	Rep. 101	III	51
Emission(s)			
— bandwidth of, for long- and medium-wave sound broadcasting	Q. 201 (X)	II	163
— modulated, power relationships for	Rec. 130	I	26

Subject	Text	Vol.	Page
Emission(s) (continued)			
— definition of bandwidth occupied by	Rec. 231	I	43
— telegraphic, A1 and F1, bandwidth of. Evaluation of interference produced by these emissions	Rep. 97	III	30
Emissions, spectra and bandwidth of			
	Rec. 230	I	36
	S.P. 126 (I)	II	54
— measurement of	Rec. 229	I	32
Emissions, spurious			
	Rec. 232	I	44
	S.P. 124 (I)	II	52
— from receivers excluding sound-broadcast and television	Q. 176 (II)	II	67
— from receivers of special types	Rep. 102	III	52
Error rate			
— maximum tolerable. Use of radio circuits in association with 5-unit, start-stop telegraph apparatus	Q. 110	II	205
— telegraphic distortion, quality index, efficiency factor	S.P. 132 (III)	II	86
Evaluation of interference produced by telegraphic emissions A1 and F1	Rep. 97	III	30
Exchange of information for the preparation of short-term forecasts and the transmission of ionospheric disturbance warnings	Rec. 313	I	306
Exchange of programmes			
— international, sound recording for	Rec. 260	I	184
	Rec. 261	I	184
— international. Standards of sound recording for single-track recording on magnetic tape	Res. 58	II	41
	Res. 59	II	41
Exchange of television programmes			
	Q. 120 (XI)	II	174
— international. Film recording. Recording standards	Rec. 265	I	199
	Rep. 81	III	135
— international, recording standards for	Rec. 264	I	199
External interference with the standard-frequency service in the bands allocated to that service, avoidance of	Rec. 321	I	319
Ex-gratia payment to the Geneva Staff at the IXth Plenary Assembly of the C.C.I.R.	Res. 65	II	42
Eye, human, resolving power and differential sensitivity of	Q. 153 (XI)	II	176
F			
Facsimile			
— apparatus, standardization of, for use on combined radio and metallic circuits	Res. 15	II	127
— transmission of documentary matter over combined radio and metallic circuits	Q. 94 (III)	II	80
— transmission of meteorological charts over radio circuits	Rec. 243	I	133
Fading			
— allowances for the various classes of service	Rec. 164	I	123
— allowances for tropical broadcasting	Q. 157 (XII)	II	188
	Rep. 121	III	154
— of signals propagated by the ionosphere.	Rep. 159	III	360

Subject	Text	Vol.	Page
Fading (continued)			
— signals, signal-to-noise and signal-to-interference protection ratios for; bandwidth and adjacent channel spacing. Factors affecting quality of performance of complete systems of the fixed services	S.P. 128 (III)	II	73
— study of	S.P. 148 (VI) Res. 49	II II	118 119
Feedback suppressors, classification and essential characteristics of	Rec. 75	I	114
Ferromagnetic tuning, electro-mechanical filters and semi-conductor capacitors. Stability of IF amplifiers with	Rep. 101	III	51
Film recording for the international exchange of television programmes			
— recording standards for	Rec. 264 Rec. 265	I I	199 199
— sound-	Rep. 81	III	135
Field-strength (intensity)			
— and frequency measurements made at monitoring stations, form of report for	Rec. 22	I	324
— estimation of, study of sky-wave propagation on frequencies between approximately 1.5 and 40 Mc/s.	S.P. 144 (VI) Rep. 155	II III	113 353
— for VHF (metric) and UHF (decimetric) broadcast services including television, measurement of	Q. 138 (V) Rep. 142	II III	96 280
— ground-wave, temporal variations of	Rep. 46	III	221
— in the neighbourhood of obstacles, measurement of	Q. 137 (V)	II	95
— power flux density, radiated power, available power from receiving antenna and transmission loss, measurement of	Rep. 138	III	256
— produced by a tropical broadcasting transmitter, best methods of calculating	Q. 154 (XII) Rep. 128	II III	185 180
Field-strength measurements at monitoring stations	S.P. 102 (VIII) Rep. 170	II III	140 406
— accuracy of	Rec. 181	I	325
Field-strength (sky-wave) on frequencies between approximate limits of 1.5 and 40 Mc/s	Rec. 317 Res. 48	I II	311 114
Five-unit, start-stop telegraph alphabet, use of radio circuits in association with			
— maximum tolerable signal error rates	Q. 110	II	205
— signals other than those specified in the international telegraph alphabet No. 2	Q. 109	II	205
Fixed service			
— factors affecting the quality of performance of complete systems of	S.P. 128 (III)	II	73
— standardized radiotelephone speech test recording for	Q. 179 (III)	II	84
— using ionospheric-scatter propagation, directivity of antennae for	S.P. 131 (III)	II	80
Flutter and wow in equipment for sound recording and reproduction, measurement of	Rec. 210 Rep. 116	I III	179 149

Subject	Text	Vol.	Page
Forecasts, radio propagation,			
— availability, exchange of basic data and reliability of	Rep. 160	III	367
— short-term preparation of, and transmission of ionospheric disturbance warnings, exchange of information	Rec. 313	I	306
Four-frequency duplex systems			
	Rec. 247	I	140
	S.P. 134 (III)	II	89
Frequency(ies)			
— and deviations of continuity pilots for radio-relay systems for television and telephony	Rec. 292	I	264
— and field-strength measurements at monitoring stations, form of report for	Rec. 22	I	324
— and wavelength bands used in radio communications. Nomenclature of	Rec. 324	I	335
— bands and centre-frequencies, preferred, for radio-relay links for international connection on radio-relay systems for television and telephony	Res. 55	II	39
— below 1500 kc/s, radio propagation at	Res. 43	II	33
	S.P. 142 (VI)	II	110
	Rep. 154	III	348
— below 10 Mc/s, effects of standard tropospheric refraction on	S.P. 87 (V)	II	97
	Rep. 45	III	220
— deviations associated with passage through the ionosphere. Influence on long-distance high-frequency communication using frequency-shift keying	Q. 181 (III)	II	85
	Rep. 111	III	89
— for telecommunication with and between space vehicles, factors affecting the selection of	Rec. 259	I	172
	Rep. 115	III	114
— instability, tolerable, of receivers	Rep. 100	III	49
— shift keying	Rec. 246	I	138
	Q. 183 (III)	II	88
	S.P. 133 (III)	II	89
— spectrum conservation for high-precision time signals	S.P. 156 (VII)	II	131
— standard, and time signals. Transmissions in band 4	Res. 53	II	38
— to avoid interference in the bands shared with tropical broadcasting	Rec. 48	I	175
— used for radio astronomical measurements, protection of	Rec. 314	I	308
— used for telecommunication with and between space vehicles, influence of the troposphere on	Res. 40	II	32
— 8364 kc/s, use of, in direction finding	Rec. 252	I	161
— used in telecommunication with and between artificial-earth satellites and other space vehicles, selection of	Rec. 259	I	172
Frequencies between the approximate limits of 1.5 and 40 Mc/s			
— sky-wave absorption on	S.P. 145 (VI)	II	115
	Rep. 156	III	354
— study of sky-wave field-strength	Res. 48	II	114
	Rep. 152	III	344
	Rep. 155	III	353
— study of sky-wave propagation for estimation of field-strength	S.P. 144 (VI)	II	113
Frequency measurements at monitoring stations			
	Q. 145 (VIII)	II	135
— accuracy of	Rep. 169	III	402
	Rec. 322	I	328
Frequency modulation			
— and amplitude-modulation broadcast receivers, sensitivity, selectivity and stability of	Rec. 237	I	106

Subject	Text	Vol.	Page
Frequency modulation (continued)			
— direct, of the carrier, transmission of meteorological charts over radio circuits by	Q. 130 (III)	II	81
— receivers, distortion due to multipath propagation	Q. 177 (II)	II	67
— receivers, recommended methods of measuring amplitude modulation suppression in	Rep. 103	III	52
— sound broadcasting in the VHF (metric) band	Q. 150 (X)	II	159
	Rep. 77	III	133
— systems. Radio-frequency channel arrangements in radio-relay systems using tropospheric-scatter propagation	Rep. 136	III	209
— systems, pre-emphasis characteristics for, in radio-relay systems for telephony using frequency-division multiplex	Rec. 275	I	236
— systems, pre-emphasis characteristics for radio-relay systems for television	Rec. 277	I	239
Frequency-modulation VHF (metric) maritime, mobile equipments			
— spurious emissions from	Q. 161 (XIII)	II	194
	Rep. 113	III	113
— technical characteristics of	Rec. 254	I	164
Frequency-modulation sound broadcasting in the VHF (metric) band. Standards for			
	Rec. 263	I	198
Frequency stability (stabilization)			
— of receivers	Rec. 236	I	96
	Q. 173 (II)	II	64
— of receivers. Stability of IF amplifiers with electro-mechanical filters, semi-conductor capacitors and ferromagnetic tuning	Rep. 101	III	51
— required for single-sideband, independent-sideband and telegraph systems to make the use of automatic frequency control superfluous	Q. 182 (III)	II	86
— of transmitters	Rec. 233	I	48
	S.P. 125 (I)	II	53
G			
Ground reflections, intermediate, long-distance ionospheric propagation without			
	Rep. 164	III	379
Ground-wave			
— field strength, temporal variations of	Rep. 46	III	221
— propagation curves below 10 Mc/s	Rec. 307	I	285
— propagation over inhomogeneous earth	Rec. 308	I	297
	S.P. 135 (V)	II	98
	Rep. 141	III	276
— propagation over irregular terrain	S.P. 89 (V)	II	98
	Rep. 140	III	274
Group-delay/frequency and phase/frequency characteristics of receivers. Measurement of			
	Rep. 104	III	54
H			
Half-tone pictures, transmission over radio circuits			
	Q. 95 (III)	II	81
Horizon, distances well beyond, tropospheric propagation curves for			
	S.P. 137 (V)	II	101
	Rep. 145	III	293

Subject	Text	Vol.	Page
High-frequency broadcasting			
— bandwidth of emissions	Rep. 174	III	187
— conditions for satisfactory reception	Q. 39 (X)	II	118
	Rep. 119	III	151
— directional antennae for	Rec. 80	I	176
— directional antenna systems for	Q. 23 (X)	II	157
	S.P. 106 (X)	II	158
	Rep. 32	III	127
	Rep. 75	III	130
— effect of propagation path length and direction on protection ratios	Q. 204 (X)	II	165
— effects of closer spacing between the carriers	Rec. 262	I	198
— effects of different spacing between carrier frequencies	Q. 103 (X)	II	165
— justification of the use of more than one frequency per programme	Rep. 118	III	150
— reception	Rep. 119	III	151
— short-distance, in the tropical zone, maximum power for	Rec. 215	I	181
— use of synchronized transmitters in	Rec. 205	I	179
High-frequency, long-distance, communication using frequency-shift keying			
Influence of frequency deviations associated with passage through the ionosphere	Q. 181 (III)	II	85
	Rep. 111	III	89
High-frequency direction-finding. HF (decametric) and VHF (metric)			
	Rep. 93	III	109
High-frequency, short-distance, broadcasting in the tropical zone			
	S.P. 112 (XII)	II	182
Human eye, resolving power and differential sensitivity of			
	Q. 153 (XI)	II	176
Hypothetical reference circuit			
— and circuit noise in radio-relay systems for television and telephony	Q. 193 (IX)	II	146
— for radio-relay systems for telephony using frequency-division multiplex, with capacity of 12 to 120 telephone channels	Rec. 285	I	253
— for radio relay systems for telephony using frequency-division multiplex with capacity of more than 120 telephone channels	Rec. 286	I	254
— for radio-relay systems for telephony using time-division multiplex with capacity of 60 telephone channels or less	Rec. 300	I	275
Hypothetical reference circuit, permissible noise in			
— for radio-relay systems for monochrome television	Rec. 289	I	260
— for radio-relay systems for telephony using frequency-division multiplex	Rec. 287	I	256
— for radio-relay systems for telephony using time-division multiplex	Rec. 301	I	275
I			
I.F.R.B., questions submitted by			
	Rep. 150	III	342
I.G.Y., ionospheric sounding stations after,			
	Rep. 151	III	343
I.T.U., technical assistance			
	Res. 63	II	41
	Res. 64	II	42
Identification			
— of precursors indicative of short-term variations of ionospheric propagation conditions	Res. 45	II	35
	S.P. 93 (VI)	II	109
	Rep. 153	III	346

Subject	Text	Vol.	Page
Identification (continued)			
— of radio stations	Rec. 323 Res. 19 Q. 187 (VIII) Rep. 171	I II II III	330 28 136 412
— of sources of interference to radio reception	Q. 190 (VIII)	II	139
Improvement obtainable from the use of directional antennae	S.P. 130 (III) Rep. 106	II III	79 64
Independent-sideband, single-sideband and telegraph systems. Frequency stability required to make the use of automatic frequency control superfluous	Q. 182 (III)	II	86
Index, ionospheric			
— basic, for ionospheric propagation, choice of	Res. 44 S.P. 150 (VI) Rep. 162	II II III	34 121 373
— choice and evaluation. Organization of work on	Res. 50	II	121
Industrial installations, limitation of unwanted radiation from	Q. 75 (I) S.P. 84 (I) Res. 39	II II II	56 57 58
Inhomogeneities in the troposphere, radio transmission caused by	Res. 24 S.P. 139 (V) Rep. 148	II II III	29 105 338
Inhomogeneous earth, ground-wave propagation over	Rec. 308 S.P. 135 (V) Rep. 141	I II III	297 98 276
Instability, frequency, receiver, tolerable	Rep. 100 Q. 3 (III)	III II	49 73
Interconnection			
— at audio frequencies, of radio-relay systems for telephony using frequency-division multiplex	Rec. 268	I	229
— at audio frequencies, of radio-relay systems for telephony using time-division multiplex	Rec. 297	I	273
— at baseband frequencies, of radio-relay systems for telephony using frequency-division multiplex	Rec. 269	I	229
— at video-signal frequencies, of radio-relay systems for television	Rec. 270	I	231
— international, between radio-relay systems for television and telephony having differing characteristics. procedure for	Rec. 306	I	280
— of any two radio-relay systems for telephony using frequency-division multiplex. Technical characteristics to be specified	Rep. 131	III	195
— of any two radio-relay systems for telephony using time-division multiplex. Technical characteristics to be specified	Rep. 134	III	203
— of differing multiplex systems for radio-relay systems for telephony	Rec. 304	I	278
— of mobile radiotelephone stations, conditions necessary for	Rec. 77	I	150
— of radio-relay and line systems. Line-regulating and other pilots	Rec. 291	I	263
Intermediate frequency			
— characteristics of radio-relay systems for television and telephony	Rec. 273	I	234
— choice of, and protection against undesired response of super-heterodyne receivers for the maritime mobile service	Q. 171 (II) Rep. 98	II III	63 41

Subject	Text	Vol.	Page
Intermediate frequency (continued)			
— amplifiers with electro-mechanical filters, semi-conductor capacitors and ferromagnetic tuning. Stability of	Rep. 101	III	51
Interference			
— caused to broadcasting by electrical installations. Methods of measurement and limits of tolerance	Rec. 27	I	55
— external, with transmissions of the standard-frequency service in the bands allocated to that service	Rec. 321	I	319
— due to intermodulation products in the VHF and UHF maritime mobile radiotelephone service	Rec. 256	I	167
— from ships' radar to other communication apparatus on board, avoidance of	Rec. 45	I	149
— keyed, protection against	S.P. 127 (II)	II	69
— in the frequency bands used for tropical broadcasting	S.P. 114 (XII)	II	84
— limitation of, in radio-relay systems employing tropospheric scatter	Rec. 302	I	276
— maximum tolerable levels of, in complete systems, determination of	Q. 84 (I)	II	59
— possibilities of reducing, and of measuring actual traffic spectra	Rep. 96	III	17
— produced by telegraph emissions A1 and F1, evaluation of and the bandwidth of these emissions	Rep. 97	III	30
— to radio services	Rec. 131	I	26
Interference in the bands shared with tropical broadcasting			
	Q. 102 (XII)	II	181
	Rep. 89	III	142
	Rep. 127	III	176
	S.P. 167 (XII)	II	185
— choice of frequency, to avoid	Rec. 48	I	175
— choice of sites and types of antenna, to avoid	Rec. 49	I	176
— limitation of the power of transmitters, to avoid	Rec. 214	I	180
— minimum permissible protection ratio, to avoid	Rec. 216	I	183
Interference, quasi-impulsive			
— response of broadcast and television receivers to	Rec. 159	I	56
— usable sensitivity of radio receivers in the presence of	Q. 175 (II)	II	66
	Rep. 99	III	43
Interference to radio reception			
— identification of sources of	Q. 190 (VIII)	II	139
— on ships, prevention of	Rec. 218	I	153
Intermittent communication			
— in radiotelegraphy, use of	Q. 180 (III)	II	85
— by meteor-burst propagation	S.P. 146 (VI)	II	116
— long-distance, in the VHF (metric) band by means of scattering from columns of ionization produced by meteors in the lower ionosphere	Rep. 157	III	356
Intermodulation products in the VHF (metric) maritime mobile radiotelephone service, interference due to			
	Rec. 256	I	167
Intermodulation noise due to non-linearity in radio-relay systems for telephony using frequency-division multiplex. Methods of computation			
	Res. 57	II	40
	Rep. 129	III	191
International			
— connection between radio-relay systems for television and telephony with differing characteristics, procedure for	Rec. 306	I	280
— connection of radio-relay systems for television and telephony, preferred frequency bands and centre frequencies	Res. 55	II	39

Subject	Text	Vol.	Page
International (continued)			
— monitoring service, organization of	Rec. 19	I	323
— Telecommunication Convention, definitions of certain basic words used in	Res. 34	II	199
— telegraph alphabet No. 2, signals other than those specified in. Use of radio circuits in association with 5-unit, start-stop telegraph apparatus	Q. 109 Res. 33 Rep. 90	II II III	205 191 103
— telegraph service, publication of service codes in use in			
— telephone circuits, intercontinental radiotelephone systems and use of radio links in	Rec. 40	I	111
International exchange of programmes			
— for television	Q. 120 (XI) Rec. 260	II I	174 184
— sound recording for	Res. 58 Res. 59 Rec. 261 S.P. 161 (X) Rep. 79	II II I II III	41 41 184 160 134
— standards of sound recording on single-track magnetic tape	Rec. 264 Rec. 265 Rep. 81	I I III	199 199 135
— television, recording standards for			
Interruptions			
— on radio links when switching from normal to standby equipment, duration of	Rep. 137	III	213
— to transmission on radio-relay links for television and telephony	Q. 197 (IX)	II	153
Ionization			
— columns of, produced by meteors in the lower ionosphere, intermittent long-distance radio communication in the VHF (metric) band by means of	Rep. 157	III	356
— in the E and F regions of the ionosphere, long-distance propagation of waves of 30 to 300 Mc/s by way of	Rep. 149	III	339
Ionosphere(ic)			
— disturbance warnings, transmission of and preparation of short-term forecasts. exchange of information for	Rec. 313	I	306
— effects on radio waves used for telecommunication with and between space vehicles beyond the lower atmosphere	Res. 47 Rep. 159	II III	36 360
— fading of signals propagated by	Res. 50	II	121
— indices, work on the choice and evaluation of			
— influence on long-distance, high-frequency communication using frequency-shift keying of frequency deviations associated with passage through	Q. 181 (III) Rep. 111	II III	85 89
— lower, inhomogeneities in, regular long-distance transmission in the VHF (metric) band by means of scattering from	Rep. 158	III	357
— lower, intermittent long-distance radio communication in the VHF (metric) band by means of scattering from columns of ionization produced by meteors	Rep. 157	III	356
— sounding stations after the I.G.Y.	Rep. 151	III	343
Ionospheric propagation			
— basic prediction information for	Rec. 316 Res. 44	I II	310 34
— choice of a basic index for	S.P. 150 (VI) Rep. 162	II III	121 373

Subject	Text	Vol.	Page
Ionospheric propagation (continued)			
— identification of precursors indicative of short-term variations of	Res. 45	II	35
	S.P. 93 (VI)	II	109
	Rep. 153	III	346
— long-distance, of waves of 30 to 300 Mc/s by way of ionization in the E and F regions of the ionosphere	Rep. 149	III	339
— long-distance, without intermediate ground reflections	Rep. 164	III	379
Ionospheric-scatter			
— and meteor-burst propagation	Res. 52	II	37
— propagation	S.P. 147 (VI)	II	117
— propagation, directivity of antennae for fixed services using	S.P. 131 (III)	II	80
— propagation, radio-relay systems employing	Q. 132 (III)	II	82
	Rep. 109	III	72
Irregular terrain, ground-wave propagation over	S.P. 89 (V)	II	98
J			
Joint Study Group (C.C.I.T.T./C.C.I.R.) on the transmission of monochrome and colour television signals over long distances	Res. 32	II	30
Joint Working Party (C.C.I.T.T./C.C.I.R.) on circuit noise for radio-relay systems for telephony	Res. 56	II	147
K			
Keying, frequency-shift	Rec. 246	I	138
	Q. 183 (III)	II	88
	S.P. 133 (III)	II	89
L			
Land mobile services, VHF and UHF, characteristics of equipments and principles governing the allocation of channels in	Q. 163 (XIII)	II	194
	Res. 60	II	195
	Rep. 114	III	114
Limitation of interference from industrial installations	Q. 75 (I)	II	56
	S.P. 84 (I)	II	57
	Res. 39	II	58
Line systems, information required from the transmission characteristics of, for use in the design of radio-relay systems	Q. 112	II	206
Local lightning flash counters, design and use of	Res. 51	II	126
Long-distance propagation			
— ionospheric, without intermediate ground reflections	Rep. 164	III	379
— of waves of 30 to 300 Mc/s by way of ionization in the E and F regions of the ionosphere	Rep. 149	III	339
Long-distance radio communication, intermittent, in the VHF band by means of scattering from columns of ionization produced by meteors in the lower ionosphere	Rep. 157	III	356
Long distance transmission			
— in the VHF band by means of scattering from inhomogeneities in the lower ionosphere.	Rep. 158	III	357

Subject	Text	Vol.	Page
Long distance transmission (<i>continued</i>)			
— of monochrome and colour television signals	Q. 121 (XI)	II	174
Long- and medium-wave sound broadcasting, bandwidth of emissions	Q. 201 (X)	II	163
M			
MUF, meaning of	Rec. 318	I	313
Magnetic-tape single-track recording, for the international exchange of programmes. Standards of sound recording	Rec. 261	I	184
Maintenance			
— measurements in actual traffic on radio-relay systems for telephony using frequency-division multiplex	Rec. 293	I	266
— procedure for radio relay systems for telephony using frequency-division multiplex. Measurements to be made	Rec. 290	I	262
— procedures for radio-relay systems for television	Res. 54	II	145
Man-made radio noise, measurement of	S.P. 153 (VI)	II	124
Marine identification devices	Q. 158 (XIII) Res. 61 Rep. 92	II II III	191 192 105
Maximum interference levels tolerable in complete systems, determination of	Q. 84 (I)	II	59
Maximum tolerable signal error-rates. Use of radio circuits in association with 5-unit start-stop telegraph apparatus	Q. 110	II	205
Maritime mobile service			
— choice of intermediate frequency and protection against undesired response of superheterodyne receivers for	Q. 171 (II)	II	63
— radiotelephone equipments single-sideband, (also aeronautical mobile)	Rec. 258	I	169
— radiotelephone, VHF (metric), interference due to intermodulation products	Rec. 256	I	167
— radiotelephone, international VHF (metric), selective calling devices for use in	Rec. 257 Q. 160 (XII) S.P. 168 (XIII)	I II II	168 192 193
Means of expression, terms, definitions, graphical and letter symbols and their conventional usage	Res. 62	II	199
Measurement(s)			
— and limitation of unwanted radiation from industrial installations	Res. 39	II	58
— field-strength, at monitoring stations	S.P. 102 (XII)	II	140
— field-strength, power flux-density, radiated power, available power from the receiving antenna and the transmission loss	Rep. 138	III	256
— frequency, at monitoring stations	Rep. 169	III	402
— frequency and field-strength, at monitoring stations, form of report for	Rec. 22	I	324
— methods of and limits of tolerances, for interference caused to broadcasting by electrical installations	Rec. 27	I	55
— noise, for broadcasting and sound recording systems	S.P. 162 (X)	II	161
— of atmospheric radio noise	Res. 46 Rep. 165	II III	35 381

Subject	Text	Vol.	Page
Measurement(s) (continued)			
— of emitted spectra in actual traffic	S.P. 40 (I)	II	51
— of field-strength for VHF (metric) and UHF (decimetric) broadcast services, including television	Q. 138 (V) Rep. 142	II III	96 280
— of field-strength in the neighbourhood of obstacles	Q. 137 (V)	II	95
— of the performance of radio-relay systems for telephony using frequency-division multiplex, with the help of a signal consisting of a continuous uniform spectrum	Rec. 294	I	268
— of programme level in sound broadcasting	Q. 151 (X) S.P. 109 (X) Rep. 117	II II III	160 160 150
— of spectra and bandwidths of emission	Rec. 229	I	32
— of S-values at monitoring stations	Q. 189 (VIII)	II	138
— of wow and flutter in equipment for sound recording and reproduction	Rec. 210 Rep. 116	I III	179 149
— phase/frequency or group-delay/frequency characteristics of receivers	Rep. 104	III	54
— recommended methods for measuring amplitude-modulation suppression in frequency-modulation receivers	Rep. 103	III	52
— spurious emissions	Rec. 232	I	44
— to be made in maintenance of radio-relay systems for telephony	Rec. 290	I	262
Medium wave broadcasting			
— quality of reception in the secondary service area	Q. 202 (X) S.P. 164 (X)	II II	164 164
— sound, and long-wave, bandwidth of emissions	Q. 201 (X)	II	163
Metallic circuits, combined radio and			
— standardization of facsimile apparatus for use on	Res. 15	II	27
— standardization of phototelegraph systems for use on	Rec. 244	I	134
Meteorological charts, facsimile transmission of over radio circuits . .			
— by direct frequency-modulation of the carrier	Rec. 243 Q. 130 (III)	I II	133 81
Meteor-burst propagation			
— and ionospheric-scatter propagation	Res. 52	II	37
— intermittent communication by	S.P. 146 (VI) Rep. 157	II III	116 356
Mobile radiotelephone stations, conditions necessary for interconnection of			
	Rec. 77	I	150
Modulation, sense of, and frequency deviation in radio relay-systems for television			
	Rec. 276	I	239
Monitoring			
— automatic, of occupancy of the radio-frequency spectrum	Rec. 182 Q. 143 (VIII) Rep. 167	I II III	327 135 395
— service, international organization of	Rec. 19	I	323
— visual, of the radio-frequency spectrum	Q. 191 (VIII)	II	139
Monitoring stations			
— accuracy of field-strength measurements by	Rec. 181	I	325
— accuracy of frequency measurements at	Rec. 322	I	328
— field-strength measurements at	S.P. 102 (VIII) Rep. 170	II III	140 406

Subject	Text	Vol.	Page
Monitoring stations (continued)			
— fixed, monitoring of radio transmissions from space vehicles at	Q. 188 (VIII)	II	137
— frequency measurements at	Q. 145 (VIII) Rep. 169	II III	135 402
— measurement of S-values at	Q. 189 (VIII)	II	138
— form of report for frequency and field-strength measurements made at	Rec. 22	I	324
— mobile, measurements at	Rep. 168	III	396
— spectrum measurement by	S.P. 103 (VIII) Rep. 172	II III	141 414
Monochrome television			
— and colour television signals, transmission over long distances	Res. 32 Q. 121 (XI)	II II	30 174
— on radio-relay systems for television, preferred characteristics for the transmission of	Q. 194 (IX)	II	148
— radio-relay systems for, permissible noise in the hypothetical reference circuit	Rec. 289 Rep. 125 S.P. 123 (XI)	I III II	260 172 172
— ratio of the wanted to the unwanted signal in			
— signal and a single sound channel, simultaneous transmission of, in radio-relay systems for television, preferred characteristics of the sound channel	Rec. 272	I	233
— signals, transmission over long distances, requirements for	Rec. 267	I	206
— systems, characteristics of	Rep. 124	III	165
Mountain ridges, influence of the troposphere on propagation across	S.P. 136 (V) Rep. 144	II III	100 292
Multi-channel telephone systems, signal amplitudes in individual channels of	Q. 111	II	205
Multipath propagation			
— distortion in frequency-modulation receivers due to	Q. 177 (II)	II	67
— through the troposphere, investigation of	S.P. 57 (V) Rep. 51	II III	101 222
N			
Noise			
— and sensitivity of receivers	Rec. 234	I	56
— audio, for broadcasting and in sound recording systems, measurement of	S.P. 162 (X)	II	161
— circuit, and hypothetical reference circuits in radio-relay systems for television and telephony	Q. 193 (IX)	II	146
— circuit, C.C.I.T.T./C.C.I.R. joint working party on, for radio-relay systems for telephony	Res. 56 Rec. 315 Rep. 65	II I III	147 309 223
— data, atmospheric	Q. 172 (II)	II	64
— factor, and sensitivity	Rec. 288	I	259
— in real circuits on radio-relay systems for telephony using frequency-division multiplex			
— intermodulation, due to nonlinearity, methods for the computation of, in radio-relay systems for telephony using frequency-division multiplex	Res. 57 Rep. 129	II III	40 191
— level for tropical broadcasting, determination of	Q. 155 (XII) Rep. 120	II III	186 153
— radio, man-made, measurement of	S.P. 153 (VI)	II	124

Subject	Text	Vol.	Page
Noise (continued)			
— radio, atmospheric, measurement of	Res. 46 S.P. 154 (VI) Rep. 165	II II III	35 125 381
— tolerable during very short periods of time on radio-relay systems for television and telephony	S.P. 158 (IX) Rep. 130	II III	147 192
Noise power allowable in the hypothetical reference circuit for radio-relay systems			
— for telephony using frequency-division multiplex	Rec. 287	I	256
— for telephony using time-division multiplex	Rec. 301	I	275
— for monochrome television	Rec. 289	I	260
Nomenclature of the frequency and wavelength bands used in radio communications	Rec. 324	I	335
Non-essential radiations and harmonics from radio transmitters, disturbances in television, resulting from	Rec. 83	I	25
Non-linearity, intermodulation noise in radio-relay systems for telephony using frequency-division multiplex due to, computation of	Res. 57 Rep. 129	II III	40 191
O			
Oblique incidence, pulse transmission tests at	S.P. 151 (VI) Rep. 163	II III	122 378
Obstacles, measurement of field strength in the neighbourhood of	Q. 137 (V)	II	95
Occupancy of the radio-frequency spectrum, automatic monitoring of	Rec. 182 Q. 143 (VIII) Rep. 167	I II III	327 135 395
Occupied bandwidth, and transmitter power in radiotelephony, reduction of	Rec. 100	I	116
Offset, frequency, use of			
— when the wanted signal is frequency-modulated	S.P. 123 (XI)	II	172
— when there are great differences between the carrier frequencies of the interfering stations	S.P. 166 (XI)	II	173
Organization(s)			
— qualified to take action on questions of sound recording	Res. 31	II	29
— of an international monitoring service	Rec. 19	I	323
— of C.C.I.R. work	Res. 67	II	44
— of work on the choice and evaluation of ionospheric indices	Res. 50	II	121
Orthogonal wave polarizations. Advantages to be obtained by their use in the planning of broadcasting services (television and sound) in the VHF (metric) and UHF (decimetric) bands.	Rep. 122	III	155
Output, telegraph and telephone receiver bandwidth required at	Rec. 101	I	117
P			
Payment, ex-gratia, to the Geneva Staff at the IXth Plenary Assembly of the C.C.I.R.	Res. 65	II	42

Subject	Text	Vol.	Page
Performance of complete systems of the fixed service, factors affecting quality of	S.P. 128 (III)	II	73
Performance, telegraph system, prediction of, in terms of bandwidth and signal-to-noise ratios.	Rep. 105	III	59
Phase correction of television transmitters necessitated by the use of vestigial-sideband transmission	Rec. 266	I	206
Phase/frequency or group/delay frequency characteristics of receivers, methods of measuring	Rep. 104	III	54
Phototelegraph systems for use on combined radio and metallic circuits, standardization of	Rec. 244	I	134
Pilots			
— continuity, frequencies and deviations of, in radio-relay systems for television and telephony	Rec. 292	I	264
— line regulating and other, interconnection of radio-relay and line systems	Rec. 291	I	263
Polarizations, wave, orthogonal, advantages to be obtained by using	Rep. 122	III	155
Position and bearing classification for direction finding.	Rec. 253	I	163
Power			
— flux-density, field-strength, radiated power, available power from the receiving antenna and transmission loss, measurement of	Rep. 138	III	256
— maximum, for short-distance high-frequency broadcasting in the tropical zone	Rec. 215	I	181
— mean and peak, study of relationships between	Rec. 228	I	27
— of transmitters in the tropical zone, limitation to avoid interference in the bands shared with tropical broadcasting	Rec. 214	I	180
— relationships for modulated emissions	Rec. 130	I	26
— supplied to an antenna by a radio transmitter, methods of specifying transmitter, and occupied bandwidth in radio telephony reduction of	Rec. 129	I	25
	Rec. 100	I	116
Precursors indicative of short term variations of ionospheric propagation conditions, identification of	Res. 45 S.P. 93 (VI) Rep. 153	II II III	35 109 346
Prediction			
— charts, propagation, basic, presentation of	Rec. 116	I	283
— information, basic, for ionospheric propagation	Rec. 316 S.P. 149 (VI) Rep. 161	I II III	310 119 372
— of solar index	Rec. 172	I	284
— of telegraph system performance in terms of bandwidth and signal-to-noise ratios	S.P. 100 (VI) Rep. 105	II III	109 59
Pre-emphasis characteristics for frequency-modulation radio-relay systems			
— for telephony using frequency-division multiplex	Rec. 275	I	236
— for television	Rec. 277	I	239
Preparatory documentation, reduction of	Res. 35	II	31

Subject	Text	Vol.	Page
Propagation			
— across mountain ridges, influence of the troposphere on	S.P. 136 (V) Rep. 144	II III	100 292
— at VHF and UHF over distances up to 200 km	S.P. 140 (V) Res. 41	II II	105 106
— by way of sporadic E region and other anomalous ionization in the E and F layers of the ionosphere	S.P. 143 (VI) Q. 185 (V)	II II	112 99
— data required for radio-relay systems	Rep. 143 Rec. 310	III I	289 298
— in the troposphere, definition of terms, relating to			
— long-distance, of waves of 30 to 300 Mc/s by way of ionization in the E and F regions of the ionosphere	Rep. 149	III	339
— meteor-burst, intermittent communication by	S.P. 146 (VI)	II	116
— multipath, distortion in frequency-modulation receivers, due to	Q. 177 (II)	II	67
— over inhomogeneous earth	S.P. 135 (V) Rep. 141	II III	98 276
— prediction charts, basic, presentation of	Rec. 116	I	283
— radio, at frequencies below 1500 kc/s	Res. 43 S.P. 142 (VI) Rep. 154	II II III	33 110 348
— radio, forecasts, availability and exchange of basic data and reliability of	Rép. 160	III	367
— review of publications on	Rep. 43	III	219
— sky-wave, on frequencies between approximately 1.5 and 40 Mc/s study of	S.P. 144 (VI) Res. 48 Rep. 155	II II III	113 114 353
— whistler mode	Res. 42 S.P. 141 (VI)	II II	33 110
Propagation, ground-wave			
— below 10 Mc/s, curves of	Q. 184 (V) Rec. 307	II I	97 285
— over inhomogeneous earth	Rec. 308	I	297
— over irregular terrain	S.P. 89 (V) Rep. 140	II III	98 274
Propagation, ionospheric			
— basic prediction information for	Rec. 316 S.P. 149 (VI) Rep. 161	I II III	310 119 372
— choice of a basic index for	Res. 44 S.P. 150 (VI) Rep. 162	II II III	34 121 373
— identification of precursors indicative of short term variations of	S.P. 93 (VI) Res. 45 Rep. 153	II II III	109 35 346
— long-distance, without intermediate ground reflections	Rep. 164	III	379
Propagation, ionospheric-scatter			
— and meteor-burst	S.P. 147 (VI) Rep. 158	II III	117 357
— directivity of antennae for fixed services using	Res. 52	II	37
— radio-relay systems employing	S.P. 131 (III) Q. 132 (III) Rep. 109	II II III	80 82 72
Propagation, tropospheric-scatter			
— limitation of interference in radio-relay systems employing	Rec. 302	I	276
— radio-frequency channel arrangements in radio-relay systems using	Rec. 303	I	277
— radio transmission caused by inhomogeneities in the troposphere	Res. 24 Rep. 148	II III	29 338

Subject	Text	Vol.	Page
Propagation, tropospheric-scatter (continued)			
— (or ionospheric-scatter), radio-relay systems using	Rep. 135	III	206
Propagation, tropospheric-wave			
— climatic charts of refractive index parameter ΔN	S.P. 138 (V)	II	103
— curves	Rep. 146	III	296
	Rep. 147	III	299
	Rec. 312	I	303
	Res. 23	II	102
— presentation of data in studies of	Rec. 311	I	301
— propagation curves for distances well beyond the horizon	S.P. 137 (V)	II	101
	Rep. 145	III	293
Protection			
— against keyed interfering signals	S.P. 127 (II)	II	69
— against undesired response and choice of intermediate frequency of superheterodyne receivers	Q. 171 (II)	II	63
	Rep. 98	III	41
— of frequencies used for radio astronomical measurements	Rec. 314	I	308
— ratio, effect of propagation path length and direction on, in HF broadcasting	Q. 204 (X)	II	165
— ratio, minimum permissible, to avoid interference in the bands shared with tropical broadcasting	Rec. 216	I	183
— ratios, signal-to-interference	Rec. 240	I	126
— signal-to-noise, and signal-to-interference for fading signals, bandwidth and adjacent channel spacing of complete systems of the fixed services	S.P. 128 (III)	II	73
Publications on propagation, review of	Rep. 43	III	219
Publication of service codes in use in the international telegraph service			
	Res. 33	II	191
	Rep. 90	III	103
Pulse transmission			
— for radio direction finding	Rec. 126	I	152
— tests at oblique incidence	S.P. 151 (VI)	II	122
	Rep. 163	III	378
Q			
Quality			
— index, error rate, efficiency factor, telegraphic distortion.	S.P. 132 (III)	II	86
— of reception in the secondary service area for medium-wave broadcasting	Q. 202 (X)	II	164
	S.P. 164 (X)	II	164
— of television pictures assessment of	Q. 152 (XI)	II	176
	Rep. 126	III	175
Quantity of information, unit of	Rec. 166	I	126
Quasi-impulsive interference, usable sensitivity of radio receivers in the presence of			
	Q. 175 (II)	II	66
	Rep. 99	III	43
Questions			
— submitted by the I.F.R.B.	Rep. 150	III	342
— No. 11 of the 3rd Study Group of the C.C.I.T.T.	Rep. 135	III	206
— Nos. 14 and 15 of the C.C.I.F.	Rep. 33	III	129
R			
Radar identification, inter-ship	Rec. 222	I	157

Subject	Text	Vol.	Page
Radiation data, antenna, presentation of	Rec. 168	I	283
Radiated colour-television signals, standards for	S.P. 81 (XI)	II	170
Radio-astronomical measurements, protection of frequencies used for	Rec. 314	I	308
Radio direction-finding			
— bearing and position classification for	Rec. 253	I	163
— pulse transmission for	Rec. 126	I	152
— use of 8364 kc/s for	Rec. 252	I	161
Radio-frequency channel arrangements for radio-relay systems			
— for telephony for 300 channels using frequency-division multiplex operating in the 2000 and 4000 Mc/s band	Rec. 279	I	245
— for telephony using frequency-division multiplex for 60 and 120 telephone channels operating in the 2000 Mc/s band	Rec. 283	I	250
— for telephony for 60 and 120 channels using frequency-division multiplex in the 7000 Mc/s band	Rec. 284	I	251
— for television and telephony for 600 to 1800 telephone channels, or the equivalent, operating in the 2000 and 4000 Mc/s bands	Rec. 278	I	243
— for television and telephony for 600 to 1800 telephone channels, or the equivalent, operating in the 6000 Mc/s band	Rec. 280	I	246
— for television and telephony, preferred	Rec. 281	I	248
— for television and telephony, use of special	Rec. 282	I	249
— using tropospheric scatter propagation	Rec. 303	I	277
Radio-frequency spectrum, occupancy, automatic monitoring of	Rec. 182	I	327
Radio links (circuits)			
— and metallic circuits, combined, standardization of phototelegraph systems for use on	Rec. 244	I	134
— facsimile transmission of meteorological charts over	Rec. 243	I	133
— use of in association with 5-unit start-stop telegraph apparatus	Rec. 242	I	130
	Q. 109	II	205
	Q. 110	II	205
— use of in international telephone circuits. Intercontinental radio-telephone systems	Rec. 40	I	111
— voice-frequency telegraphy on	Rec. 106	I	118
Radio reception on ships, prevention of interference to	Rec. 218	I	153
Radio regulations			
— addition to appendix 9 of	Rec. 251	I	159
— Art. 1 possible amendments to the definitions in	Rep. 173	III	421
Radio-relay systems			
— C.C.I.T.T./C.C.I.R. joint working party on circuit noise	Res. 56	II	147
— for telephony, interconnection of differing multiplex systems	Rec. 304	I	278
— information required on the transmission characteristics of line systems for use in the design of	Q. 112	II	206
— and line systems, interconnection of. Line-regulating and other pilots	Rec. 291	I	263
— for telephony, noise tolerable during very short periods of time on line-of-sight systems	Rep. 130	III	192
— propagation data required for	Q. 185 (V)	II	99
	Rep. 143	III	289
— type of service channels to be provided for	Rec. 295	I	270

Subject	Text	Vol.	Page
Radio-relay systems for telephony using frequency-division multiplex	Q. 192 (IX)	II	145
— allowable noise power in the hypothetical reference circuit	Rec. 287	I	256
— design objectives for voice-frequency telegraphy on telephone channels	Rep. 132	III	198
— frequency deviation	Rec. 274	I	235
— hypothetical reference circuit for systems with capacity of 12 to 120 telephone channels	Rec. 285	I	253
— hypothetical reference circuit for systems with capacity of more than 120 telephone channels	Rec. 286	I	254
— interconnection at audio frequencies	Rec. 268	I	229
— interconnection of baseband frequencies	Rec. 269	I	229
— maintenance measurements in actual traffic	Rec. 293	I	266
— maintenance procedure for, measurements to be made	Rec. 290	I	262
— measurements of the performance with the help of a signal consisting of a continuous uniform spectrum	Rec. 294	I	268
— methods for the computation of intermodulation noise due to non-linearity	Res. 57	II	40
	Rep. 129	III	191
— noise in real circuits	Rec. 288	I	259
— pre-emphasis characteristic for frequency-modulation systems	Rec. 275	I	236
— radio-frequency channel arrangement for 60- and 120-channel radio-telephony systems operating in the 2000 Mc/s band	Rec. 283	I	250
— radio-frequency channel arrangements for 300-channel systems operating in the 2000 and 4000 Mc/s band	Rec. 279	I	245
— radio-frequency channel arrangements for 60- and 120-channel telephony systems operating in the 7000 Mc/s band	Rec. 284	I	251
— technical characteristics to be specified in order to interconnect any two systems	Rep. 131	III	195
Radio-relay systems for telephony using time-division multiplex			
— agreement on major characteristics	Rec. 299	I	274
— allowable noise power in the hypothetical reference circuit	Rec. 301	I	275
— hypothetical reference circuit for systems with capacity of 60 telephone channels or less	Rec. 300	I	275
— interconnection at audio frequencies	Rec. 297	I	273
— preferred characteristics	Rec. 298	I	273
— technical characteristics to be specified in order to be able to interconnect any two systems	Rep. 134	III	203
Radio-relay systems for television			
— frequency deviation and the sense of modulation	Rec. 276	I	239
— interconnection at video-signal frequencies	Rec. 270	I	231
— maintenance procedures	Res. 54	II	145
— monochrome, permissible noise in the hypothetical reference circuit	Rec. 289	I	260
— pre-emphasis characteristics for frequency-modulation systems	Rec. 277	I	239
— preferred characteristics for the transmission of monochrome television	Q. 194 (IX)	II	148
— simultaneous transmission of a monochrome television signal and a single sound channel. Preferred characteristics of the sound channel	Rec. 272	I	233
— transmission of monochrome television signals over long distances	Rec. 267	I	206
Radio-relay systems for television and telephony			
— alternative transmission of telephony and television	Rep. 133	III	202
— baseband arrangements for simultaneous transmission by the same radio-frequency carrier	Rec. 271	I	231
— frequencies and deviations of continuity pilots	Rec. 292	I	264
— hypothetical reference circuits and circuit noise	Q. 193 (IX)	II	146
— intermediate frequency characteristics	Rec. 273	I	234

Subject	Text	Vol.	Page
Radio-relay systems for television and telephony (continued)			
— preferred characteristics of auxiliary radio-relay systems operating in the 2000, 4000 or 6000 Mc/s bands	Rec. 296	I	271
— noise tolerable during very short periods of time	S.P. 158 (IX)	II	147
— preferred characteristics for auxiliary radio-relay systems for the provision of service channels	S.P. 160 (IX)	II	150
— preferred characteristics for the transmission of more than one sound channel	S.P. 159 (IX)	II	148
— preferred frequency bands and centre frequencies for radio-relay links for international connections	Res. 55	II	39
— preferred radio-frequency channel arrangements for television	Rec. 281	I	248
— procedure for international connection between systems with differing characteristics	Rec. 306	I	280
— radio-frequency channel arrangements for systems for 600 to 1800 telephone channels, or the equivalent, operating in the 2000 or 4000 Mc/s bands	Rec. 278	I	243
— radio frequency channel arrangements for systems for 600 to 1800 telephone channels, or the equivalent, operating in the 6000 Mc/s band	Rec. 280	I	246
— standby arrangements	Rec. 305	I	279
— service channels	Q. 195 (IX)	II	149
— systems of capacity greater than 1800 telephone channels or the equivalent.	S.P. 157 (IX)	II	146
— transmission interruptions	Q. 197 (IX)	II	153
— use of special radio-frequency channel arrangements	Rec. 282	I	249
Radiorelay systems using tropospheric or ionospheric scatter propagation			
	Q. 132 (III)	II	82
	Q. 196 (IX)	II	151
— limitation of interference	Rec. 302	I	276
— radio-frequency channel arrangements	Rec. 303	I	277
	S.P. 122 (IX)	II	151
	Rep. 136	III	209
— reply to Question No. 11 of the 3rd Study Group of the C.C.I.T.T.	Rep. 135	III	206
Radio stations, identification of			
	Rec. 323	I	330
	Res. 19	II	28
	Q. 187 (VIII)	II	136
	Rep. 171	III	412
Radiotelegraph systems multi-channel, for long-range circuits operating on frequencies below 30 Mc/s, classification and designation of channels			
	Rec. 248	I	141
Radiotelephone(y)			
— conversations, principles of the devices used for achieving privacy of	Rec. 74	I	113
— distress frequency of 2182 kc/s, watch on	Rec. 124	I	151
— reduction of occupied bandwidth and transmitter power in	Rec. 100	I	116
— service, international VHF (metric) maritime, mobile, selective calling devices for use in	Q. 160 (XIII)	II	192
	S.P. 168 (XIII)	II	193
— systems, intercontinental, and use of radio links in international telephone circuits	Rec. 40	I	111
— transmitters, multi-channel, for long-range circuits operating on frequencies below about 30 Mc/s, arrangement of channels in	Rec. 249	I	143
Receivers			
— broadcast and television, response to quasi-impulsive interference	Rec. 159	I	56
— broadcast and television, spurious emissions from	Rec. 239	I	107
— excluding sound-broadcast and television, spurious emissions from	Q. 176 (II)	II	67

Subject	Text	Vol.	Page
Receivers (continued)			
— frequency-modulation, distortion due to multipath propagation in	Q. 177 (II)	II	67
— frequency-modulation, recommended methods for measuring amplitude modulation suppression in	Rep. 103	III	52
— frequency stability of	Rec. 236	I	96
	Q. 173 (II)	II	64
	Rep. 100	III	49
	Rep. 101	III	51
— methods of measuring phase/frequency or group delay/frequency characteristics	Rep. 104	III	54
— noise and sensitivity of	Rec. 234	I	56
— of special types, spurious emissions from	Rep. 102	III	52
— radio, usable sensitivity in the presence of quasi-impulsive interference	Q. 175 (II)	II	66
	Rep. 99	III	43
— selectivity of	Rec. 235	I	75
	Q. 178 (II)	II	68
	Q. 172 (II)	II	64
— sensitivity and noise factor			
— sound-broadcast, amplitude-modulation and frequency-modulation; sensitivity, selectivity and stability of	Rec. 237	I	106
— stability, assessment of	Q. 174 (II)	II	65
— superheterodyne, choice of intermediate frequency and protection against undesired responses	Rep. 98	III	41
— telegraph or telephone, bandwidth required at output	Rec. 101	I	117
— television, disturbances in, resulting from harmonics and other non-essential radiations from radio transmitters	Rec. 83	I	25
— television; sensitivity, selectivity and stability of	Rec. 238	I	106
Receiving antennae			
— available power from, field-strength, power flux-density, radiated power, and transmission loss, measurement of	Rep. 138	III	256
— for tropical broadcasting design of	Rec. 140	I	178
Reception			
— broadcasting, HF	Q. 39 (X)	II	158
	Rep. 119	III	151
— quality of, in the secondary area for medium-wave broadcasting	Q. 202 (X)	II	164
	S.P. 164 (X)	II	164
— radio, identification of sources of interference to	Q. 190 (VIII)	II	139
— radio, on ships, prevention of interference to	Rec. 218	I	153
Recording			
— sound, and reproduction, measurement of wow and FLUTTER, in equipment for	Rec. 210	I	179
	Rep. 116	III	149
— sound, for the international exchange of programmes, standards of	Rec. 260	I	184
	S.P. 161 (X)	II	160
	Rep. 79	III	134
— sound, on film, for the international exchange of television programmes	Rep. 81	III	135
— standardized, radiotelephone speech test, for the fixed service	Q. 179 (III)	II	84
— standards for the international exchange of television programmes	Rec. 264	I	199
	Rec. 265	I	199
— stereophonic, for broadcasting	Q. 200 (X)	II	163
— systems, sound and broadcasting, measurement of audio noise for	S.P. 162 (X)	II	161
— television	Q. 66 (X)	II	159
Reducing(tion)			
— channel capacity required for a television signal	S.P. 119 (XI)	II	175

Subject	Text	Vol.	Page
Reducing(tion) (continued)			
— interference, possibilities of, and of measuring actual traffic spectra	Rep. 96	III	17
— of occupied bandwidth and transmitter power in radiotelephony	Rec. 100	I	116
— of preparatory documentation	Res. 35	II	31
Refraction, tropospheric, standard, on frequencies below 10 Mc/s, effects of	S.P. 87 (V)	II	97
	Rep. 45	III	220
Refractive-index parameter ΔN, climatic charts of, for tropospheric-wave propagation	Rep. 147	III	299
Report for frequency- and field-strength measurements made at monitoring stations, form of.	Rec. 22	I	324
Resolving power and differential sensitivity of the human eye	Q. 153 (XI)	II	176
Review of publications on propagation	Rep. 43	III	219
Revision of Atlantic City recommendation No. 4	Q. 1 (I)	II	51
	Q. 3 (III)	II	73
S			
Scatter propagation			
— ionospheric	S.P. 147 (VI)	II	117
	Rep. 158	III	357
— ionospheric, directivity of antennae for fixed services using	S.P. 131 (III)	II	80
— ionospheric, radio-relay systems employing	Q. 132 (III)	II	82
	Rep. 109	III	72
— tropospheric, limitation of interference on radio-relay systems employing	Rec. 302	I	276
— tropospheric or ionospheric, radio-relay systems using	Rep. 135	III	206
— tropospheric, radio-frequency channel arrangements for radio-relay systems using	Rec. 303	I	277
— tropospheric, radio-relay systems employing	Q. 196 (IX)	II	151
	S.P. 122 (IX)	II	151
	Rep. 136	III	209
Secondary service area, quality of medium-wave broadcasting reception in	Q. 202 (X)	II	164
	S.P. 164 (X)	II	164
Selection of frequencies for telecommunication with and between space vehicles, factors affecting	Rep. 115	III	114
Selective calling devices for use in the international VHF (metric) maritime mobile radiotelephone service	Rec. 257	I	168
	Q. 160 (XIII)	II	192
	S.P. 168 (XIII)	II	193
Selectivity of receivers	Rec. 235	I	75
— frequency-modulation and amplitude-modulation sound-broadcast, also selectivity and stability	Q. 178 (II)	II	68
— television, also sensitivity and stability	Rec. 237	I	106
	Rec. 238	I	106
Semi-conductor capacitors, electro-mechanical filters, and ferromagnetic tuning, frequency stability of receivers with IF amplifiers containing	Rep. 101	III	51

Subject	Text	Vol.	Page
Sensitivity			
— and noise factor	Q. 172 (II)	II	64
— and noise of receivers	Rec. 234	I	56
— differential, and resolving power of the human eye	Q. 153 (XI)	II	176
— selectivity and stability of amplitude modulation and frequency-modulation sound-broadcast receivers	Rec. 237	I	106
— selectivity and stability of television receivers	Rec. 238	I	106
— usable, of radio receivers in the presence of quasi-impulsive interference	Q. 175 (II) Rep. 99	II III	66 43
Service channels for radio-relay systems			
— for television and telephony	Q. 195 (IX) S.P. 160 (IX)	II II	149 150
— type to be provided	Rec. 295	I	270
Service codes in use in the international telegraph service, publication of			
	Res. 33 Rep. 90	II III	191 103
Ship(s)			
— inter radar identification	Rec. 222	I	157
— radar, avoidance of interference to other radiocommunication apparatus on board	Rec. 45	I	149
— radio reception on, prevention of interference to	Rec. 218	I	153
— stations, voice-operated devices for, and carrier-operated devices for shore stations	Rec. 76	I	149
Shore stations, carrier-operated devices for, and voice-operated devices for ships stations			
	Rec. 76	I	149
Short-distance, high-frequency, broadcasting in the tropical zone			
	S.P. 112 (XII)	II	182
Signals MAYDAY and PAN			
	Rec. 250	I	158
Signal-to-interference and signal-to-noise protection ratios for fading signals, bandwidth and adjacent channel spacing			
	S.P. 128 (III)	II	73
Signal-to-noise ratio(s)			
— and bandwidths in complete systems	Rec. 161	I	119
— and bandwidths in complete systems, the prediction of telegraph system performance in terms of	Rep. 105	III	59
— and signal-to-interference protection ratios for fading signals, bandwidth and adjacent channel spacing	S.P. 128 (III) Q. 166 (XI)	II II	73 177
— single value of, for different television systems	S.P. 116 (XI)	II	178
Simultaneous transmission			
— by the same radio-frequency carrier in radio-relay systems for television and telephony, baseband arrangements	Rec. 271	I	231
— of a monochrome television signal and a single sound channel in radio-relay systems for television. Preferred characteristics of the sound channel	Rec. 272	I	233
— of two sound channels in television	Q. 198 (X)	II	161
Single-sideband			
— aeronautical and maritime mobile radiotelephone equipments	Rec. 258	I	169
— compatible transmission for amplitude-modulation sound broadcast services	Q. 205 (X) S.P. 165 (X)	II II	165 166
— independent-sideband and telegraph systems. Frequency stability required to make the use of automatic frequency control superfluous	Q. 182 (III)	II	86
— sound broadcasting	Rec. 136	I	177

Subject	Text	Vol.	Page
Site of stations, choice of and type of antenna to avoid interference in the bands shared with tropical broadcasting	Rec. 49	I	176
Sky-wave absorption on frequencies between the approximate limits of 1.5 and 40 Mc/s	S.P. 145 (VI) Rep. 156	II III	115 354
Sky-wave field-strengths on frequencies between the approximate limits of 1.5 and 40 Mc/s			
— study of	Res. 48	II	114
— study of methods for estimating	Rep. 152	III	244
— systematic measurements on	Rec. 317	I	311
Sky-wave propagation on frequencies between approximately 1.5 and 40 Mc/s			
— study of, for the estimation of field-strength	S.P. 144 (VI) Rep. 155	II III	113 353
Solar index, prediction of	Rec. 172 S.P. 100 (VI)	I II	284 109
Sound broadcasting			
— frequency-modulation in the VHF (metric) band	Q. 150 (X) Rep. 77	II III	159 133
— frequency-modulation in the VHF (metric) band, standards for	Rec. 263	I	198
— long and medium wave, bandwidth of emissions	Q. 201 (X)	II	163
— measurement of programme level in	Q. 151 (X) S.P. 109 (X)	II II	160 160
— single-sideband	Rep. 117 Rec. 136	III I	150 177
Sound channel(s)			
— preferred characteristics of, for the transmission of more than one sound channel in radio-relay systems for television and telephony	S.P. 159 (IX)	II	148
— two, in television, simultaneous transmission of	Q. 198 (X)	II	161
— measurement of wow and FLUTTER in equipment for	Rec. 210	I	179
— on film for the international exchange of television programmes	Rep. 116	III	149
— organizations qualified to take action on the questions of	Rep. 81	III	135
— systems, and broadcasting, measurement of audio noise in	Res. 31 S.P. 162 (X)	II II	29 161
Sounding stations, ionospheric, after the I.G.Y.	Rep. 151	III	343
Space-vehicles			
— and artificial earth satellites, selection of frequencies used in telecommunication with	Rec. 259	I	172
— monitoring, at fixed monitoring stations, of radio transmissions from	Q. 188 (VIII)	II	137
Space-vehicles, telecommunication with and between			
— beyond the lower atmosphere, effects of the ionosphere on radio waves used for	Res. 47	II	36
— factors effecting the selection of frequencies for	Rep. 115	III	114
— influence of the troposphere on frequencies used for	Res. 40	II	32
Spectrum (a)			
— actual traffic, possibilities of reducing interference, and of measuring	S.P. 40 (I) Rep. 96	II III	51 17

Subject	Text	Vol.	Page
Spectrum (a) (continued)			
— and bandwidths of emissions	Rec. 230	I	36
	S.P. 126 (I)	II	54
— and bandwidths of emission, measurement of	Rec. 229	I	32
— conservation for high-precision time signals	S.P. 156 (VII)	II	131
— measurement, by monitoring stations	S.P. 103 (VII)	II	141
	Rep. 172	III	414
— radio-frequency, automatic monitoring of occupancy of	Q. 143 (VIII)	II	135
	Rep. 167	III	395
— radio-frequency, visual monitoring of	Q. 191 (VIII)	II	139
Speech-test recordings radiotelephone, standardized, for the fixed service	Q. 179 (III)	II	84
Spurious emissions			
	Rec. 232	I	44
— from broadcast and television receivers	S.P. 124 (I)	II	52
— from frequency-modulated VHF (metric) maritime mobile equip- ment	Rec. 239	I	107
	Rec. 255	I	166
	Q. 161 (XIII)	II	194
	Rep. 113	III	113
— from receivers, excluding sound-broadcast and television	Q. 176 (II)	II	67
— from receivers of special types	Rep. 102	III	52
Stability			
— frequency, of receivers	Rec. 236	I	96
	Q. 173 (II)	II	64
	Rep. 101	III	51
— frequency, required for single-sideband, independent-sideband and telegraph systems, to make the use of automatic frequency control superfluous	Q. 182 (III)	II	86
— of standard-frequency transmissions and time signals as received	Q. 186 (VII)	II	131
— receiver, assessment of	Q. 174 (II)	II	65
— sensitivity and selectivity of amplitude-modulation and frequency- modulation sound-broadcast receivers	Rec. 237	I	106
— sensitivity and selectivity of television receivers	Rec. 238	I	106
Standard(s)			
— colour television	Q. 118 (XI)	II	169
— for frequency-modulation sound-broadcasting in the VHF (metric) band	Rec. 263	I	198
— for radiated colour-television signals	S.P. 81 (XI)	II	170
— for video colour-television signals	S.P. 80 (XI)	II	169
— of sound recording for the international exchange of programmes	Rec. 261	I	184
	Res. 58	II	41
	Res. 59	II	41
	S.P. 161 (X)	II	160
	Rep. 79	III	134
— of stereophonic broadcasting for compatible systems in sound and television broadcasting	Q. 199 (X)	II	162
	S.P. 163 (X)	II	162
— recording, for the international exchange of television programmes	Rec. 264	I	199
	Rec. 265	I	199
— television	Rec. 212	I	179
— tropospheric refraction, effects of, on frequencies below 10 Mc/s	S.P. 87 (V)	II	97
	Rep. 45	III	220
Standard-frequency(ies)			
— service, avoidance of external interference with transmissions of, in the bands allocated to that service	Rec. 321	I	319

Subject	Text	Vol.	Page
Standard-frequency(ies) (continued)			
— transmissions and time signals	Rec. 319 Q. 140 (VII) S.P. 155 (VII) Rep. 166	I II II III	317 129 129 385
— transmissions and time signals in additional frequency bands. . .	Rec. 320 Q. 142 (VII)	I II	318 130
— transmissions and time signals in band 4	Res. 53	II	38
— transmissions and time signals, stability of, as received	Q. 186 (VII)	II	131
Standardization			
— of facsimile apparatus for use on combined radio and metallic circuits	Res. 15	II	27
— of phototelegraph systems for use on combined radio and metallic circuits	Rec. 244	I	134
— radiotelephone speech test recordings for the fixed service	Q. 179 (III)	III	84
Standby			
— arrangements for radio-relay systems for television and telephony	Rec. 305	I	279
— equipment, duration of interruptions on radio links when switching from normal to	Rep. 137	III	213
Start-stop, 5-unit telegraph apparatus			
— use of radio circuits in association with	Rec. 242 Q. 109 Q. 110 Rep. 42	I II II III	130 205 205 58
Stereophonic broadcasting			
— recording for	Q. 199 (X)	II	162
— standards, for compatible systems in sound and television broadcasting	Q. 200 (X) S.P. 163 (X)	II II	163 162
Stereoscopic television, constitution of a system of	S.P. 117 (XI)	II	171
Superheterodyne receivers			
— choice of intermediate frequency and protection against undesired responses of	Q. 171 (II) Rep. 98	II III	63 41
Surface of the earth, determination of the electrical characteristics of	Q. 135 (V) Rep. 139	II III	95 267
Synchronized transmitters in high-frequency broadcasting, use of	Rec. 205	I	179
T			
Technical Apparatus	Res. 66	II	44
Technical Assistance.	Res. 38 Res. 63 Res. 64	II II II	31 41 42
Technical characteristics of frequency-modulated VHF (metric) maritime equipments	Rec. 254	I	164

Subject	Text	Vol.	Page
Telegraph(y)			
— apparatus, 5-unit, use of radio circuits in association with	Rec. 242	I	130
	Q. 109	II	205
	Q. 110	II	205
	Rep. 42	III	58
— distortion	Rec. 245	I	136
	S.P. 132 (III)	II	86
— emissions, A1 and F1, bandwidth of, and evaluation of interference produced by	Rep. 97	III	30
— or telephone receiver, bandwidth required at output	Rec. 101	I	117
— radio, use of intermittent communication in	Q. 180 (III)	II	85
— service, international, publication of service codes in use in	Res. 33	II	191
	Rep. 90	III	103
— signals transmitted over radio circuits, use of automatic error correction of	Rep. 108	III	70
— single sideband and independent sideband systems, frequency stability required to make the use of automatic frequency control superfluous	Q. 182 (III)	II	86
— system performance, prediction of, in terms of bandwidth and signal-to-noise ratios	Rep. 105	III	59
— systems, multi-channel, for long-range radio circuits operating on frequencies below about 30 Mc/s, arrangements of channels in	Q. 74 (III)	II	78
— voice frequency, on telephone channels of radio-relay systems for telephony using frequency-division multiplex, design objectives for	Rep. 132	III	198
— voice-frequency, on radio circuits	Rec. 106	I	118
	Q. 43 (III)	II	77
	S.P. 129 (III)	II	77
	Rep. 19	III	57
Television			
— colour, video signals, standards for	S.P. 80 (XI)	II	169
— monochrome, radio-relay systems for, permissible noise in the hypothetical reference circuit	Rec. 289	I	260
— pictures, assessment of the quality of	Q. 152 (XI)	II	176
	Rep. 126	III	175
— and sound in the VHF and UHF bands, advantages to be obtained by using orthogonal wave polarizations in the planning of broadcasting services	Rep. 122	III	155
— programmes, exchange of	Q. 120 (XI)	II	174
— programmes, sound recording on film, for the international exchange of	Rep. 81	III	135
— programmes, recording standards, for the international exchange of	Rec. 264	I	199
	Rec. 265	I	199
— ratio of the wanted to the unwanted signal in	Q. 119 (XI)	II	171
	S.P. 123 (XI)	II	172
	S.P. 166 (XI)	II	173
	Rep. 125	III	172
— receivers, disturbances resulting from harmonics and other non-essential radiation, from radio transmitters	Rec. 83	I	25
— receivers, response to quasi-impulsive interference	Rec. 159	I	56
— recording	Q. 66 (X)	II	159
— simultaneous transmission of two sound channels in	Q. 198 (X)	II	161
— stereoscopic, constitution of a system of	S.P. 117 (XI)	II	171
— systems, different, single value of signal-to-noise ratio for	Q. 166 (XI)	II	177
	S.P. 116 (XI)	II	178
— systems, monochrome, characteristics of	Rep. 124	III	165
— transmitters, phase correction of, necessitated by the use of vestigial-sideband transmission	Rec. 266	I	206

Subject	Text	Vol.	Page
Television and telephony, radio-relay systems for			
— Baseband arrangements for simultaneous transmission by the same radio-frequency carrier	Rec. 271	I	231
— Frequencies and deviations of continuity pilots	Rec. 292	I	264
— Intermediate frequency characteristics	Rec. 273	I	234
— Preferred characteristics for auxiliary radio-relay systems operating in the 2000, 4000 or 6000 Mc/s bands	Rec. 296	I	271
— Preferred radio-frequency channel arrangements for television	Rec. 281	I	248
— Procedure for international connection between systems with differing characteristics	Rec. 306	I	280
— Radio-frequency channel arrangements for systems for 600 to 1800 telephone channels, or the equivalent, operating in the 2000 and 4000 Mc/s band	Rec. 278	I	243
— Radio-frequency channel arrangements for systems for 600 to 1800 telephone channels, or the equivalent, operating in the 6000 Mc/s band	Rec. 280	I	246
— Standby arrangements	Rec. 305	I	279
— Use of special radio-frequency channel arrangements	Rec. 282	I	249
Television, radio-relay systems for			
— Frequency deviation and the sense of modulation	Rec. 276	I	239
— Interconnection at video-signal frequencies	Rec. 270	I	231
— Pre-emphasis characteristics for frequency-modulation systems	Rec. 277	I	239
— Preferred characteristics of the sound channel for simultaneous transmission of a monochrome television signal and a single sound channel	Rec. 272	I	233
Television signals			
— colour, radiated, standards for	S.P. 81 (XI)	II	170
— conversion from one standard to another	S.P. 36 (XI)	II	175
— distortion of, due to the use of vestigial-sideband transmission	S.P. 110 (XI)	II	170
— monochrome and colour, transmission over long distances	Res. 32	II	30
	Q. 121 (XI)	II	174
— monochrome, requirements for transmission over long distances	Rec. 267	I	206
— reduction of the channel capacity required for	S.P. 119 (XI)	II	175
Television standards			
	Rec. 212	I	179
— for bands IV and V	Rep. 123	III	157
Time-signals and standard-frequency transmissions			
	Rec. 319	I	317
	Q. 140 (VII)	II	129
	S.P. 155 (VII)	II	129
	Rep. 166	III	385
— in additional frequency bands	Rec. 320	I	318
	Q. 142 (VII)	II	130
— in band 4	Res. 53	II	38
— stability as received	Q. 186 (VII)	II	131
Time-signals, high-precision, frequency spectrum conservation for			
	S.P. 156 (VII)	II	131
Transmission			
— alternative, of telephony and television on radio-relay systems	Rep. 133	III	202
— characteristics of line systems, information required for use in the design of radio-relay systems	Q. 112	II	206
— facsimile, of documentary matter over combined radio and metallic circuits	Q. 94 (III)	II	80
— facsimile, of meteorological charts over radio circuits	Rec. 243	I	133
— interruptions on radio-relay systems	Q. 197 (IX)	II	153

Subject	Text	Vol.	Page
Transmission (continued)			
— loss, field-strength, power flux-density, radiated power, and available power from the receiving antenna, measurement of	Rep. 138	III	256
— loss in radio system studies	Rec. 241	I	128
	Rep. 112	III	94
— of half tone pictures over radio circuits	Q. 95 (III)	II	81
— of meteorological charts over radio circuits by direct frequency-modulation of the carrier	Q. 130 (III)	II	81
— of monochrome and colour television signals over long distances	Res. 32	II	30
	Q. 121 (XI)	II	174
— of monochrome television on radio-relay systems, preferred characteristics for	Q. 194 (XI)	II	148
— of monochrome television signals over long distances, requirements for	Rec. 267	I	206
— of television signals, reduction of the channel capacity required for	S.P. 119 (IX)	II	175
— radio, from space vehicles, monitoring at fixed monitoring stations of	Q. 188 (VIII)	II	137
— vestigial-sideband, distortion of television signals due to use of	S.P. 110 (XI)	II	170
— vestigial-sideband, phase-correction of television transmitters necessitated by	Rec. 266	I	206
Transmitter(s)			
— frequency stabilization of	Rec. 233	I	48
	S.P. 125 (I)	II	53
— in the tropical zone, limitation of power to avoid interference in the bands shared with tropical broadcasting	Rec. 214	I	180
— multi-channel radiotelephone, for long-range circuits operating on frequencies below about 30 Mc/s, arrangement of channels in	Rec. 249	I	143
— radio, disturbances in television receivers resulting from harmonics and other non essential radiations from	Rec. 83	I	25
— synchronized, in HF broadcasting, use of	Rec. 205	I	179
— television, phase correction necessitated by the use of vestigial sideband transmission	Rec. 266	I	206
— for tropical broadcasting, best method for calculating the field-strength produced by	Q. 154 (XII)	II	185
	Rep. 128	III	180
Transmitting antennae			
— for tropical broadcasting, design of	Rec. 139	I	177
	Q. 156 (XII)	II	187
	Rep. 86	III	136
	Rep. 87	III	142
Tropical broadcasting, interference in the bands shared with			
— choice of frequency, to avoid	Rec. 48	I	175
— choice of site of stations, and type of antenna, to avoid	Rec. 49	I	176
— limitation of the power of transmitters in the tropical zone, to avoid	Rec. 214	I	180
— minimum permissible protection ratio, to avoid	Rec. 216	I	183
Tropical broadcasting			
— design of receiving antennae for	Rec. 140	I	178
— design of transmitting antennae for	Rec. 139	I	177
	Q. 156 (XII)	II	187
	Rep. 86	III	136
	Rep. 87	III	142
— determination of noise level for	Q. 155 (XII)	II	186
	Rep. 120	III	153
— fading allowances for	Q. 157 (XII)	II	188
	Rep. 121	III	154
— interference in the frequency bands used for	S.P. 114 (XII)	II	184
— Short-distance, high-frequency broadcasting in the tropical zone	S.P. 112 (XII)	II	182

Subject	Text	Vol.	Page
Tropical broadcasting (continued)			
— transmitter, best method for calculating the field strength produced by	Q. 154 (XII) Rep. 128	II III	185 180
Tropical zone			
— limitation of the power of transmitters in, to avoid interference in the bands shared with tropical broadcasting	Rec. 214	I	180
— maximum power for short-distance, high-frequency broadcasting in	Rec. 215	I	181
— short-distance, high-frequency broadcasting in	S.P. 112 (XII)	II	182
Troposphere(ic)			
— definition of terms relating to propagation in	Rec. 310	I	298
— influence of, on frequencies used for telecommunication with and between space vehicles	Res. 40	II	32
— influence of, on propagation across mountain ridges	S.P. 136 (V) Rep. 144	II III	100 292
— inhomogeneities in, radio transmission caused by	Res. 24 S.P. 139 (V) Rep. 148	II II III	29 105 338
— multipath transmission through, investigation of	S.P. 57 (V) Rep. 51	II III	101 222
— propagation curves, for distances well beyond the horizon	S.P. 137 (V) Rep. 145	II III	101 293
— refraction, standard, effects of on frequencies below 10 Mc/s.	S.P. 87 (V) Rep. 45	II III	97 220
— scatter propagation, limitation of interference in radio-relay systems, employing	Rec. 302	I	276
— scatter propagation, radio-frequency channel arrangements for radio-relay systems employing	Rec. 303	I	277
— scatter propagation, radio-relay systems employing	Q. 196 (IX) Rec. 312	II I	151 303
— wave propagation curves	Res. 23 S.P. 138 (V) Rep. 146	II II III	102 103 296
— wave propagation	Rep. 147 Rec. 311	III I	299 301
U			
UHF			
— and VHF bands, planning of broadcasting services in, advantages to be obtained by using orthogonal wave polarizations	Rep. 122	III	155
— and VHF broadcast services including television, measurement of field strength for	Q. 138 (V) Rep. 142	II III	96 280
— and VHF land mobile services, characteristics of equipments and principles governing the allocation of channels in	Q. 163 (XIII) Res. 60 Rep. 114	II II III	194 195 114
— and VHF propagation over distances up to 200 km	S.P. 140 (V) Res. 41	II II	105 106
Uncertainty, residual, and permissible delay, relation between, and its dependence on bandwidth utilization	Rep. 110	III	87
Undesired responses of superheterodyne receivers, choice of intermediate frequency and protection against	Q. 171 (II) Rep. 98	II III	63 41

Subject	Text	Vol.	Page
Unit systems	Rec. 143	I	335
Unwanted radiation from industrial installations, limitation of	Q. 75 (I) S.P. 84 (I) Res. 39	II II II	56 57 58
V			
VHF (band)			
— and HF, direction finding	Rep. 93	III	109
— and UHF bands, advantages to be obtained by using orthogonal wave polarizations in the planning of broadcasting services	Rep. 122	III	150
— and UHF broadcasting services, measurement of field strength for	Q. 138 (V) Rep. 142	II III	96 280
— and UHF, propagation over distances up to 200 km	S.P. 140 (V) Res. 41	II II	105 106
— frequency-modulation sound broadcasting in	Q. 150 (X) Rep. 77	II III	159 133
— intermittent, long-distance radiocommunication in, by means of scattering from columns of ionization produced by meteors in the lower ionosphere	Rep. 157	III	356
— regular, long-distance transmission in, by means of scattering from inhomogeneities in the lower ionosphere	Rep. 158	III	357
— standards for frequency-modulation sound broadcasting in	Rec. 263	I	198
VHF maritime mobile radiotelephone service			
— interference due to intermodulation products in	Rec. 256	I	167
— selective calling devices for use in	Q. 160 (XIII) S.P. 168 (XIII)	II II	192 193
VHF maritime mobile equipment			
— characteristics of equipments and principles governing the allocation of frequency channels in	Rep. 114	III	114
— frequency-modulated spurious emissions from	Rep. 255 Q. 161 (XIII) Rep. 113	I II III	166 194 113
VHF maritime equipments (frequency-modulated) technical characteristics of	Rec. 254	I	164
VHF and UHF land mobile services, characteristics of equipments and principles governing the allocation of channels in	Q. 163 (XIII) Res. 60	II II	194 195
Video-signal frequencies, interconnection of radio-relay systems for television at	Rec. 270	I	231
Video colour-television signals, standards for	S.P. 80 (XI)	II	169
Visual monitoring of the radio-frequency spectrum	Q. 191 (VIII)	II	139
Vestigial-sideband transmission			
— distortion of television signals due to the use of	S.P. 110 (XI)	II	170
— phase correction of television transmitters necessitated by the use of	Rec. 266	I	206
Voice-frequency telegraphy on radio circuits	Rec. 106 Q. 43 (III) S.P. 129 (III) Rep. 19	I II II III	118 77 77 57

Subject	Text	Vol.	Page
Voice-frequency telegraphy on telephone channels of radio-relay systems for telephony using frequency-division multiplex, design objectives for	Rep. 132	III	198
Voice-operated devices for ship stations and carrier-operated devices for shore stations	Rec. 76	I	149
W			
Wanted to unwanted signal-ratio in television	Q. 119 (XI) Rep. 125	II III	171 172
— use of frequency-offset for sound when the wanted signal is frequency modulated	S.P. 123 (XI)	II	172
— use of the offset method when there are great differences between the carrier frequencies of the interfering stations	S.P. 166 (XI)	II	173
Watch on the radiotelephony distress frequency of 2182 kc/s	Rec. 124	I	151
Wave-length and frequency bands used in radiocommunications, nomenclature of	Rec. 324	I	335
Whistler mode of propagation	Res. 42 S.P. 141 (VI)	II II	33 110
Wow and FLUTTER in equipment for sound recording and reproduction, measurement of	Rec. 210 Rep. 116	I III	179 149

ORGANIZATIONS MENTIONED IN VOLUMES I, II AND III

The name of each organization in this list is followed by references to the texts in which the organization is mentioned.

International Geophysical Year (I.G.Y.)

Recommendations Nos. 313, 315, 317

Reports Nos. 151, 153, 160

Bureau International de l'Heure (B.I.H.)

Recommendation No. 319

International Chamber of Shipping (I.C.S.)

Question No. 171 (II)

International Telegraph and Telephone Consultative Committee (C.C.I.T.T.)

(Includes references to texts mentioning the C.C.I.T. and the C.C.I.F.)

Recommendations Nos. 40, 75, 77, 242, 244, 246, 249, 267, 268, 269, 271, 272, 285, 286, 287, 288, 289, 291, 294, 295, 297, 298, 300, 304, 306, 324.

Reports Nos. 19, 33, 37, 90, 130, 131, 132, 135.

Resolution Nos. 15, 32, 33, 34, 38, 54, 55, 56, 62.

Questions Nos. 43 (III), 94 (III), 109, 110, 111, 112, 121 (XI), 130 (III), 193 (IX), 197 (IX).

Study Programmes Nos. 116 (XI), 129 (III), 132 (III), 159 (IX).

International Frequency Registration Board (I.F.R.B.)

Recommendations Nos. 19, 22, 316, 319, 321, 322, 323.

Reports Nos. 127, 140, 150, 152, 154, 160, 166, 169.

Resolutions Nos. 19, 24, 48, 52.

Study Programmes Nos. 102 (VIII), 128 (III), 142 (VI).

International Radio Maritime Committee (C.I.R.M.)

Questions No. 171 (II).

International Special Committee on Radio Interference (C.I.S.P.R.)

Recommendations Nos. 27, 131, 159, 239.

Reports Nos. 99, 138.

Resolution No. 39.

Questions Nos. 75 (I), 84 (I), 175 (II), 176 (II), 190 (VIII).

Study Programme No. 84 (I).

International Electrotechnical Commission (I.E.C.)

Recommendations Nos. 27, 131, 143, 235, 237, 238, 239, 260, 324.

Reports Nos. 81, 102, 103, 138.

Resolutions Nos. 31, 58, 59, 62.

Questions Nos. 176 (II), 177 (II), 200 (X).

Joint C.C.I.R.-C.C.I.T.T. Committee for television transmission (C.M.T.T.)

Recommendation No. 267.

Resolutions Nos. 32, 54.

Question No. 121 (XI).

Study Programme No. 116 (XI).

Joint C.C.I.T.T.-C.C.I.R. Study Group for phototelegraphy (M.P.)

Recommendation No. 244.

Resolution No. 15.

Questions Nos. 94 (III), 130 (III).

Joint C.C.I.T.T.-C.C.I.R. Committee on Technical Assistance (C.M.A.T.)

Resolutions Nos. 38, 63.

International Federation of Documentation (F.I.D.)

Reports Nos. 37, 95.
Question No. 72 (XIV).

Joint C.C.I.T.T.-C.C.I.R. Working Party on circuit noise.

Recommendation No. 289.
Resolution No. 56.
Reports Nos. 132, 135.

International Civil Aviation Organization (I.C.A.O.)

Recommendation No. 258.
Reports Nos. 90, 93.

International Organization for Standardization (I.S.O.)

Report No. 81.
Resolution No. 31.

International Broadcasting and Television Organization (I.B.T.O.)

Reports Nos. 123, 124, 154.

World Meteorological Organization (W.M.O.)

Reports Nos. 146, 147, 160.
Resolutions Nos. 46, 51.
Study Programmes Nos. 138 (V), 154 (VI).

United Nations Organization (U.N.O.)

Resolutions Nos. 38, 64.

International Astronomical Union (I.A.U.)

Recommendation No. 319.

European Broadcasting Union (E.B.U.)

Reports Nos. 79, 150, 154, 170.

International Scientific Radio Union (U.R.S.I.)

Recommendations Nos. 165, 166, 313, 318, 319.
Reports Nos. 46, 99, 138, 151, 153, 160, 165, 166.
Resolutions Nos. 40, 42, 43, 44, 45, 46, 47, 50.
Questions Nos. 133 (III), 137 (V), 175 (II).
Study Programmes Nos. 86 (III), 93 (VI), 138 (V), 141 (VI), 142 (VI), 144 (VI), 154 (VI).

PRINTED IN SWITZERLAND