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INTERNATIONAL TELECOMMUNICATION UNION

REPORT ON THE ACTIVITIES OF THE INTERNATIONAL TELECOMMUNICATION UNION **IN 1991**

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1. INTRODUCTION

This Report is published pursuant to the provisions of No. 306 of the International Telecommunication Convention (Nairobi, 1982) which provides that the Secretary-General shall "...with the assistance of the Coordination Committee, prepare an annual report on the activities of the Union which, after approval by the Administrative Council, shall be sent to all Members".

2. MEMBERSHIP OF THE UNION

2.1 In 1991, the following two countries became Members of the Union following their accession to the Nairobi Convention:

- Republic of Lithuania, on 12 October,
- Republic of Latvia, on 11 November.

As at 31 December 1991, there were therefore 166 Members of the Union.

2.2 On 24 December 1991, the rights and obligations of the former Union of Soviet Socialist Republics as a Member of the Union were taken over by the Russian Federation.

2.3 In the course of 1991, twelve Members ratified the Constitution and Convention of the ITU, Nice, 1989, thus bringing to thirteen the total number of ratifications as at 31 December 1991.

2.4 Table 1, in Annex 1 to the present Report, shows the situation of Members with respect to the Nairobi Convention and the Administrative Regulations which complement it, as at 31 December 1991. It also includes the situation with respect to the Constitution and Convention of Nice, 1989. Annex 1 also gives information relating to certain other conventions and agreements relating to telecommunications.

3. ADMINISTRATIVE COUNCIL

3.1 The 46th session of the Administrative Council was held at ITU Headquarters from 27 May to 7 June 1991.

This session was attended by representatives of 41 Members of the Council, namely:

Algeria (People's Democratic Republic of), Germany (Federal Republic of), Saudi Arabia (Kingdom of), Argentine Republic, Australia, Benin (Republic of), Brazil (Federative Republic of), Bulgaria (Republic of), Burkina Faso, Cameroon (Republic of), Canada, Cape Verde (Republic of), China (People's Republic of), Colombia (Republic of), Korea (Republic of), Cuba, Egypt (Arab Republic of), Spain, United States of America, France, Greece, India (Republic of), Indonesia (Republic of), Italy, Jamaica, Japan, Kenya (Republic of), Kuwait (State of), Malaysia, Mali (Republic of), Morocco (Kingdom of), Mexico, Nigeria (Federal Republic of), Pakistan (Islamic Republic of), Philippines (Republic of the), Senegal (Republic of), Sweden, Switzerland (Confederation of), Czech and Slovak Federal Republic, Thailand, Union of Soviet Socialist Republics.

3.2 Mr. A. Michna (Czech and Slovak Federal Republic) and Mr. J.A. Padilla Longoria (Mexico) were elected Chairman and Vice-Chairman of the Council, respectively, and the following Committees were set up:

Committee 1 - Finance

Chairman: Mr. P. Gagné (Canada)
Vice-Chairman: Mr. J. Martin-Löf (Sweden)

Committee 2 - Staff and Pensions

Chairman: Mr. S. Al-Basheer (Saudi Arabia)
Vice-Chairman: Mr. C. Baudazzi (Italy)

Committee 3 - Development

Chairman: Mr. H. Vignon (Benin)
Vice-Chairman: Mr. M.A. Yusoff (Malaysia)

Committee 4 - Matters relating to the High Level Committee

Chairman: Mr. C. Oliver (Australia)
Vice-Chairman: Mr. R.M.J. Shingirah (Kenya)

3.3 The Resolutions and Decisions adopted by the Council are summarized below:

3.3.1 Financial matters

3.3.1.1 Financial Operating Report of the ITU for 1990

The Council approved the Financial Operating Report and the Management Report of the ITU Staff Superannuation and Benevolent Funds for 1990.

(Resolution No. 1012)

3.3.1.2 External audit of ITU accounts for the period 1 January to 31 December 1990

The Council approved the accounts of the ITU for the period 1 January to 31 December 1990 as drawn up and audited by the External Auditor appointed by the Swiss Confederation.

(Resolution No. 1013)

3.3.1.3 Additional credits in the budget of the ITU for 1991

The Council resolved to allocate additional credits to the ordinary budget of the Union for 1991 to the amount of 1,482,000 Swiss francs, and to the supplementary publications budget for 1991 to the amount of 671,000 Swiss francs, for one-time expenditure on implementation of the HLC's recommendations.

(Resolution No. 1018)

3.3.1.4 Budget of the ITU for 1992

The Council approved the budgets for 1992, namely:

- the Union budget amounting to 130,145,000 Swiss francs;
- the Technical Cooperation special accounts budget amounting to 6,370,000 Swiss francs;
- the supplementary publications budget amounting to 7,630,000 Swiss francs.

The contributory unit for 1992 was set at:

- for Members 306,000 Swiss francs;
- for recognized private operating agencies, etc. : 61,200 Swiss francs

(Resolution No. 1019)

3.3.1.5 Reserve Account of the Union

The Council decided to withdraw from the Reserve Account of the Union a sum of 1,000,000 Swiss francs, and to use those funds to absorb the balance of the shortfall in income to cover support costs in the Technical Cooperation special accounts.

(Decision No. 435)

3.3.1.6 Amount owed by Infinet Inc., Andover (USA)

The Council decided that the amount of 72,335.85 Swiss francs owed by Infinet Inc. as unpaid contribution and accrued interest for 1983-1986 shall be written off and offset by a withdrawal from the ITU Reserve Account.

(Decision No. 436)

3.3.1.7 Amount owed by Plantronics Inc., Frederick (USA)

The Council decided that the amount of 20,563.20 Swiss francs owed by Plantronics Inc. as unpaid contribution and accrued interest for 1985 shall be written off and offset by a withdrawal from the ITU Reserve Account.

(Decision No. 437)

3.3.2 Staff matters, pensions

3.3.2.1 Membership of the ITU Staff Pension Committee

The Council appointed the following persons to represent the Administrative Council on the ITU Staff Pension Committee:

Members	Alternate Members	Term of Office
Mr. Z. STRNAD	Mr. R. MBAYE	Mr. R. MBAYE session of the Council
Mr. G. DUPUIS	Mr. B. SULISTYO	Until the 48th ordinary session of the Council
Mr. J. HERNANDEZ	Mr. A. NODAROS	Until the 49th ordinary session of the Council

(Resolution No. 1010)

3.3.2.2 Salaries, post adjustment rates and staff assessment rates of elected officials

The Council approved the salaries and rates with effect from 1 March 1991 and amended the Staff Regulations and Rules for elected officials.

(Resolution No. 1011)

3.3.2.3 Pension Purchasing Power Protection Insurance Plan (PPPIP)

The Council adopted on an interim basis the Pension Purchasing Power Protection Insurance Plan (PPPIP), for introduction on 1 April 1992, unless the United Nations General Assembly implements measures providing comparable protection.

(Resolution No. 1015)

3.3.2.4 Decisions on Staff requirements

The Council approved the creation of the following fixed term posts until 31.12.1993 in the Telecommunication Development Bureau (BDT):

- 1 G7 Administrative Assistant in the Telecommunication Policies Division
- 1 P4 Management Information System Coordinator in the Programme Support, Organisation and Methods Department

and the abolition of the following posts in the same organ:

C9T/P3/409	C7T/G5/405
C1T/P2/365	C9T/G5/412
C1T/P2/391	C12T/G5/407
C12T/G6/428	C4T/G5/367

(Resolution No. 1016)

3.3.3 Conferences and meetings

3.3.3.1 Additional Plenipotentiary Conference

The Council resolved to convene an Additional Plenipotentiary Conference, in Geneva, for 2 weeks and 2 days commencing on Monday 7 December 1992. The Council also agreed on the Conference procedure and agenda. The Members of the Union were consulted with respect to the procedure, agenda, date and place of the Conference in Circular-letter AC/46-2 of 14 June 1991 and the Council's proposals were approved by the required majority.

(Resolution No. 1020)

3.3.3.2 Elaboration of draft texts for the Additional Plenipotentiary Conference and related matters

The Council resolved to establish a Drafting Group of Experts from Administrations with the following mandate: *"to elaborate draft texts for the revision of the Nice Instruments based on the relevant recommendations of the HLC Final Report"*. It resolved further that the Drafting Group should complete its work not later than 15 April 1992.

(Resolution No. 1021)

3.3.3.3 Date and duration of the 47th session of the Administrative Council

The Council decided that its 47th session will open in Geneva for a period of two weeks from Monday, 29 June to Friday, 10 July 1992.

(Decision No. 438)

3.3.4 Integration of the Centre for Telecommunications Development in the Telecommunications Development Bureau

The Council resolved to terminate the functioning of the Centre for Telecommunications Development and its Advisory Board as such by the end of 1991 and integrate into the structure of the BDT the distinctive functions originally envisaged for the CTD.

(Resolution No. 1014)

3.3.5 Status similar to that of Regional Telecommunication Organizations provisionally granted to Intergovernmental Organizations Operating Satellite Systems

The Council resolved that, provisionally and pending the consideration of new rules by the Plenipotentiary Conference, intergovernmental organizations operating satellite systems shall, with effect from 10 October 1991, be granted a status similar to that enjoyed by the regional telecommunication organizations, in accordance with the relevant provisions of the Nairobi Convention. The Members of the Union were consulted with respect to this Resolution in Circular-letter AC/46-3 of 14 June 1991 and the Council's proposal was approved by the required majority.

(Resolution No. 1017)

3.3.6 Implementation of HLC recommendations

The Council decided to endorse some of the HLC recommendations, and transmit them to the Secretary-General and the Coordination Committee for implementation.

(Decision No. 439)

3.4 Resolution amended by the Council

The Council amended Resolution No. 925 - Financial conditions for the participation of the United Nations, the specialized agencies and other international organizations in the conferences and meetings of the ITU- , as follows:

In paragraph 4.1 "Regional telecommunication organizations", add:

- Caribbean Telecommunication Union (CTU);

In paragraph 4.2 "Other international organizations", add:

- International Satellite System for Search and Rescue (COSPAS-SARSAT).

3.5 Other main issues considered by the Council which were not the subject of Resolutions and Decisions

- Election of a Member of the Council for Region C
- Postponement of the World Administrative Radio Conference (WARC HFBC-93)
- Plenipotentiary Conference (Japan, 1994)
- Committee for ascertaining the facts concerning Israel's violation of the International Telecommunication Convention

- Voluntary Group of Experts to Study Allocations and Improved Use of the Radio-Frequency Spectrum and Simplification of the Radio Regulations
- Development of direct remote access to ITU information systems
- The use of working languages
- Participation of organizations of an international nature in the activities of the Union
- Cooperation Agreement between UNESCO and ITU
- Premises at the Union Headquarters
- Telecommunication Journal

4. ACTIVITIES OF THE PERMANENT ORGANS

4.1 Activities of the General Secretariat

The General Secretariat comprises five departments - Personnel, Finance, Conference and Common Services, Computer and External Relations - together with a Communications Service as well as the TELECOM Secretariat.

4.1.1 Personnel Department

The total number of posts in the Manning Table as of 31 December 1991 was 820 of which 735 posts were filled by officials holding permanent (80,6%) or fixed-term contracts (18%). In view of the financial situation and of the global budget cuts resulting from the decisions taken at the Nice Plenipotentiary Conference a number of posts were not filled during the year or were frozen; on 31 December 1991, 33 established posts were frozen.

Short-term employment increased in 1991 and amounted to 55,345.75 person/days. This increase, as compared with 1990, is due to the TELECOM exhibition and other conference activities. However, it remains well below the figure for 1989.

Apart from the regular activities of the Department relating to the recruitment and the administration of staff which has shown no overall substantial decrease in volume, the Personnel Department has been deeply involved in the study of the HLC Report, its implications on the organizational structure of the Union and in the implementation of those recommendations not requiring submission to the next Plenipotentiary Conference.

In the field of job classification, the reduction of the backlog of work continued. The reorganization of the IFRB and the BDT continued to remain important activities as was the redeployment of posts from the old External Relations Department of the General Secretariat to other sectors, and to the Office of the Secretary-General, in particular, with the creation of the Strategic Planning, Operational Analysis and Internal Audit Unit.

4.1.2 Finance Department

The activities of the Finance Department continued to be affected by the increasing workload and demands to provide financial information on the different activities of the Union. A number of posts remained unfilled during 1991 as a result of the cut in staff expenditures. Nevertheless, the regular duties of the Finance Department, as stipulated in the Financial Regulations of the Union, were carried out in a timely manner.

The Department was entirely involved in the implementation of the recommendations of the High Level Committee, particularly those related to Financial Management (Recommendations Nos. Fiv1 - to Fiv9) as well as in the preparations for Telecom 91, various Regional Telecoms and WARC 1992. The staff of the Department also participated in the work related to the future of the Telecommunication Journal and publications production, marketing and sales as well as to CCAQ and its working groups and parties, particularly in relation to the support cost income from UNDP and to the accounting standards.

4.1.3 Department of Conferences and Common Services

At the end of 1991, the Secretary-General decided to transfer the Library and Archives Service and the Telecommunication Journal Service to the Department.

4.1.3.1 Planning, Conference and Logistic Division

In 1991, the Department provided support services and facilities for the following meetings:

CCITT meetings 333 days (270 days of meetings in Geneva, and 63 days outside Geneva)

CCIR meetings 488 days (361 days of meetings in Geneva, and 123 days outside Geneva)

Administrative Council - CA46 - 10 days

IFRB/BDT Regional Seminars - 15 days

High Level Committee meetings - 22 days

Voluntary Group of Experts/RR - 9 days

Drafting Groups APP - 13 days

Advisory Board, Centre for Telecommunications Development - 3 days

Regional Telecommunication Development Conferences - 9 days

Various meetings relating to Telecommunication Development - 41 days

The attached chart depicts the volume of document-production services provided for ITU activities for the period 1981 - 1991, with details for the CCIR and the CCITT.

Planning activities included the preparation of meeting calendars and annual workload estimates for production of documents (translation, text capture and reprography), for the 1992 workplan, the draft 1993 budget and the outline 1994 budget.

All aspects of the implementation of Resolution No. 59 (Nice, 1989) concerning the new working languages were supervised and coordinated.

The Logistics Services took part in various technical meetings as well as administrative meetings of the joint purchasing group of the United Nations Office in Geneva. Market studies were continued and calls for bids were launched with a view to obtaining the best quality/price levels for building maintenance, as well as for the purchase or rental of office furniture, various machines and office supplies.

Expenses relating to furniture and machines amounted to 2,301,000¹ Swiss francs; office supplies 1,857,000 Swiss francs and building maintenance 2,037,000 Swiss francs.

Strict administration of office allocations was continued. At the end of the year there were indications that, due to organizational changes, there will be significantly more office changes and re-allocations than in 1991.

4.1.3.2 Languages and Document Composition Division

In 1991, the English, French and Spanish translation sections translated 46,000² pages (compared with 51,000 pages in 1990) into the working languages. 45.5% of the translations were into French, 9.5% into English and 45% into Spanish. This total included approximately 4,000 pages which were contracted outside.

¹ All figures are given to the nearest 1,000 SFR.

² Pages are given to the nearest 1,000.

The Arabic, Chinese and Russian Services, in accordance with Resolution No. 59 (Nice, 1989), handled the translation and revision of some of the CCI Volumes. The Arabic Service also undertook the translation and revision of the Radio Regulations (1990 edition). The production of the Chinese and Russian versions was contracted out to Publishing Houses in Beijing and Moscow respectively. 2,000 pages of CCI Volumes were printed in Arabic. 2,000 pages were printed in Chinese and 2,000 pages in Russian. New text-capture systems were installed for the Chinese and the Russian Services. The software for the Chinese word processing system was acquired from the Chinese Administration. An additional word processing system was installed for the Arabic Service. These services also translated and typed in Arabic, Chinese and Russian 48 trilingual issues of the Special Section on Space Services of the IFRB Weekly Circular, comprising 9,000 final pages (compared with 6,000 in 1990).

The services provided also included 345 man-days of interpretation, precis-writing, and missions.

The Section for Terminology, References and Computer Translation Aids (STRAIT) continued with the updating of TERMITE, ITU's specialized terminology data base accessible online through TIES. In 1991, there were more than 10,000 additions and modifications to this data base which currently contains nearly 54,000 entries. The Section drew up and disseminated instructions on the use of TERMITE, and also prepared a number of requested terminology lists in particular for WARC-92. It formulated specifications for a future computerized terminology management system to replace the present system based on the Siemens computer. It also had coordination meetings with the translation sections and with the CCI editors, participated in inter-agency conferences with its UN counterparts, and continued to watch technological developments with a view to acquiring computer translation aids.

The work of the Reference Service resulted in savings corresponding to nearly 4,000 pages of translation. The Service began compilation of an inventory of available reference books, took part in a preliminary analysis with a view to computerizing document registration and considered ways of improving its overall efficiency.

The Document Composition Service (POOL) produced 92,000 pages of documents in 1991. Of this total, 10,000 pages were placed outside. CCIR and CCITT work represented respectively 25% and 55% of total production. 1,000 hours of overtime were required in order to ensure that documents were produced in time for meetings or conferences.

In February 1991, the Document Composition Service replaced SAMNA with Word for Windows as its word processing standard. This was done with the assistance of the Computer Department, and experience has now proved that it was the right choice for the ITU.

The language sections previously had their own staff for typing translations. In June 1991 this typing pool was merged with the Document Composition Service resulting in productivity improvements.

In addition, 1,000 pages were produced by the Publication Composition Service, giving a total documents production of 93,000 pages for the two services.

4.1.3.3 Publication and Reprography Division

The Reprography Section processed 93,344,000 pages A4 format, i.e. 8.4% more than in 1990.

The Conference Documents Section handled 4,354,000 documents (i.e. 23% less than in 1990), of which 1,305,000 were dispatched (44% less than in 1990) and 2,741,070 distributed.

More than 430,000 address labels were printed for dispatches. The Dispatch and Transport Section sent out 106,000 kilos of publications, documents and conference material (value: 4,145,000 Swiss francs) by freight at a cost of 243,000 Swiss francs. It handled 14,000 registered items, i.e. 10% less than in 1990. Surface mail accounted for 63% of total traffic in 1991, compared with only 56% in 1990.

Publications

In 1991, the Publication Composition Service produced the originals for printing the publications listed in Annex 3, except the lists produced by computer. A total of 42,000 pages were produced, made up mainly of CCITT Recommendations and Directives and the CCIR XVIIth Plenary Assembly Volumes. The Service completed the introduction of the Word for Windows word processing software and of graphic workstations. Lastly, the Service acquired a PostScript photocomposition machine. The above equipment now makes it possible to carry out the entire composition process at the ITU for most publications, including the Telecommunication Journal.

In 1991, the Publications Service handled the production of 895 publications (total of all languages - F/E/S/A/C/R), representing 124,000 paper pages and 664 microfiches (containing 179,280 pages) and two issues of the International Frequency List (IFL) on CD-ROM, totalling four CD disks. A total of 740,250 fascicles were printed. Work placed outside accounted for a total of some 4,761,000 Swiss francs.

The two Services made special efforts to make the CCI Recommendations available more quickly, with 90% thereof now produced in under four months.

DOCUMENT SERVICING ACTIVITIES

TRANSLATION (pages)			TYPING & DATA CAPTURE (pages)			REPRODUCTION (pages)		
TOTAL								
81	53.854	12.722	81	143.865	28.310	81	70.341.979	14.515.650
82	54.045	21.862	82	98.778	41.066	82	52.720.157	21.281.992
83	66.311	31.608	83	123.892	62.069	83	63.766.986	27.835.527
84	58.448	24.966	84	128.542	74.234	84	88.597.402	50.599.085
85	55.418	14.251	85	106.916	26.035	85	70.950.907	17.251.460
86	44.273	19.463	86	89.571	43.742	86	70.776.514	30.528.870
87	67.955	28.676	87	129.443	57.543	87	90.781.067	41.145.828
88	64.326	28.528	88	153.791	84.141	88	112.178.453	65.512.478
89	65.249	14.458	89	123.301	29.527	89	81.541.356	19.838.904
90	50.637	22.760	90	90.824	46.406	90	86.066.041	39.612.565
91	46.017	23.840	91	91.837	50.076	91	93.343.838	43.972.621
81	19.068		81	83.009		81	39.510.165	
82	3.029		82	7.455		82	4.081.454	
83	9.553		83	22.536		83	9.428.975	
84	7.780		84	14.744		84	9.635.813	
85	16.660		85	39.816		85	17.420.122	
86	2.483		86	13.841		86	11.091.415	
87	10.566		87	24.774		87	11.223.068	
88	7.018		88	20.238		88	10.385.169	
89	21.832		89	55.129		89	22.632.293	
90	3.612		90	21.373		90	18.288.486	
91	5.736		91	23.147		91	9.473.216	

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4.1.4 Computer Department

The Computer Department, which was re-organized effective 1 January 1992, as the Information Services Department, is the ITU focal point for the information technology (IT) capabilities which are of vital importance in carrying out the Union's missions. Enhancement and operation of the IT infrastructure, training and support of computer users, and development and maintenance of application systems are among the department's responsibilities.

In 1991 the ITU Coordination Committee decided upon a strategy of using the UNIX operating system in conjunction with Ingres database management software as the preferred computing environment for ITU. Much activity in 1991 was connected with this decision. The transfer of applications from the Siemens environment, permitting elimination of one of the two mainframe systems, has led to significant savings for the 1992 budget.

Computer-based communications, including support for the requirements of external users, was also a major area of activity.

Annex 4 contains a summary of the Computer Department activities in 1991.

4.1.5 Department of External Relations

The External Relations Department has performed the activities through its three Divisions in a traditional manner. In addition, within the framework of the implementation plan of the HLC Recommendations, as approved by the Council at its 46th session, the preparatory work for the restructuring of the Department, together with the reallocation of its responsibilities, has been completed.

Major part of the traditional activities of the Department of External Relations will be performed, in the future, by the Office of the Secretary-General, in accordance with Recommendation No. 9 of the High Level Committee, ensuring the optimum overall effectiveness of ITU Headquarters and of relations (including information exchange) between Headquarters and Members. The Office of the Secretary-General will be composed of three units, namely: the Strategic Policy and Planning Unit (SPU), the Legal Affairs Unit (LAU) and the External and Public Relations Unit (EPRU).

4.1.5.1 The Division responsible for Relations with the United Nations and other International Organizations was ensuring close working contacts with the United Nations and its subsidiary bodies on matters of common interest.

Traditional cooperation covered, according to usual practice, the areas of administrative and operational activities of various Committees and Commissions of the UN General Assembly (OC, ACC, CPC, ECOSOC, COPUOS) where the Union was present with its contributions as appropriate. Active participation has been pursued in the work of the various UN specialized organizations having a bearing on telecommunications (UNESCO/IPDC, ICAO, IMO, UPU or WMO) including international and regional organizations dealing with telecommunications aspects, of which some are cited hereafter (IEC, ISO, URSI, ETSI, PATU, ABU, INTELSAT).

4.1.5.2 The Union's Legal Service, in addition to its normal activities, which remained in substance comparable to the ones reported for the preceding years, although their number continued to increase, continued also in 1991 to be extensively involved in the work for the implementation of Nice Resolution No. 55 on the review of the structure and functioning of the Union. In that respect, legal study and analysis documents were prepared in the Service and submitted to the "High Level Committee" (H.L.C.) and subsequently to the Administrative Council, at its 46th session. After the latter's consideration of the Final Report of the H.L.C. (see in particular Council Decision No. 439) and adoption of its Resolutions No. 1020, concerning the convening of an Additional Plenipotentiary

Conference from 7 to 22 December 1992 to revise the Nice Instruments prior to their entry into force, and No. 1021, by which the Council established a Drafting Group of Experts from Administrations to elaborate draft texts for the revision of the Nice Instruments based on the relevant recommendations of the H.L.C. Final Report, the Legal Service started the related preparatory work, which, in collaboration with the Drafting Group's Chairman and the small Core-Group convened by him, resulted in the Chairman's First Drafts of a revised Constitution and a revised Convention of the Union. These drafts were submitted to, and considered by, the Drafting Group at its First Session (Geneva, 9 to 13 December 1991), for which the Legal Service mainly provided the Secretariat.

4.1.5.3 Telecommunications Regulations and Relations between Members Division

The responsibilities of this Division include: support to major ITU legislative and administrative forums; the provision of diverse formal and informal information services, including the reciprocal exchange of information among Members; advisory, liaison and administrative activities. The Division provides these functions through four major subdivisions with personnel specialized in organizational matters concerning legislative forums, telecommunication regulations and operations, radio regulations and operations and mobile services and operations.

1991 accomplishments

Support to major ITU legislative and administrative forums

The Division assists Members in the national ratification process, receives the treaty instruments and gives global notice of accessions. The activity may also include the organization and conduct of preparatory seminars related to these conferences, participation in preliminary meetings and consultations.

In 1991 extensive support was given for the 46th session of the Administrative Council, to the First and Second Meetings of the VGE (Voluntary Group of Experts to Study Allocation and Improved Use of the Radio Frequency Spectrum and Simplification of the Radio Regulations). The Division's staff actively participated in the preparation to the WARC-92.

Provision of information exchange services

One of the Division's major activities consists of creating and maintaining numerous information exchange services important to basic institutional, regulatory, administrative, operational, tariff and statistical activities of the Union, its Members, operating agencies and users. These include not only the dedicated information systems (see Annex 5 to the Report), but also a large number of ad hoc communications between and among Members, RPOAs, SIOs and others.

Advisory, liaison and administrative activities

In pursuance of the Radio Regulations, the Division provided allocation of ship station selective call numbers, numbers for predetermined groups of ship stations, blocks of coast station identification numbers, international call series and maritime identification digits.

The Division took necessary action relating to the changing political environments in Europe (particularly in former USSR and in Yugoslavia). These required, together with appropriate conventional steps, a lot of advisory and interpreting activities performed in close liaison with the Union's Legal Service.

4.1.5.4 Public Relations Division

a) Press and Information activities

During the year under review, the Press and Information Section published 17 press releases which were sent to some 10.000 addresses worldwide and organized or participated in 4 press conferences. It also prepared, co-produced or contributed information for some 44 articles on telecommunications for the general and specialized press in magazines and journals of 16 countries and contributed inputs to 23 yearbooks and directories from 10 countries.

With respect to TELECOM 91, the Press and Information Section was responsible for the organization, management and supervision of the TELECOM 91 Press Service. In that context, 1,772 journalists from 44 countries were accredited and 629 press officers nominated. Information was prepared and released worldwide for promoting the exhibition in the media. As regards the Youth in the Electronic Age Competition which also falls within the responsibility of the Press and Information Section, thirty-nine entered the competition and twenty-nine submitted entries to the international jury which met on 8 and 9 April 1991 to select the 15 winners.

The Press and Information Section with the assistance of other officials carried out public information programmes involving lectures and debates on various aspects of ITU's work. Also, a leaflet on the aims, structure and functioning of the ITU was published and several short document highlighting particular aspects of the work of the ITU were prepared for groups of visitors and requests made by the press, corporate and individual users of telecommunications, academic circles and the general public. Furthermore, some 1,487 requests for information were dealt with by the section, a significant increase over the preceding year as a result of TELECOM 91.

Finally, the Press and Information Section prepared the documentation required for the 23rd World Telecommunication Day (17 May 1991), on the theme: "Telecommunications and Safety of human life".

b) Telecommunication Journal

The Section published a total of 938 pages in the *Journal*, the Table of satellites launched in 1990 and in special issues on network management, WARC-92 and new network technologies.

c) Graphics/audiovisual

The Section contributed to the *Journal* (illustrations, covers, page setting), *World Telecommunication Day* (posters, stamps designs, QSL cards, full-page photos, etc.), *Africa Telecom* (poster, brochure, forum), *BDT* (complete audiovisual programme), *Telecom* (all printed material), *ITU Telecom stand* (scale model, plans, setting up and maintenance), *Telecom forum* (plans, installation, printed matter, forms, badges, etc.).

d) Main Library, documents and archives

Main Library: The Library made 633 acquisitions (118 purchases and 515 donations) and provided lending and reference services for headquarters staff, delegates to ITU conferences and outside users. A number of lists were published (e.g. the *List of Recent Acquisitions* and *Current Contents*), as well as 190 book reviews in the *Telecommunication Journal*.

Film library: The film library (with nearly 600 films or videos) dealt with 225 loan requests for films shown at 670 viewings before a total audience of 110,000.

Address bank: About 11,000 addresses were updated by the address bank.

Archives

Printed archives: The Service dealt with 200 search and consultation requests for printed documents.

Semi-active and withdrawn files: ITU services lodged a total of 98 metres of files with the archives, and 450 requests were dealt with.

Microfilms and microfiches: More than 100 rolls of film were used for capturing documents.

In addition, as part of TELECOM 91, the Service organized *Book Fair 91* involving 90 publishers from 13 countries and two regional/international organizations, as well as *Film Festival 91*, at which 94 films or videos were shown from 23 countries and 4 regional/international organizations.

4.1.6 Communications Service

The activities of the Communications Service in 1991 may be divided as follows:

Mail

100,899 items of outgoing mail (letters and printed material) were processed and franked in 1991. The total cost for postage was 286,416.30 Swiss francs. These figures represent a 17% increase in items despatched in comparison with 1990; expenditure for postage doubled in 1991, due in part to the increased use of rapid mail services. (These figures do not include parcel post handled by the Despatch Service.) In addition, 650 (815 in 1990) items of correspondence were dispatched by the United Nations Diplomatic Pouch.

Telex

A total of 38,019 messages were processed (25,222 outgoing and 12,797 incoming), corresponding to a decrease of about 21% compared with the 1990 figures, which to a large extent is due to the increasing number of messages sent by facsimile. In addition, 174 circular-telegrams were sent to Member administrations.

Facsimile

Fax machines installed in the organs and in certain departments of the General Secretariat handled both incoming and outgoing messages. Traffic increased steadily with the number of pages sent and received in 1991 throughout ITU totalling approximately 267,550 (a 55% increase compared to the 1990 figures). The Communications Service handled approximately 44% of all

incoming messages and 61.5% of all outgoing ones; this represents an increase of 36.4% of messages handled by the Service in comparison with 1990. The Service can now reach 151 administrations by fax, compared with 140 in 1990.

Delegate Servicing

The "delegates computer lounge" adjacent to the Communications Service offices now has four computer terminals and four printers at its disposal. Five terminals and two printers are also available to delegates in the meeting room area of the second basement. Staff of the Service provide support to delegates in both areas.

Computerized Directory Maintenance and Statistics

The Service maintains in machine-readable form all directories under its responsibility (Circular-letters, DM-letters, Service Orders, Office Memoranda), making information available ITU-wide on reftext and the document server. Statistics on mail, telex and fax traffic flow are prepared by the Service.

4.1.7 Special Projects (TELECOM)

Telecom 91, the 6th World Telecommunication Exhibition and Forum was held in Geneva from 7 to 15 October 1991. 850 exhibitors from 37 countries participated in this event. The number of visitors increased from 55,000 to 132,351 - an increase of 140% compared to that of Telecom 87. The Forums equally recorded an outstanding success.

Preparations also continued throughout the year for Americas Telecom 92 to be held in Acapulco, Mexico from 6 to 11 April 1992 and for Europa Telecom 92 in Budapest, Hungary from 12 to 17 October 1992.

More information on TELECOM activities is presented separately in Document 7253.

4.2 Activities of the IFRB

4.2.1 Maintenance of the Master International Frequency Register (Master Register), the International Frequency List and related service documents

a) The Master Register at the end of 1991 contained particulars of 1,133,756 assignments representing 5,350,817 records which will be published in March 1992 in the next update (Edition 13.2) of the 13th Edition of the International Frequency List.

b) The Master Register is updated by including the frequencies for common use and the allotments in the various Allotment Plans. During the year 1991, 1,303 new allotments were added to the Master Register.

4.2.2 Treatment of frequency assignment notices

a) Detailed statistics on frequency assignments received and treated during the year 1991 appear in the following table:

Number of:	Article 12 (Sub-sections IIA, IIB, IIC and Section V)	Article 12 (Sub-section IIE)	Article 13	Article 17	Total
Assignments <u>notified</u> in 1991 and requiring examination	22,487	1,112	5,308	36,232	65,139
Cancellations <u>notified</u> in 1991	2,702	288	296	2,978	6,264
Total	25,189	1,400	5,604	39,210	71,403

b) Statistics relating to the treatment of the frequency assignment notices during 1991 are given below:

Number of:	Article 12 (S.-sect. IIA, IIB & IIC)	Article 12 (Sec. V & VI)	Article 12 (S.-sec. IIE)	Article 13	Article 17	Total
Assignment notices subjected to examination in 1991	23,277	1,998	940	7,907	36,232	70,354

c) The IFRB published 819 Special Sections under 23 different types of applications of the provisions of the Radio Regulations or Regional Agreements.

4.2.3 Examination of frequency assignments to terrestrial stations in the bands below 28 MHz (Article 12 of the Radio Regulations)

The Board carried out, in accordance with RR1240 and RR1241 or RR1242 of Article 12 of the Radio Regulations, the examination of 5,915 notices relating to new frequency assignments or to changes in assignments already recorded in the Master Register.

4.2.4 Examination of frequency assignments to terrestrial stations in the bands above 28 MHz (Article 12 of the Radio Regulations)

In the bands other than those shared with space radiocommunication services, 8,619 assignment notices were received; in the bands shared with space radiocommunication services, 1,500 assignment notices were received. The numbers of assignments examined in these two categories were 12,765 and 2,421 respectively.

4.2.5 Examination of notices of frequency assignments to stations in space radiocommunication services (Article 13 of the Radio Regulations)

a) The IFRB received 232 new Appendix 3 notices for satellite networks or for earth stations in the space radiocommunication services, submitted for examination and recording in the Master Register. The information consisted of 31 space station notices relating to 3,407 frequency assignments and 201 earth station notices relating to 1,901 frequency assignments. The Board examined and treated 7,907 old Appendix 3 notices in accordance with the provisions of Article 13.

b) A list of positions assigned to space stations installed on board geostationary satellites, together with frequency bands used by these stations which were communicated to the IFRB in the framework of Articles 11 and 13 of the Radio Regulations, is kept up to date by the IFRB and is published quarterly with the weekly Circular.

4.2.6 High Frequency Broadcasting Schedules (Article 17 of the Radio Regulations)

a) In application of Article 17 of the Radio Regulations, the Board prepared and published four Tentative High Frequency Broadcasting Schedules in frequency bands between 5 950 kHz and 26 100 kHz allocated exclusively to the broadcasting service for four seasonal periods in 1991 and 1992.

The number of frequency assignments notified by administrations and dealt with by the IFRB is given in the tables in paragraph 4.2.2.a) above.

b) The Board published the Final Schedules from March 1990 to November 1990 with all the information called for under Section VII of Article 17 of the Radio Regulations.

c) Changes in the Tentative Schedules notified by administrations to be put into effect during the seasonal periods were regularly published in Part IV of the weekly Circular or in the Final Schedule. In 1991 the Board dealt with 7,959 changes notified by administrations for inclusion in the Schedules.

4.2.7 Implementation of the decisions of the Regional Administrative MF Broadcasting Conference (Region 2), Rio de Janeiro, 1981 (RJ81)

a) In application of Article 4 of the Regional Agreement, the Board treated 1,052 proposed modifications to the Plan. Of these proposals, 934 were published in 7 Special Sections RJ81 of the weekly Circular. Information on the remaining modifications was either incomplete or erroneous, and clarifications have been requested from the administrations concerned.

b) A study of modifications published in Part A of Special Section RJ81, but for which no request for publication in Part B and entry into the Plan had been received was carried out, and the related information was communicated to the administrations concerned.

c) A study was carried out on the 357 entries concerning 5 administrations, recorded in the Plan but not brought into service. Appropriate information was sent to the administrations concerned.

d) The Board has transferred from List B to List A 85 day- and night-time entries for which all necessary agreements had been reached.

4.2.8 Implementation of the decisions of the Regional Administrative Radio Conferences for the Planning of the MF Maritime Mobile and Aeronautical Radionavigation Services in Region 1 and the Planning of the Maritime Radionavigation Service (Radiobeacons) in the European Maritime Area, Geneva, 1985 (GE85-MM-R1 and GE85-EMA)

In accordance with the decisions of the GE85-MMR1 and GE85-EMA Conferences concerning the entry into force, on 1 April 1992, of the relevant Regional Agreements, and in accordance with Resolution No. 38 (Rev. Mob-87), the necessary activities were undertaken to facilitate the required transfers. An explanatory IFRB Circular-letter (No. 890) was prepared, as well as appropriate individual letters, with the necessary extracts, to each administration concerned (some 150 letters). Meanwhile, the IFRB continued to apply the transitional procedures referred to in Resolutions Nos. 1(MM) and 1(EMA).

4.2.9 Application of the procedure of Resolution No. 300

On the basis of requests from 11 administrations, the Board applied the procedure of coordination laid down in Resolution No. 300 for 2,929 frequency assignment notices for narrow-band direct-printing telegraph and data-transmission systems (paired frequencies).

4.2.10 Worldwide frequencies in the aeronautical mobile (R) service (Recommendation No. 402)

The Board applied the frequency selection and coordination procedure of Recommendation No. 402 of WARC-79 described in IFRB Circular-letter No. 533 for 2 administrations (9 channels) in close collaboration with the International Civil Aviation Organization (ICAO).

4.2.11 Special assistance to administrations

a) The Board studied, under the relevant provisions of the Radio Regulations or Regional Agreements, 130 requests for special assistance received from administrations for both terrestrial and space radiocommunication services.

- b) No request under RR1218 (selection of frequencies for stations in the fixed service between 3 000 kHz and 27 500 kHz) was either received or treated in 1991, as was the case in 1989 and 1990.

4.2.12 Cases of harmful interference

a) All reports of harmful interference are treated by the Board as matters of urgency, particularly where safety services are involved. The Board promptly communicates with all administrations concerned to seek an early solution to the problem in the cases where the assistance of the Board is sought or when interference to a safety service is involved, even when the reports are sent to the Board for information purposes only. Where identification of the source of interference is uncertain, the Board requests administrations with appropriate monitoring facilities to assist in identifying the source of interference.

b) Some cases are communicated to the Board for information only, while others request the assistance of the Board or where interference to safety services are involved. During 1991, the Board dealt with a total of 36 cases.

4.2.13 Monitoring

a) Pursuant to RR1885 and IFRB Circular-letter No. 646, four summaries of monitoring information were issued.

b) In addition, two Special Monitoring Programmes were initiated by the Board; one for monitoring HF bands allocated to broadcasting services (Resolution No. 513) and the other in the band 406 - 406.1 MHz (Resolution No. 205).

4.2.14 Review of the Master Register and Review of Findings

a) In accordance with Sections V and VI of Article 12 of the Radio Regulations, the Board carried out several reviews of selected groups of assignments recorded in the Master Register and effected necessary modifications to their Findings and/or the associated remarks in the different columns. This was with a view to implementing certain decisions of administrative conferences such as WARC-MOB-87 and RARC-RIO-88.

b) The Board also undertook an exhaustive study of the various symbols used in Columns 11, 13A, 13B and 13C of the Master Register with a view to simplifying them. Only a minimum number of symbols are retained while many are proposed to be deleted.

4.2.15 Treatment of resubmitted notices - RR1255

The number of resubmitted assignments treated under the RR1255 procedure during the year was 580, whereas the number of such assignments subjected to this treatment since the initial application (in June 1985) was 4,776. In 3,557 cases, administrations were consulted. This corresponds to 10,707 assignments recorded in the Master Register, which had been the cause of unfavourable Findings. No reply was received in 64% of these assignments.

4.2.16 Preparation for WARC-92

The following activities were undertaken and completed:

- participation at CCIR JIWP-92 (March 1992);
- preparation of the IFRB Report to WARC-92 (IFRB Circular-letter No. 856, see also Conference Document No. 4);

- preparation of the IFRB Report on the implementation of Resolution No. 9 (PP-Nice, 1989) (IFRB Circular-letters Nos. 858 and 883; see also Conference Document No. 5 and Addendum 1 thereto);
- preparation of the IFRB Report on the Board's experience with the implementation of Resolutions Nos. 8 and 9 of WARC-79 (Conference Document No. 33).

4.2.17 Activities preparatory to the WARC-HFBC-93

- a) The 46th session of the Administrative Council was to consider the agenda for the planned WARC-HFBC conference to be held in 1993. Taking into account the IFRB report on "Preparatory work for HFBC-93" (Administrative Council Doc. 7127) and the foreseen difficulties in ensuring the success of an HFBC Conference, the Council decided not to hold the HFBC Conference in 1993.
- b) The Board issued IFRB Circular-letter No. 871 dated 8 July 1991, and its corrigendum which outlined a new programme of work to complete the HFBC planning exercises.
- c) In IFRB Circular-letter No. 887 dated 13 November 1991, the Board informed the administrations that it had completed its programme of work for the development, implementation and testing of the Improved HFBC Planning System. The detailed results of the interactive D91 and non-interactive S91 planning exercises were also dispatched to each administration for its own requirements.
- d) Addendum 1 to Conference Document No. 4 of WARC-92 was prepared to present the statistics in a more condensed form for the D91 and S91 planning exercises.

4.2.18 Implementation of the WARC-MOB-87 decisions

- a) In accordance with the decisions of the WARC-MOB-87 concerning the entry into force, on 1 July 1991, of the rearrangement of the HF bands allocated exclusively to the maritime mobile service, the following activities were performed:
 - aa) Completion of the activities concerning the preparation of the initial allotment arrangement pursuant to Resolution No. 325 (Mob-87): the final results were communicated to administrations and the IFRB prepared, for publication by the Secretary-General, the revised version of the Appendix 25 Plan reflecting the new frequencies and the additions subsequent to the application of Resolution No. 325.
 - ab) Preparation for, and performing of, the transfer procedures referred to in Resolutions Nos. 326, 327 and 328. More than 18,000 frequency assignments were subject to treatment under these Resolutions.
 - ac) Collaboration with IOC/WMO on the necessary transfers, and establishment of an agreed frequency assignment Plan, for oceanographic data transmission systems referred to in Resolution No. 314 (Rev. Mob-87).

4.2.19 Follow-up actions on the decisions of the World Administrative Conference on the Use of the Geostationary-Satellite Orbit and on the Planning of Space Services Utilizing It, Geneva, 1988 (WARC-ORB-88)

- a) Pursuant to the decisions taken by the Conference, the IFRB continued to carry out the post-conference work related to the following subjects:
 - aa) FSS Allotment Plan (AP30B).
 - ab) BSS and Feeder-link Plans.
 - ac) Notice forms and associated computer systems (SNS).

aca) Following the revision of Appendices 3 and 4 and the development of new forms of notice, it was also necessary to develop a new computer system for the treatment of these notices. The new Space Network System (SNS) which is the latest element of the computer-aided IFRB Frequency Management System (FMS) responds to the following two main requirements:

- to provide the administrations and the specialized secretariat of the IFRB with a frequency management system for space services having comparable facilities with those of the FMS for terrestrial services, and
- to establish a database system compatible with the data structure decided by the WARC ORB-88 (network structure).

acb) The first phase of development of the SNS has been completed and operations in the new system started in December 1991. (The most important functions of the SNS at this time are: data capture of AP3 notice forms, publication of data in WIC Parts I and II/III as well as in Special Sections AR11/C, capture of IFRB Findings and updating of the Master Register).

4.2.20 Follow-up actions on the decisions of the Second Session of the Regional Administrative Radio Conference to establish a Plan for the Broadcasting Service in the Band 1 605 - 1 705 kHz in Region 2 (Rio de Janeiro, 1988) (RJ88)

The software system for the examination of existing fixed and mobile assignments pursuant to Resolution No. 1 to determine if they are incompatible with the RJ88 Allotment Plan was completed and the results were communicated to administrations.

4.2.21 Follow-up actions on the decisions of the Second Session of the Regional Administrative Radio Conference for the Planning of VHF/UHF Television Broadcasting in the African Broadcasting Area and Neighbouring Countries, Geneva, 1989 (GE89)

A Rule of procedure (H49) was prepared for the treatment of notices concerning non-planned services in the bands governed by the Regional Agreement. Appropriate examinations were performed in accordance with this Rule of procedure.

4.2.22 Implementation of Resolution No. 9 of the Plenipotentiary Conference (Nice, 1989)

In response to Resolution No. 9 of the PP-Nice, 1989, all necessary activities were performed and completed in time. A report was submitted to WARC-92.

4.2.23 Seminars, information meetings, training and familiarization for administration officials

a) In 1991, three Regional Frequency Management Seminars were organized by the IFRB with the collaboration of BDT, in Kericho (Kenya), 6-11 May, in Athens (Greece), 9-13 September and in Praia (Cape Verde) between 28 October to 1 November.

aa) The Seminars treated the following main topics:

- frequency management in general (with particular consideration of national frequency management),
- computerization and software presentation,
- regulatory and technical aspects of radio services (mainly terrestrial), and
- preparations for WARC-92.

ab) In addition to the ITU lecturers (IFRB, CCIR and BDT), lecturers from several administrations and international organizations delivered lectures. The proceedings of the Seminar were distributed to all the participants. The Regional Seminars were considered by the participants as a very successful initiative by the Board to reinforce the regional presence of the ITU. The number of participants exceeded expectations.

b) Members of the Board and staff of the IFRB specialized secretariat participated in 6 regional and national seminars and symposia.

c) The IFRB received officials from 19 administrations for training in the IFRB specialized secretariat.

d) Furthermore, the IFRB received, throughout the year, officials from many administrations and representatives of the international organizations for informal consultations during ITU conferences and meetings.

4.2.24 Publications and correspondence with administrations in 1991

a) Publications

aa) The weekly Circular and the International Frequency List (Editions 12.6 and 13.1) were published in accordance with the established timetable. From 1 July 1991, the weekly Circular is also being published on diskette.

ab) Other publications included the 13th Edition of the Preface to the IFL and weekly Circular (Edition 13.1).

ac) Besides these documents, 43 new circular-letters (including 6 concerning IFRB Rules of Procedure) plus 1 Addendum and 2 Corrigenda were published.

ad) Dispatched extracts from or copies of the IFL or Regional Broadcasting Plans totalled 76 (14 on magnetic tape and 62 on paper).

b) Correspondence

The total number of letters and telegrams received by the IFRB in 1991 was 6,461 while 3,300 individual letters and telegrams, 122 circular-telegrams and 1,252 Finding forms were sent by the IFRB.

4.2.25 Use of the computer

a) The IFRB used the ITU mainframe computer for conference preparation and for regular IFRB work such as technical examinations, modifications to the Plans, updating of the Plans and studies for administrations, determination of incompatibilities, preparation of the Special Sections, compatibility calculations between space networks in the application of the procedures of Articles 11 and 13 and Appendices 30, 30A and 30B and coordination contours of Earth stations according to Appendix 28.

b) The Frequency Management System in the IFRB

ba) General

Efficient support for the application of the radio regulatory procedures relating to notification, examination and registration of frequency assignments is now provided through a software system referred to as FMS-A, which was in production throughout 1991.

bb) Software design for terrestrial applications

bba) In the context of work to be carried out by the IFRB in the application of Resolution No. 325 (Mob-87) relating to the update of Appendix 25, the software system for data capture and validation and for the planning exercise performed satisfactorily. Terrestrial functions of FMS-A (T-Hub) were upgraded to reflect the MOB-87 requirements by June 1991.

bbb) Assignment Plans are processed in the PMS database which has led to the possibility of offering the administrations a highly flexible information-extract service with respect to the following assignment Plans: ST61, GE75, RJ81, GE84, GE85 and RJ88.

bc) Software design for space applications

bca) Following the decisions of the WARC-ORB-88, the analysis of the data in the new Appendix 3 and Appendix 4 of the Radio Regulations led to the design of new notice forms for space services. The design of the database was completed, and the development of software for data capture and validation (Phase I) was completed and brought into production by the end of 1991.

bcB) Regarding Appendices 30, 30A and 30B, work on software has progressed and is being prepared for interfacing with the overall processing system.

bcc) A powerful Graphics Interference Management System (GIMS) able to capture, store and modify graphical data such as contours of service areas, antenna diagrams, horizon profiles and satellite footprints is interfaced to technical examination programs. Operators can modify individual gain contours and create service areas from gain contours. The IFRB Digitized World Map is used for screen overlays and plots. A set of programs permits the conversion of graphical data files from the internal format to machine-independent format and vice versa, thus facilitating the exchange of such data with administrations.

c) Use of mainframe computers

It can be seen from the above that the IFRB used the computer extensively for a variety of applications in its day-to-day work relating to the examination and processing of frequency assignment notices as well as for conference preparation. During the last quarter of 1991, all the FMS software was moved to a single mainframe computer.

d) Use of microcomputers

da) The Board continued to expand the use of microcomputers in the IFRB secretariat in order to off-load some of the work from the mainframe computer and to automate some other work which was done manually. In 1991, the following microcomputer applications were in productive use:

- regulatory and technical examinations of frequency assignment notices in the aeronautical mobile (OR) service, in the HF bands allocated exclusively to that service;
- technical examination of frequency assignment notices in the aeronautical mobile (R) service, in the HF bands allocated exclusively to that service;
- some applications for the analysis of the RJ81 Plan and the production of diskettes containing the Plan for the administrations requesting them;

- the IFRB Digitized World Map (IDWM) is also available for use on microcomputers with many related applications;
- programs used in connection with Article 17 of the Radio Regulations permit administrations to locally capture and validate their projected seasonal schedules and communicate them to the IFRB on diskettes. The program also permits administrations to retrieve information and generate reports from magnetic version (diskettes) of the Tentative or Final Schedules. Both the program and diskettes are made available on a regular basis by the IFRB;
- the Appendix 28 program to compute the coordination area around an earth station is now available on microcomputer. The program makes use of the IFRB Digitized World Map;
- the MSPACE software is used to analyse modifications to the various space Plans under Appendices 30, 30A and 30B.

db) Progress was also made in the use of a new computer environment based on UNIX. A new database system (Ingres) was selected for two pilot projects to develop FMS applications for the GE89 Plan manager and the AP25 subsystem.

e) Remote Access and Electronic Publications

ea) The Plenipotentiary Conference in Nice, 1989, approved plans to implement remote access facilities to IFRB databases.

eb) As a complement to remote access for the dissemination of large volumes of relatively stable data such as the MIFR, the CD-ROM technology was used for a parallel publication of the IFL on CD-ROM, together with the inquiry and download facilities. Work on the publication of the weekly Circular (Parts I, II and III) on diskette was completed.

ec) The design of data-bases and screens for the publication, in April 1992, of all terrestrial frequency assignment Plans (ST61, GE75, RJ81, GE84, GE85 and GE89) on CD-ROM was also completed.

f) PC-based products for administrations

fa) A set of inter-related software packages has been envisaged for use on PCs within the administrations. These products will provide some support for national frequency management activities such as capture of notices and limited validation, information exchange with the IFRB, as well as some radio engineering software for analysis studies.

fb) In November 1990, the International Frequency List on CD-ROM was the first PC-based product which became available to the administrations, as an optional publication of the ITU.

fc) Extracted data are available in computer-readable format and are processable with widely available software such as dBase, COBOL, etc. The data elements used are described in the "Preface to the International Frequency List".

4.2.26 Collaboration with international organizations and permanent organs, and participation in ITU Technical Cooperation activities

a) International Organizations

aa) The Board continued to maintain close relations with international organizations such as ICAO, IMO, INTELSAT and INMARSAT and regional organizations such as ABU, APT, ASBU, ATU, CITEL, EBU, PATU and URTNA.

ab) The Members of the Board or members of the staff of its specialized secretariat participated in eight meetings of international organizations where such participation was considered necessary.

b) Permanent organs

ba) The Chairman and the Vice-Chairman participated regularly in meetings of the Coordination Committee. The IFRB was represented in all inter-organ Committees, Boards, Panels and Groups.

bb) The IFRB also actively participated in the meetings of CCIR Study Groups, CCIR Interim Working Parties, Joint Interim Working Parties and Task Groups held during the year 1991.

c) Participation of the IFRB in ITU technical cooperation activities

ca) In accordance with No. 312 of the Convention, important questions concerning ITU technical cooperation are dealt with by the Coordination Committee. The IFRB therefore participated in dealing with those questions concerning technical cooperation which had been submitted by the Secretary-General to the Coordination Committee. The IFRB representatives assist in selection panels for choice of experts and equipment. In addition, in 1991, the Board studied 9 reports by ITU experts.

cb) The IFRB assisted in briefing experts and in finalizing Agency Terminal Reports on matters related to frequency spectrum management.

cc) The Board also provided experts from the Members and staff of the IFRB specialized secretariat for five short-term missions in Morocco, Turkey, Hungary, Mexico and Puerto Rico, as well as participating in preparatory WARC-92 Regional Seminars in Algeria, Cameroon and Thailand. In addition, as authorized by the Administrative Council at its 45th Session, the Board organized in 1991 three Regional Seminars in collaboration with CTD and BDT (Kericho/Kenya, 6 - 11 May 1991, Athens/Greece, 9-13 September 1991 and Praia/Cape Verde, 28 October to 1 November 1991) (see paragraph 4.2.23.a) above). Furthermore, upon request, the Board received officials from several countries who visited the IFRB either at their own expense or on ITU fellowships for training.

4.3 International Radio Consultative Committee (CCIR)

4.3.1 Introduction

CCIR completed its first year of work under the new arrangements adopted by the XVIIth Plenary Assembly. Preparation of technical bases for the WARC-92 was completed in March, 1991. The report was dispatched to administrations 10 months in advance of the Conference. Publication of the Volumes of Recommendations and Reports of the XVIIth Plenary Assembly was completed. Three handbooks and three other special publications were also made available. The CCIR Info Bulletin was published periodically according to CCIR Resolution 24, giving news of CCIR activities and meetings calendars.

The CCIR Ad hoc Group for Strategic Review and Planning (Resolution 106) met jointly with the Working Group of the Plenary on Study Group Structure (Resolution 107). The meeting considered HLC Recommendations related to future CCIR work and steps to assure effective follow-up on the transfer of certain Questions, or parts, to ITU standardization work. It considered future Study Group structure and reviewed CCIR Working Guides. A meeting of Study Group Chairmen in October reviewed working guidelines and meetings calendar.

Study Group meetings approved 78 new or revised Recommendations on fixed satellite and radio relay services, subsequently adopted by administrations by correspondence under procedures of Resolution 97. Other Working Parties and Task Groups prepared 179 draft Recommendations for consideration of Study Groups in April-May meetings, 1992. The new working methods are estimated to have reduced meetings costs by 30%.

4.3.2 CCIR Meetings

During 1991, the meetings of Study Groups, Working Parties and Task Groups, according to the new structure decided upon by the XVIIth Plenary Assembly, were held as per the schedule given in the annex. These 77 meetings were attended by approximately 1800 delegates. The average number of delegates participating in Study Group meetings was 65, in Working Party meetings, 35 and in Task Group meetings, 32. At the end of 1991, the total number of participants in the work of the CCIR was 166 administrations (+2), 63 recognized private operating agencies (+3), 43 scientific or industrial organizations, 47 international organizations and 3 United Nations organizations.

4.3.3 Study Groups

4.3.3.1 Study Group 1 (Spectrum management techniques) (M. Hunt (Canada))

Twelve drafts of new or revised recommendations have been prepared by the Task Groups and Working Parties of Study Group 1. These deal with multi-function telecommunication systems, frequency tolerance, use of the spectrum between 20 and 100 GHz, necessary bandwidth, automatic monitoring of the spectrum occupancy, interference, frequency and distance separations, use of adaptive antennas and interference cancellers and monitoring techniques. It was agreed that three new Handbooks on national spectrum management, computer aided techniques for spectrum management and spectrum monitoring will be prepared.

4.3.3.2 Study Group 4 (Fixed-Satellite Service) (E. Hauck (Switzerland))

The meeting of Study Group 4 (Geneva, 4-7 November, 1991) approved twenty draft new and sixteen draft revised Recommendations dealing with VSATs, performance and interference criteria, coordination methods and reference earth station and satellite antenna radiation pattern etc.

The joint meeting of Study Groups 4 and 9 (Geneva, 6 November 1991) approved two draft new and three draft revised Recommendations dealing with frequency sharing and coordination between systems in the FSS and radio-relay systems.

The draft new/revised Recommendations were prepared by Working Parties 4A, 4B and 4-9S and Task Groups 4/1 and 4/2, and are being sent for approval by correspondence in accordance with CCIR Resolution 97.

Task Groups 4/1 and 4/2 completed their tasks and were disbanded. A new Task Group 4/3 was established on interconnection of VSAT systems with public-switched networks.

The original task of the Joint Ad Hoc experts Group on satellite and ISDN has been substantially accomplished in examining how the needs of satellite operation for ISDN can be incorporated in the relevant CCITT Recommendations. More important collaborative work between the experts of the CCIR and the CCITT is required on broadband ISDN and VSAT systems interfacing with the ISDN.

The Handbook Group of Study Group 4 has finalized Supplement No. 2 to CCIR Handbook on satellite communications (FSS) on computer programs for satellite communications. The Group continues working on Supplement No. 3 on VSAT systems and earth stations.

4.3.3.3 Study Group 5 (Radio wave propagation in non-ionized media)

(A. Kalinin (Russian Federation))

Twenty-eight drafts of new or revised Recommendations have been prepared by the Working Parties of Study Group 5. Work has begun towards the preparation of a Handbook on radiometeorology and towards the development on new recommendations on i) prediction methods for terrestrial land mobile and broadcasting services and ii) the use of digital topographical data bases for propagation predictions.

4.3.3.4 Study Group 6 (Radio wave propagation in ionized media) (L.W. Barclay (UK))

Eleven drafts of new or revised Recommendations have been prepared by the Working Parties of Study Group 6. Work has begun towards the preparation of a single Recommendation on radio noise (also involving SGs 1, 5 and 8) and towards the production of CCIR Handbooks on prediction, VLF-MF propagation, radio noise, measurements of the ionosphere, ionospheric properties and short-term forecasting.

4.3.3.5 Study Group 7 (Science services) (H. Kimball (USA))

Eleven drafts of new or revised Recommendations have been prepared by the Working Parties of Study Group 7. These deal with the standard frequency and time signals, protection of communication links for manned and unmanned research satellites and protection of the radio astronomy. Work began on a Handbook dealing with radioastronomy.

4.3.3.6 Study Group 8 (Mobile, radiodetermination, amateur and related satellite services) (E. George (Germany))

Study Group 8 did not meet in 1991 but work continued in Working Parties and Task Groups in preparation for the Study Group meeting in May 1992.

Working Parties 8A, 8B, 8C and 8D met in December to deal with subjects on (1) Land mobile service excluding FPLMTS; amateur and amateur satellite service, (2) Maritime mobile service including global maritime distress and safety system (GMDSS); aeronautical mobile service including public telephone service with aircraft, (3) Radiodetermination service) and (4) all mobile satellite services except the amateur satellite service; radiodetermination satellite service, respectively. A total of 22 draft new and revised Recommendations were submitted to Study Group 8 for approval under CCIR Resolution 97.

Task Group 8/1, which studies future public land mobile telecommunication systems (FPLMTS), met in Alexandria, Va, USA in May to plan and progress its work, resulting in 7 preliminary draft new Recommendations for further work at the next meeting in January 1992. It was planned that at least 3 draft Recommendations, those on FPLMTS services, network architectures and adaptation to the needs of developing countries, should be finalized at the next meeting for submission to Study Group 8.

4.3.3.7 Study Group 9 (Fixed service) (M. Mirotani (Japan))

Study Group 9 held a meeting in Geneva (5 - 8 November 1991) and approved 20 new and 22 revised Recommendations which are being submitted to administrations for adoption in accordance with Resolution 97. The new Recommendations that were drafted by the 5 Working Parties 9A-E and Task Group 9/1 at their meetings in Kobe (Japan) deal , *inter alia*, with integration of radio-relay systems in the synchronous digital network, sharing with other services (excluding fixed-satellite service), RF channel arrangements, P - MP and cellular type systems, as well as data transmissions, protection ratios and remote control/monitoring for HF systems.

A new Decision established a Group to prepare a Handbook on digital radio relay systems by 1994. The structure of the Study Group into five Working Parties and one Task Group was confirmed, and the meeting schedules and future work of the Working Parties and TG 9/1 adopted.

4.3.3.8 Study Group 10 (Broadcasting service (sound)) (C. Terzani (Italy))

The main activity was the first meetings of the Working Parties and Task Groups in November 1991, which produced 15 draft new or revised Recommendations (including one originated by Working Party 10-11S) for submission to Study Group 10 for adoption. The principal topics dealt with were: amplitude modulation radio data system; terrestrial digital sound broadcasting; digital audio interfaces and coding for broadcasting studios; digital satellite sound broadcasting; audio signal recordings both in digital and analogue form; multi-channel sound systems (especially for HDTV programmes); subjective assessment of sound systems. A number of Questions were extensively revised along the lines of the new working methods of the CCIR in order to provide a better definition of the tasks to be carried out in the next Study Period. Additional meetings of Task Groups foreseen for 1992 are included in the published calendar.

4.3.3.9 Study Group 11 (Broadcasting service (television)) (M. Krivocheev (Russian Federation))

The main activities were focused on high-definition television, particularly during the meetings of Study Group 11 Working Parties and Task Groups in November 1991. After a first meeting of Task Groups 11/1 and 11/2 in the beginning of 1991, it appeared more appropriate to have a new Task Group to deal with the urgent matter of digital terrestrial television emission systems. The Chairman of Study Group 11, assisted by the Study Group 11 Coordinating Group, and in consultation with the Director, CCIR, decided to establish new Task Group 11/3 (Chairman, Mr. S. Baron, NBC (USA)) after the approval by correspondence of a draft new Question defining its task.

A total of 63 draft new or revised Recommendations (including 12 originated by Working Party 10-11S) were prepared. The main topics are: enhanced and HD television; quality aspects of enhanced and high-definition television; the satellite broadcasting of HDTV; the satellite broadcasting of enhanced television; digital TV coding and text signals; RF protection ratios for terrestrial TV emissions; conditional access and programme delivery control systems; subjective assessment of quality in conventional and HD television; digital and analogue tape recording; transfer of HDTV programmes on film. Working Parties and Task Groups of Study Group 11, according to the instructions of the XVIIth Plenary Assembly, also revised a number of existing Questions and prepared new ones in order to efficiently carry out future activities. Meetings of Task Groups are foreseen late in 1992, as indicated in the published calendar.

4.3.3.10 Study Group 12 (Inter-service sharing and compatibility) (J. Karjalainen (Finland))

Five drafts of new Recommendations have been prepared by the Task Groups of Study Group 12. These deal with the frequency sharing between the broadcasting services and the land mobile service in the VHF and UHF frequency bands and with the coordination area of earth stations. Work is continuing on sharing issues between the broadcasting and the fixed services. Criteria and methods for the assessment of compatibility between the broadcasting service in the band of about 87-108 MHz and the aeronautical radio navigation services in the band 108-118 MHz have been developed. Additional tests are needed with the cooperation of broadcasting and aviation experts.

4.3.3.11 CMTT (Joint CCIR/CCITT Study Group for television and sound transmission) (W. G. Simpson (UK))

The meetings of CMTT Task Groups and Working Parties produced a total of six new or revised Recommendations for submission to the May 1992 meeting of the Study Group. All of these are proposed for approval by correspondence under the provisions of Resolution 97 of the XVIIth Plenary Assembly and include: television transmission codec specifications at 34-45 Mbit/s and 140 Mbit/s, test signals and measurement techniques for MAC/packet transmission, uniform operational and control procedures and technical standards (analogue) for satellite news gathering (SNG), and auxiliary coordination satellite circuits for SNG.

4.3.3.12 CCV (Coordination Committee for Vocabulary) (M. Thué (France))

According to Resolutions 113 and 114 (Volume XIII, p. 125 and 128) adopted by the XVIIth Plenary Assembly, the organization of vocabulary work is as follows (Resolution 113, § 2 and 3):

- each Study Group assumes responsibility for terminology in its particular field of interest, with the assistance of the Coordination Committee for Vocabulary (CCV) if necessary;
- each Study Group appoints a permanent Special Rapporteur for Vocabulary to coordinate its efforts regarding terms and definitions and related subjects, and to act as a contact person for the Study Group in this domain.

Thus each Study Group has been invited, at its first meeting:

- either to nominate a Special Rapporteur for Vocabulary
- or to confirm the nomination of such Special Rapporteur already designated.

The Special Rapporteur for Vocabulary may be assisted by experts from his Study Group, in different languages and different technical subjects; he may contact, as necessary, a Special Rapporteur for Vocabulary of another Study Group, or the CCV, or the CCIR Secretariat.

4.3.4 Administrative Radio Conferences

4.3.4.1 Joint Interim Working Party for World Administrative Radio Conference 1992

(M. Hunt (Canada))

The CCIR preparatory work for WARC-92 was completed in May 1991, in a record time of eleven months, despite the fact that no special budgetary provisions could be provided in the ITU for that activity. The CCIR report to the conference represented the technical and operational bases for the conference.

4.3.4.2 Preparation for the HFBC-93

Interim Working Party 10/10, chaired by Mr. W. Richards (USA) complete the sections of the CCIR report dealing with broadcasting services. This report will be submitted to Study Group 10 for approval in order to be subsequently complemented by the sections drafted by Study Group 6. The final integrated version will be made available to administrations when the date of the Conference will be decided.

4.3.5 Technical cooperation

4.3.5.1 Support of BDT activities and other Secretariat activities

The CCIR continued its participation in the inter-Organ Selection Panel for Experts and in the review of technical details of project reports. Continued support was also given to propagation studies in tropical regions.

A Seminar on advanced broadcasting techniques was organized by the CCIR, the BDT and the CIRT (Cámara Nacional de industrias de radio y televisión) in Mexico in January 1991. Lectures were given by CCIR experts on various topics, including HDTV, digital satellite sound broadcasting, etc. Upon request of the Bolivian Administration, the CCIR Counsellor responsible for sound and television broadcasting provided the necessary technical expertise to assess adjacent channel operation in the city of La Paz, and a detailed report was prepared and presented to the Bolivian Administration.

4.3.5.2 Regional Telecommunication Development Conferences

The CCIR, in cooperation with the BDT, organized an Information Meeting in accordance with Resolution 108 of the XVIIth CCIR Plenary Assembly (Düsseldorf, 1990) during the European Regional Telecommunication Development Conference held in Prague in October 1991. In addition to the Director, the Chairmen, or their representatives, from six CCIR Study Groups made presentations on the activities of their Study Groups that were of special interest to the administrations participating in the conference.

4.3.6 Publications

4.3.6.1 XVIIth Plenary Assembly Volumes

The Volumes of the XVIIth Plenary Assembly comprise: 16 Volumes of Recommendations, 4 Volumes of Questions, 17 Volumes of Reports (published as Annexes) and 1 Administrative Volume. The number of pages for the three languages is 32 055 (+ 31% compared to the 1986 Volumes). All Volumes were available for sale in 1991.

4.3.6.2 Handbooks and Special Publications

The following special publications were also available for sale in 1991:

- Report 340-6 - CCIR Atlas of Ionospheric Characteristics;
- Handbook of Curves for Radiowave Propagation over the Surface of the Earth;
- Effect of WARC ORB-88 decisions (Supplement No. 1 to CCIR Handbook on Satellite Communications);
- Report 929-2 - Compatibility between the broadcasting service in the band of about 87-108 MHz and the aeronautical services in the band 108-137 MHz.
- Recommendation 705 - HF transmitting antennas. Characteristics and diagrams;
- Handbook on Spectrum Management and Computer-aided Techniques.

4.3.7 Relations with other Organs of the ITU

4.3.7.1 CCITT

Very active cooperation has been maintained with CCITT not only within joint groups but also on all matters of common interest.

In particular, on matters concerning the Future Public Land Mobile Telecommunication Systems (FPLMTS), experts activities, which were attended by both CCIR and CCITT experts, have been held to discuss FPLMTS services, architectures, speech coding and so forth, in addition to active exchange of liaison statements. Moreover, concerned experts in both CCIR and CCITT have attended the meetings of each other to ensure consistency of studies on both sides.

A joint CCIR/CCITT Expert Group on ISDN/Satellite matters have been meeting since 1990 to assure a full integration of digital satellite links in ISDNs. Although the original task of this group had been substantially accomplished by its meeting in September 1991, the needs of more collaborative work were identified on the remaining issues, Broadband ISDN and VSAT systems interfacing with the ISDN. The group continues to work on these subjects.

A joint CCIR/CCITT Study Group, CMTT, in its Working Parties and Task Groups, effectively continued its study on network transmission of television and signals for broadcasting, including network transmission of HDTV signals, television and sound programme signals in the Broadband ISDN, etc.

4.3.7.2 IFRB

Close cooperation has been maintained with the IFRB particularly on propagation matters. The CCIR continues to provide basic ionospheric data in connection with the preparation of the seasonal HF broadcasting schedule.

4.3.8 Relations with international organizations

The CCIR Counsellor responsible for sound and television broadcasting was able to participate in the 43rd EBU Technical Committee meeting and in the XXIst Regular General Assembly of AIR-IAB giving a lecture on computer-assisted broadcasting station planning and design.

CCIR MEETINGS IN 1991

Date	Meeting	Title
14-15 January	SG 12	INTER/SERVICE SHARING AND COMPATIBILITY
28 January - 1 February	TG 1/1	Technical and operational aspects of alternative methods of allocating spectrum
5 - 8 February	Ad Hoc	Ad-hoc informal Meeting of Administrations and Organizations
25 February - 1 March	TG 11/1	High-definition television for studio and international programme exchange
25 February - 1 March	TG 11/2	Digital television studio video interface
4 - 8 March	WP 4B	Systems, performance, availability and maintenance
4 - 15 March	JIWP WARC-92	Joint Interim Working Party WARC-92
25 - 28 March	TG CMTT/2	Digital transmission of component-coded TV and HDTV signals, secondary TV-transmission
16 - 18 April	TG CMTT/3	Television and sound-programme signals in the broadband ISDN
30 April - 3 May	ISDN/SAT	CCIR/CCITT expert group on ISDN/satellite matters
13 - 22 May	TG 12/1	Compatibility between broadcasting service (87 - 108 MHz) and aeronautical services (108 - 137 MHz)
13 - 17 May	TG 12/2	Frequency sharing between broadcasting service and the fixed and mobile services in VHF- and UHF - bands
13 - 22 May	TG 12/3	Coordination aerea of an Earth station and certain space services
20 - 24 May	IWP 6/1	Sky-wave field strength and transmission loss at frequency above 1.6 GHz
23 - 31 May	TG 8/1	Future public land mobile telecommunication systems (FPLMTS)
5 - 7 June	TG 4/1	Interference consideration on transmitting earth stations at frequencies above 10 GHz
5 - 14 June	WP 4A	Efficient orbit/spectrum utilization
10 - 13 June	TG 4/2	Drafting of Recommendation on VSAT's
10 - 12 June	Ad hoc	Ad-hoc Informal Meeting of Administrations and Organizations
17 -28 June	TG 9/1	Synchronous digital hierarchy
18 - 25 June	WP 9E	HF systems
18 - 26 June	WP 9C	Special applications of radio-relay systems
18 - 26 June	WP 4-9S	Sharing between FSS and FS
18 - 27 June	WP 9D	Sharing with other services (other than fixed-satellite service)

18 - 28 June	WP 9A	Performance and availability objectives, interference objectives, effects of propagation, terminology
18 - 28 June	WP 9B	Radio-frequency channel arrangements, radio systems characteristics, interconnection and maintenance
15 - 19 July	TG 1/1	Technical and operational aspects of alternative methods of allocating spectrum
9 - 13 September	ISDN/SAT	CCIR/CCITT expert group on ISDN/satellite matters
16 - 20 September	WP 4B	Systems, performance, availability and maintenance
17 - 19 September	TG CMTT/5	Satellite news gathering (SNG), outside broadcast via satellite
28 October - 1 November	TG 7/2	Standard frequency and time signals from satellites
28 October - 5 November	WP 7A	Time signals and frequency standards emissions
28 October - 5 November	WP 7B	Space radio systems (space research, data relay satellites, space operations, etc.)
28 October - 5 November	WP 7C	Earth exploration satellite systems and meteorological systems
28 October - 5 November	WP 7D	Radioastronomy
31 October - 1 November	CM + VCM	Meeting of CCIR Study Group Chairmen and Vice Chairmen
4 - 7 November	SG 4	FIXED-SATELLITE SERVICE
5 - 8 November	SG 9	SERVICE FIXE
6 - 14 November	TG 10/1	Sound systems for HDTV and EDTV
6 - 18 November	WP 10B	Frequency modulation sound broadcasting (except in the Tropical zone)
7 - 14 November	WP 10A	Amplitude modulation sound broadcasting and sound broadcasting in the Tropical zone
7 - 15 November	WP 10D	Transmitting and receiving antennas for sound-broadcasting
7 - 20 November	TG 10/2	Low bit-rate digital audio coding systems
7 - 20 November	WP 10-11/S	Satellite broadcasting
11 - 14 November	TG CMTT/2	Digital transmission of component-coded TV and HDTV signals, secondary TV-transmission
11 - 20 November	WP CMTT/B	Digital and hybrid analogue/digital transmission of TV-signals
11 - 18 November	TG 11/2	Digital television studio video interface
11 - 20 November	TG 11/1	High-definition television for studio and international programme exchange
12 - 14 November	TG CMTT/3	Television and sound-programme signals in the broadband ISDN

12 - 20 November	WP 11A	Conventional and enhanced television systems
12 - 20 November	WP 11B	Digital television (source coding)
13 - 22 November	WP 10-11/R	Recording for broadcasting
14 - 22 November	TG 10C	Audio-frequency characteristics and digital sound-broadcasting
14 - 22 November	WP CMTT/A	Analogue transmission of TV signals, conversion standards, MAC systems
15 - 22 November	WP CMTT/C	Transmission of sound-programme signals
18 - 22 November	TG CMTT/1	Technical methods for ensuring privacy in international TV-transmission
18 - 22 November	TG 1/1	Technical and operational aspects of alternative methods of allocating spectrum
21 - 27 November	WP 11C	Terrestrial television (emission and planning parameters)
21 - 27 November	WP 11D	Data broadcasting
21 - 27 November	WP 11E	Quality evaluation
25 - 29 November	WP 1A	Engineering principles and techniques, including computer-aided analysis for effective spectrum management
25 - 29 November	WP 1B	Principles and techniques for spectrum planning and sharing
25 - 29 November	WP 1C	Techniques for spectrum monitoring
25 - 29 November	WP 1D	Spectrum utilization
25 - 27 November	WP 6B	MF-VLF propagation
25 November - 3 December	WP 6A	HF propagation
28 November - 3 December	WP 6C	Measurements and noise
2 - 11 December	TG 12/1	Compatibility between broadcasting service (87 - 108 MHz) and aeronautical services (108 - 137 MHz)
4 - 6 December	WP 6D	Ionospheric properties and forecasting
4 - 7 December	WP 6E	Ionospheric propagation at frequencies above 30 MHz
9 - 20 December	WP 5B	Mobile, mobile-satellite and broadcasting (terrestrial) services
9 - 20 December	WP 5C	Fixed, fixed-satellite and broadcasting-satellite services
10 - 18 December	WP 5A	Radiometeorology
11 - 20 December	WP 8A	Land mobile service, excluding FPLMTS, Amateur and Amateur satellite service
11 - 20 December	WP 8B	Maritime mobile service, including global maritime distress and safety system (GMDSS), aeronautical mobile service
11 - 20 December	WP 8C	Radiodetermination service
11 - 20 December	WP 8D	All mobile satellite services except the Amateur satellite service; radiodetermination satellite service

4.4 International Telegraph and Telephone Consultative Committee (CCITT)

4.4.1 In 1991, the activity of the CCITT Study Groups and their Working Parties focused mainly on preparing Recommendations and replies to Questions referred to them by the IXth Plenary Assembly. A total of 43 meetings were held in 1991, representing altogether 333 meeting days (see Table I - List of meetings held in 1991).

Pursuant to the provisions of Resolution No. 2 adopted by the IXth CCITT Plenary Assembly, 89 new or revised Recommendations were approved during 1991 (see § 4.4.2.1), bringing to 111 the number of Recommendations adopted under Resolution No. 2 since the end of 1988, and 35 draft new or revised Recommendations were drawn up during meetings held in 1991 and were forwarded to Members for their approval.

Furthermore, pursuant to Article 58 of the International Telecommunication Convention (Nairobi, 1982), one new Question has been approved for study during the study period (see § 4.4.2.2).

Details of the discussions which take place at Study Group meetings may be found in the meeting reports which are distributed to all the members of the CCITT.

Tables II and III give information on the participation in CCITT meetings and on contributions received in 1990.

4.4.2 New Recommendations and Questions

4.4.2.1 Approval of new or revised Recommendations in the interval between Plenary Assemblies in accordance with CCITT Resolution No. 2 adopted by the IXth Plenary Assembly (Melbourne, 1988)

- 1) Revised Recommendation T.4 (Study Group VIII)
Standardization of group 3 facsimile apparatus for document transmission
Approved on 18 January 1991
- 2) Revised Recommendation T.30 (Study Group VIII)
Procedures for document facsimile transmission in the general switched telephone network
Approved on 18 January 1991
- 3) Revised Recommendation T.35 (Study Group VIII)
Procedure for the allocation of CCITT defined codes for non-standard facilities
Approved on 18 January 1991
- 4) First extension of the T.410 Series Recommendations (Study Group VIII)
Approved on 18 January 1991
- 5) Revised Recommendation T.502 (Study Group VIII)
Document application profile PM-11 for the interchange of character content documents in processable and formatted forms
Approved on 18 January 1991

- 6) Revised Recommendation T.503 (Study Group VIII)
A document application profile for the interchange of Group 4 facsimile documents
Approved on 18 January 1991
- 7) Recommendation T.505 (Study Group VIII)
Document application profile PM-26 for the interchange of mixed content documents in processable and formatted forms
Approved on 18 January 1991
- 8) Revised Recommendation T.563 (Study Group VIII)
Terminal characteristics for Group 4 facsimile apparatus
Approved on 18 January 1991
- 9) Recommendation Q.767 (Study Group XI)
Application of the ISDN user part of CCITT Signalling System No. 7 for international ISDN interconnections
Approved on 15 February 1991
- 10) Recommendation Q.784 (Study Group XI)
ISUP basic call test specification
Approved on 15 February 1991
- 11) Recommendation V.17 (Study Group XVII)
A 2-wire modem for facsimile applications with rates up to 14 400 bit/s
Approved on 22 February 1991
- 12) Recommendation V.32 bis (Study Group XVII)
A duplex modem operating at data signalling rates of up to 14 400 bit/s for use on the general switched telephone network and on leased point-to-point 2-wire telephone-type circuits
Approved on 22 February 1991
- 13) Revised Recommendation E.115 (Study Group I)
Computerized information service for telephone subscriber numbers in foreign countries (directory assistance), reserved for operators
Approved on 11 March 1991
- 14) Revised Recommendation F.40 (Study Group I)
International public telemessage service
Approved on 11 March 1991

- 15) Revised Recommendation F.41 (Study Group I)
Interworking between the telemesssage service and the international public telegram service
Approved on 11 March 1991
- 16) Recommendation F.87 (Study Group I)
Operational principles for the transfer of messages from terminals of the international telex service to Group 3 facsimile terminals connected to the public switched telephone network
Approved on 11 March 1991
- 17) Recommendation F.111 (Study Group I)
Principles of service for mobile systems
Approved on 11 March 1991
- 18) Recommendation F.435 (Study Group I)
Message Handling: electronic data interchange messaging service
Approved on 11 March 1991
- 19) Recommendation F.710 (Study Group I)
General principles for audiographic conference services
Approved on 11 March 1991
- 20) Revised Recommendation K.11 (Study Group V)
Principles of protection against overvoltages and overcurrents
Approved on 18 March 1991
- 21) Revised Recommendation K.20 (Study Group V)
Resistibility of telecommunication switching equipment to overvoltages and overcurrents
Approved on 18 March 1991
- 22) Recommendation K.27 (Study Group V)
Bonding configurations and earthing inside a telecommunication building
Approved on 18 March 1991
- 23) Recommendation K.28 (Study Group V)
Characteristics of semi-conductor arrestor assemblies for the protection of telecommunications installations
Approved on 18 March 1991

24) Revised Recommendation D.11 (Study Group III)

Special tariff principles for international packet-switched public data communication services by means of the virtual call facility

Approved on 22 March 1991

25) Recommendation D.36 (Study Group III)

General accounting principles applicable to message handling services

Approved on 22 March 1991

26) Revised Recommendation D.91 (Study Group III)

Transmission in encoded form of maritime telecommunications accounting information

Approved on 22 March 1991

27) Revised Recommendation D.220 (Study Group III)

Charging and accounting principles to be applied to international circuit mode demand bearer services provided over the Integrated Services Digital Network (ISDN)

Approved on 22 March 1991

Specific tariff and accounting principles applicable to ISDN supplementary services

Approved on 22 March 1991

29) Recommendation D.240 (Study Group III)

Charging and accounting principles for teleservices supported by the ISDN

Approved on 22 March 1991

30) Recommendation D.260 (Study Group III)

Charging and accounting capabilities to be applied on the ISDN

Approved on 22 March 1991

31) Recommendation X.435 (Study Group VII)

Message handling systems: Electronic data interchange messaging system

Approved on 22 March 1991

32) Recommendation X.710 (Study Group VII)

Common management information service definition for CCITT applications

Approved on 22 March 1991

- 33) Recommendation X.711 (Study Group VII)
Common management information protocol specification for CCITT applications
Approved on 22 March 1991
- 34) Recommendation X.800 (Study Group VII)
Security architecture for Open Systems Interconnection for CCITT applications
Approved on 22 March 1991
- 35) Revised Recommendation G.703 (Study Group XVIII)
Physical/electrical characteristics of hierarchical digital interfaces
Approved on 5 April 1991
- 36) Revised Recommendation G.704 (Study Group XVIII)
Synchronous frame structures used at primary and secondary hierarchical levels
Approved on 5 April 1991
- 37) Revised Recommendation G.706 (Study Group XVIII)
Frame alignment and cyclic redundancy check (CRC) procedures relating to basic frame structures defined in Recommendation G.704
Approved on 5 April 1991
- 38) Revised Recommendation G.707 (Study Group XVIII)
Synchronous digital hierarchy bit rates
Approved on 5 April 1991
- 39) Revised Recommendation G.708 (Study Group XVIII)
Network node interface for the synchronous digital hierarchy
Approved on 5 April 1991
- 40) Revised Recommendation G.709 (Study Group XVIII)
Synchronous multiplexing structure
Approved on 5 April 1991
- 41) Recommendation I.113 (Study Group XVIII)
Vocabulary of terms for broadband aspects of ISDN
Approved on 5 April 1991

- 42) Revised Recommendation I.121 (Study Group XVIII)
Broadband aspects of ISDN
Approved on 5 April 1991
- 43) Recommendation I.150 (Study Group XVIII)
B-ISDN asynchronous transfer mode functional characteristics
Approved on 5 April 1991
- 44) Recommendation I.211 (Study Group XVIII)
B-ISDN service aspects
Approved on 5 April 1991
- 45) Recommendation I.311 (Study Group XVIII)
B-ISDN General Network aspects
Approved on 5 April 1991
- 46) Recommendation I.321 (Study Group XVIII)
B-ISDN Protocol reference model and its application
Approved on 5 April 1991
- 47) Recommendation I.327 (Study Group XVIII)
B-ISDN Functional Architecture
Approved on 5 April 1991
- 48) Recommendation I.361 (Study Group XVIII)
B-ISDN ATM Layer Specification
Approved on 5 April 1991
- 49) Recommendation I.362 (Study Group XVIII)
B-ISDN ATM Adaptation Layer (AAL) functional description
Approved on 5 April 1991
- 50) Recommendation I.363 (Study Group XVIII)
B-ISDN ATM Adaptation Layer (AAL) specification
Approved on 5 April 1991
- 51) Recommendation I.413 (Study Group XVIII)
B-ISDN User Network Interface
Approved on 5 April 1991

- 52) Recommendation I.432 (Study Group XVIII)
B-ISDN User Network Interface - Physical layer specification
Approved on 5 April 1991
- 53) Recommendation I.610 (Study Group XVIII)
OAM Principles of the B-ISDN access
Approved on 5 April 1991
- 54) Annex F to Recommendation T.411 (Study Group VIII)
Approved on 5 July 1991
- 55) Revised Recommendation D.1 (Study Group III)
General principles for the lease of international (continental and intercontinental) private telecommunication circuits and networks
Approved on 15 July 1991
- 56) Revised Recommendation D.10 (Study Group III)
General tariff principles for international public data communication services
Approved on 15 July 1991
- 57) Revised Recommendation D.60 (Study Group III)
Guiding principles to govern the apportionment of accounting rates in intercontinental telex relations
Approved on 15 July 1991
- 58) Revised Recommendation D.67 (Study Group III)
Charging and accounting in the international telex service
Approved on 15 July 1991
- 59) Recommendation D.79 (Study Group III)
Charging and accounting principles for the international videotex service
Approved on 15 July 1991
- 60) Recommendation D.192 (Study Group III)
Principles for charging and accounting of service telecommunications
Approved on 15 July 1991

61) Recommendation D.197 (Study Group III)

Notification of change of address(es) for accounting and settlement purposes

Approved on 15 July 1991

62) Revised Recommendation D.250 (Study Group III)

General charging and accounting principles for non-voice services provided by interworking between the ISDN and existing public data networks

Approved on 15 July 1991

63) Revised Recommendation D.300 R (Study Group III)

Determination of accounting rate shares in telephone relations between countries in Europe and the Mediterranean Basin

Approved on 15 July 1991

64) Revised Recommendation D.306 R (Study Group III)

Remuneration of public packet-switched data transmission networks between the countries of Europe and the Mediterranean Basin

Approved on 15 July 1991

65) Revised Recommendation D.307 R (Study Group III)

Remuneration of digital systems and channels used in telecommunication relations between the countries of Europe and the Mediterranean Basin

Approved on 15 July 1991

66) Revised Recommendation E.164 (Study Group II)

Numbering plan for the ISDN era

Approved on 23 August 1991

67) Recommendation E.173 (Study Group II)

Routing Plan for interconnection between public land mobile networks and fixed terminal networks

Approved on 23 August 1991

68) Recommendation E.201 (Study Group II)

Reference recommendation for mobile services

Approved on 23 August 1991

- 69) Recommendation E.415 (Study Group II)
International Network Management Guidance for Common Signalling System No. 7
Approved on 23 August 1991
- 70) Revised Recommendation E.711 (Study Group II)
User demand modelling
Approved on 23 August 1991
- 71) Revised Recommendation E.721 (Study Group II)
Network grade of service parameters and target values for circuit-switched services in the evolving ISDN
Approved on 23 August 1991
- 72) Recommendation Q.81. § 3 (Study Group XI)
Calling Line Identification Presentation (CLIP) and Calling Line Identification Restriction (CLIR)
Approved on 10 September 1991
- 73) Recommendation Q.81. § 5 (Study Group XI)
Connected Line Identification Presentation (COLP) and Connected Line Identification Restriction (COLR)
Approved on 10 September 1991
- 74) Recommendation Q.83. § 1 (Study Group XI)
Call waiting (CW)
Approved on 10 September 1991
- 75) Recommendation Q.83. § 4 (Study Group XI)
Terminal portability
Approved on 10 September 1991
- 76) Recommendation Q.785 (Study Group XI)
ISUP protocol test specification for supplementary services
Approved on 10 September 1991
- 77) Recommendation E.331 (Study Group I)
Minimum user-terminal interface for a human user entering address information into an ISDN terminal
Approved on 11 October 1991
- 78) Recommendation F.11 (Study Group I)
Continued availability of traditional services
Approved on 11 October 1991

- 79) Recommendation F.59 (Study Group I)
General characteristics of the international telex service
Approved on 11 October 1991
- 80) Recommendation F.80 (Study Group I)
Basic requirements for interworking relations between the international telex service and other services
Approved on 11 October 1991
- 81) Recommendation F.82 (Study Group I)
Operational provisions to permit interworking between the international telex service and the Intex service
Approved on 11 October 1991
- 82) Recommendation F.86 (Study Group I)
Interworking between the international telex service and the videotex service
Approved on 11 October 1991
- 83) Recommendation F.104 (Study Group I)
International leased circuit services - Customer circuit designations
Approved on 11 October 1991
- 84) Recommendation F.150 (Study Group I)
Service and operational provision for the Intex service
Approved on 11 October 1991
- 85) Recommendation I.233.1 (Study Group XVIII)
ISDN frame relaying bearer service
Approved on 25 October 1991
- 86) Recommendation I.233.2 (Study Group XVIII)
ISDN frame switching bearer service
Approved on 25 October 1991
- 87) Revised Recommendation I.324 (Study Group XVIII)
ISDN network architecture
Approved on 25 October 1991
- 88) Recommendation I.370 (Study Group XVIII)
Congestion management for the ISDN frame relaying bearer service
Approved on 25 October 1991

89) Revised Recommendation I.464 (Study Group XVIII)

Multiplexing, rate adaption and support of existing interfaces for restricted 64 kbit/s transfer capability

Approved on 25 October 1991

4.4.2.2 Approval of Questions for study pursuant to Article 58, No. 326, of the International Telecommunication Convention (Nairobi, 1982)

Approval of a Question for Study Group III :

- Question 33/III - Charging and accounting principles to be applied to Universal Personal Telecommunication

4.4.3 New organizations admitted to the CCITT

In 1991, 3 recognized private operating agencies and 3 scientific or industrial organizations were admitted to participate in the work of the CCITT. By the end of 1991, the number of organizations participating in the CCITT's work stood at:

- recognized private operating agencies: 65
- scientific or industrial organizations: 159
- international organizations: 39

The new admissions are:

a) Recognized private operating agencies:

Denmark : Tele Danmark A/S, Copenhagen (1 unit)

France : FRANCE TELECOM, Paris (3 units)

Sweden : Tele 2 AB, Kista (1/2 unit)

b) Scientific or industrial organizations:

United States: US West Advanced Technologies, Englewood (Colorado) (1/2 unit)

Ireland: Cornel Electronics Ltd., Dublin (1/2 unit)

Italy: PLLB Elettronica, S.p.A., Sesto S. Giovanni (1/2 unit)

4.4.4 CCITT Publications

The following Books or Handbooks were published in 1991:

4.4.4.1 CCITT Blue Book

Fascicles I.3 (Terms and Definitions) and I.4 (Index).

4.4.4.2 Recommendations approved pursuant to CCITT Resolution No. 2

Recommendations D.1, D.10, D.11, D.36, D.60, D.67, D.79, D.91, D.192, D.197, D.220, D.232, D.240, D.250, D.260, D.300R, D.306R, D.307R, E.115, E.164, E.173, E.201, E.331, E.415, E.711, E.721, F.11, F.40, F.41, F.59, F.80, F.82, F.86, F.87, F.104, F.111, F.150, F.435, F.710, G.703, G.704, G.706, G.707, G.708, G.709, G.726, G.727, G.763, G.764, G.773, G.781, G.782, G.783, G.784, G.957, G.958, H.221, H.230, H.242, H.261, H.320, I.113, I.121, I.150, I.211, I.311, I.321, I.327, I.361, I.362, I.363, I.413, I.432, I.464, I.610, K.11, K.20, K.27, K.28, Q.767, Q.784, Q.785, T.4, T.30, T.35, T.411, T.411 Annex F, T.412, T.414, T.415, T.417, T.502, T.503, T.505, T.563, V.17, V.32 bis, X.435, X.710, X.711, X.800.

4.4.4.3 Handbooks

- ISDN field trial guidelines handbook;
- Guidelines for Implementing a Signalling System No. 7 Network

4.4.5 Activities under CCITT Resolution No. 14

In the field of technical assistance, the CCITT Secretariat contributed to seminars and to the consideration of reports by the Telecommunications Development Bureau.

The CCITT Secretariat participated in meetings concerning the recruitment of experts and gave advice on choice of equipment.

The Director of the CCITT also took part in the various regional telecommunication development conferences.

Furthermore, the CCITT Secretariat contributed to the work of the following seminar organized by the ITU:

- CCITT/BDT Seminar "Implementing SS7", Shanghai, 11-15 November 1991

4.4.6 Cooperation with the CCIR

As in the past, very active cooperation has been maintained with the CCIR, in particular with respect to mobile service telecommunications, the application of radio-relay and satellite systems in the ISDN and HDTV.

4.4.7 Cooperation with other international organizations

Close cooperation is maintained with organizations interested in the CCITT's studies.

The Director and the Secretariat of the CCITT have participated in a number of meetings held by such organizations, in particular UPU, IEC and ISO, with a view to coordinating the respective activities as far as possible.

The Resolutions adopted by the last Plenary Assembly on collaboration with UPU, IEC and ISO have provided a firm foundation for healthy relations between those organizations and the CCITT.

Furthermore, the Director of the CCITT participated in the assemblies of ETSI and close cooperation may be noted in areas of common interest.

TABLE I

List of meetings held in 1991

Date	Meeting
14 - 18 January	GAS 9 Working Parties (Economic and technical aspects of transition from an analogue to a digital network (Case study of a global network))
14 - 30 January	Study Group IV (Maintenance) and its Working Parties IV/3 (Management networks and interfaces), IV/4 (Maintenance strategy and principles) and IV/5 (Maintenance of systems and networks)
29 January - 7 February	Ad hoc Group - Resolution No. 18 (CCITT working methods and structure) and its Working Parties
6 - 13 February	Study Group X (Languages for Telecommunications Applications)
18 February - 1 March	Working Parties of Study Group XV (Transmission Systems and Equipment)
19 - 28 February	Working Parties of Study Group IX (Telegraph Networks and Telegraph Terminal Equipment)
6 - 13 March	Plan Committee for Africa
6 - 15 March	Study Group III (Tariff and Accounting Principles) and Working Party III/3 (Tariffs and accounting for telex and telegraph services and data transmission services on public data networks)
12 - 22 March	Study Group II (Network Operation) and its Working Parties
18 - 22 March	Working Parties III/4 (Tariffs and accounting for the international telephone service and radio and television transmissions service) and III/5 (Tariffs and accounting for maritime, land and aeronautical mobile services)
18 - 27 March	Study Group VIII (Terminals for Telematics Services)
20 - 22 March	Working Party of the World Plan Committee
8 - 26 April	Study Group XI (Switching and Signalling) and its Working Parties
15 - 19 April	Working Parties of Study Group V (Protection against Electromagnetic Effects)
22 - 26 April	GAS 9 Working Parties (Economic and technical aspects of transition from an analogue to a digital network (Case study of a global network))

Date	Meeting
29 April - 3 May	Working Parties of Study Group XVII (Data Transmission over the Telephone Network)
30 April - 8 May	Working Parties IV/1 (Maintenance of telephone-type, leased and special circuits), IV/2 (Measuring equipment) and IV/6 (Maintenance of sound-programme TV and videoconference circuits)
28 May - 7 June	Study Group I (Services) and its Working Parties
29 May - 11 June	Network Management Development Group and Quality of Service Development Group (Study Group II)
4 - 7 June	Working Party of Study Group VI (Outside Plant)
10 - 14 June	GAS 12 (Strategy for the introduction of new non-voice telecommunication services in developing countries)
11 - 28 June	Study Group XVIII (ISDN) and its Working Parties
27 June - 3 July	Working Party II/3 (Traffic Engineering)
8 - 19 July	Working Parties XV/4 (Local network guide) and XV/2 (Signal processing)
26 August - 12 September	Study Group III (Tariff and Accounting Principles) and its Working Parties III/1 (Lease of international circuits and networks for private use), III/2 (Tariffs for leased and dedicated circuits provided by digital techniques and via satellite), III/3 (Tariffs and accounting for telex and telegraph services and data transmission services on public data networks), III/4 (Tariffs and accounting for the international telephone service and radio and television transmissions service), III/6 (Tariffs and accounting for services offered on ISDN) and III/7 (Methodology for the determination of costs and establishment of national tariffs)
2 - 13 September	Study Group VII (Data Communications Networks) and its Working Parties
6 - 13 September	Working Parties of Study Group XII (Transmission Performance of Telephone Networks and Terminals)
16 September - 4 October	Study Group XI (Switching and Signalling) and its Working Parties
17 - 20 September	GAS 7 (Rural Telecommunications)
23 - 27 September	Study Group V (Protection against Electromagnetic Effects) and its Working Parties
24 - 27 September	TEUREM Group (Tariffs (Europe and the Mediterranean Basin)) of Study Group III
30 September - 4 October	Study Group VI (Outside Plant)
16 - 25 October	Study Group VIII (Terminals for Telematics Services) and its Working Parties

22 October - 8 November	Working Parties IV/4 (Maintenance strategy and principles), IV/5 (Maintenance of systems and networks) and IV/3 (Management networks and interfaces)
24 - 25 October and 4 - 5 November	CCITT Study Groups Chairmen meeting
28 October - 1 November	Ad hoc Group - Resolution No. 18 (CCITT working methods and structure)
29 October - 6 November	Working Parties of Study Group XVII (Data Transmission over the Telephone Network)
4 - 8 November	GAS 9 (Economic and technical aspects of transition from an analogue to a digital network (Case study of a global network))
11 - 22 November	Working Parties of Study Group XV (Transmission Systems and Equipment)
14 - 26 November	Working Parties of Study Group I (Services)
20 - 28 November	Working Parties X/1 (Human-machine interface for telecommunication networks), X/2 (Support environment and software quality for telecommunication systems) and X/4 (CHILL)
2 - 13 December	Working Parties of Study Group XVIII (ISDN)
4 - 13 December	Working Party X/3 (Formal description techniques, specification and description languages) *

Appendix to Table I

In addition to the meetings listed in Table I, a number of meetings with limited participation were convened by Chairmen or Special Rapporteurs in 1991, either in or away from Geneva. The main meetings in this category, as notified to the CCITT Secretariat, are listed below.

Date	Meeting
9 - 11 January	Group of Experts on Question 20/IV
21 - 25 January	Group of Experts on Question 22/XI
29 - 31 January	Editing Group for Questions 17/XI and 18/XI
4 - 5 February	Joint meeting - Group of Experts on Question 10/X and Group JTC1 - SC 21 (ISO)
4 - 8 February	Meeting of GAS 12 Authors
4 - 8 February	Group of Experts on Question 21/XI
13 - 15 February	Ad hoc Group on 16-kbit/s voice coding (SG XV)
19 - 21 February	Group of Experts on Question 12/XI
21 - 22 March	GAS 12 Editing Group
15 - 17 April	Joint meeting of Working Parties XVIII/4 and XI/4 on Intelligent Network Issue
26 April	Group of Experts on Questions 3/XVII and 24/XV
29 April	Groups of Experts on Question 18/IV and Question 20/IV
4 - 11 June	Rapporteurs Group of Sub-Working Party XI/4-IN
10 - 14 June	Rapporteurs Group of Working Party X/1
1 - 3 July	Joint Rapporteurs Group SG IV/SG XV
1 - 5 July	Editing Group of Study Group IV
8 - 12 July	Sub-Working Party XI/2-5
17 - 18 September	Joint meeting ISO/CEI JTC 1 and CCITT
19 - 20 September	Group of Experts on Question 12/XVII
23 - 25 September	Joint meeting of Working Parties XI/4 and XVIII/4 and of experts of Study Group II on Intelligent Network Architecture Principles

Date	Meeting
18 October	Group of Experts on Question 17/IV
21 October	Group of Experts on Question 6/IV
7 - 8 November	Group of Experts on Question 23/XV
11 - 13 November	TMN Group of Experts (SG IV and SG XV)
25 - 29 November	GAS 12 Editing Group
2 - 6 December	Working Party XI/5 Rapporteurs Group
2 - 11 December	Editing Group of Working Parties XI/1 and XI/4

Note - Participation in the limited meetings is not shown in Tables II and III.

TABLE II
Member countries represented (by Administrations and/or RPOAs)
at CCITT meetings in 1991

COUNTRY (Administration or recognized private operating agency)	Study Groups and their Working Parties																	Plan Committees		Regional Tariff Group	Special Autonomous Groups			Ad Hoc Group Res. 18	TOTAL							
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XV	XVII	XVIII																	
	AF	W WP	TEU- REM	GAS 7	GAS 9	GAS 12																										
Algeria																	X															
Germany	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X															X		16
Angola													X																			1
Saudi Arabia	X	X	X					X				X		X		X			X				X					X	X			11
Australia	X	X	X	X				X				X		X		X												X				9
Austria	X		X			X	X	X	X			X		X	X	X																10
Bahrain			X																													1
Belgium	X	X	X	X	X	X	X				X	X		X	X	X					X											13
Benin																		X														1
Brazil	X	X	X	X				X	X		X	X	X	X	X	X																12
Burkina Faso																		X														1
Cameroon																		X					X									2
Canada	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X						X			X		X	X				17
Central African Rep.																		X														1
Chile			X									X																				2
China	X	X	X	X	X	X	X	X			X	X	X	X	X	X												X				15
Cyprus		X	X																	X				X	X							5
Congo																		X														1
Korea (Rep. of)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X					X	X		X	X				19
Côte d'Ivoire																		X							X							2
Denmark	X	X	X	X	X	X	X	X			X	X		X	X	X					X											14
Djibouti																		X														1
United Arab Emirates			X																													1
Spain	X	X	X	X	X	X	X	X	X			X	X	X	X	X		X	X		X					X		X	X			19
United States	X	X	X	X	X	X	X	X			X	X	X	X	X	X		X	X			X		X	X	X		X				20
Ethiopia																		X														1
Russia	X	X	X	X	X	X	X	X	X			X	X	X		X			X									X				15
Finland	X	X	X	X	X	X		X	X	X	X		X	X	X						X											14
France	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X	X				22
Gabon																		X														1
Gambia			X									X						X														3
Ghana																								X								1

TAB-3-92

COUNTRY (Administration or recognized private operating agency)	Study Groups and their Working Parties																Plan Committees		Regional Tariff Group	Special Autonomous Groups			Ad Hoc Group Res. 18	TOTAL
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XV	XVII	XVIII									
	AF	W WP	TEU- REM	GAS 7	GAS 9	GAS 12																		
Greece			X		X	X					X			X	X			X	X	X		X	10	
Hungary		X	X	X	X		X				X	X	X		X		X				X	X	13	
India			X												X						X		3	
Indonesia			X										X		X		X		X	X	X		7	
Iran (Isl. Rep. of)	X		X	X	X	X				X	X		X		X				X	X	X	X	13	
Ireland	X	X							X		X				X			X					6	
Israel			X					X					X		X								4	
Italy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	21	
Japan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	20	
Kenya	X		X								X												3	
Lebanon																		X	X	X	X		4	
Libya																			X				1	
Madagascar			X																				1	
Malaysia		X	X																				2	
Mali			X														X						2	
Mexico			X								X												2	
Monaco								X															1	
Namibia			X																				1	
Niger																	X						1	
Norway	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X				X	18	
New Zealand		X	X								X		X		X								5	
Oman			X																	X			2	
Pakistan			X																				1	
Netherlands	X	X	X	X	X	X	X	X	X		X	X	X	X	X			X				X	16	
Philippines		X																	X				2	
Poland													X					X					2	
Portugal	X	X	X	X			X	X	X	X	X		X		X			X		X	X	X	15	
Syria																		X					1	
Romania			X															X					2	
United Kingdom	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X			X	X	19	
Senegal																	X				X		2	
Singapore		X	X	X				X			X		X		X								7	

Tab 3-92

COUNTRY (Administration or recognized private operating agency)	Study Groups and their Working Parties																Plan Committees		Regional Tariff Group	Special Autonomous Groups			Ad Hoc Group Res. 18	TOTAL
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI				XVII	XVIII			
	AF	W WP	TEU- REM	GAS 7	GAS 9	GAS 12																		
Sweden	X	X	X	X	X		X		X	X	X	X	X	X	X		X	X				X	16	
Switzerland	X	X	X	X	X	X	X	X		X	X	X	X	X	X			X				X	16	
Tanzania			X																				1	
Chad																X							1	
Czech and Slovak Fed.R.	X		X				X		X						X			X					6	
Thailand	X	X	X	X	X	X		X	X	X	X	X	X	X	X		X			X	X		17	
Trinidad and Tobago		X																					1	
Tunisia								X			X												2	
Yugoslavia	X	X		X			X	X	X		X		X		X				X				10	
Zimbabwe							X																1	
TOTAL	29	32	48	26	22	21	26	25	19	19	36	19	32	22	33	18	14	21	13	15	19	21		

TABLE III

Participation in CCITT meetings and contributions received in 1991

	Study Groups and their Working Parties															Plan Committees		Regional Tariff Group	Special Autonomous Groups			Ad Hoc Group Res. 18
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XV	XVII	XVIII							
	AF	W WP	TEU- REM	GAS 7	GAS 9	GAS 12																
Administrations	27	27	47	19	18	14	24	22	11	16	32	12	30	19	32	16	11	14	9	13	15	19
Recognized private operating agencies	27	24	28	20	9	10	16	13	12	11	27	12	17	11	22	3	6	12	7	5	4	12
Scientific or industrial organizations	25	10	1	31	14	14	18	27	3	15	46	11	52	30	45	4	-	-	8	2	3	5
International organizations	6	2	6	1	2	-	4	2	-	1	3	1	3	-	3	5	-	-	-	-	-	-
Contributions normal	39	36	26	37	19	6	122	42	9	6	10	50	35	4	18	8	-	1	-	-	-	22
Contributions delayed	239	20	23	29	33	13	100	137	10	43	790	47	165	69	766	13	-	3	-	-	-	40
Reports	20	10	11	11	4	4	17	22	2	1	119	8	16	4	27	2	1	1	2	2	2	6

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5. TECHNICAL COOPERATION ACTIVITIES

5.1 Telecommunications Development Bureau (BDT)

Introduction

For the BDT, 1991 must be seen as the turning point between the final phase of Technical Cooperation Department and Centre for Telecommunications Development staff redeployment on the one hand, and the first phase of the strengthening of the regional presence on the other.

At its 46th Session, the Administrative Council considered and approved document CA46/7107, Annex 4 of which provides information on the phased implementation of Nice Plenipotentiary Conference Resolution No. 17 on the ITU regional presence. Indeed, one of the primary objectives of the ITU/BDT is to implement that Resolution fully.

The reinforced regional presence manifested itself in 1991 by the establishment of two Regional Offices, at Addis Ababa and Cairo respectively, as well as an Area Office at Bridgetown. In accordance with Council document 7107, end 1992 would see a regional presence comprised of 12 Regional and/or Area Offices to which 30 professionals would be attached. The fact remains, however, that the timing set forth in that document was somewhat optimistic and could in no way take account of the difficulties that have been faced during practical implementation of Resolution No. 17. The table below shows the expectations which appeared in that document as well as the situation today.

	DOCUMENT 7107						SITUATION			SITUATION		
	at 31.12.91			at 31.12.92			at 31.3.92			at 30.6.92		
	A	B	C	A	B	C	A	B	C	A	B	C
AFR	3	10	13	1	12	13	1	10	11	1	11	12
ARAB	1	5	6	1	5	6	1	4	5	2	4	7
AM	3	5	8	1	7	8	2	7	9	2	6	8
ASP	3	5	8	1	8	9	3	5	8	2	7	9
HRD	1	0	1	1	0	1	1	0	1	1	0	1
EUR	0	0	0	0	0	0	0	0	0	0	0	0
TOT	11	25	36	5	32	37	8	26	34	8	29	37

A: Headquarters
B: Field
C: Total

AFR: Africa
ARAB: Arab States
AM: Americas
ASP: Asia and Pacific
HRD: Human Resources Development
EUR: Europe

It is to be noted that negotiations with the Brazilian Government for the setting up of the Regional Office at Brasilia were completed.

5.1.1 Field Operations Department (FOP)**5.1.1.1 *Africa*****a) Development of regional telecommunication networks**

RAF/89/017: Insofar as the Regional African Satellite Communication System (RASCOM) project is concerned, the Conference of African Ministers of Telecommunications (Abuja, 4-6 February 1991) decided that the ITU should continue to be the executing agency for the transition phase of the project, under the supervision of a Committee of Experts from 15 African countries.

The relevant report is to be submitted to the second Conference of Ministers (25-27 May 1992, Abidjan), and will include all elements for the setting up of the RASCOM operating organization. The Rascom Constitution was signed at Abidjan and envisages the initial sharing of DOMSAT transceivers towards the ultimate objective of a dedicated African satellite. Thirty-five African countries, the UNDP, and the UNCTADA II Resource Mobilization Committee have shared in financing the project activities.

RAF/87/085 and RAF/87/011: The PANAFTTEL network objective is to enable 45 African countries to communicate directly with one another without transiting through switching centres located outside Africa. As of now, PANAFTTEL radio-relay systems on routes totalling some 40,000 km in length have either been or are in the process of being installed. To complement these transmission routes, 39 international telephone switching centres have also been or are in the process of being installed. Moreover, nearly 8,000 km of submarine cables have been installed and 42 of the 45 countries participating in the project have earth stations for satellite communications. The task that now remains is on the one hand to secure financing and to implement the "Missing Links" comprising about 4,000 km of terrestrial links, six international telephone switching centres and three satellite communication earth stations to complete the basic PANAFTTEL network, and on the other to improve the operational efficiency of the network with tariff and transit agreements, international maintenance agreements, etc. The main activities were:

- seminars in network synchronization, signalling and information systems
- review of transit facilities at the international telephone switching centres (ITSCs) in Addis Ababa, Harare, Lusaka and Nairobi
- development of a programme for the management of digital telephone exchanges
- radio propagation studies in Benin
- analysis of replies to traffic questionnaires and preparation of traffic forecasts
- proposals for a tariff structure in the central African sub-region
- assistance to African sub-regional organizations
- work on National Plans for the Improvement of Maintenance (NPIMs)
- preparation of legal statutes for the sub-regional maintenance centre at Lome
- preinvestment studies for several sub-regional maintenance centres
- improvement in the technical performance of certain PANAFTTEL links
- preparation of two NPIMs
- preparation of a Guide for Maintenance Planning.

b) Strengthening of national telecommunication technical and administrative services

The requests from African telecommunication Administrations were generally met through the UNDP/ITU technical assistance programme by organizing missions lasting from two weeks to several months. The participation of national counterpart staff in these activities was encouraged to enable them to take advantage of on-the-job training possibilities. Assistance was rendered to:

Benin and Niger:	evaluation of tenders
Guinea Bissau:	training in power plant and local networks
Burkina Faso:	tariff study
Mauritania:	master plan for telecommunications development
Rwanda:	preinvestment study for the introduction of national television
Rwanda:	a rural telecommunication network financed by the Swiss Government
Cameroon:	installation and acceptance testing of telecommunication equipment
Gabon:	training of experts for the national telecommunication school
Lesotho:	implementation of the NPIM
Ghana:	preparation of training programmes with financing by the World Bank
Burundi:	rural telecommunications and introduction of new services.

c) Development of human resources for telecommunications

The development of human resources by fundamental technical training and supported by in-service training through close association of national counterparts/experts during national project implementation continued throughout the year in Burundi, Chad, Djibouti, Guinea Bissau, Gabon, Ghana and Malawi.

Sub-regional projects included activities related to the:

Kenya: African Advanced Level Telecommunications Institute (AFRALTI) where 113 students spent 360 student/weeks on 10 courses, six of them new; and with the participation of Kenya, Lesotho, Malawi, the Seychelles, Swaziland, Uganda and Zimbabwe. Worthy of note is the cessation of UNDP funding as of December 1991 and the fact that all countries ratified the agreement after having duly deposited the instrument of ratification (UNDP stopped financing);

Senegal: Ecole supérieure multinationale des télécommunications (ESMT) such as training in local networks, commercial operation, switching and transmission; a tripartite review of this project recommended its continuation during the 5th UNDP programming cycle (1992-1996).

d) Activities of Field Offices

The field representation of the ITU/BDT in Africa was deployed so that by end 1991 the manpower situation comprised:

- Four Area Representatives at Dakar (2), Harare and Yaounde
- Three Area Officers for Network Management, Operation and Maintenance at Dakar, Harare and Yaounde

- Two Area Officers for Human Resources Development at Addis Ababa and Dakar.

The Area Representatives carried out, with guidance, supervision and involvement of the Field Operations Department headquarters staff; one sectoral review, supervised 29 projects, submitted for consideration 12 new projects of which two were approved, and participated in the preparation of the 5th UNDP programming cycle.

5.1.1.2 Americas

a) Development of regional telecommunication networks

There were no regional projects in the region.

b) Strengthening of national telecommunication technical and administrative services

The main projects, mostly funds-in-trust, were:

Brazil:	R&D for the design of telecommunication technology equipment
Bolivia:	national telecommunication master plan for new technologies and new services
Bolivia:	introduction of computer technologies for frequency management
Colombia:	advanced-level training programme through ITEC/TELECOM
El Salvador:	organizational strengthening
Guyana:	equipment procurement for national broadcasting
Haiti:	assistance in telecommunications development
Honduras:	improvement of institutional management
Mexico:	survey to identify possibilities for developing national telecommunication, microelectronic and computer industry
Panama:	revision/improvement of the national telecommunication law and definition of a new tariff structure
Paraguay:	development of the first national strategic telecommunication master plan
Peru:	technological strengthening through the design, construction and installation of a digital telephone exchange
Peru:	technical/logistical support for the extension of the Lima telephone network
St. Lucia:	institutional strengthening - O&M for the monitoring system
Venezuela:	improvement of training and distance learning at the Resource Centre
Central-America:	through the UNDP Special Programme for Central America, a survey for the identification of 40 national/regional projects.

c) Development of human resources for telecommunications

Many diverse projects ranging from institutional strengthening, organization and management, training, and so forth in countries such as Colombia, Honduras and Venezuela benefitted from human resource development activities in 1991 (see list above).

d) Activities of Field Offices

The 1991 ITU/BDT field representation in the region included:

- Two Area Representatives at Santiago and Tegucigalpa
- Two Area Officers for Network Management, Operation and Maintenance at Santiago and Tegucigalpa
- One Area Officer for Human Resources Development at Santiago.

The Area Representatives, with guidance, supervision and involvement of the Field Operations Department headquarters staff; carried out 50 missions, formulated some 20 new projects, and supervised 36 projects, 87% of which were government funded.

5.1.1.3 Asia and the Pacific

a) Development of regional telecommunication networks

The work focused on the development of networks, modernization of services, the adoption of improved maintenance practices and computer-aided management techniques. At the intercountry level, the main activities were undertaken within the framework of the following projects:

RAS/86/121: Networking of Test and Development Centres, with workshops on network evolution, telematics, DOMSAT techniques and a number of study visits between R&D centres

RAS/86/165: Telecommunications Computer Software Training, with courses in computer application and maintenance, computer networking and office automation, computerized telecommunication applications and a 10-day seminar for top telecommunication managers

RAS/86/178: Regional Telecommunications Planning, which aims to assist in establishing an information system with a central database at APT HQ and nodes to participating countries; training was thus provided to 19 participating countries

RAS/86/123: Development of Maritime Radiocommunications, for which surveys of maritime communication facilities were undertaken as were plans for coast stations and the promulgation of safety information together with a seminar on new satellite and terrestrial systems

RAS/86/189: Cellular Radio Telephone Systems Application, in which assistance to ASEAN countries on cellular radio network design and operation were given as well as courses on frequency planning and a GSM seminar

RAS/86/008: Cooperation in New Telecommunication Techniques, which provided assistance in introducing new technologies, services and methodologies, held two workshops/seminars on network management and value-added services and provided a study tour and individual fellowships to train technical staff

RAS/89/007: Technical Training and Advisory Assistance in Sound and TV Broadcasting (with ABU), lent assistance in technical operation and maintenance of TV and radio services, planned these services and trained technical staff

RAS/86/190: South Pacific Regional Telecommunication Training System (supplemented by an Australia-funded support programme), provided support for TELMAN, assisted in network planning, O&M matters, and developed and installed a computerized frequency management system for small island countries.

The ITU/BDT maintained close collaboration with the region's Administrations and regional and sub-regional organizations and participated in many of their meetings.

b) Strengthening of national telecommunication technical and administrative services

The main projects, mostly funded through the UNDP, were:

- | | |
|----------------------|--|
| Afghanistan: | Improvement, frequency management and regulation of services |
| India: | New Technologies for the National Telecommunication Network, where assistance in telematic services, satellite systems and ISDN was provided |
| Iran: | Establishing a Rural Telecommunication Network as a Pilot Project, including the training of local engineers in rural telecommunications and the preparation of a new project for upgrading frequency management |
| Korea (Rep.): | Electronics and Telecommunications Research Institute (ETRI), which comprised the development of research facilities to support local manufacturing, as well as a mission by a satellite communication system expert and training in quality and reliability, optoelectronics, fibre optics and mobile radio |
| Korea (DPR): | Assistance in Modernization of Telecommunications Training at the Kim Chaek University where assistance in voice and signal processing, computer-based training, digital transmission data communication, equipment, pulse code modulation and optical fibre transmission is provided |
| Lao (PDR): | State Enterprise for Posts and Telecommunications, including the expansion and management of telecoms (with the World Bank), preparation of tender documents for equipment procurement, and finalizing a large training sub-contract with the TOT (Thailand) |
| Myanmar: | Telecommunications Test and Development Centre, for equipment and instrument repairs, as well as a calibration workshop and a laboratory |

- Nepal:** Quality Assurance, for the establishment of quality control management for telecom products and the setting up of a repair centre for printed circuit board and a material testing laboratory
- Vietnam:** Multi-agency Project for a Typhoon-proof Pilot Radio Trunk System for Essential Telecommunication and Rehabilitation of Outside Plant, including the preparation of plans and specifications for local networks and the acceptance testing of a digital trunk radio and HF transceiver network. Another project provided assistance for the upgrading of the digital technology laboratory within the Posts and Telecommunication Department.

c) Development of human resources for telecommunications

- Bangladesh:** Telecommunication Staff College, Jodepur, where the training of national staff, new management courses and tariff studies took place
- India:** Upgrading of Telecommunication Training Centres and Manpower Development, which strengthened training resources, improved telecommunication quality assurance capabilities, and held seminars dealing with component technology assurance and development, quality control and failure analysis, and the development of reliable software
- India:** In-house Training Facilities in Radio Monitoring and Spectrum Management which concentrated on upgrading the training capabilities in those specialities and in using computer-aided techniques
- Pakistan:** Training Capacity of Pakistan Telecommunication Corporation, where it was undertaken to establish training courses in new technologies, set up two new computer and course development laboratories, and prepare a strategy/conduct seminars on systematic course development
- Indonesia:** Telecommunication Human Resource Development, to strengthen the staff structure of TELCOM.

Regional HRD projects included:

- South Pacific Regional Telecommunication Training System for training assistance
- Telecommunications Management Development and Training under which planning seminars and a human resources management workshop were held.

d) Activities of Field Offices

- The Area Office for West and South Asia was strengthened by the posting of an Associate Expert and of an Area Officer for Network Management, Operation and Maintenance in June and July 1991 respectively.
- The Area Office for South-East Asia also benefitted from the posting of an Associate Expert as of October 1991.

The two Area Representatives of the region, with guidance, supervision and involvement of the Field Operations Department headquarters staff; carried out 28 missions, supervised 17 projects, prepared 12 new project documents, carried out three sectoral studies and prepared several others, consulting regularly with the UNDP field offices.

5.1.1.4 Europe and the Middle East

a) Development of regional telecommunication networks

RAB/86/028: TELDEV - Coordination of Telecommunication Development in LDCs in the Arab Region and Ethiopia. Circumstances in the area prevented upholding the March 1991 deadline for termination of project activities, such that a six-month extension (to end September) was awarded to allow also for an in-depth evaluation. The April/May evaluation recommended strengthening the telecommunication facilities of the region, particularly that of the Training Centre at Sana'a (Yemen) which it felt should become a sub-regional Training Centre, and the setting up of national telecommunication back-up centres for operations and maintenance.

RER/87/025: EUROTELDEV - European Telecommunications Development II. Two Steering Committee meetings were held in 1991 - the last year of the project's second phase: the fifth meeting during which new detailed work plans for each network were approved, and the sixth (December 1991) during which all the Resolutions and recommendations generated by each network were approved, the findings/-recommendations of the evaluation mission endorsed, and the third phase of the project proposed. Below are some of the network activities carried out in 1991:

Network 1: Regional Backbone Network (TET), lead country Bulgaria. The feasibility study was endorsed and a Memorandum of Understanding was signed between the nine concerned countries which undertook to proceed with the defined implementation strategy.

Network 2: Special Equipment Network, lead country Portugal. Activities were terminated in 1990.

Network 3: Transition to Digital Networks, lead country Yugoslavia. The third and fourth meetings decided that national groups should be set up. Adoption of the phased introduction of synchronous digital hierarchy (SDH) within the TET network was studied.

Network 4: Management and Maintenance, lead country Greece. Study of the phased introduction of the telecommunication management network concepts in interested countries.

Network 5: Economic and Financial Aspects, lead country Malta. Finalized the feasibility study for the TET network.

Network 6: R&D, lead country Hungary. Proposed the introduction of R&D activities in the future EUROTELDEV phase.

Network 7: HRD, lead country Czech and Slovak Federal Republic. Analyzed needs and defined priorities.

Network 8: Optical Fibre Applications, lead country Poland. Convened a meeting at Warsaw in April.

RAB/89/001: MODARABTEL - Modern Arab Telecommunication Development. The second meeting of the Steering Committee (October 1991, Tunis) approved and commended all activities and adopted the work plan for the following year.

Network 1: Data Communications, lead country Egypt. The feasibility study for the regional data communication network was updated.

Network 2: New Services, lead country Algeria. Owing to unexpected difficulties, a temporary solution to commence activities was decided and the project coordinator prepared the guidance for telephone mobile services.

Network 3: Applied Research, lead country Tunisia. A study for an applied research database was carried out.

Network 4: Management Information System in Training, The high level meeting adopted the design criterias for the MIS and nominated Morocco as lead country. Morocco was vested with the responsibility for the development of the required software.

b) Strengthening of national telecommunication technical and administrative services

In addition to the contribution of regional projects, the selected national projects below focused on those same objectives:

Albania:	all activities related to the Telecommunication Applied Research Centre were completed
Bulgaria:	all activities related to research on new telecommunication systems were completed
Libya:	an executive summary of the NPIM study was prepared
Poland:	activities of a new project commenced with UNDP preparatory assistance funding
Saudi Arabia:	advice to the Ministry of Informatics in satellite communications and high power broadcasting and to the Ministry of PTT in frequency management and international relations continued
Somalia:	activities on two projects were interrupted as of January due to civil strife
Sudan:	regular activities related to the development of telecommunication planning and project coordination continued
Yemen: (ex-PDR)	the remaining telecommunication development activities were aligned with those of the erstwhile YAR after the May unification in 1990
Yemen: (ex-YAR)	activities of the Radio and TV Broadcasting Coverage project continued, focusing on medium wave radio coverage.

c) Development of human resources for telecommunications

In addition to the fellowship component of national and regional projects, the selection of national projects hereunder had training as their primary concern:

Algeria:	where regular progress proceeded at the Institut des télécommunications d'Oran
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Djibouti:	where progress continued to be made within the framework of the project
Lebanon:	where implementation was modest owing to prevailing circumstances
Morocco:	where regular progress took place
Syria:	where practically all project activities terminated in 1991.

d) Activities of Field Offices

Following the establishment of the Regional Office for Arab States at Cairo, two Area Representatives and one Area Officer for Network Management, Operation and Maintenance and another for Human Resources Development, took up their duties as of September 1991.

5.1.1.5 Human Resources Management and Development (HRM/HRD)

The former HRM/D Division was split between two BDT departments but continued to work as a single function guided by the recommendations of the Nice Plenipotentiary Conference.

a) Development of human resources for telecommunications

The main activities at Headquarters as well as those of the five field Area Officers for Human Resources Development were the definition/updating of HRM standards, their introduction, the creation of a new Technology-based Training (TBT) project, and general management improvement activities (such as organizational development, definition of manpower and training needs) for ITU's Member States. Eighty-three missions were carried out and 28 workshops held with an average of 19 participants each; four relevant databases were updated.

b) Headquarters activities

b1. Teleproject and CBT activities

- Direct assistance to five requesting countries
- coordination of regional Computer-based Training (CBT) Task Forces (Americas, Arab States and Europe)
- general assistance to projects (MODARABTEL) and countries (long-distance assistance)
- definition and first implementation of a regional teleproject in Latin America for Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Curaçao, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Peru, Spain, Suriname, Uruguay and Venezuela
- extension of the teleproject to other regions (Arab States and Asia).

b2. Other Headquarters activities

A "Model to Establish an HRM/HRD Strategy in a Telecommunication Organization" was developed as a guide to produce several project documents. It was used in a survey which aimed at investigating the real HRM/HRD situation in Latin American and Caribbean countries at the strategic level to identify common problems and possible remedial actions (The results of this survey were inputs to the American Regional Telecommunication Development Conference).

Three Regional Training Meetings were organized in Harare, La Paz and Madrid.

Assistance to the Regional Divisions was provided in such areas as project documents, manpower planning, studies, revision of final reports and field vacancy notices, recruitment and briefing/debriefing of experts, etc.

A new two-week HRM workshop was developed and seven others updated.

On-going improvement to the design of the International Sharing System (ISS) databases was provided.

c) Activities of Area Officers for Human Resources Development

Activities included:

- preparing and participating in regional training conferences and meetings
- organizing and conducting training workshops
- participating in regional telecommunication conferences and tripartite review meetings
- participating in sectoral reviews
- providing assistance to various projects and training centres, including evaluation of same
- setting up computer hardware/software
- providing assistance in manpower planning activities
- identifying training and training management needs
- preparing project documents.

5.1.2 Policies, Strategies and Programming Department (PSP)

5.1.2.1 Telecommunication Policies (TPOL)

a) Telecommunication Development Conferences

Article 14 of the Nice Constitution stipulates that "... the Telecommunications Development Bureau shall work through the medium of: [a)] world development conferences and regional development conferences; the draft agenda of the development conferences shall be drawn up by the Telecommunications Development Bureau for subsequent approval by the Administrative Council;".

- (i) The European Regional Telecommunication Development Conference (EU-RDC), Prague, 19-23 November 1991

A Task Force with representatives of Central and Eastern European countries, the European Bank for Reconstruction and Development and the Commission of European Communities was established by the ITU to assist in the preparation of the EU-RDC. The Task Force met twice (early September and late October 1991 in Geneva) to prepare proposals for consideration by the conference. Representatives of the Governments of Canada, Japan and the USA participated as observers during the second meeting.

The conference proper was attended by some 350 participants from 30 European countries, as well as from Argentina, Canada, China, Indonesia, Japan, Mexico, Morocco and the USA, together with regional and international organizations and financing institutions. Observers from the private sector attended also. The conference's final report and documents were published and disseminated to all concerned. Follow up to the Resolutions and the programme for 1992 was to be assured by means of a meeting to be convened in mid-February 1992 at Geneva and attended by the Central and Eastern European countries.

- (ii) American Regional Telecommunication Development Conference (AM-RDC), Acapulco, 31 March - 4 April 1992

The tentative agenda of the conference was approved by the 46th Session of the Administrative Council. As with the EU-RDC, a Task Force composed of representatives and organizations of the region was established to assist in actual conference preparation. The Task Force held its first meeting at Miami between 5 and 7 December 1991.

b) 1. Follow-up activities of regional telecommunication development conferences

The African Telecommunication Development Conference (ATDC), Harare, December 1990, adopted four Resolutions and six recommendations related to (a) policy, strategy and management; (b) improvement of networks and services; (c) human resources; and (d) investment and technical cooperation.

- In connection with (a), initial contacts were made with African Ministers of Telecommunications in order to convene the first meeting of the African Information and Telecommunication Policy Study Group (AITPSG) which will be charged, *inter alia*, with elaborating the "African Green Paper".

- As to (b), a guide enabling the establishment of plans for the development of maritime radiocommunications was also elaborated.

- For (c), assistance continued to be rendered to Administrations in the definition and application of an HRM/D policy through the applicable field officers.

- Finally, for (d), a manual on developing country sources of financing for the development of telecommunications was drawn up and distributed to Administrations. Furthermore, given the difficulties faced by the UNDP in matters of technical cooperation financing, efforts to secure funding, particularly for the BDT's 1991-1994 Africa programme, were maintained.

2. Seminars on Telecommunications Policy:

World-wide seminar on "implementing reforms in the Telecommunications Sector", Washington, D.C., 23-26 April 1991.

This Seminar was organized by the World Bank, the ITU (both BDT and CTD) and Commonwealth Telecommunications Organization (CTO) and executed by the Economic Development Institute (EDI) of the World Bank. Forty-three countries participated in this event; the ITU participated actively in presentations, organization and financing (special funds from the German Gesellschaft fuer Technische Zusammenarbeit - GTZ).

A second seminar on the same topic, for french speaking countries, will be held in Tunis from 18 to 21 May 1992.

c) Information system

The activities for the establishment of a Telecommunications Information Database, containing data of interest for development, started during the second half of 1991 on the basis of collaboration with an engineer/statistician of the Computer Department who was subsequently (January 1992) transferred to the BDT's TPOL Division. The first products are sets of telecommunication indicators (by region) having served as a basis for the telecommunication development conferences. The information includes name(s) of telecommunication authorities and operators, demographic and macroeconomic data, statistics on telephone, telex, data and mobile networks, and data on revenues receiver penetration.

Three booklets/diskettes are available to date: 1990 African Telecommunication Statistics (1980-1988); 1991 European Telecommunication Indicators (1981-1990); and 1992 Americas Telecommunication Indicators (1981-1990).

5.1.2.2 Special Studies and Backstopping (SSB)

In order to respond to Member countries' requests, the SSB specialists undertook 23 missions, complemented by 45 missions by external experts; all missions were short-term. Out of the 68 total, nine were organized under the LDC special assistance budget. The range of specialities covered during the missions included:

- Sound and TV broadcasting	23.5 %
- Network planning, database and traffic	22.1 %
- Radiocommunications and transmission	19.1 %
- Switching and signalling	13.2 %
- Administration and economics	11.7 %
- Transmission lines and external plant	7.3 %
- Computer techniques	3.1 %

Of the 68 missions also, six were associated with the organization of and lecturing at two PLANITU courses, three missions provided for organization of and lecturing at one maritime communications seminar, and one mission each was carried out for the organization of and lecturing at seminars on optical fibre transmission systems and on Signalling System No. 7.

The engineering support provided at headquarters entailed:

- the review of numerous documents, reports and technical specifications and the evaluation of final project reports
- the provision of constructive advice by correspondence on practical questions addressed to the ITU by developing country Member States
- engineering supervision and support to ITU project field experts, including to RASCOM
- participation in CCI meetings.

Although 30.9% of all missions carried out in the year were organized on a cost-sharing basis or with other funds, the allocation in budget line 7.130 did not enable rapid action on seven requests (Albania, Pakistan (2), Saudi Arabia, Seychelles, Sri Lanka and Swaziland), and follow up was postponed until early 1992.

5.1.2.3 Resource Mobilization (RMOB)

Consequent to implementation of the BDT structure, the RMOB function replaced that of the Special Voluntary Programme for Technical Cooperation (VP), albeit with a broader approach to fund raising. In addition, the fund-raising activities of the former Centre for Telecommunications Development (CTD) - the body which initiated ITU funding mechanisms for development cooperation with private sector participation - were to be incorporated into the RMOB Division.

Very few substantial voluntary contributions were received in the year owing to two main factors: the structural adjustment being undertaken within ITU's development sector and global circumstances.

a) On-going projects

- The continuation of the Agreement between the Canadian International Development Agency (CIDA) and the ITU for the funding of the services of the telecommunication adviser to the Southern African Transport and Communications Commission (SATCC) for another year.
- Two major projects financed by the Swiss Government - the Telecommunications Training Centre (TTC) in Zimbabwe and the Rural Telecommunications Network (RTN) in Rwanda - were practically completed, save for some adjustment work to be undertaken by the contractor/supplier in 1992 prior to final acceptance tests of the RTN.
- The continuation of the Swedish International Development Agency (SIDA)/ITU Agreement for funding advisory services to the Telecomunicações de Moçambique (TDM) up to January 1993.

b) Cash contributions

- Signature and implementation of the third Agreement between the Finnish International Development Agency (FINNIDA) and the ITU relating to the provision of refurbished telecommunication equipment to the Comoros, Mozambique, Nepal, Nicaragua, Tanzania, Vietnam and Zambia.
- A contribution by the Bureau of International Communications and Information Policy (CIP) of the US Department of State.
- A contribution by the Netherlands Ministry for Development Cooperation.

c) Contributions in kind

- Negotiations with Cable & Wireless about a voluntary fellowship programme for a total of 172 trainee/weeks.

- Announcement by the Swedish Administration of a five-week management course to be organized at Kalmar in 1992.
- Donation by Wandel & Goltermann of equipment to the Instituto Tecnológico de Electrónica y Comunicaciones de Colombia.

d) Resource mobilization activities

- Elaboration of a standard agreement relating to implementation of a voluntary contribution or donation of equipment.
- Elaboration of guidelines for resource mobilization data sheets and file preparation.
- Organization and follow up of resource mobilization and fund-raising missions related to the follow-up of telecommunication development conferences.

5.1.2.4 Telecommunication Strategies and Programming (TSP)

In view of the recent establishment of the PSP Department, the only sector within the TSP Division set up towards mid-1991 was the Coordination with Telecommunication Administrations (CTEL). The following activities were undertaken during the year:

- (a) Follow-up of the African Telecommunication Development Conference (ATDC), Harare, 1990
 - Organization of a strategic in-house meeting
 - distribution of the final report of the conference
 - requesting that measures be taken for implementation of the conference Resolutions
 - preparation of a tentative follow-up programme and budget.
- (b) Initiating the programming of BDT development activities.
- (c) Special programme for the Least Developed Countries (LDCs):
 - organization of missions (two experts for ten LDCs) for the assessment of real needs
 - evaluation of experts' findings
 - on-going activities for the preparation of an appropriate programme of action
 - *ad hoc* short-term assistance in specific fields
 - provision of portable computers (PCs) to improve management and to provide access to ITU information systems (BDT, TIES, library, etc.).

With regard to the provision of PCs, it should be noted that most LDC Administrations continue to face difficulties in implementing computer communication facilities and that the quality of services provided to them by the Union could be enhanced. This would include access to ITU databases, such as the International Frequency List (IFL) or those of the CCIs. The BDT is currently implementing an Information System covering a wide range of statistical data and indicators, and is carrying out CBT and Distance Learning (DL) activities.

With this in mind, each LDC was provided with one PC-type computer and related accessories (modems, CD-ROM readers, software packages) to improve its data retrieval and processing capabilities, since these too are development factors. The financial implication (budget line 7.190) is of the order of 500,000 Swiss francs.

5.1.3 Programme Support. Organization and Methods Department (SUP)

5.1.3.1 Organization & Methods Division (O&M)

Since commencement of its activities in July 1991, the O&M Division organized and coordinated the following:

a) Support of regionalization

Common working methods, procedures and tools were introduced and/or updated in each of the Field Offices. To facilitate communications between HQ and the Field Offices, each of the latter received the minimal standard hardware and software, such that the average ratio in the field is one computer/person. Successful Electronic Mail experiments were undertaken particularly with the Area office installed in Tegucigalpa (Honduras).

b) Procedures

- Complete revision of the project management procedures
- analysis of recurrent statistical reporting mechanisms
- revision of field operations task distribution.

c) Computerization

The computerization team of the BDT concentrated on three main objectives: - creation of a BDT Management Information System (MIS); - implementation of a good communication system between all BDT staff including with Field Offices: - equipping all BDT offices with standard hard- and software. Within this context, it:

- coordinated the BDT headquarters hard- and software installations
- undertook a BDT wide systems analysis
- studied the software available on the market
- organized training in budget control/project management software
- coordinated the installation of an experimental budget management software for eight users
- coordinated the connection of ALL BDT Headquarters staff to the ITU electronic mail system
- attempted to respond to Area Representatives' requests for data access from the respective national Administrations
- developed a BDT template for ITU expert job descriptions
- analyzed the best manner in which to develop a centralized, multiuser BDT address system.

5.1.3.2 Administrative Support

a) Budget Control

This service traditionally deals with budget control, costing, statistics, management information and various other aspects of financial control and management of technical assistance funded by the UNDP, Governments and third party sources, and as such participated actively in the computerization of related administrative tasks of the BDT.

In 1991 it thus dealt with 173 projects for a total expenditure of \$32,036,574.

In addition to the above, the service took over financial management and budgetary control of the technical assistance programmes of the ITU (Chapter 7) for a total budget of 4,000,000 Swiss francs.

Following the recommendations of the HLC concerning the decentralization of budgeting and budget control, the service now deals with these aspects of the Bureau's finances. It also, in liaison with the three Departments of the BDT, coordinated the preparation of expenditure projections and budget for 1992, and proposed a consolidated budget of Chapters 7 and 21.

b) Expert Recruitment

Expert Recruitment processed a total of 751 posts for which only 783 candidatures had been received. Clearly, the small percentage of qualified applicants coupled with the limited responses to vacancy announcements make it increasingly difficult to follow the UNDP norm of two or three candidates per post, all the more so in cases of rare, technically sophisticated or urgent missions. And hence our proposal that for missions of less than three months, requesting governments accept to consider a single candidature. To enhance efficiency and reduce delays, the BDT will, whenever feasible, continue submitting candidatures by fax. Naturally, an early decision by the requesting government as to the suitability of a candidate would also expedite recruitment procedures, particularly since, as often occurs, lengthy delays result in a given candidate's non-availability.

EXPERTS RECRUITED IN 1991

Region/Activity	1991	% change from 1990
Africa	142	-27
Americas	73	-17
Asia/Pacific	128	+22
Europe & Middle East	56	+22
CTD (*)	20	+18
TOTAL	419	-07

(*): Centre for Telecommunications Development

c) Equipment Procurement

	1991	1990	Percentage
Expenditure (US\$)	6,465,677	8,002,020	-19
Purchase orders	678	806	-16
Contracts (US\$)	1,374,540	1,772,382	-24
Contracts (projects)	8	16	-50

Aside from its regular activities, EQT undertook many time-consuming transactions for low-priced components. It also managed the administrative and financial implementation of 16 wholly or partially subcontracted projects, and coordinated the preparation of eight new subcontracts. It updated the manual entitled "Basic Rules for the Procurement of Equipment for ITU Technical Cooperation and Assistance Projects, and Manual on Administrative Procedures".

d) Fellowships

A 24% increase in fellowships over the previous year translated into 1593 awards; group training increased by 32% and individual fellowships by 12 per cent. Thirty-five per cent of the fellows were from Asia and the Pacific, 32% from Africa, 18% from Europe and the Middle East and 15% from the Americas. The major host countries were China (118), France (110), Kenya (104), Singapore (88), Thailand (84) and the USA (70). All figures combine individual and group programmes. The trend towards an increasing number of seminars as well as requests for fellowships at extremely short notice has added a considerable burden to the service's workload.

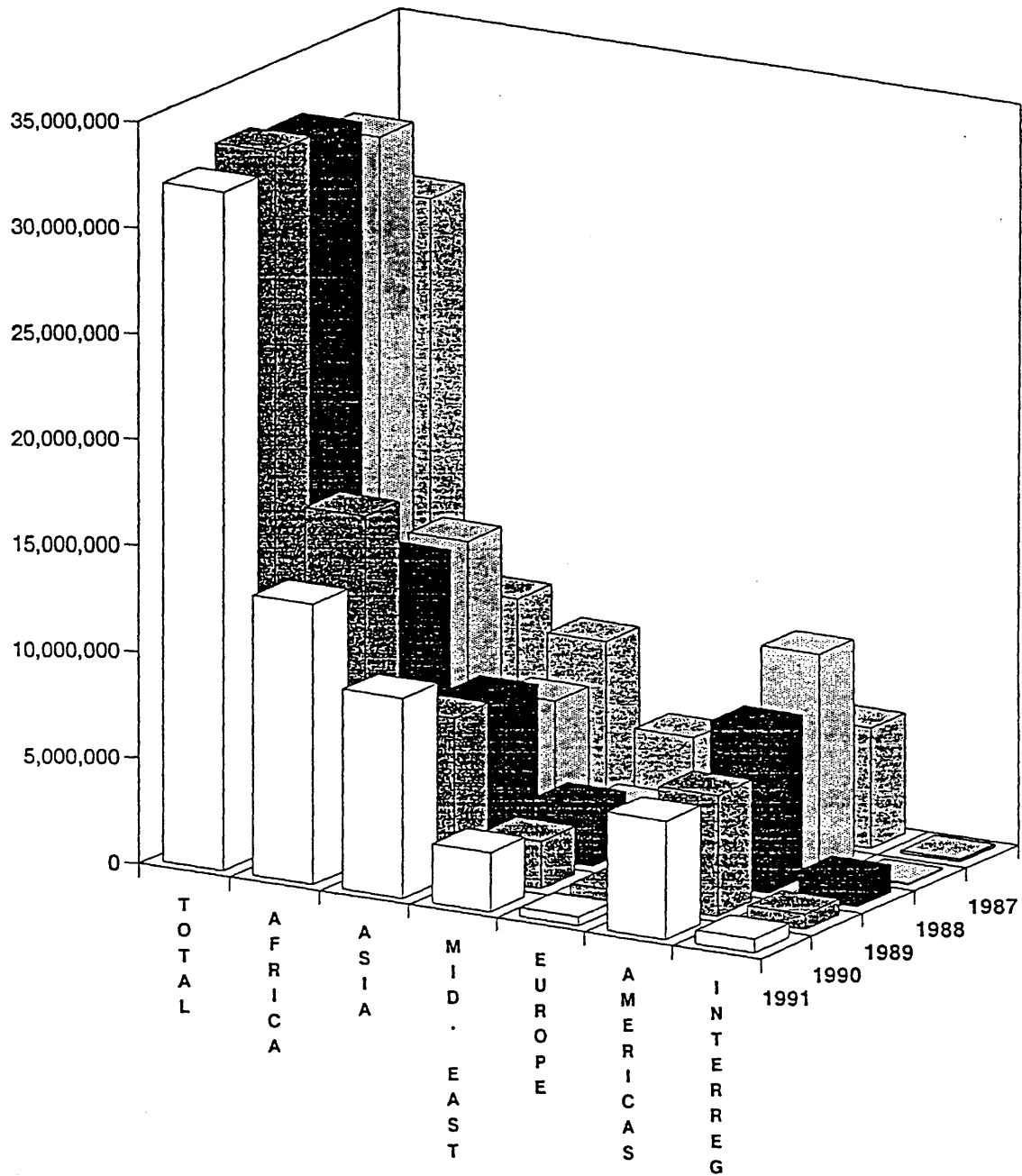
5.1.4 Evaluation

During 1991, the Evaluation Officer analyzed ITU field activities in Africa, Asia, Arab States, Europe and Latin America, and recommended changes and improvements in project management and financial administration. Field projects were evaluated to determine whether their objectives conformed to the original goals and purposes, or whether adjustments were necessary in the interim to meet changing circumstances or environment. The analyses undertaken did not limit themselves to the telecommunication perspective, but sought to include overall economic and social contexts. In the course of his missions the Evaluation Officer routinely meets with officials of ministries, administrations, UNDP, the World Bank, regional banks and other multilateral and bilateral cooperation agencies.

- R&D in Applied Telecommunications Technology (Brazil)
- EUROTELDEV (Albania, Bulgaria, the Czech and Slovak Federal Republic, Poland, Romania and Yugoslavia)
- Renforcement des capacités en formation professionnelle et applications de nouvelles techniques (Morocco)
- Centre for Digital Techniques in Broadcasting (India)
- Telecommunications Test & Development Centre (Kenya).

The Evaluation Officer participated in the work of the United Nations Inter-Agency Working Group (IAWG) on Evaluation, and continued the exchange of information between himself and his counterparts at UNDP New York and with those of the Geneva-based specialized agencies.

PROJECT EXPENDITURES BY REGION, 1987 - 1991



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5.2 Centre for Telecommunications Development (CTD)

5.2.1 Introduction

The CTD was fully operational during the first half of 1991. After the 1991 Administrative Council decided to integrate the Centre into the BDT, no new activities commenced. The Centre thus concentrated on completing as many on-going activities as possible. Towards the end of 1991 the projects to be handed over to the BDT were known and collaboration between the two entities took place to assure the orderly transfer of the Centre's assets and liabilities.

The CTD terminated its activities on 31 December 1991.

5.2.2 Contributions and pledges

The funding situation continued to be difficult during 1991 and deteriorated further when the HLC recommended the merger of the CTD with the BDT (details are available upon request).

5.2.3 Technical assistance

Tables 1 and 2 provide the 1991 profit and loss account of income and expenditure.

5.2.3.1 Seminars as substitutes for short missions

So as to fulfil as many requests as possible emanating from developing countries, the CTD proposed to several industrialized countries the holding of special seminars for which the host country would provide lecturers and accommodation whilst the CTD provided travel expenses. Two countries responded favourably: Germany and Japan.

Six such "special" seminars were run: frequency management (Kenya); optical fibre technology (Singapore); rural telecommunications (Germany); accounting, auditing and economic/financial aspects (Germany); new services (Japan); and cellular radio (Japan).

With these six seminars (and a guest arrangement for participation in the joint IFRB/BDT seminar on frequency management held in Athens), the CTD was able to respond to 40 requests.

5.2.3.2 Short missions

Short missions were conducted to Bangladesh, Costa Rica, the Dominican Republic, Gabon, the Maldives, Morocco, Myanmar, Nepal, the DPR of Korea, Panama, the Sudan, Suriname, Tonga, Trinidad and Tobago, Tunisia, Tanzania and the Ukraine.

5.2.3.3 Projects completed

Master Plans for Myanmar and for the former South Yemen.

5.2.3.4 Projects extending into 1992

Projects for ASETA (the Association of State Telecommunication Undertakings of the Andean Sub-regional Agreement), Libya, the Maldives and Tunisia which could not be completed by end 1991 were transferred (with the associated resources) to the BDT.

5.2.4 Other activities

5.2.4.1 Fund-raising/Affiliate System

It was thanks to the many donors from developing and industrialized countries alike that the CTD was able to function, and the CTD wishes to take this opportunity to reiterate its appreciation to all those who supported it during its existence.

As to the actual integration of the CTD into the BDT, the Secretary-General informed contributors in writing of the progress made while also encouraging them to continue lending their support to the Union's technical cooperation activities through the Special Voluntary Programme (Nice Resolution 24).

The High Level Committee drafting group for the establishment of draft texts for the Additional Plenipotentiary Conference and related matters discussed the modalities for participation of entities, organizations and other administrations in the Union's activities (viz. section 8, Article 74 of the new draft Convention). It concluded that a common contributory system for each of the three sectors should be adopted and that for the development sector some flexibility should be introduced to allow for 1/16th unit contributions. The provisions of CV376 will thus enlarge the scope of contributors' participation in the whole range of BDT activities, which naturally comprise the Affiliate System also.

5.2.4.2 Handbook on Financial Sources for Telecommunications Development

The final version of the handbook was printed and distributed during the course of the year.

5.2.4.3 Seminars

A world-wide seminar on Implementing Reforms in the Telecommunication Sector was held in Washington, D.C., in April 1991. Organized in conjunction with the World Bank, the BDT and the Commonwealth Telecommunications Organization (CTO), it was attended by 43 countries.

5.2.4.4 Study on the Restructuring of Telecommunication Entities

The study was made in the first semester of 1991 and transmitted to members of the CTD Advisory Board and to Members of the Administrative Council in June 1991.

5.2.4.5 Collaboration with other UN agencies

The CTD participated in UNIDO's Workshop on Industrial Development in the Least Developed Countries which was held in Vienna in August 1991.

5.2.4.6 CTD InfoBase

The CTD InfoBase contains general telecommunication information and statistical data on 192 countries and territories. It is designed to meet both external and internal demands and will also be transferred to the BDT database.

5.2.5 Integration of the CTD in the BDT

Administrative Council Resolution 1014 instructed the Secretary-General to report on its implementation at the current session. Councillors are thus invited to note that:

- in pursuance of that Resolution, a channel of continuous cooperation was established between the CTD and the BDT to ensure that the merger would be fully realized by the end of 1991 and that it would be done in an orderly manner. Those objectives were achieved. Only three projects which could not be completed by the CTD were taken over by the BDT, as were the remaining CTD assets which were transferred and reallocated to the ex-Special Voluntary Programme for Technical Cooperation, now Resource Mobilization;
- in mid-1991 the CTD comprised 11 staff members; of the ten who applied for other posts at ITU, eight were selected. Two staff members whose applications were unsuccessful left the ITU on 31 December 1991 as did the remaining staff member;
- the staff of the BDT Resource Mobilization Unit was apprised of the CTD approach to appeals for voluntary contributions so that the experience of both entities could be well merged to optimize the BDT activities;
- all contributors were informed by the Secretary-General of the Administrative Council's appreciation.

TABLEAU 1

CENTRE FOR TELECOMMUNICATIONS DEVELOPMENT
PROFIT AND LOSS ACCOUNT FOR 1991

[illegible]

TABLEAU 2
PROFIT AND LOSS ACCOUNT FOR 1991

EXPENDITURE	Budget 1991	Expenditure 1991
A. Headquarters expenditure	- Swiss francs -	
Art. 1 Advisory Board meetings	70,000	76,408.10
Art. 2 Staff	1,308,000	1,152,755.45
Art. 3 Social security	265,000	186,109.20
Art. 5 Missions	30,000	19,120.80
Art. 6 Office and miscellaneous expenses	61,000	37,115.63
Art. 7 Resource mobilization activities	66,000	21,121.45
	1,800,000	1,492,630.63
B. Field assistance programme		
Seminars and specific studies	79,000	164,535.80
	79,000	164,535.80
Specific missions		
- Dem. People's Rep. of Korea I	15,000	10,476.30
- Tanzania	30,000	26,329.25
- Tunisia I	10,000	5,372.70
- Costa Rica	30,000	24,242.80
- Morocco I	5,000	4,874.90
- Libya I	15,000	13,774.45
- Libya II	15,000	12,986.75
- Tunisia II	35,000	45,850.75
- Dem. People's Rep. of Korea II	20,000	35,680.05
- Gabon	35,000	33,054.00
- Ukraine	40,000	35,205.80
- Trinidad and Tobago	15,000	22,440.75
- Dominican Rep. I	30,000	48,607.70
- Suriname	15,000	20,129.00
- Iran (Islamic Rep. of)	10,000	10,074.45
- Morocco II	6,000	10,407.50
- Ethiopia	10,000	14,840.75
- Dominican Rep. II	6,000	12,426.00
- Tonga	10,000	13,664.40
- Singapore	0	10,464.40
- Libya III	15,000	15,160.90
- Sudan	10,000	10,000.00
- Other	498,000	0.00
	875,000	436,063.60
Projects		
- Yemen 88-011	97,000	97,000.00
- Myanmar 87-001	140,000	133,144.90
- Cuba 88-014	105,000	104,566.75
- Yemen 88-013	250,000	254,674.95
- Sri Lanka 89-017	50,000	59,356.65
- OBNINSK I	15,000	10,004.00
- ULCRA I	15,000	15,000.00
- Libya 88-015	376,000	0.00
- Tunisia 89-018	25,000	0.00
- ASETA	255,000	0.00
	1,328,000	673,747.25
	4,082,000.00	2,766,977.28

6. ADMINISTRATION OF THE UNION

6.1 Staff matters

6.1.1 The manning table in the 1991 budget comprised 820 posts, 736 of them permanent. The following changes occurred during the year among staff with permanent or fixed-term contracts : 23 retirements, 8 resignations, 1 early retirement on disability pension and 1 termination. One probationary contract was not renewed. As on 31 December 1991, 28 officials were working part-time.

6.1.2 The following tables (Tables 1 to 4) show the staff situation as of 31 December 1991. Where applicable the figures for the preceding year are shown in parentheses for comparison purposes.

6.1.3 In the case of short-term contracts (Table 2) it should be explained that the size of the Union staff is such that it must be supplemented or reinforced when the volume of work increases temporarily, when regular staff is not available or when jobs have to be done for which the corresponding posts do not exist. 1) Conferences and meetings obviously account for the major proportion of temporary staff, whether they are language staff, staff to carry out all the operations connected with document production and distribution, simultaneous interpretation equipment operators, and so on. 2) A temporary increase in urgent work - for example, a service document which has to be published by a certain date must be absorbed by short-term staff. 3) Sometimes it is more economical to supplement frequently, but on a short-term basis, the staff of a section working in shifts rather than to increase the permanent staff or to incur the high cost of overtime. 4) While the duties of staff who are temporarily absent (on prolonged sick or maternity leave, for example) are usually shared by colleagues, temporary assistance is sometimes essential. 5) When a permanent post falls vacant, it may be necessary to recruit someone for a short period until the post is filled.

6.1.4 The principle of geographical distribution applies to elected officials and staff in the following categories : senior counsellors, professional category (excluding language staff), and technical posts in grades G.7, G.6 and G.5. (the principle does not apply to other posts in the General Service category.) The geographical distribution at the end of 1991 is shown in Table 4 and concerns staff employed by ITU except for language staff, technical cooperation experts and short-term staff.

TABLE 1

**Distribution of staff between organs of the Union
(excluding staff on short-term contracts and project personnel)**

Organ	Elected Officials	Number of contracts		Total
		Permanent	Fixed-term	
General Secretariat	2	401 (408)	50 (51)	453 (461)
IFRB	5	104 (99)	7 (13)	116 (117)
CCITT	1	35 (38)	3 (1)	39 (40)
CCIR	1	22 (20)	3	26 (24)
BDT*	-	31 (33)	70 (60)	101 (93)
Total	9	593 (598)	133 (128)	735

* The Telecommunications Development Bureau (BDT), new specialized organ of the Union dealing with technical cooperation, was created as from 1st January 1990. A phased devolution of staff from the Headquarters regional divisions to the various Regional and/or Area Offices is in progress. (As of 31.12.1991 the 101 contracts correspond to 80 at headquarters and 21 in the field.)

TABLE 2

Staff on short-term contracts

	Number of contracts		Total number of working days	
Interpreters	496	(493)	3,559	(3,793.5)
Engineers, engineer-editors	4	(7)	480	(597)
Programmer-analysts, Programmers	7	(2)	959	(311)
Translator/revisers, precis-writers	114	(83)	5,977	(4,425)
Administrative officers/associate administrative officers, research assistants, documentalists, editors ..	14	(9)	1,086	(845)
Text composition : proof-readers, text mounters, page-setting operators, data capture operators and encoders	26	(15)	2,295	(2,168)
Draughtsmen/designers, photographers ...	2	(2)	113	(299)
Secretaries, office assistants, book-keepers, assistants, editorial assistants, proof-readers, heads of teams, checkers	105	(96)	11,055	(10,070.5)
Shorthand-typists, typists, clerks	188	(109)	18,472.5	(11,453)
Telephone operators, telex operators ...	38	(16)	956	(437.5)
Computer assistants	11	(6)	1,543.25	(760)
Offset conductors, duplicating machine/ assembly operators, trimmers	37	(6)	3,437	(330)
Simultaneous interpretation equipment operators	41	(33)	286	(299)
Dispatching staff, other documents staff, security guards, storemen, handymen	93	(98)	5,127	(5,617.5)
TOTAL	1176	(975)	55,345.75	(41,415)

(The figures for 1990 are shown in parenthese in columns 2 and 4)

TABLE 3

Distribution of staff according to grade
(excluding staff on short-term contracts and project personnel)

Grade	General Secretariat		IFRB		CCITT		CCIR		BDT		Total	
Elected Officials	2		5		1		1		-		9	
	Perm.	FT	Perm.	FT	Perm.	FT	Perm.	FT	Perm.	FT	Perm.	FT
D.1	8	1	3	-	2	-	3	-	-	3	16	4
P.5	19	5	8	-	5	-	4	2	2	35	38	42
P.4	33	5	28	4	3	1	1	-	4	11	69	21
P.3	40	5	8	-	2	-	1	-	2	-	53	5
P.2	12	-	6	1	2	-	-	-	2	-	22	1
P.1	-	-	-	-	-	-	-	-	-	-	-	-
G.7	32	3	8	-	2	-	3	-	10	3	55	6
G.6	65	9	20	-	17	1	5	1	7	5	114	16
G.5	79	8	12	2	-	1	3	-	4	11	98	22
G.4	49	7	10	-	2	-	2	-	-	2	63	9
G.3	50	7	1	-	-	-	-	-	-	-	51	7
G.2	10	-	-	-	-	-	-	-	-	-	10	-
G.1	4	-	-	-	-	-	-	-	-	-	4	-
	401	50	104	7	35	3	22	3	31	70	593	133
TOTAL	453		116		39		26		101		735	

(Perm. = Permanent; FT = Fixed-Term)

Note : The above table shows the grades of staff members, those receiving a special post allowance granted upon a recommendation by the Appointment and Promotion Board being shown in the grade for which they receive the allowance.

TABLE 4
Geographical distribution of staff on 31 December 1991
(excluding project personnel)

Country	Elected Officials	D.1	P.5	P.4	P.3	P.2	P.1	G.7	G.6	G.5	Total
<u>Region A - America</u> (32 countries)											
Argentina					1						1
Brazil		1	1	4	1				-(1)		7 (8)
Canada	1		3 (4)	4 (2)	2						10 (9)
Chile						1					1
Colombia			1 (-)	1		1					3 (2)
Costa Rica			2								2
Ecuador			1 (-)								1 (-)
United States	1	1	4	8 (7)	3						17 (16)
Haiti			-(1)								-(1)
Jamaica			1 (-)		-(1)						1
Mexico			1								1
Uruguay			2								2
<u>Region B - Western Europe</u> (25 countries)											
Germany (Fed. Rep. of)	1	2	4 (3)	3 (4)	2						12
Austria		1 (-)		1		1					3 (2)
Belgium			1	2							3
Cyprus		1									1
Spain			1	4					-(1)		5 (6)
Finland	1		1	1							3
France		3	4 (5)	5	9 (6)	4 (6)					25
Greece			1 (-)	-(1)							1
Ireland					1 (-)	-(1)					1
Italy			4	2 (1)	1						7 (6)
Norway			1		1 (-)						2 (1)
Netherlands		1	-(1)								1 (2)
Portugal				1	1						2
United Kingdom	1		2	2 (3)	2	2 (4)					9 (12)
Sweden			3	2	3						8
Switzerland			3	4 (6)	6 (7)	7			1		21 (24)
Turkey			1	1							2
<u>Region C - Eastern Europe and Northern Asia</u> (11 countries)											
Bulgaria			1	2							3
Hungary		1		1		1					3
Poland		1		1		1 (-)					3 (2)
Ukraine				1							1
Russia	1	1	2	5							9
Yugoslavia			2								2

Country	Elected Officials	D.1	P.5	P.4	P.3	P.2	P.1	G.7	G.6	G.5	Total
Region D- Africa (51 countries)											
Algeria	1		1 (-)			1					3 (2)
Benin				1							1
Burkina Faso			2 (1)								2 (1)
Cameroon	1										1
Congo			1								1
Côte d'Ivoire			1								1
Egypt			1								1
Ethiopia		1									1
Ghana			1								1
Guinea			1 (-)	1							2 (1)
Kenya				1							1
Liberia						- (1)					- (1)
Mali				1							1
Morocco		1	1		1	1					4
Mauritius					2 (1)	- (1)					2
Uganda				1							1
Senegal				- (1)							- (1)
Sierra Leone				1							1
Sudan			1 (-)	- (1)							1
Tanzania					1						1
Tunisia		1	1 (-)	- (1)							2
Zimbabwe				1							1
Region E - Asia & Australasia (45 countries)											
Afghanistan		1									1
Australia			3	1 (-)	2 (3)						6
China		1		1	1	1					4
Korea (Rep. of)				2 (1)	1						3 (2)
India		1 (2)	1	3	2	1					8 (9)
Indonesia				1							1
Iran			2 (1)	1 (2)							3
Irak				1							1
Japan	1		2 (1)	1	*2						6 (5)
Jordan			1 (-)								1 (-)
Pakistan			2 (-)		1						3
Singapore			1								1
Sri Lanka			1 (-)	- (1)							1
Syria			2 (1)								2 (1)
Viet Nam					1 (-)	- (1)					1
TOTAL - 72 countries	9	19	73 (62)	73 (77)	47 (43)	22 (29)			1 (3)		244 (242)

* 1 post paid on funds-in-trust.

(Wherever changes have taken place, the figure for 1990 appears in parentheses).

6.2 Financial questions

6.2.1 In accordance with Article 56, No. 305 of the International Telecommunication Convention (Nairobi, 1982) and Article 52 of the Union's Financial Regulations, the Secretary-General prepares each year for submission to the Administrative Council a financial operating report containing all requisite information on financial administration and the recapitulatory accounts for the financial year. After examination and approval by the Administrative Council, this report is sent to the Members of the Union. Nevertheless, in order to give an idea of both the credits allocated to the various Union activities and the accounts for the past financial year, the budget and accounts for 1991 are presented in Annex 2 to this report.

6.2.2 In accordance with Article 15 of the Nairobi Convention and Articles 2 and 6 of the Union's Financial Regulations, the budget of the Union comprises the costs of the Administrative Council and the permanent organs of the Union, Plenipotentiary Conferences and world administrative conferences, and technical cooperation and assistance provided to the developing countries.

6.2.3 The budget of the Union is supplemented by two further budgets, i.e. the Technical Cooperation Special Accounts budget covering the administrative and operational costs of technical cooperation projects, and the Supplementary Publications Budget.

6.2.4 Decision No. 1, Nice 1989, lays down the limits within which the Administrative Council is authorized to draw up the annual budgets of the Union. The limits for 1991 were the following:

85,700,000,-- Swiss francs	for the expenses of the Administrative Council, the General Secretariat, the IFRB and the CCIs;
16,800,000,-- Swiss francs	for the expenses of the Telecommunications Development Bureau;
3,000,000,-- Swiss francs	in respect of additional working languages;
1,150,000,-- Swiss francs	for WARC HFBC-93 preparatory work;
100,000,-- Swiss francs	for WARC-92 preparatory work;
4,000,000,-- Swiss francs	for CCIR meetings;
7,300,000,-- Swiss francs	for CCITT meetings.

6.2.5 Decision No. 1 also provides that the Administrative Council may adjust the limits on expenditure to take account of changes in costs under the following items:

- salary scales, pension contributions and allowances, including post adjustments, established by the United Nations for application to its staff employed in Geneva;
- the exchange rate between the Swiss franc and the US dollar insofar as this affects the staff costs of those on United Nations scales;
- the purchasing power of the Swiss franc in relation to non-staff items of expenditure.

6.2.6 In addition, the Administrative Council may authorize expenditure in excess of the aforesaid limits - with the exception of the limits on recurrent expenses - if the excess can be compensated by sums within the expenditure limits accrued from previous years or charged to the following year.

6.2.7 Moreover, if the above-mentioned credits which may be used by the Administrative Council are insufficient to finance unforeseen but urgent activities, the Council may exceed the credits of the ceiling laid down by the Plenipotentiary Conference by less than 1%.

6.2.8 Having regard to Decision No. 1, Nice 1989, the Administrative Council at its 45th session (1990), by Resolution No. 1000, approved budgets for 1991 amounting to:

87,705,000,-- Swiss francs	for the Administrative Council, General Secretariat, IFRB and CCIs;
17,185,000,-- Swiss francs	for technical cooperation and assistance;
3,237,000,-- Swiss francs	for the additional working languages;
12,667,000,-- Swiss francs	for world administrative conferences, CCI meetings and seminars;
3,000,000,-- Swiss francs	for payment into the ITU Reserve Account;
6,285,000,-- Swiss francs	for technical cooperation administrative and execution costs;
9,346,000,-- Swiss francs	for the supplementary publications budget.

6.2.9 In Resolution No. 1000, the Administrative Council also fixed the amount of the contributory unit for Members at 291,800 Swiss francs on the basis of the class of contribution chosen by Members under No. 139 of the Constitution and 368 of the Convention, (Nice 1989), i.e. on the basis of a total of 377 9/16 units. The Resolution further fixed at 58,360 Swiss francs the annual value for 1991 of the contributory unit for recognized private operating agencies, scientific or industrial organizations and non-exempt international organizations for defrayal of the cost of CCIR and CCITT meetings, in accordance with Nos. 378 and 382 of the Nice Convention.

6.2.10 In accordance with Resolution No. 647, the Secretary-General was obliged to alter the budgets approved by the Administrative Council as follows:

increase of 9,021,800,-- Swiss francs	for the ordinary budget;
increase of 655,100,-- Swiss francs	for the technical cooperation special accounts budget;
increase of 109,500,-- Swiss francs	for the overheads in the supplementary publications budget.

6.2.11 The budgets of the Union for 1991 finally amounted to:

134,297,800.-- Swiss francs for the ordinary budget;

6,940,100.-- Swiss francs for the technical cooperation administrative special accounts budget;

10,126,500.-- Swiss francs for the supplementary publications budget.

Classification of the Members of the Union for
the apportionment of expenditure in 1991

6.2.12 Following the unification of Germany, the Union had 164 Members contributing to defraying the expenses of the Union on the basis of 375 11/16 units at the end of 1990.

6.2.13 Following the accession of Lithuania and Latvia, the ITU had at the end of 1991 166 Members contributing to the Union Expenses on the basis of 376 15/16 units.

Cash resources

6.2.14 In 1991, as in the previous year, it was not necessary to resort to advances from the Government of the Swiss Confederation; available resources being sufficient to meet current expenditure.

6.2.15 It should also be noted that during most of the year surplus amounts were placed in short term investments, yielding interest of 3,965,201.39 Swiss francs.

Arrears

6.2.16 The total amounts due for more than one year on 31 December 1989, 1990 and 1991 were the following:

31 December 1989	16,150,615.55 Swiss francs
31 December 1990	19,887,076.00 Swiss francs
31 December 1991	20,927,287.65 Swiss francs

Sums owed for more than one year, therefore have been increasing since 31 December 1989.

6.2.17 The amounts in the special arrears account established under Resolution No. 10 of the Malaga-Torremolinos Plenipotentiary Conference (1973) and not yet settled on 31 December 1991 total 2,768,972.62 Swiss francs. Since the 1973 Plenipotentiary Conference, the special arrears account, which initially stood at 6,560,016.18 Swiss francs, has thus been reduced as a result of the payment by seven Members of 3,791,043.56 Swiss francs.

At 31 December 1991, of the nine countries which had outstanding amounts transferred to the special arrears account, only the following countries still owe certain sums:

Bolivia

Dominican Republic

6.2.18 The Plenipotentiary Conference (Nairobi, 1982) also decided to transfer to a special arrears account certain outstanding sums amounting to 1,463,281.65 Swiss francs due for contributions from four Member Countries of the Union.

By the end of the 1991 financial year, an outstanding balance of 1,152,711.50 Swiss francs was owed by the following countries:

Guatemala (Republic of)

Mauritania

Chad (Republic of)

6.2.19 The Plenipotentiary Conference (Nice, 1989) also transferred to a special arrears account certain outstanding sums amounting to 2,408,468.85 Swiss francs representing sums due by four Member countries.

By the end of the 1991 financial year, no payment had been received in this respect.

6.2.20 By its Resolution No. 1007, the Administrative Council (1990) decided to transfer certain outstanding sums from Argentine Republic, amounting to 2,319,063.85 Swiss francs, to a special arrears account.

6.2.21 It is recalled that the transfer of amounts due to the special arrears account does not release the countries concerned from the obligation to settle their arrears. However, the amounts in question are not taken into account for the purposes of No. 117 of the Convention, Nairobi 82, relating to Members' right to vote.

6.2.22 Outstanding arrears, including the amounts owing in special arrears accounts, totalled 29,576,504.47 Swiss francs at 31 December 1991, i.e. 22% of the ordinary budget for 1991.

6.2.23 In this connection it should be noted that the Special Reserve for debtors' accounts which stood at 9,106,918.05 Swiss francs on 31 December 1991 is by far insufficient and should be increased in round figures by 2,200,000 Swiss francs to cover special arrears accounts and arrears due for more than 10 years in view of possible non-payment.

* * * * *

ANNEX 1

**POSITION OF MEMBERS IN RELATION TO THE ACTS OF THE UNION
ON 31 DECEMBER 1991**

Table I. *Final Acts of Nairobi (1982), Final Acts of Nice (1989) and Administrative Regulations:*

- International Telecommunication Convention, Nairobi, 1982;
- Optional Additional Protocol to the International Telecommunication Convention, Nairobi, 1982, on the Compulsory Settlement of Disputes;
- Constitution and Convention of the International Telecommunication Union (Nice, 1989);
- Optional Protocol on the Compulsory Settlement of Disputes Relating to the Constitution, to the Convention and to the Administrative Regulations (Nice, 1989);
- International Telecommunication Regulations (Melbourne, 1988);
- Radio Regulations (Geneva, 1979);
- Partial revision of the Radio Regulations (WARC for the Mobile Services, Geneva, 1983) (MOB-83);
- Partial revision of the Radio Regulations (WARC on the Use of the Geostationary-Satellite Orbit and the Planning of the Space Services Utilizing It, Geneva, 1985) (ORB-85);
- Partial revision of the Radio Regulations (WARC for the Planning of the HF Bands Allocated to the Broadcasting Service, Geneva, 1987) (HFBC-87);
- Partial revision of the Radio Regulations (WARC for the Mobile Services, Geneva, 1987) (MOB-87);
- Partial revision of the Radio Regulations (WARC on the Use of the Geostationary-Satellite Orbit and the Planning of the Space Services Utilizing It, Geneva, 1988) (ORB-88);

Table II. *Final Acts of the World Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service in Frequency Bands 11.7 - 12.2 GHz (in Regions 2 and 3) and 11.7 - 12.5 GHz (in Region 1) (Geneva, 1977).*

Table III. *Regional Agreement concerning the use by the broadcasting service of frequencies in the medium frequency bands in Regions 1 and 3 and in the low frequency bands in Region 1 (Geneva, 1975).*

Table IV. *Regional Agreement concerning the Use of the Band 87.5 - 108 MHz for FM Sound Broadcasting (Region 1 and part of Region 3) (Geneva, 1984).*

Table V. *Regional Agreement concerning the Maritime Mobile and the Aeronautical Radionavigation Services in the MF Band (Region 1) (Geneva, 1985).*

Table VI. *American Regional Agreements:*

- Inter-American Radio Agreement (FIAR) (Washington, 1949);
- North-American Regional Broadcasting Agreement (NARBA) (Washington, 1950);
- Regional Agreement relating to MF Broadcasting Service in Region 2 (Rio de Janeiro, 1981);
- Regional Agreement concerning the Use of the Band 1605 - 1705 kHz in Region 2 (Rio de Janeiro, 1988).

Table VII. *European Regional Convention, Arrangement, Agreements and Protocol:*

- European Regional Convention for the Maritime Mobile Radio Service (Copenhagen, 1948);
- Regional Arrangement concerning Maritime Radiobeacons in the European Area of Region 1 (Paris, 1951);
- Regional Agreement for the Use of Frequencies in the Bands 68 - 73 MHz and 76 - 87.5 MHz by the Broadcasting Service on the one hand and by the Fixed and Mobile Services on the other (Geneva, 1960);
- Regional Agreement for the European Broadcasting Area (Stockholm, 1961);
- Protocol amending the Stockholm Agreement (Geneva, 1985);
- Regional Agreement for the Planning of Maritime Radionavigation Service (Radiobeacons) in the European Maritime Area (Geneva, 1985).

Table VIII. *African Regional Agreements and Protocols:*

- Regional Agreement for the African Broadcasting Area concerning the use of frequencies by the broadcasting service in the very high frequency and ultra high frequency bands (Geneva, 1963);
- Protocol amending this agreement (Geneva, 1985);
- Protocol abrogating those parts of this agreement, which are still in force (Geneva, 1989);
- Regional Agreement relating to the Planning of VHF/UHF Television Broadcasting in the African Broadcasting Area and Neighbouring Countries (Geneva, 1989).

IX. *Special Agreements.*

PAGE LAISSEE EN BLANC INTENTIONNELLEMENT

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Table I. Final Acts of Nairobi (1982), Final Acts of Nice (1989) and Administrative Regulations

POSITION ON 31 DECEMBER 1991

The letter S means that the Act concerned has been signed.

The letter A in columns 3, 5, 8 or 10 means accession; in the other columns, it means approval.

MEMBERS (In the alphabetical order of the French version of the country names)	Class of Contribution Number of Units	FINAL ACTS OF NAIROBI (1982)				Class of Contribution Number of Units on 1.01.1991	FINAL ACTS OF NICE (1989) ***			International Telecom- munication Regulations Melbourn, 1988	ADMINISTRATIVE REGULATIONS														
		Convention, etc. *)		Opt. Add. Prot. **)			Constitution and Convention		Optional Protocol		Radio Regulations														
			Date on which the instrument of ratification or accession was deposited with the General Secretariat		Date on which the instrument of ratification or accession was deposited with the General Secretariat			Date on which the instrument of ratification, acceptance, approval or accession was deposited with the General Secretariat			Date on which the instrument of ratification, acceptance, approval or accession was deposited with the General Secretariat	Geneva, 1979	Partial Revision Geneva, 1983 MOB-83	Partial Revision Geneva, 1985 ORB-85	Partial Revision Geneva, 1987 HFBC-87	Partial Revision Geneva, 1987 MOB-87	Partial Revision Geneva, 1988 ORB-88								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Afghanistan (Republic of).....	1/8	S 1)	26.X.1984 2)	S		1/16	S 33)	5.VI.1991	S	5.VI.1991	-	A 34)	S	A 4)	-	A 34)	-	A 34)	S	A 34)	S	A 34)	S	A 34)	A 34)
Albania (Republic of).....	1/4	A	2.XI.1984 23)	-		1/4	-		-		S	-	-	A 4)	-	-	-	-	S	-	-	-	-	-	-
Algeria (People's Dem Rep of).....	1	S 1)	14.I.1986	-		1	S 33)		-		-	-	S	A 4)	S	A 4)	S	-	S	-	S	-	S	-	S
Germany (Federal Republic of).....	30	S 1)	6.XII.1985 2) 27)	-		30	S 33)		-		S	A	S	A 4)	S	A 7)	S	A 40)	S	A 42)	S	A 3)	S	A 32)	A 32)
Angola (People's Republic of).....	1/4	S	10.VI.1989	-		1/4	S		S		S	-	S	A 4)	S	A 4)	S	A 4)	S	A 4)	S	-	S	-	-
Antigua and Barbuda.....	1/8	A	4.II.1987	-		1/16	S 33)		S		-	-	-	A 4)	-	A 4)	-	A 4)	S	-	-	-	-	-	-
Saudi Arabia (Kingdom of).....	10	S 1)	25.IV.1986 39)	S		10	S 33)		S		S	A	S	A	S	A 4)	S	A	S	A	S	A	S	A	A
Argentina Republic.....	3	S 1)	2.II.1987 45)	S		1/4	S 33)		-		S	-	S	A 3)	S	A 3)	S	A 3)	S	A 3)	S	-	S	-	-
Australia.....	18	S 1)	12.I.1984	S	3.IV.1985	15	S 33)		S		S	-	S	A 4)	S	A	S	S	S	-	S	-	S	-	-
Austria.....	1	S 1)	30.III.1989 2)	S	30.III.1989	1	S 33)		S		S	-	S	A 4)	S	A 4)	S	A 4)	S	A 4)	S	-	S	-	-
Bahamas (Commonwealth of the).....	1/2	A	5.II.1988	-		1/2	S 33)		S		S	-	-	A	-	A 4)	-	A 4)	-	-	-	-	-	-	-
Bahrain (State of).....	1/2	A	13.I.1984 25)	-		1/2	S 33)		S		-	-	S	A 4)	S	-	S	-	-	-	-	-	-	-	-
Bangladesh (People's Republic of).....	1/8	S 1)	12.IV.1989	S		1/8	S 33)		S		-	-	S	A 4)	-	A 4)	-	A 4)	-	-	-	-	-	-	-
Barbados.....	1/4	S 1)	22.V.1986	S	18.III.1987	1/4	S 33)	5.X.1990	S	5.X.1990	-	A 34)	-	A 4)	-	A 4)	-	A 34)	-	A 34)	-	-	-	-	A 34)
Belarus (Republic of).....	1/2	S 1)	13.I.1986 36)	-		1/2	S 33)		-		S	-	S	A 10)	S	A 4)	S	-	S	A	S	A	S	-	-
Belgium.....	5	S 1)	9.X.1986	S	9.X.1986	5	S 33)		S		S	-	S	A 4)	S	A 4)	S	-	S	-	S	-	S	-	-
Belize.....	1/8	S	20.XII.1985 30)	S	21.III.1986	1/8	-		-		-	-	-	A	-	A 4)	-	-	-	-	-	-	-	-	-
Benin (Republic of).....	1/4	S 1)	4.VII.1986	S		1/4	S 33)		S		S	-	S	A 4)	S	A 4)	-	-	-	-	-	-	-	-	-
Bhutan (Kingdom of).....	1/8	A	15.IX.1988	-		1/8	S 33)		S		S	-	-	A 4)	-	A 4)	-	A 4)	-	A 4)	-	-	-	-	-
Bolivia (Republic of).....	1/4	A	30.I.1984	-		1/4	-		-		-	-	-	A 4)	-	-	-	-	-	-	-	-	-	-	-
Botswana (Republic of).....	1/2	S 1)	11.IV.1986 2)	S	21.IV.1987	1/2	S		S		S	-	S	A 4)	-	A 4)	-	-	S	-	-	-	-	-	-
Brazil (Federative Republic of).....	3	S 1)	31.I.1990	S		3	S 33)		S		S	-	S	A 4)	S	A 4)	S	A 4)	S	A 4)	S	A 4)	S	-	-
Brunei Darussalam.....	1/2	A	19.XI.1984	-		1/2	S 33)		S		S	-	-	A 4)	-	-	S	-	-	-	-	-	-	-	-
Bulgaria (Republic of).....	1	S 1)	21.V.1986 40)	-		1	S 33)		-		S	-	S	A 4)	S	A 4)	S	-	-	-	-	-	-	-	-
Burkina Faso 20)	1/8	S 1)	30.IV.1986	S		1/8	S 33)		S		S	-	S	A 4)	-	A 4)	-	-	S	-	S	-	S	-	-
Burundi (Republic of).....	1/8	S 1)	17.V.1988	S		1/8	S 33)		S		-	-	S	A 4)	-	A 4)	-	A 4)	-	-	-	-	-	-	-
Cambodia.....	1/2	-	-	-		1/2	-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cameroon (Republic of) 2)	1/2	S 1)	17.VI.1986	S	3.X.1986	1	S 33)	24.VII.1991	S	24.VII.1991	S	A 34)	S	A 4)	S	A 4)	S	A 34)	S	A 34)	S	A 34)	S	A 34)	A 34)

Table I. Final Acts of Nairobi (1982), Final Acts of Nice (1989) and Administrative Regulations (continued)

Canada.....	18	S 1)	11.X.1983	S	11.X.1983	18	S 33)	20.II.1991 32)	S	20.II.1991	S	A	S	A 13)	S	A	S	A 3)	S	A 3)	S	A 3)	S	A 3)	A 3)
Cape Verde (Republic of).....	1/8	S	9.VI.1989	—		1/8	S 33)		S		—	—	S	A 4)	—	A 4)	—	A 4)	—	A 4)	—	—	—	—	—
Central African Republic.....	1/8	S 1)	28.XI.1988	S		1/8	S 33)		S		S	—	S	A 4)	—	A 4)	—	A 4)	S	A 4)	—	—	—	—	—
Chile.....	1	S 1)	12.XII.1985 23)	S	12.XII.1985	1	S 33)		S		S	—	S	A 4)	S	A 4)	S	—	S	—	S	—	S	—	—
China (People's Republic of).....	10	S 1)	19.VIII.1985 2)	—		10	S 33)		—		S	—	S	A 3)	S	A 4)	S	—	S	—	S	—	S	—	—
Cyprus (Republic of).....	1/4	S 1)	22.VIII.1986	S	22.VIII.1986	1/4	S 33)		S		S	—	S	A 4)	S	A 4)	—	—	S	—	S	—	S	—	—
Vatican City State.....	1/4	S	30.XII.1985	—		1/4	S		—		S	—	S	A 4)	—	A 4)	S	—	S	—	S	—	S	—	—
Colombia (Republic of).....	1	S 1)	19.IX.1985 2)	S	19.IX.1935	1	S 33)		S		S	—	S	A	S	A 4)	S	—	S	—	S	—	S	—	—
Comoros (Islamic Federal Rep. of the).....	1/8	—	—	—		1/16	S		S		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congo (Republic of the).....	1/2	S 1)	27.IV.1938	S		1/2	S 33)		S		S	—	S	A 4)	—	A 4)	—	A 4)	—	—	—	—	—	—	—
Korea (Republic of).....	1	S 1)	26.XI.1935	S	26.XI.1935	5	S 33)		S		S	—	S	A	S	A	S	A	S	—	S	—	S	—	—
Costa Rica.....	1/4	S 1)	—	S		1/4	S 33)		S		—	—	S	—	—	—	—	—	—	—	—	—	—	—	—
Côte d'Ivoire (Republic of) 31)	1	S 1)	17.IX.1936	S	17.IX.1936	1/4	S 33)		S		S	—	S	A	S	A	S	—	S	—	S	—	S	—	—
Cuba.....	1/2	S 1)	28.I.1986 33)	S		1/2	S 33)		—		S	—	S	A 4)	S	A 4)	S	—	S	—	S	—	S	—	—
Denmark.....	5	S 1)	14.III.1935	S	14.III.1935	5	S 33)		S		S	—	S	A 3)	S	A 3)	S	—	S	—	S	—	S	—	—
Djibouti (Republic of).....	1/8	A	21.IV.1937	—		1/8	S 33)		S		S	—	—	A 4)	—	A 4)	S	A 4)	—	—	—	—	—	—	—
Dominican Republic.....	1/2	—	—	—		1/2	—		—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Egypt (Arab Republic of).....	1	S	16.IX.1935	S	16.I.1937	1/2	S		S		S	—	S	A 4)	S	A 4)	S	—	S	—	S	—	S	—	—
El Salvador (Republic of).....	1/4	S 1)	28.III.1935	S	28.III.1935	1/4	—		—		S	—	S	A 4)	—	A 4)	—	—	—	—	—	—	—	—	—
United Arab Emirates.....	1	A	22.V.1986 41)	—		1	S 33)	7.X.1991	S	7.X.1991	S	A 34)	S	A 4)	S	A 4)	—	A 34)	S	A 34)	—	—	—	—	—
Ecuador.....	1/2	S 1)	13.IV.1938 2)	S	13.IV.1938	1/2	S 33)		S		—	—	S	A 4)	S	A 4)	S	A 4)	S	—	—	—	—	—	—
Spain.....	3	S 1)	17.XII.1935	—		0	S 33)		—		S	A 3)	S	A 4)	S	A 4)	S	A	S	A	S	A 3)	S	A 3)	A 3)
United States of America.....	30	S 1)	10.I.1986 2)	—		30	S 33)		—		S	—	S	A 13)	S	A 4)	S	—	S	—	S	—	S	—	—
Ethiopia (People's Democratic Republic of).....	1/8	S	3.VII.1984	—		1/8	S 33)		—		S	—	S	A	S	—	S	—	—	—	—	—	—	—	—
Russian Federation.....	30	S 1)	16.XII.1985 27)	—		30	S 33)		—		S	—	S	A 14)	S	A 4)	S	—	S	—	A	S	A	S	A
Fiji (Republic of).....	1/4	S	25.IX.1936	S	25.IX.1936	1/4	—		—		S	—	S	A 4)	—	A 4)	—	—	—	—	—	—	—	—	—
Finland.....	5	S 1)	3.I.1936	S	3.I.1936	5	S 33)		S		S	—	S	A 4)	S	A 4)	S	—	S	—	S	—	S	—	—
France.....	30	S 1)	1.X.1984 2)	—		30	S 33)		—		S	—	S	A 4)	S	—	S	—	S	—	—	—	—	—	—
Gabonese Republic.....	1/2	S 1)	28.IV.1938	S		1/2	S 33)	0.IV.1991	S	0.IV.1991	S	A 34)	S	A 4)	—	A 4)	S	A 4)	S	A 34)	—	A 34)	—	A 34)	A 34)
Gambia (Republic of the).....	1/8	S	8.III.1989	S	0.III.1989	1/8	S		S		—	—	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	—	—	—	—
Ghana.....	1/4	S 1)	19.II.1937	S		1/4	S 33)	31.VII.1991	S		S	A 34)	S	A 4)	—	A 4)	S	A 4)	S	A 34)	—	A 34)	—	A 34)	A 34)
Greece.....	1	S 1)	15.V.1935 2)	S	15.V.1935	1	S 33)		S		S	—	S	A	S	A 4)	S	—	S	—	S	—	S	—	—
Grenada.....	1/8	S 1)	—	S		1/8	—		—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guatemala (Republic of).....	1/4	S 1)	21.XI.1936	S	21.XI.1936	1/4	S		S		S	—	S	A 4)	—	A 4)	S	A 4)	—	—	—	—	—	—	—
Guinea (Republic of) 2)	1/8	S 1)	11.I.1988	S		1/8	S 33)	10.XII.1991	S		S	A 34)	S	A 4)	S	A 4)	S	A 4)	S	A 34)	—	A 34)	—	A 34)	A 34)
Guinea-Bissau (Republic of).....	1/8	—	—	—		1/8	—		—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Equatorial Guinea (Republic of).....	1/8	S	11.VI.1936	S	4.II.1937	1/8	—		—		—	—	—	A 4)	—	A 4)	—	—	—	—	—	—	—	—	—
Guyana.....	1/4	S 1)	30.XII.1935	S		1/4	—		—		—	—	—	S	A 4)	—	A 4)	—	—	—	—	—	—	—	—
Haiti (Republic of).....	1/8	A	27.IX.1934	—		1/8	—		—		—	—	—	S	A	—	—	—	—	—	—	—	—	—	—
Honduras (Republic of).....	1/4	A	11.IX.1935	A	11.IX.1935	1/4	—		—		—	—	—	S	A 4)	—	A 4)	S	—	—	—	—	—	—	—

Table I. Final Acts of Nairobi (1982), Final Acts of Nice (1989) and Administrative Regulations (continued)

MEMBERS (In the alphabetical order of the French version of the country names)	Class of Contribution Number of Units	FINAL ACTS OF NAIROBI (1982)				Class of Contribution Number of Units on 1.01.1991	FINAL ACTS OF NICE (1989) ***				ADMINISTRATIVE REGULATIONS													
		Convention, etc. *)		Opt. Add. Prot. **)			Constitution and Convention		Optional Protocol		International Telecom- munications Regulations Malbourne, 1990	Radio Regulations												
		Date on which the instrument of ratification or accession was deposited with the General Secretariat	Date on which the instrument of ratification or accession was deposited with the General Secretariat	Date on which the instrument of ratification, acceptance, approval or accession was deposited with the General Secretariat	Date on which the instrument of ratification, acceptance, approval or accession was deposited with the General Secretariat		Geneva, 1979	Partial Revision Geneva, 1983 MOB-83	Partial Revision Geneva, 1985 ORB-85	Partial Revision Geneva, 1987 HFBC-87		Partial Revision Geneva, 1987 MOB-87	Partial Revision Geneva, 1988 ORB-88											
														1	2	3	4	5	6	7	8	9	10	11
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Hungary (Republic of).....	1	S 1)	4.VII.1985 2)	—	—	1	S 33)	—	—	—	S	—	S	A	S	A	S	—	S	A	S	—	S	—
India (Republic of).....	10	S 1)	8.I.1986	—	—	5	S 33)	—	—	—	S	—	S	A	S	A 4)	S	—	S	A	S	—	S	—
Indonesia (Republic of).....	1	S 1)	30.XII.1985 2)	—	—	1	S 33)	—	—	—	S	—	S	A 4)	S	A 4)	S	—	S	—	S	—	S	—
Iran (Islamic Republic of).....	1	S 1)	8.I.1986	—	—	1	S 33)	—	—	—	S	—	S	A 4)	S	A 4)	S	—	S	—	S	—	S	—
Iraq (Republic of).....	1/4	S 1)	16.X.1986	—	—	1/4	S 33)	—	—	—	S	—	S	A 4)	S	A 4)	S	—	S	—	S	—	S	—
Ireland.....	2	S	3.XI.1988 47)	—	—	2	S 33)	—	—	—	S	—	S	A 4)	S	A 4)	S	A 4)	S	A 4)	S	—	S	—
Iceland.....	1/4	S 1)	3.VII.1986	S	—	1/4	S 33)	—	—	—	S	—	S	A 4)	S	A 4)	—	—	S	—	—	—	S	—
Israel (State of).....	1	S 1)	19.VII.1984	—	—	1	S 33)	—	—	—	S	—	S	A 4)	S	A 4)	S	—	S	—	—	—	S	—
Italy.....	10	S 1)	13.V.1986 2)	S	13.V.1986	20	S 33)	—	—	—	S	—	S	A	S	A	S	—	S	A	S	—	S	—
Jamaica.....	1/4	S 1)	12.VI.1985	S	—	1/4	S 33)	—	—	—	—	—	—	A	—	A 4)	S	—	—	—	—	—	—	—
Japan.....	30	S 1)	12.VII.1984	S	12.VII.1984	30	S 33)	—	—	—	S	A	S	A	S	A	S	A	S	A	S	A 31)	S	A
Jordan (Hashemite Kingdom of).....	1/2	S 1)	14.III.1984	S	—	1/2	S 33)	—	—	—	—	—	S	A 4)	S	A 4)	S	—	S	—	—	—	S	—
Kenya (Republic of).....	1/4	S 1)	29.XI.1985	—	—	1/4	S 33)	—	—	—	S	—	S	A 4)	S	A 4)	S	—	S	A	S	—	S	—
Kiribati (Republic of).....	1/8	A	3.XI.1986	—	—	1/8	S 33)	—	—	—	—	—	—	A 4)	—	A 4)	—	A 4)	—	—	—	—	—	—
Kuwait (State of).....	1	S 1)	9.X.1986	S	—	3	S 33)	—	—	—	S	—	S	A 4)	S	A 4)	S	—	S	—	—	—	—	—
Lesotho (People's Democratic Republic).....	1/8	A	8.VIII.1984 15)	—	—	1/16	—	—	—	—	—	—	—	A 4)	—	—	—	—	—	—	—	—	—	—
Lesotho (Kingdom of).....	1/8	S 1)	18.IX.1986	—	—	1/16	S 33)	—	—	—	—	—	S	A 4)	—	A 4)	—	—	S	—	—	—	—	—
Latvia (Republic of).....	1/4	A	11.XI.1991	—	—	1/4	—	—	—	—	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)
Lebanon.....	1/4	S 1)	13.II.1986	S	—	1/4	S 33)	—	—	—	S	—	S	A 4)	—	A 4)	S	A	—	—	—	—	—	—
Liberia (Republic of).....	1/4	A	9.III.1987	—	—	1/4	S 33)	—	—	—	—	—	S	A 4)	S	A 4)	S	A 4)	S	—	—	—	—	—
Libya (Socialist People's Libyan Arab Jamhuriya).....	1/2	S 1)	15.XII.1986	S	—	1	S 33)	—	—	—	—	—	S	A 4)	—	A 4)	S	A 4)	S	—	—	—	—	—
Liechtenstein (Principality of).....	1/2	S 1)	1.IV.1985	S	1.IV.1985	1/2	S 33)	—	—	—	S	—	S	A 4)	—	A 4)	—	—	—	—	—	—	—	—
Lithuania (Republic of).....	1	A	12.X.1991	—	—	1	—	—	—	—	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)
Luxembourg.....	1/2	S 1)	1.XI.1984	S	1.XI.1984	1/2	S 33)	—	—	—	S	—	S	A 4)	—	A 4)	—	—	S	—	—	—	—	—
Madagascar (Democratic Republic of).....	1/4	S 1)	22.I.1987	S	—	1/4	S 33)	—	—	—	S	—	S	A 4)	S	A 4)	S	A 4)	S	—	—	—	—	—
Malaysia.....	3	S 1)	15.IV.1986	—	—	1	S 33)	—	—	—	S	—	S	A 4)	S	A 4)	S	—	S	—	—	—	—	—
Malawi.....	1/8	S 1)	1.IV.1985	S	9.X.1985	1/8	S 33)	—	—	—	—	—	S	A 4)	—	A 4)	S	—	—	—	—	—	—	—
Maldives (Republic of).....	1/8	S 1)	1.IV.1985	S	—	1/8	S	—	—	—	S	—	—	A 4)	—	A 4)	—	—	S	—	—	—	—	—
Mali (Republic of).....	1/8	S 1)	8.V.1987	S	—	1/8	S 33)	—	—	—	S	—	S	A 4)	—	A 4)	S	A 4)	S	—	—	—	—	—
Malta (Republic of).....	1/4	A	11.IV.1984 10)	A	11.IV.1984	1/4	S 33)	—	—	—	S	A 3)	S	A 4)	—	—	S	—	S	—	—	—	—	—
Morocco (Kingdom of).....	1	S 1)	8.VI.1989	S	—	1	S 33)	—	—	—	S	—	S	A 4)	S	A 4)	S	A 4)	S	A 4)	S	—	—	—
Mauritius.....	1/4	A	24.VII.1985	—	—	1/4	S 33)	—	—	—	S	—	S	A 4)	—	A 4)	—	—	—	—	—	—	—	—
Mauritania (Islamic Republic of).....	1/4	S 1)	11.X.1988	S	—	1/4	—	—	—	—	—	—	S	A 4)	S	A 4)	—	A 4)	S	A 4)	S	—	—	—
Mexico.....	1	S 1)	15.III.1984 2)	S	—	1	S 33)	24.IV.1991 57)	S	—	S	A 3)	S	A 3)	S	A 3)	S	A 3)	S	A 3)	S	A 3)	S	A 3)
Monaco.....	1/4	S 1)	30.XII.1985	—	—	1/4	S	—	—	—	S	—	S	A 4)	S	A 4)	S	—	S	—	—	—	—	—

Table I. Final Acts of Nairobi (1982), Final Acts of Nice (1989) and Administrative Regulations (continued)

Mongolian People's Republic.....	1/4	S 1)	17.III.1986 2)	—	—	1/4	S 33)	—	—	—	—	—	—	S	A 4)	—	A 4)	—	—	S	—	—	—	S
Mozambique (Republic of).....	1/4	S	31.X.1988	—	—	1/16	—	—	—	—	—	—	—	S	A 4)	—	A 4)	—	A 4)	—	—	—	—	—
Myanmar (Union of).....	1/2	A	24.X.1986	—	—	1/8	S 33)	—	—	—	—	—	—	—	A 4)	—	A 4)	—	—	—	—	—	—	
Namibia (Republic of).....	—	A	25.I.1984	—	—	1/4	—	—	—	—	—	—	—	—	A 4)	—	—	—	—	—	—	—	—	
Nauru (Republic of).....	1/8	—	—	—	—	1/8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Nepal.....	1/8	S	4.I.1988	S	—	1/8	S 33)	11.IV.1991	S	—	S	A 34)	S	A 4)	—	A 4)	—	A 4)	—	A 34)	—	A 34)	—	A 34)
Nicaragua.....	1/2	S 1)	17.II.1988	S	—	1/4	—	—	—	—	—	—	—	S	A 4)	S	A 4)	—	A 4)	—	—	—	—	
Niger (Republic of the).....	1/8	S 1)	6.II.1984	S	—	1/8	S 33)	—	S	—	S	—	S	S	A 4)	—	—	—	S	—	—	—	—	
Nigeria (Federal Republic of).....	2	S 1)	26.VIII.1986	S	—	2	S 33)	—	S	—	S	—	S	S	A 4)	—	A 4)	S	—	S	—	—	S	
Norway.....	5	S 1)	6.III.1986	S	—	5	S 33)	—	S	—	S	—	S	S	A 4)	S	A 4)	S	S	—	—	—	S	
New Zealand.....	2	S 1)	3.I.1986 33)	S	3.I.1986 33)	2	S 33)	—	S	—	S	—	S	S	A 34)	S	A 34)	S	A 33)	S	A 33)	S	A 33)	
Oman (Sultanate of).....	1/2	S 1)	23.I.1986	S	23.I.1986	1/2	S 33)	—	S	—	S	—	S	S	A 4)	S	A 4)	S	S	—	—	—	S	
Uganda (Republic of).....	1/8	S 1)	—	S	—	1/16	S 33)	—	S	—	S	—	S	S	—	—	—	—	—	—	—	—	—	
Pakistan (Islamic Republic of).....	2	S 1)	6.III.1986	—	—	2	S 33)	—	—	—	—	—	S	S	A 4)	—	A 4)	S	S	—	—	—	S	
Panama (Republic of).....	1/2	A	23.X.1986	—	—	1/2	—	—	—	—	—	—	—	S	A 4)	S	A 4)	—	—	S	—	—	S	
Papua New Guinea.....	1/2	S 1)	25.I.1984 11)	S	25.I.1984	1/2	S 33)	—	S	—	S	—	S	S	A 4)	S	—	S	S	—	—	—	S	
Paraguay (Republic of).....	1/2	S	30.XII.1985	S	27.III.1987	1/2	S 33)	—	S	—	S	—	S	S	A 4)	—	A 4)	S	S	—	—	—	S	
Netherlands (Kingdom of the).....	10	S 1)	31.VIII.1984 21)	S	31.VIII.1984 22)	8	S 33)	—	S	—	S	A 12)	S	A 12)	S	A 12)	S	A	S	A	S	A 3)	S	
Peru.....	1/4	S 1)	19.III.1986	—	—	1/4	S 33)	—	—	—	—	—	S	S	A 4)	—	A 4)	S	—	S	—	—	S	
Philippines (Republic of the).....	1	S 1)	23.VII.1986	S	—	1	S 33)	—	S	—	S	—	S	S	A 4)	—	A 4)	S	S	—	—	—	—	
Poland (Republic of).....	2	S 1)	25.III.1986	—	—	1	S 33)	—	S	—	S	—	S	S	A 4)	S	A 4)	S	S	—	—	—	S	
Portugal.....	1	S 1)	11.II.1987	—	—	1	S 33)	—	S	—	S	—	S	S	A 4)	S	A 4)	S	A 4)	S	—	—	S	
Qatar (State of).....	1/2	S 1)	2.V.1985 2)	S	18.XI.1985	1/2	S 33)	—	S	—	S	—	S	S	A 4)	S	A 4)	S	S	—	—	—	S	
Syrian Arab Republic.....	1/2	S 1)	15.I.1987	S	—	1/2	S 33)	—	S	—	S	—	S	S	A 4)	S	A 4)	S	A 4)	S	—	—	S	
Democratic People's Republic of Korea.....	1/4	A	9.I.1984	—	—	1/4	S 33)	9.I.1991	S	—	S	A 34)	S	A 4)	S	A 34)	S	A 34)	S	A 34)	S	A 34)	S	
Romania.....	1/2	S 1)	1.VII.1986 42)	—	—	1/2	S 33)	—	—	—	S	—	S	S	A 4)	S	A 4)	S	S	—	—	—	S	
United Kingdom of Great Britain and Northern Ireland.....	30	S 1)	15.XI.1984 26)	S	15.XI.1984 26)	15	S 33)	—	S	—	S	A 3)	S	A 17)	S	A 3)	S	A 3)	S	A 3)	S	A 3)	S	
Rwandese Republic.....	1/8	S 1)	5.IX.1986	S	—	1/8	S 33)	—	—	—	S	—	S	S	A 4)	—	A 4)	—	S	—	—	—	—	
San Marino (Republic of).....	1/4	S	3.VII.1985	S	—	1/4	S	—	S	—	S	—	S	S	A 4)	—	A 4)	S	—	S	—	—	S	
Saint Vincent and the Grenadines.....	1/8	A	15.XII.1986	—	—	1/16	S 33)	—	S	—	—	—	—	—	A 4)	—	A 4)	—	A 4)	—	—	—	—	
Solomon Islands.....	1/8	A	27.VII.1987 47)	—	—	1/8	S	—	S	—	—	—	—	—	A 4)	—	A 4)	—	A 4)	—	—	—	—	
Western Samoa (Independent State of).....	1/8	A	7.X.1988	—	—	1/16	—	—	—	—	—	—	—	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	—	
Sao Tome and Principe (Democratic Republic of).....	1/8	A	6.II.1984	—	—	1/8	—	—	—	—	—	—	—	—	A 4)	—	—	—	—	—	—	—	—	
Senegal (Republic of).....	1	S 1)	13.XI.1984	S	—	1	S 33)	—	S	—	S	—	S	S	A 4)	—	—	S	S	—	—	—	S	
Sierra Leone.....	1/8	A	2.IX.1985	—	—	1/8	—	—	—	—	—	—	—	—	A 4)	—	A 4)	—	—	—	—	—	—	
Singapore (Republic of).....	1	S 1)	23.XII.1985	—	—	1	S 33)	—	—	—	S	—	S	S	A 4)	S	A 4)	S	S	—	—	—	S	
Somali Democratic Republic.....	1/8	S 1)	25.VI.1984	—	—	1/8	S 33)	—	—	—	—	—	—	—	S	A 4)	—	S	S	—	—	—	—	

Table I. Final Acts of Nairobi (1982), Final Acts of Nice (1989) and Administrative Regulations (continued)

MEMBERS (In the alphabetical order of the French version of the country names)	Class of Contribution Number of Units	FINAL ACTS OF NAIROBI (1982)				Class of Contribution Number of Units on 1.01.1991	FINAL ACTS OF NICE (1989) ***)				ADMINISTRATIVE REGULATIONS													
		Convention, etc. *)		Opt. Add. Prot. **)			Constitution and Convention		Optional Protocol		International Telecom- munication Regulations Malbourne, 1988	Radio Regulations												
		Date on which the instrument of ratification or accession was deposited with the General Secretariat		Date on which the instrument of ratification or accession was deposited with the General Secretariat			Date on which the instrument of ratification, acceptance, approval or accession was deposited with the General Secretariat		Date on which the instrument of ratification, acceptance, approval or accession was deposited with the General Secretariat			Geneva, 1979	Partial Revision Geneva, 1983 MOB-03	Partial Revision Geneva, 1985 ORB-85	Partial Revision Geneva, 1987 HFBC-87	Partial Revision Geneva, 1987 MOB-87	Partial Revision Geneva, 1988 ORB-88							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Sudan (Republic of the) 32)	1/8	S 1)	17.II.1989	S		1/16	S 33)	-			-		S	A 4)	-	A 4)	-	A 4)	-	A 4)	-	-	-	-
Sri Lanka (Democratic Socialist Republic of) ..	1/2	S	1.IX.1986	S		1/2	S 33)	S			-		S	A 4)	S	A 4)	S	S		S		-	-	-
South Africa (Republic of)	1	A	14.XI.1984 24)	-		1	-	-			-		-	A 4)	-	-	-	-	-	-	A	-	-	A
Sweden	10	S 1)	3.X.1985 2)	S	3.X.1985	10	S 33)	S			S		S	A 4)	S	A 3)	S	A 3)	S	A 3)	S	S	S	
Switzerland (Confederation of)	10	S 1)	1.IV.1985	S	1.IV.1985	10	S 33)	S			S		S	A	S	A	S	A	S	A	S	A	S	A
Suriname (Republic of)	1/4	S	7.I.1985	S		1/4	S	S			-		-	A 4)	-	-	S	S	S	S	S	-	-	-
Swaziland (Kingdom of)	1/4	S 1)	23.V.1985 2)	S	23.V.1985	1/8	S 33)	S	8.VII.1991	8.VII.1991	S	A 54)	S	A 4)	-	A 4)	-	A 54)	S	A 54)	S	A 54)	-	A 54)
Tanzania (United Republic of)	1/8	S 1)	5.I.1987	S		1/8	S 33)	S			S		S	A 4)	-	A 4)	S	A 4)	S	S	S	S	S	
Chad (Republic of)	1/8	A	12.XII.1984	-		1/16	S 33)	S			S		S	A 4)	-	-	S	-	-	-	-	-	-	-
Czech and Slovak Federal Republic	2	S 1)	5.III.1985	-		2	S 33)	-			S		S	A	S	A 4)	S	S	S	S	S	S	S	
Thailand	1/2	S 1)	13.XI.1985	S		1/2	S 33)	S			S		S	A	S	A 4)	S	S	S	S	S	S	S	
Togolese Republic	1/4	S 1)	17.III.1986	S		1/16	S 33)	S			S		S	A 4)	S	A 4)	-	S	S	S	S	S	S	
Tonga (Kingdom of)	1/8	S 1)	11.I.1988	-		1/16	S	S			S		S	-	A 4)	-	A 4)	S	A 4)	-	-	-	S	
Trinidad and Tobago	1	A	1.X.1984	-		1/2	S 33)	S			-		S	A 4)	-	-	-	-	-	-	-	S		
Tunisia	1	S 1)	10.II.1987	S	10.II.1987	1/2	S 33)	S	2.V.1991	2.V.1991	S	A 54)	S	A 4)	S	A 4)	S	A 4)	S	A 54)	S	A 54)	S	A 54)
Turkey	1	S 1)	10.III.1986	-		1	S 33)	S			S		S	A 4)	S	A 4)	S	S	S	S	S	S	S	
Ukraine	1	S 1)	13.I.1986 35)	-		1/2	S 33)	-			S		S	A 15)	S	A 4)	S		S	A	S	S	S	
Uruguay (Eastern Republic of)	1/2	S 1)	24.IX.1984 2)	S	24.IX.1984	1/2	S 33)	S			-		S	A 4)	S		S	S	S	S	S	S	S	
Vanuatu (Republic of)	1/8	A	30.III.1988	-		1/8	-	-			-		-	A 4)	-	A 4)	-	A 4)	-	-	-	-	-	-
Venezuela (Republic of)	2	S 1)	23.VI.1986	-		1/2	S 33)	-			-	A	S	A 3)	S	A 4)	S	S	S	S	S	S	S	
Viet Nam (Socialist Republic of)	1/2	S 1)	23.I.1986 37)	-		1/2	S 33)	-			S		-	A 37)	S	A 37)	-	-	S	S	S	S	S	
Yemen (Republic of)	1/4	S 1)	11.III.1987	S		1/4	S 33)	S			S		-	A 4)	-	A 4)	-	A 4)	S	-	-	-	-	
Yugoslavia (Socialist Federal Rep. of)	1	S 1)	9.V.1986	-		1	S 33)	S			S		S	A	S	A 4)	S	S	S	S	S	S	S	
Zaire (Republic of)	1/2	S	8.VI.1989	S		1/2	S 33)	S			S		S	A 4)	-	A 4)	-	A 4)	-	A 4)	-	-	-	-
Zambia (Republic of)	1/4	S	29.V.1986	S	5.IV.1988	1/4	S 33)	S			-		S	A 4)	S	A 4)	-	-	-	-	-	S	S	
Zimbabwe (Republic of)	1/2	S 1)	4.VII.1986 43)	S	4.VII.1986	1/2	S 33)	S			S		S	-	A 4)	-	A 4)	-	S		-	-	S	

*) Convention, Final Protocol, Additional Protocols.

**) Optional Additional Protocol on the Compulsory Settlement of Disputes.

***) The Constitution and the Convention of Nice (1989) shall enter into force between Parties thereto on the thirtieth day after deposit of the 55th instrument of ratification, acceptance, approval or accession by a Member of the Union.

1) See the statement or statements appearing in the Final Protocol annexed to the Convention.

2) In ratifying the Convention, the country concerned confirmed the reservation(s) made at the time of signature.

3) This approval was given subject to the reservation(s) made at the time of signature.

4) Regulations approved *ipso facto*, since they were in force when the country concerned ratified or acceded to the International Telecommunication Convention of Malaga-Torremolinos, 1973 or to that of Nairobi, 1982.

5) See Notification No. 1088.

6) See Notifications Nos. 1171, 1179, 1187, 1192 and 1195.

7) See Notifications Nos. 1205, 1217, 1219 and 1226.

8) Formerly: Cameroon (United Republic of).

9) Formerly: Guinea (Revolutionary People's Republic of).

10) In acceding to the Convention, the Government of the Republic of Malta has reserved the right to take such action as it may consider necessary to protect its interests, should Members in any way fail to comply with the requirements of the Convention, Annexes, Protocols, etc., or should the reservations made by such Members jeopardize its telecommunications services or lead to an increase in Malta's share in defraying the expenses of the Union.

11) In ratifying the Convention, the Government of Papua New Guinea confirmed the reservation contained in No. 63 of the Final Protocol to the aforementioned Convention.

12) For the Netherlands, the Netherlands Antilles and Aruba.

13) This approval was given subject to the two reservations appearing under No. 19 in the Final Protocol made at the time of signature.

14) The notification of approval was accompanied by the following declarations:

a) in approving the Radio Regulations (Geneva, 1979), the Union of Soviet Socialist Republics reserves the right to take the necessary steps to protect its interests in the event that other States fail to observe the provisions of the said Regulations and in the event that any other action is taken which may be prejudicial to the interests of the USSR;

b) the Union of Soviet Socialist Republics does not recognize claims to the extension of State sovereignty to any segment of the orbit of geostationary satellites, since such claims are contrary to the status of outer space universally recognized in international law;

c) as the Soviet Government has already declared on several occasions in connection with the territorial claims of certain countries in Antarctica, the Union of Soviet Socialist Republics has never recognized and cannot recognize as legitimate any separate solution whatsoever to the question of the ownership of Antarctica by any State.

15) The notification of approval was accompanied by the following declarations:

a) in approving the Radio Regulations (Geneva, 1979), the Ukrainian Soviet Socialist Republic reserves the right to take the necessary steps to protect its interests in the event that other States fail to observe the provisions of the said Regulations and in the event that any other action is taken which may be prejudicial to the interests of the Ukrainian S.S.R.;

b) the Ukrainian Soviet Socialist Republic does not recognize claims to the extension of State sovereignty to any segment of the orbit of geostationary satellites, since such claims are contrary to the status of outer space universally recognized in international law;

c) in connection with the territorial claims of certain countries in Antarctica, the Ukrainian Soviet Socialist Republic has never recognized and cannot recognize as legitimate any separate solution whatsoever to the question of the ownership of Antarctica by any State.

16) The notification of approval was accompanied by the following declarations:

a) in approving the Radio Regulations (Geneva, 1979), the Byelorussian Soviet Socialist Republic reserves the right to take the necessary steps to protect its interests in the event that other States fail to observe the provisions of the said Regulations and in the event that any other action is taken which may be prejudicial to the interests of the Byelorussian S.S.R.;

b) the Byelorussian Soviet Socialist Republic does not recognize claims to the extension of State sovereignty to any segment of the orbit of geostationary satellites, since such claims are contrary to the status of outer space universally recognized in international law;

c) in connection with the territorial claims of certain countries in Antarctica, the Byelorussian Soviet Socialist Republic has never recognized and cannot recognize as legitimate any separate solution whatsoever to the question of the ownership of Antarctica by any State.

17) The approval is in respect of the United Kingdom of Great Britain and Northern Ireland and Territories under the territorial sovereignty of the United Kingdom.

18) In ratifying these Acts, the Government of the United States of America confirmed the reservations and statements made when the Final Protocol was signed (Nos. 32, 36, 38, 39, 72 and 75). The following is also contained in the instrument:

The United States reservation contained in statement XII of the Final Protocol associated with the partial revision of the 1959 Radio Regulations adopted at the World Maritime Administrative Radio Conference, Geneva, 1974, should be regarded as continuing to apply to the Radio Regulations (Geneva, 1979), the text of that reservation being as follows:

"The Delegation of the United States of America formally declares that the United States of America does not, by signature of these Final Acts on its behalf, accept any obligations in respect of the Frequency Allotment Plan for Coast Radiotelephone Stations Operating in the Exclusive Maritime Mobile Bands between 4 000 kHz and 23 000 kHz and the associated implementing procedures, and that, although the United States of America will observe the provisions of the Plan and implementing procedures to the extent practicable, pending the results of a future World General Administrative Radio Conference, the United States of America reserves its right to take such measures as may be necessary to protect its maritime radiotelephony interests."

19) In acceding to the Convention, the Government of the Lao People's Democratic Republic has reserved the right not to accept any financial measures which would lead to an unjustified increase in its contributory share in defraying Union expenses, as well as the right to take any measures to safeguard its interests, should other States fail to comply with the provisions of the International Telecommunication Convention or in the event of any other actions that might encroach upon its sovereignty.

20) Formerly: Upper Volta (Republic of the).

21) On behalf of the Kingdom in Europe, the Netherlands Antilles and Aruba. In ratifying the Convention, the Government of the Netherlands confirmed the statements in Nos. 91, 92 and 104 of the Final Protocol to the Convention and made the following new statement (*translation*):

"Ratification implies that the Kingdom of the Netherlands agrees that the granting of technical assistance to developing countries should be one of the objectives of the International Telecommunication Union (Article 4, Nos. 14 and 20 of the Convention). However, the Kingdom does not consider that expenditure relating to material equipment incurred in the implementation of projects, should be covered by funds included in the ordinary budget of the Union.

Nor could the Kingdom subscribe to any major change in the allocation of Union funds in relation to the distribution pattern applied from 1973 to the end of 1983.

This is the standpoint adopted by the Kingdom in notifying its choice of class of contribution to ITU expenditure."

22) On behalf of the Kingdom in Europe, the Netherlands Antilles and Aruba.

23) In acceding to the Convention, the Government of the Socialist People's Republic of Albania formulated the following statements (*translation*):

"1. The Socialist People's Republic of Albania accepts the settlement of disputes by arbitration in accordance with Articles 50 (No. 189) and 82 of the International Telecommunication Convention (Nairobi, 1982) only after prior agreement of all the parties to the dispute.

2. The Socialist People's Republic of Albania reserves the right to take such action as it may deem necessary to safeguard its interests if reservations made by other countries lead to an increase in its contributory share in defraying the expenses of the Union or if any Members of the Union fail to pay their contribution to defraying the expenses of the International Telecommunication Union."

24) In acceding to the Convention, the Government of the Republic of South Africa formulates the following statement:

"The Government of the Republic of South Africa reserves the right to take any action it deems necessary to protect its interests should other Members in any way fail to comply with the requirements of the International Telecommunication Convention (Nairobi, 1982) in respect of South Africa."

25) In acceding to the Convention, the State of Bahrain has made the following reservations:

"1. The State of Bahrain wishes to reserve the right of its Government to take such action as it may consider necessary to protect its interests, should Members in any way fail to comply with the requirements of the International Telecommunication Convention (Nairobi, 1982) or should the reservations made by such Members jeopardize its telecommunication services or lead to an increase in Bahrain's share in defraying the expenses of the Union.

2. The accession of the State of Bahrain to the International Telecommunication Convention (Nairobi, 1982) shall in no way imply recognition of the Member appearing in Annex 1 to the said Convention under the name of «Israel»."

Further to the above statement, the General Secretariat has received, from the Government of Israel, a note of which the contents has been published in Notification No. 1200.

26) The Government of the United Kingdom has declared that the instrument of ratification is on behalf of the United Kingdom of Great Britain and Northern Ireland, the Bailiwick of Jersey, the Bailiwick of Guernsey, the Isle of Man, Anguilla, Bermuda, British Antarctic Territory, British Indian Ocean Territory, British Virgin Islands, Cayman Islands, Falkland Islands, Falkland Islands Dependencies, Gibraltar, Hong Kong, Montserrat, Pitcairn, Henderson, Ducie and Oeno Islands, Saint Helena, Saint Helena Dependencies, Turks and Caicos Islands, and United Kingdom Sovereign Base Areas of Akrotiri and Dhekelia in the island of Cyprus.

In correction to the above statement, see the communications from the Government of the USSR and from the Government of the United Kingdom, published in Notifications Nos. 1217 and 1221, respectively.

27) See Notifications Nos. 1217, 1227 and 1233.

28) In ratifying the Convention, the Government of Chile confirmed the statements in No. 59 and in the second paragraph of No. 60 of the Final Protocol to the Convention.

29) In ratifying the Convention, the Government of the Union of Soviet Socialist Republics confirmed the statements contained in Nos. 79, 105 and 106 of the Final Protocol to the Convention and also declared that in the light of its well-known position on the Korean question, it cannot recognize as lawful the appellation "Republic of Korea" used in the Convention.

30) In ratifying the Convention, the Government of Belize reserved the right to take any action it deems necessary to protect its interests should other Members in any way fail to comply with the requirements of the International Telecommunication Convention (Nairobi, 1982).

31) Formerly: Ivory Coast (Republic of the).

32) Formerly: Sudan (Democratic Republic of the).

33) This ratification also applies to the Cook Islands and Niue.

34) This approval also applies to the Cook Islands and Niue.

35) In ratifying the Convention, the Government of the Ukrainian Soviet Socialist Republic confirmed the statements contained in Nos. 79 and 105 of the Final Protocol to the Convention and also declared that in the light of its well-known position on the Korean question, it cannot recognize as lawful the appellation "Republic of Korea" used in the Convention.

36) In ratifying the Convention, the Government of the Byelorussian Soviet Socialist Republic confirmed the statements contained in Nos. 79 and 105 of the Final Protocol to the Convention and also declared that in the light of its well-known position on the Korean question, it cannot recognize as lawful the appellation "Republic of Korea" used in the Convention.

37) In ratifying the Convention, the Government of the Socialist Republic of Viet Nam confirmed the statements in No. 48 of the Final Protocol to the Convention.

38) In ratifying the Convention, the Government of Cuba made the following statement (*translation*):

The Government of the Republic of Cuba wishes to make it clear that, in the light of the aggressive acts of the United States Government in directing radio broadcasts at our country for subversive and destabilizing purposes in contravention of the provisions of the International Telecommunication Convention, it reserves the right to use, whenever it considers it necessary, all the radio facilities at its disposal and to take all the measures it deems necessary in this connection for appropriately responding to such acts of aggression.

39) In ratifying the Convention, the Government of Saudi Arabia made the following statement (*translation*):

The Convention has been ratified subject to the proviso that this ratification does not constitute any recognition of Israel and does not imply the exchange of any formalities or relations of any sort with Israel by virtue of this Convention.

40) In ratifying the Convention, the Government of the People's Republic of Bulgaria confirmed the statements contained in Nos. 53, 73 (first paragraph) and 105 of the Final Protocol to the Convention.

41) In acceding to the Convention, the Government of the United Arab Emirates made the following reservation (*translation*):

The accession of the Government of the United Arab Emirates to the International Telecommunication Convention of Nairobi (1982) does not apply to the Zionist entity whose name appears in Annex 1 to the Convention and in no way constitutes recognition of that entity.

42) In ratifying the Convention, the Government of the Socialist Republic of Romania confirmed the statement contained in No. 14 of the Final Protocol to the Convention.

43) In ratifying the Convention, the Government of the Republic of Zimbabwe confirmed the statement contained in the third paragraph of No. 93 of the Final Protocol to the Convention.

44) (Obsolete)

45) In ratifying the Convention, the Government of the Argentine Republic confirmed the statements contained in No. 109 (paragraphs 1 and 2) of the Final Protocol to the Convention and also declared the following (*translation*):

"1. With reference to ratification of the International Telecommunication Convention (Nairobi, 1982) and its Optional Additional Protocol on compulsory settlement of disputes, signed at Nairobi, Kenya, on 6 November 1982, with regard to which an instrument of ratification was deposited by the Government of the United Kingdom of Great Britain and Northern Ireland with the General Secretariat of the International Telecommunication Union on 15 November 1984, the Argentine Republic rejects

that ratification in so far as it is made on behalf of the Malvinas, South Georgia and South Sandwich Islands and reaffirms its rights of sovereignty over those archipelagos, which are an integral part of its national territory.

The General Assembly of the United Nations has adopted Resolutions 2065 (XX), 3160 (XXVIII), 31/49, 38/12, 39/6, 40/21 and 41/40 in which it recognizes the existence of a dispute concerning sovereignty over the Malvinas Islands and urges the Argentine Republic and the United Kingdom of Great Britain and Northern Ireland to resume negotiations in order to find, as soon as possible, a peaceful and definitive solution to the dispute and to their remaining differences over this matter, through the good offices of the Secretary-General of the United Nations, who is to report on the progress made.

2. The Argentine Republic also rejects the ratification referred to in the previous paragraph in so far as it is made on behalf of the so-called "British Antarctic Territory", and likewise all ratifications and/or declarations made by Governments of Member States in so far as they mention or refer to "Antarctic Territories" as territorial dependencies of other States which overlap with the Argentine Antarctic Sector, lying between the meridians of longitude 25° and 74° West and the parallel of latitude 60° South, over which the Argentine Republic has and exercises sovereignty, the Sector being an integral part of its territory."

46) See Notification No. 1237.

47) In acceding to the Convention, the Government of the Solomon Islands reserves the right to take such action as it may consider necessary to safeguard its interests should certain Members not share in defraying the expenses of the Union, or should they fail in any other way to comply with the requirements of the International Telecommunication Convention (Nairobi, 1982) or its Annexes or the Protocols attached thereto, or should reservations by other countries jeopardize the telecommunications services of the Solomon Islands.

48) See Notification No. 1249.

49) In ratifying the Convention, the Government of Ireland made the following statement:

"The Government of Ireland wishes to refer to statement No. 90 forming part of the Final Acts of the Plenipotentiary Conference (Nairobi, 1982) and

to state that in as much as that statement refers to the Bogota Declaration of 3 December 1976 and to the claims therein to the exercise of rights over segments of the geostationary-satellite orbit, the Government wishes to reaffirm the statements made on behalf of the Irish delegation at the time of signing the Final Acts of the World Broadcasting Satellite Administrative Radio Conference, Geneva, 1977 and the World Administrative Radio Conference, Geneva, 1979.

The Government of Ireland also wishes to state that the reference to the "geographical situation of particular countries" in Article 33 of the International Telecommunication Convention, Nairobi, 1982 does not imply a recognition of claim to any preferential rights to the geostationary orbit".

50) (Obsolete)

51) In approving these Acts, the Government of Japan confirmed the statement made at the time of signature of the Final Acts of the Plenipotentiary Conference (Nice, 1989).

52) See Notification No. 1269.

53) See Declarations and Reservations in the Final Acts (Nice, 1989).

54) Administrative Regulations or revisions thereof, which were adopted by competent world administrative conferences prior to the date of signature (30 June 1989) of the Nice Constitution and Convention and with regard to which the Member State automatically consented to be bound by them by virtue of its ratification, acceptance or approval of, or of its accession to, the Nice Constitution and Convention (See No. 195 in Article 43 of the Nice Constitution).

55) This approval also applies to Niue.

56) In ratifying the Constitution and the Convention, Canada made the following statement (which also appears in the declarations and reservations made at the time of signature):

"The reference in Article 33 of the Constitution to the "geographical situation of particular countries" does not imply a recognition of claim to any preferential rights to the geostationary orbit".

57) In ratifying the Constitution and the Convention, the country concerned confirmed the declarations and/or reservations made at the time of signature.

**Table II. Final Acts of the World Administrative Radio Conference for the Planning
of the Broadcasting-Satellite Service in Frequency Bands 11.7-12.2 GHz
(in Regions 2 and 3) and 11.7-12.5 GHz (in Region 1)
(Geneva, 1977) *)**

Note: The provisions and associated Plan contained in the Final Acts have become an integral part of the Radio Regulations, Geneva (1979) (see Article 15 and Appendix 30 of the Regulations).

S = Signature; A = Approval.

1	2	3	1	2	3	1	2	3
Afghanistan (Rep. of).....	S	6)	United Arab Emirates	S	6)	Malaysia	S	A
Albania (Republic of).....	—	6)	Ecuador	S		Malawi.....	—	6)
Algeria (People's Democratic Republic of)	S	6)	Spain	S	6)	Maldives (Republic of).....	—	6)
Germany (Fed. Rep. of).....	S	A 5)	United States of America.....	S	6)	Mali (Republic of)	S	6)
Antigua and Barbuda.....	—	6)	Ethiopia (People's Dem. Rep. of)	S	6)	Malta (Republic of)	S	6)
Saudi Arabia (Kingdom of)	S	6)	Russian Federation	S	A	Morocco (Kingdom of)	S	
Argentine Republic.....	S	A 4)	Fiji (Republic of)	—	6)	Mauritius	S	6)
Australia	S	6)	Finland	S	A	Mauritania (Islamic Rep. of)	S	
Austria	S		France.....	S	A	Mexico.....	S	6)
Bahamas (Commonwealth of the).....	—	6)	Gabonese Republic	S		Monaco.....	S	6)
Bahrain (State of).....	S	6)	Ghana.....	S	6)	Mongolian People's Rep.....	S	6)
Bangladesh (People's Rep. of)	S		Greece.....	S	A	Myanmar (Union of)	—	6)
Barbados.....	—	6)	Guatemala (Republic of)	S	6)	Namibia (Republic of).....	—	6)
Belarus (Republic of)	S	A	Guinea (Republic of)	S		Niger (Republic of the)	—	6)
Belgium	S	6)	Equatorial Guinea (Rep. of)	—	6)	Nigeria (Federal Republic of)	S	6)
Belize.....	—	6)	Guyana.....	—	6)	Norway	S	6)
Benin (Rep. of)	S	6)	Haiti (Republic of)	S	6)	New Zealand	S	6)
Bolivia (Rep. of)	S	6)	Honduras (Republic of)	—	6)	Oman (Sultanate of)	S	6)
Botswana (Rep. of).....	—	6)	Hungary (Republic of).....	S	A 4)	Uganda (Republic of).....	S	
Brazil (Federative Rep. of).....	S		India (Republic of).....	S	A	Pakistan (Islamic Republic of)	S	6)
Brunei Darussalam	—	6)	Indonesia (Republic of)	S	6)	Panama (Republic of).....	S	6)
Bulgaria (Rep. of)	S	6)	Iran (Islamic Rep. of)	S	6)	Papua New Guinea	S	6)
Burkina Faso	S	6)	Iraq (Rep. of)	—	6)	Paraguay (Republic of)	S	A
Burundi (Rep. of).....	S		Ireland	S	A	Netherlands (Kingdom of the)	S	A 3)
Cameroon (Rep. of).....	—	6)	Iceland.....	S	6)	Peru.....	—	6)
Canada.....	S	A	Israel (State of)	—	6)	Philippines (Republic of the)....	S	6)
Central African Republic	S		Italy	S	A	Poland (Republic of)	S	6)
Chile	S	6)	Jamaica	—	6)	Portugal	S	6)
China (People's Rep. of).....	S	6)	Japan	S	6)	Qatar (State of).....	—	A
Cyprus (Rep. of)	S	6)	Jordan (Hashemite Kingdom of)	—	6)	Syrian Arab Republic.....	—	6)
Vatican City State.....	S	6)	Kenya (Republic of).....	S	6)	Dem. People's Rep. of Korea	S	6)
Colombia (Rep. of).....	S	6)	Kiribati (Rep. of)	—	6)	Romania	S	6)
Comoros (Isl. Fed. Rep. of the)	S		Kuwait (State of)	S	6)	United Kingdom of Great Britain and Northern Ireland	S	A 1)
Congo (Republic of the).....	S		Lao People's Dem. Rep.	S	6)	Rwandese Republic.....	—	6)
Korea (Rep. of)	S	A	Lesotho (Kingdom of)	—	6)	San Marino (Republic of).....	—	6)
Côte d'Ivoire (Rep. of).....	S	6)	Lebanon	S	6)	Saint Vincent and the Grenadines	—	6)
Cuba.....	S	6)	Liberia (Republic of).....	—	6)	Solomon Islands	—	6)
Denmark.....	S	A	Libya (Soc. People's Libyan Arab Jamahiriya).....	S	6)	Sao Tome and Principe (Dem. Republic of)	—	6)
Djibouti (Republic of)	—	6)	Liechtenstein (Princ. of)	S	A	Senegal (Republic of).....	S	A
Egypt (Arab Rep. of)	S	6)	Luxembourg	S	6)			
El Salvador (Rep. of).....	—	6)	Madagascar (Dem. Rep. of).....	S	6)			

Table II (cont.)

1	2	3	1	2	3	1	2	3
Sierra Leone	—	6)	Swaziland (Kingdom of)	—	6)	Ukraine.....	S	A
Singapore (Republic of)	S	A	Tanzania (United Rep. of)	S	6)	Uruguay (Eastern Rep. of)	S	6)
Somali Democratic Republic	—	6)	Chad (Republic of).....	S	6)	Venezuela (Republic of)	S	6)
Sudan (Republic of the)	S	6)	Czech and Slovak Fed. Rep.....	S	A 4)	Yemen (Republic of).....	S	6)
Sri Lanka (Dem. Soc. Rep. of)	—	6)	Thailand	S	6)	Yugoslavia (Soc. Fed. Rep. of)	S	6)
South Africa (Republic of).....	—	6)	Togolese Republic	S	6)	Zaire (Republic of)	S	
Sweden	S	A 4)	Trinidad and Tobago.....	—	6)	Zambia (Republic of)	—	6)
Switzerland (Confederation of)	S	A 2)	Tunisia	S	6)	Zimbabwe (Republic of)	—	6)
Suriname (Republic of)	—	6)	Turkey	S	6)			

*) In the alphabetical order of the French version of the country names.

- 1) The approval is in respect of the United Kingdom of Great Britain and Northern Ireland and Territories under the territorial sovereignty of the United Kingdom.
- 2) In approving these Final Acts, Switzerland supported the statement No. 74 of the Final Protocol to these Acts.
- 3) For the Netherlands, the Netherlands Antilles and Aruba.
- 4) In approving the Final Acts, the Member concerned confirmed the statement(s) made at the time of signature.
- 5) See Notifications Nos. 1146, 1169, 1175 and 1182.
- 6) This Member has approved the Radio Regulations, Geneva, 1979, of which the provisions and associated Plan contained in the Final Acts form an integral part.

**Table III. Regional Agreement concerning the use by the broadcasting service
of frequencies in the medium frequency bands in Regions 1 and 3
and in the low frequency bands in Region 1
(Geneva, 1975) *)**

S = Signature; A = Approval or Accession.

1	2	3	1	2	3	1	2	3
Afghanistan (Republic of).....	S		Equatorial Guinea (Rep. of)	—		Pakistan (Islamic Rep. of)	S	
Albania (Republic of).....	—	A	Hungary (Republic of).....	S	A 1)	Papua New Guinea	S	A
Algeria (People's Democratic Republic of)	S		India (Rep. of)	S	A	Netherlands (Kingdom of the)	S	A 3)
Germany (Fed. Rep. of).....	S	A 4)	Indonesia (Rep. of).....	S		Philippines (Rep. of the).....	S	
Angola (People's Rep. of)	—		Iran (Islamic Rep. of).....	S		Poland (Republic of)	S	A 1)
Saudi Arabia (Kingdom of)	S		Iraq (Republic of).....	—		Portugal	S	
Australia	S		Ireland	S	A	Qatar (State of).....	S	
Austria	S		Iceland.....	S	A	Syrian Arab Republic	S	
Bahrain (State of).....	—	A	Israel (State of)	S		Dem. People's Rep. of Korea	—	
Bangladesh (People's Rep. of)	S		Italy	S	A	Romania	S	A 5)
Belarus (Republic of)	S	A	Japan	S	A	United Kingdom of Great Britain and Northern Ireland	S	A 2)
Belgium	S	A	Jordan (Hashemite Kingdom of)	S	A	Rwandese Republic	—	
Benin (Rep. of)	S		Kenya (Republic of).....	S		San Marino (Republic of).....	—	
Botswana (Rep. of).....	S	A	Kiribati (Rep. of).....	—		Solomon Islands	—	
Bulgaria (Rep. of)	S	A	Kuwait (State of).....	S		Sao Tome and Principe (Dem. Rep. of).....	—	
Burkina Faso	S		Lao People's Dem. Rep.	—		Senegal (Rep. of).....	S	A
Burundi (Rep. of).....	S		Lesotho (Kingdom of)	S		Sierra Leone	—	A
Cambodia	—		Lebanon	S		Singapore (Rep. of)	S	A
Cameroon (Republic of).....	S	A	Liberia (Republic of).....	S		Somali Democratic Republic	—	
Cape Verde (Republic of)	—		Libya (Soc. People's Libyan Arab Jamahiriya).....	S		Sudan (Rep. of the).....	S	
Central African Republic	S		Liechtenstein (Princ. of)	S	A	Sri Lanka (Dem. Soc. Rep. of)	S	
China (People's Rep. of).....	S	A	Luxembourg	S	A	South Africa (Rep. of)	—	
Cyprus (Rep. of)	S		Madagascar (Dem. Rep. of).....	S		Sweden	S	A
Vatican City State	S	A	Malaysia.....	S		Switzerland (Confederation of)	S	A
Comoros (Isl. Fed. Rep. of the) ..	—		Malawi	S	A	Swaziland (Kingdom of).....	—	
Congo (Rep. of the)	S		Maldives (Rep. of)	—		Tanzania (United Rep. of).....	S	
Korea (Rep. of)	S	A	Mali (Rep. of)	S		Chad (Rep. of).....	S	
Côte d'Ivoire (Republic of)	S	A	Malta (Republic of).....	—		Czech and Slovak Federal Rep.	S	A 1)
Denmark	S	A	Morocco (Kingdom of).....	S	A	Thailand	S	
Djibouti (Rep. of).....	—		Mauritius.....	S		Togolese Republic	S	
Egypt (Arab Rep. of).....	S 6)		Mauritania (Islamic Rep. of)	S		Tonga (Kingdom of).....	—	A
United Arab Emirates	S		Monaco	S	A	Tunisia	S	
Spain	S	A	Mongolian People's Rep.	S	A	Turkey	S	
Ethiopia (People's Dem. Rep. of)	S	A	Mozambique (Republic of)	S	A	Ukraine.....	S	
Russian Federation	S	A	Myanmar (Union of).....	—	A	Viet Nam (Soc. Rep. of)	—	
Fiji (Republic of)	S	A	Namibia (Republic of)	—		Yemen (Republic of).....	S	
Finland	S	A	Nauru (Rep. of)	—	A	Yugoslavia (Soc. Fed. Rep. of)	S	A
France	S	A	Nepal	S	A	Zaire (Republic of)	S	
Gabonese Republic.....	S		Niger (Rep. of the)	S		Zambia (Republic of)	S	
Gambia (Rep. of the)	S		Nigeria (Fed. Rep. of)	S		Zimbabwe (Rep. of).....	—	
Ghana	S		Norway	S	A			
Greece.....	S	A	New Zealand.....	S	A			
Guinea (Rep. of)	S		Oman (Sultanate of).....	—	A			
Guinea-Bissau (Rep. of).....	—		Uganda (Rep. of).....	S				

*) In the alphabetical order of the French version of the country names.

1) In approving the Agreement, the Member concerned confirmed the statement(s) made at the time of signature.

2) This approval is also in respect of the Territories under the territorial sovereignty of the United Kingdom in Regions 1 and 3.

- 3) This approval is in respect of the Kingdom in Europe.
- 4) See Notification No. 1132.
- 5) In approving this Agreement, the Government of the Socialist Republic of Romania has made the following statement:
"The Socialist Republic of Romania reserves the right to take the necessary action to ensure that its broadcasting transmitters cover the entire national territory with broadcast programmes, in an appropriate manner, in the event that the coordination provided for in the Plan annexed to this Agreement cannot be achieved by negotiations."
- 6) See Notification No. 1175.

**Table IV. Regional Agreement concerning the Use of the Band 87.5-108 MHz
for FM Sound Broadcasting (Region 1 and part of Region 3)
(Geneva, 1984) *)**

S = Signature; A = Approval or Accession.

1	2	3	1	2	3	1	2	3
Afghanistan (Rep. of).....	S		Ghana.....	—		Oman (Sultanate of).....	S	
Albania (Rep. of).....	S		Greece.....	S	A	Uganda (Rep. of).....	S	
Algeria (People's Democratic Republic of).....	S		Guinea (Rep. of).....	S		Netherlands (Kingdom of the)	S	A
Germany (Fed. Rep. of).....	S	A 1)	Guinea-Bissau (Rep. of).....	—		Poland (Republic of).....	S	
Angola (People's Rep. of).....	S		Equatorial Guinea (Rep. of).....	—		Portugal.....	S	
Saudi Arabia (Kingdom of).....	S	A	Hungary (Republic of).....	S		Qatar (State of).....	S	A
Austria.....	S		Iran (Islamic Rep. of).....	S		Syrian Arab Republic.....	S	
Bahrain (State of).....	—		Iraq (Republic of).....	S		Romania.....	S	
Belarus (Republic of).....	S	A	Ireland.....	S		United Kingdom of Great Britain and Northern Ireland.....	S	
Belgium.....	S		Iceland.....	—		Rwandese Republic.....	—	
Benin (Rep. of).....	S		Israel (State of).....	S		San Marino (Rep. of).....	S	
Botswana (Rep. of).....	S		Italy.....	S		Sao Tome and Principe (Dem. Rep. of).....	—	
Bulgaria (Rep. of).....	S		Jordan (Hashemite Kingdom of)	S		Senegal (Rep. of).....	S	
Burkina Faso.....	S		Kenya (Republic of).....	S		Sierra Leone.....	—	
Burundi (Rep. of).....	—		Kuwait (State of).....	S		Somali Democratic Republic.....	—	
Cameroon (Republic of).....	S		Lesotho (Kingdom of).....	S		Sudan (Rep. of the).....	—	
Cape Verde (Republic of).....	—		Lebanon.....	—		South Africa (Rep. of).....	—	A
Central African Republic.....	—		Liberia (Republic of).....	—		Sweden.....	S	A
Cyprus (Rep. of).....	S		Libya (Soc. People's Libyan Arab Jamahiriya).....	S		Switzerland (Confederation of)	S	A
Vatican City State.....	S	A	Liechtenstein (Princ. of).....	S		Swaziland (Kingdom of).....	S	
Comoros (Isl. Fed. Rep. of the).....	—		Luxembourg.....	S		Tanzania (United Rep. of).....	S	
Congo (Rep. of the).....	S		Madagascar (Dem. Rep. of).....	—		Chad (Rep. of).....	S	
Côte d'Ivoire (Rep. of).....	S	A	Malawi.....	—		Czech and Slovak Federal Republic.....	S	
Denmark.....	S	A	Mali (Republic of).....	S		Togolese Republic.....	S	
Djibouti (Rep. of).....	—		Malta (Republic of).....	S		Tunisia.....	S	
Egypt (Arab Rep. of).....	S	A	Morocco (Kingdom of).....	S		Turkey.....	S	
United Arab Emirates.....	—	A	Mauritius.....	—		Ukraine.....	S	A
Spain.....	S	A 3)	Mauritania (Islamic Rep. of).....	—		Yemen (Republic of).....	S	
Ethiopia (People's Dem. Rep. of)	—		Monaco.....	S		Yugoslavia (Soc. Fed. Rep. of)	S	
Russian Federation.....	S	A 2)	Mongolian People's Rep.	S		Zaire (Republic of).....	—	
Finland.....	S	A	Mozambique (Rep. of).....	—		Zambia (Republic of).....	S	
France.....	S		Namibia (Republic of).....	—		Zimbabwe (Republic of).....	S	
Gabonese Republic.....	S		Niger (Rep. of the).....	—				
Gambia (Rep. of the).....	—		Nigeria (Fed. Rep. of).....	—				
			Norway.....	S				

*) In the alphabetical order of the French version of the country names.

1) See Notification No. 1235.

2) In approving the Agreement, this Administration confirmed the statements made at the time of signature.

3) In approving the Agreement, the Government of Spain confirmed the statements made at the time of signature.

**Table V. Regional Agreement concerning the Maritime Mobile
and the Aeronautical Radionavigation Services in the MF Band (Region 1)
(Geneva, 1985) *)**

This Agreement will come into force on 1 April 1992.

S = Signature; A = Approval or Accession

1	2	3	1	2	3	1	2	3
Albania (Republic of).....	—		Greece.....	S		Uganda (Rep. of).....	—	
Algeria (People's Democratic Republic of).....	S		Guinea (Rep. of).....	S		Netherlands (Kingdom of the)	S	A
Germany (Fed. Rep. of).....	S	A	Guinea-Bissau (Rep. of).....	—		Poland (Rep. of).....	S	
Angola (People's Rep. of).....	S		Equatorial Guinea (Rep. of).....	—		Portugal.....	S	
Saudi Arabia (Kingdom of).....	S	A	Hungary (Republic of).....	S	A	Qatar (State of).....	S	
Austria.....	S		Iraq (Republic of).....	S		Syrian Arab Republic.....	—	
Bahrain (State of).....	S		Ireland.....	S		Romania.....	S	
Belarus (Republic of).....	—		Iceland.....	—		United Kingdom of Great Britain and Northern Ireland.....	S	
Belgium.....	S		Israel (State of).....	S		Rwandese Republic.....	—	
Benin (Rep. of).....	S		Italy.....	S	A	San Marino (Rep. of).....	—	
Botswana (Rep. of).....	—		Jordan (Hashemite Kingdom of)	—		Sao Tome and Principe (Dem. Rep. of).....	—	
Bulgaria (Rep. of).....	S		Kenya (Republic of).....	S		Senegal (Rep. of).....	—	A
Burkina Faso.....	—		Kuwait (State of).....	S		Sierra Leone.....	—	
Burundi (Rep. of).....	—		Lesotho (Kingdom of).....	—		Somali Democratic Republic.....	—	
Cameroon (Republic of).....	S		Lebanon.....	—		Sudan (Rep. of the).....	—	
Cape Verde (Republic of).....	—		Liberia (Republic of).....	—		South Africa (Rep. of).....	—	A
Central African Republic.....	—		Libya (Soc. People's Libyan Arab Jamahiriya).....	S		Sweden.....	S	A
Cyprus (Rep. of).....	S		Liechtenstein (Princ. of).....	—	A	Switzerland (Confederation of)	S	A
Vatican City State.....	—		Luxembourg.....	—		Swaziland (Kingdom of).....	—	
Comoros (Isl. Fed. Rep. of the).....	—		Madagascar (Dem. Rep. of).....	S		Tanzania (United Rep. of).....	—	
Congo (Rep. of the).....	—		Malawi.....	—		Chad (Rep. of).....	S	
Côte d'Ivoire (Rep. of).....	S	A	Mali (Republic of).....	—		Czech and Slovak Federal Republic.....	S	
Denmark.....	S	A	Malta (Republic of).....	S		Togolese Republic.....	—	
Djibouti (Rep. of).....	—		Morocco (Kingdom of).....	S		Tunisia.....	S	
Egypt (Arab Rep. of).....	S		Mauritius.....	—		Turkey.....	S	
United Arab Emirates.....	—		Mauritania (Islamic Rep. of).....	—		Ukraine.....	—	
Spain.....	S	A	Monaco.....	S		Yemen (Republic of).....	—	
Ethiopia (People's Dem. Rep. of).....	—		Mongolian People's Rep.....	—		Yugoslavia (Soc. Fed. Rep. of)	S	
Russian Federation.....	S	A	Mozambique (Rep. of).....	—		Zaire (Republic of).....	—	
Finland.....	S		Namibia (Republic of).....	—		Zambia (Republic of).....	—	
France.....	S		Niger (Rep. of the).....	—		Zimbabwe (Republic of).....	—	
Gabonese Republic.....	—		Nigeria (Fed. Rep. of).....	—				
Gambia (Rep. of the).....	—		Norway.....	S				
Ghana.....	S		Oman (Sultanate of).....	S				

*) In the alphabetical order of the French version of the country names.

Table VI. American Regional Agreements

S = Signature; A = Approval or Accession; R = Ratification.

Members *)	Inter-American Radio Agreement (FIAR) (Washington, 1949)		North-American Regional Broadcasting Agreement (NARBA) (Washington, 1950)		Regional Agreement for the MF Broadcasting Service in Region 2 (Rio de Janeiro, 1981)		Regional Agreement concerning the Use of the Band 1605-1705 kHz in Region 2 (Rio de Janeiro, 1988)	
	2	3	4	5	6	7	8	9
Antigua and Barbuda.....	—		—		—		S	
Argentine Republic.....	S		—		S	A 4)	S	
Bahamas (Commonwealth of the).....	—		—		S		—	
Barbados.....	—		—		—		S	
Belize.....	—		—		S		—	
Bolivia (Republic of).....	S		—		—		—	
Brazil (Federative Republic of).....	S		—		S	A	S	
Canada.....	S		S	2)	S	A	S	R
Chile.....	S		—		S		S	
Colombia (Republic of).....	S		—		S		S	
Costa Rica.....	S	A	—		S		S	
Cuba.....	S		S	1)	—		S	
Denmark.....	—		—		S	A	—	A
Dominican Republic.....	S	A	S	R	—		—	
El Salvador (Republic of).....	S		—		—		—	
Ecuador.....	S		—		S		—	
United States of America.....	S	A	S	R	S		S	
France.....	—		—		S		S	
Grenada.....	—		—		S		—	
Guatemala (Republic of).....	S		—		—		—	
Guyana.....	—		—		S		—	
Haiti (Republic of).....	—	A	—		—		S	
Honduras (Republic of).....	S	A	—		—		S	
Jamaica.....	—		—		S		—	
Mexico.....	S	A	—		S		S	
Nicaragua.....	S	A	—		S		—	
Panama (Republic of).....	S		—		S		—	
Paraguay (Republic of).....	—	A	—		S		S	
Netherlands (Kingdom of the).....	—		—		S	A 3)	—	
Peru.....	—		—		S		—	
United Kingdom of Great Britain and Northern Ireland.....	—		S	R	S		S	
Saint Vincent and the Grenadines.....	—		—		—		—	
Suriname (Republic of).....	—		—		—	A	S	
Trinidad and Tobago.....	—		—		S		S	
Uruguay (Eastern Republic of).....	S		—		S		S	
Venezuela (Republic of).....	S		—		S		S	

*) In the alphabetical order of the French version of the country names.

1) The Government of Cuba has denounced this Agreement with effect from 3 November 1981.

2) The Government of Canada has denounced this Agreement with effect from 17 February 1985.

3) For the Netherlands Antilles and Aruba.

4) In approving the Agreement, the Argentine Government confirmed the statements contained in No. 2 (paragraphs A.1, A.2, A.3, B and C) of the Final Protocol to the Agreement and also declared the following (*translation*):

"Furthermore, the United Nations General Assembly adopted Resolutions 2065 (XX), 3160 (XXVIII), 31/49, 37/9, 38/12, 39/6, 40/21 and 41/40 recognizing the existence of a sovereignty dispute relating to the question of the Malvinas Islands and urging the Argentine Republic and the United Kingdom of Great Britain and Northern Ireland to conduct negotiations with a view to resolving the dispute peacefully and definitively through the good offices of the Secretary-General of the United Nations, who was asked to report to the General Assembly on the progress made."

Table VII. European Regional Convention, Arrangement, Agreements and Protocol

S = Signature; A = Approval or Accession; R = Ratification.

Members *)	European Regional Convention for the maritime mobile radio service (Copenhagen, 1948)		Regional Arrangement concerning Maritime Radiobeacons in the European Area of Region 1 (Paris, 1951)		Regional Agreement in the bands 68-73 MHz and 76-87.5 MHz (Geneva, 1960) **)		Regional Agreement for the European Broadcasting Area (Stockholm, 1961)		Protocol amending the Stockholm Agreement (Geneva, 1985)		Regional Agreement concerning Maritime Radiobeacons (Geneva, 1985) ***)	
1	2	3	4	5	6	7	8	9	10	11	12	13
Albania (Republic of)	—		—		S		—		—		—	
Algeria (People's Democratic Republic of)	—		—		—		—		—		S	
Germany (Federal Republic of)	—		—		S	A	S	A 6)	S	A 8)	S	A 8)
Saudi Arabia (Kingdom of)	—		—		—		—		—		—	
Austria	—		—		S	A	S	A	S	A	S	
Belarus (Republic of)	—		—		S		S	A 5)	S	A	—	
Belgium	S	R	S	A	—		S	A	—	A	S	
Bulgaria (Republic of)	—	1)	—		S		S		—		S	
Cyprus (Republic of)	—		—		—		S	A	—		S	
Vatican City State	—		—		—		S	A	S	A	—	
Denmark	S	R	S	A	S	A	S		S		S	A
Egypt (Arab Republic of)	—		—		—		—		S		—	
Spain	—		S		—		S	A 2)	S	A	S	A
Russian Federation	—	3)	—		S	A	S	A 5)	S	A 9)	S	A
Finland	—		—		—		S	A	S	A	S	
France	S	R	S	A	S	A	S	A	S	A	S	A
Greece	S	R	—		S		S	A	S	A	S	
Hungary (Republic of)	—		—		S	A	S	A	S		S	A
Iraq (Republic of)	—		—		—		—		—		—	
Ireland	S	R	—	A	—		S	A	S		S	
Iceland	S	R	—		—		S	A	—	A	—	
Israel (State of)	—		—		—		S		S		S	
Italy	S	R	S	A	S	A	S	A	S		S	A
Jordan (Hashemite Kingdom of)	—		—		—		—		—		—	
Lebanon	—		—		—		S		—		—	
Libya (Soc. People's Libyan Arab Jamahiriya)	—		—		—		—		—		S	
Liechtenstein (Principality of)	—		—		—		—		—		—	
Luxembourg	—		—		—		S		S		—	
Malta (Republic of)	—		—		—		—		S		S	
Morocco (Kingdom of)	S	R	S	A	—		S	A	—	A	S	
Monaco	S	R	S	A	—		S		S		S	
Norway	S	R	S	A	S	A	S	A	S	A	S	
Netherlands (Kingdom of the)	S	R	S	A	—		S	A	S	A	S	A
Poland (Republic of)	—		—		S		S		S		S	
Portugal	S		S		—		S	A	S		S	
Syrian Arab Republic	—		—		—		—		—		—	
Romania	—		—		S	A	S		S		S	
United Kingdom of Great Britain and Northern Ireland	S	R	S	A	—		S 7)	A 7)	S		S	
San Marino (Republic of)	—		—		—		—	A	S	A	—	
Sweden	S	R	S	A	S	A	S	A	S	A	S	A
Switzerland (Confederation of)	—		—		S	A	S	A	S	A	—	A
Czech and Slovak Federal Republic	—		—		S	A	S		S		S	
Tunisia	S	R	S	A	—		—		S		S	
Turkey	S		S	A	S		S		S		S	
Ukraine	—		—		S	A	S	A 5)	S	A	—	
Yugoslavia (Socialist Federal Republic of)	—		—	A	S		S	A	S	A	S	

*) In the alphabetical order of the French version of the country names.

- ***) Regional Agreement for the use of frequencies in the bands 68-73 MHz and 76-87.5 MHz by the broadcasting service on the one hand and by the fixed and mobile services on the other (Geneva, 1960).
- ****) Regional Agreement for the Planning of Maritime Radionavigation Service (Radiobeacons) in the European Maritime Area (Geneva, 1985). (Note: This Agreement will come into force on 1 April 1992.)
- 1) The People's Republic of Bulgaria has given notice that its coast stations use the frequencies assigned to them in the Copenhagen Plan.
 - 2) The Spanish Government has approved this Agreement while maintaining the three reservations which appear in paragraph I (A, B and C) of the Final Protocol.
 - 3) The Union of Soviet Socialist Republics has given notice that its coast stations use the frequencies assigned to them in the Copenhagen Plan.
 - 4) (Obsolete)
 - 5) Considering that, when the plans for the assignment of frequencies to television stations in the 645-960 MHz band were established at the Stockholm Conference in 1961, the requirements of the air radionavigation services of the USSR, the Ukrainian SSR and the Byelorussian SSR were not sufficiently taken into consideration, and in view of the special nature of the air radionavigation services, the Telecommunication Administrations of the USSR, the Ukrainian SSR and the Byelorussian SSR cannot assure countries using this range for television of the necessary means to prevent interference from the air radionavigation services of the USSR, the Ukrainian SSR and the Byelorussian SSR.
 - 6) In giving its approval, the Administration of the Federal Republic of Germany expressed the following considerations:
"According to the frequency plan for television stations in the frequency band 162-230 MHz (Annex 2, Chapter 2, of the Agreement), the frequencies 224.25/229.75 MHz are assigned to the Sonneberg television station appearing in the plan with an effective radiated power of 30/6 kW and an effective radiated power of 5 kW for the television carrier permitted in the sector between 45 and 135 degrees.
This assignment is capable of causing harmful interference to the aeronautical radionavigation service stations which operate in the frequency band 223-235 MHz in accordance with Article 5 of the Radio Regulations, Geneva, 1959.
Harmful interference to stations operating in the frequency band 223-235 MHz, which is allocated to the aeronautical radionavigation service on a primary basis, can only be avoided if the effective radiated power of the Sonneberg television station does not exceed 0.5/0.1 kW in the sector between 135 and 345 degrees."
 - 7) Also signed and approved on behalf of the Overseas Territories for the international relations of which the Government of the United Kingdom is responsible.
 - 8) See Notification No. 1235.
 - 9) In approving this Protocol, the Administration of the USSR confirmed the statements made at the time of signature.

Table VIII. African Regional Agreements and Protocols

S = Signature; A = Approval or Accession.

Members*)	Geneva Agreement (1963)		Geneva Protocol (1985)		Geneva Protocol (1989)		Geneva Agreement (1989)	
1	2	3	4	5	6	7	8	9
Algeria (People's Democratic Republic of)	—		—		S		S	
Angola (People's Republic of)	—		—		—		—	
Saudi Arabia (Kingdom of)							S	
Bahrain (State of)							S	
Benin (Republic of)	S		—		S		S	
Botswana (Republic of)	—		S		—		S	
Burkina Faso	S		—		S		S	
Burundi (Republic of)	—		S		—		S	
Cameroon (Republic of)	S		S		S		S	
Cape Verde (Republic of)	—		—		—		—	
Central African Republic	—		—		—		—	
Comoros (Isl. Fed. Rep. of the)	—		—		—		—	
Congo (Republic of the)	S		—		S		S	
Côte d'Ivoire (Republic of)	S	A	S	A	S		S	
Djibouti (Republic of)	—		—		—		—	
Egypt (Arab Republic of)	—	A	S		S		S	
United Arab Emirates							S	
Spain	S	A	S	A	S	A	S	A
Ethiopia (People's Dem. Rep. of)	S	A	S		S		S	
France	S	A	S	A	S		S	
Gabonese Republic	S		S		S		S	
Gambia (Republic of the)	—		—		—		—	
Ghana	S		S		S		S	
Guinea (Republic of)	S		—		—		S	
Guinea-Bissau (Republic of)	—		—		—		—	
Equatorial Guinea (Republic of)	—		—		—		—	
Iran (Islamic Republic of)							S	
Iraq (Republic of)							S	
Kenya (Republic of)	S	A	S	A				
Kuwait (State of)							S	
Lesotho (Kingdom of)	—		—		—			
Liberia (Republic of)	S		—		—			
Libya (Socialist People's Libyan Arab Jamahiriya)	S		—		—			
Madagascar (Dem. Republic of)	S		S		S		S	
Malawi	—		—		—		S	
Mali (Republic of)	S		—		S		S	
Morocco (Kingdom of)	—		—		S		S	
Mauritius	—		—		S		S	
Mauritania (Isl. Republic of)	S		—		S		S	
Mozambique (Republic of)	—		—		S		S	
Namibia (Republic of)	—		—		—		—	
Niger (Republic of the)	S		—		—		S	
Nigeria (Federal Republic of)	S	A	—		S		S	
Oman (Sultanate of)							S	
Uganda (Rep. of)	S	A	—		—		—	
Qatar (State of)							S	

Table VIII (continuation)

Members*)	Geneva Agreement (1963)		Geneva Protocol (1985)		Geneva Protocol (1989)		Geneva Agreement (1989)	
1	2	3	4	5	6	7	8	9
United Kingdom of Great Britain and Northern Ireland	S		S		—		—	
Rwandese Republic	S		—		—		S	
Sao Tome and Principe (Dem. Rep. of)	—		—		—		—	
Senegal (Republic of)	S	A	S		S		S	
Sierra Leone	S	A	—		—		—	
Somali Democratic Republic	S		—		—		—	
Sudan (Republic of the)	—		—		—		—	
South Africa (Republic of)	S	A	—	A	—	A	—	A
Swaziland (Kingdom of)	—		—		S		S	
Tanzania (United Republic of)	S	A	—		—		—	
Chad (Republic of)	S		—		S		S	
Togolese Republic	S		S		—		S	
Yemen (Republic of)							S	
Zaire (Republic of)	S		—		—		—	
Zambia (Republic of)	—		S		S		S	
Zimbabwe (Republic of)	—		—		S		S	

*) In the alphabetical order of the French version of the country names.

IX. Special Agreements

Special Agreement for use of the 582 - 606 MHz band for radionavigation purposes (Brussels, 1962)

This Agreement was concluded between the following Administrations: Federal Republic of Germany, Belgium, Denmark, France, Kingdom of the Netherlands, United Kingdom of Great Britain and Northern Ireland and Confederation of Switzerland.

Special Agreement concerning the use of frequencies for additional low-power television transmitters operating in the ultra high-frequency range (Band IV, 472 - 582 MHz and Band V, 582 - 960 MHz) in the frontier areas (Karlsruhe, 1966)

This Agreement was concluded between the following Administrations: Federal Republic of Germany, Austria, Belgium, France, Italy, Luxembourg and Kingdom of the Netherlands.

This Agreement was approved without reservation by all these Administrations.

Special Agreements concerning the coordinated use of frequencies between 29.7 and 470 MHz by the fixed and land mobile services

Agreement signed at Vienna on 25 April 1969 by the following Administrations: Austria, Hungarian People's Republic and Czechoslovak Socialist Republic.

This Agreement, which was approved without reservation by these Administrations, came into force on 1 January 1970.

Agreement signed at Budapest on 1 July 1976 by the following Administrations: Hungarian People's Republic and Socialist Federal Republic of Yugoslavia.

This Agreement became effective sixty days after signing.

Agreement signed at Athens on 23 June 1979 by the following Administrations: Greece and Socialist Federal Republic of Yugoslavia.

This Agreement, which was ratified by these Administrations, came into force on 1 January 1980.

Agreement signed by the following Administrations: Socialist Republic of Romania and Socialist Federal Republic of Yugoslavia.

This Agreement came into force on 10 February 1981.

**Special Agreements concerning the coordinated use of frequencies
between 29.7 and 960 MHz by the fixed and land mobile services**

Agreement signed at Vienna on 23 September 1976 by the following Administrations: Austria and Socialist Federal Republic of Yugoslavia.

This Agreement, which was approved without reservations by these Administrations, came into force on 1 January 1977.

Agreement signed at Vienna on 24 January 1986 by the following Administrations: Austria, Federal Republic of Germany, Belgium, France, Italy, Luxembourg, the Kingdom of the Netherlands and the Confederation of Switzerland.

By a letter dated 4 February 1991, the Austrian Administration notified that the Administrations of the Republic of Hungary and the Czech and Slovak Federal Republic had adhered to the Agreement.

This Agreement came into force on 1 January 1989.

**Regional Arrangement concerning the Rhine radiotelephone service
(Munich, 1976)**

This Arrangement was concluded on 1 October 1976 between the Administrations of the following countries: Federal Republic of Germany, Belgium, France, Luxembourg, the Kingdom of the Netherlands and the Confederation of Switzerland.

The Arrangement, which was approved by all the said Administrations (with some reservations on the part of the Netherlands Administration), came into force on 1 April 1977.

In addition, the Administration of the United Kingdom of Great Britain and Northern Ireland became a *participating Administration* under the provisions of Article 9 of the Arrangement.

Special Agreement concerning the use of the band 174 - 225 MHz

One such Agreement was signed at Paris on 10 April 1984 between the Administrations of France and the United Kingdom of Great Britain and Northern Ireland.

This Agreement came into force on 10 May 1984.

**Protocol of Agreement concerning the bringing into service
of broadcasting frequency assignments appearing in the Geneva Plan (1984)
in the band 104 - 108 MHz**

This Protocol of Agreement was signed at Geneva on 7 December 1984 by the delegates of the Administrations of France and the United Kingdom of Great Britain and Northern Ireland on the one hand, and the Administrations of the Federal Republic of Germany, Belgium, Ireland, Italy, Luxembourg, Monaco, the Kingdom of the Netherlands and the Confederation of Switzerland on the other hand.

The provisions of the Protocol of Agreement came into force on 1 January 1986.

**Protocol of Agreement concerning criteria of sharing
between different services in the band 174 - 225 MHz**

This Protocol of Agreement was signed at Geneva on 27 November 1984 by the delegates of the Administrations of the Kingdom of the Netherlands and of the United Kingdom of Great Britain and Northern Ireland.

The provisions of this Protocol of Agreement came into force on 27 December 1984.

**Special Agreement concerning implementation of the
broadcasting service in frequency band 104 - 108 MHz**

This Agreement was signed at Copenhagen on 29 January 1986 by delegates of the Administrations of the Federal Republic of Germany, Denmark, the People's Republic of Poland, Sweden and the USSR.

The Agreement contains details of frequency usage that can be implemented in the time period mentioned in Resolution 3 of the RAC for the Planning of VHF Sound Broadcasting (Region 1 and part of Region 3) (Geneva, 1984).

**Special Agreement concerning the assignment and use
of frequency-modulated sound-broadcasting channels
in the VHF band 88 - 108 MHz**

This Agreement was signed at Montevideo on 8 July 1980 by the representatives of the Administrations of the Argentine Republic, the Federative Republic of Brazil and the Eastern Republic of Uruguay.

Note: The terms of the Agreement were received by the General Secretariat on 10 June 1987.

A N N E X 2
BUDGET AND ACCOUNTS FOR 1991

BUDGET AND ACCOUNTS FOR 1991		
EXPENDITURE	Budget 1991	Dépenses 1991
I. BUDGET OF THE UNION	- Swiss francs -	
Ordinary budget		
Sect. 1 - Administrative Council	1.687.200	1.567.565,55
Common Headquarters' expenditure :		
Sect. 2 - Staff	62.294.000	60.985.069,75
Sect. 3 - Social security	15.732.000	15.641.424,05
Sect. 4 - Premises	5.693.000	5.685.755,00
Sect. 5 - Missions	250.000	250.628,80
Sect. 6 - Office and miscellaneous expenses	10.271.000	10.338.471,36
	94.240.000	92.901.348,96
	95.927.200	94.468.914,51
Sect. 7 - Telecommunications Development Bureau	18.336.300	16.872.146,85
Sect. 8 - Translation into Arabic, Chinese and Russian	3.298.900	3.298.900,00
	117.562.400	114.639.961,36
Sect. 11.2 - WARC 1992	100.000	100.000,00
Sect. 11.8 - WARC HFBC 1993	1.189.000	904.798,90
Sect. 12 - CCIR meetings	2.369.500	1.444.722,05
Sect. 13 - CCITT meetings	3.962.400	3.279.069,20
Sect. 15 - ITU seminars	32.400	0,00
Sect. 17 - Common expenses for confer. and meetings	6.082.100	5.526.038,20
	13.735.400	11.254.628,35
	131.297.800	125.894.589,71
Sect. 19 - Payment into ITU Reserve Account	3.000.000	3.000.000,00
	134.297.800	128.894.589,71
Cancellation of bad debts	0	92.899,05
	134.297.800	128.987.488,76
Surplus income		6.236.840,31
	134.297.800	135.224.329,07

1991 budget including additional credits

BUDGET AND ACCOUNTS FOR 1991		
INCOME	Budget 1991	Expenditure 1991
- Swiss francs -		
I. BUDGET OF THE UNION		
Ordinary budget		
Contributions:		
- Contributions by the Members for the current year	110.172.738	109.382.445,85
- Contributions by recognized private operating agencies, scientific or industrial organizations and international organizations to conference and meeting expenses under Sect.11 to 13:		
Administrative conferences	0	0,00
CCIR	4.260.280	4.619.913,35
CCITT	8.724.820	8.970.171,90
- Sundry income	136.162	1.155.098,92
	123.294.000	124.127.630,02
Subsidy from the Supplementary publications budget	500.000	500.000,00
	123.794.000	124.627.630,02
Withdrawal from ITU Reserve account to cover additional credits - Res. No. 647	9.021.800	9.021.800,00
Withdrawal from ITU Reserve account to cover additional credits - HLC Recommendations	1.482.000	1.482.000,00
Withdrawal from ITU Reserve account to write off bad debts	0	92.899,05
	134.297.800	135.224.329,07

Budget 1991 including additional credits

BUDGET AND ACCOUNTS FOR 1991		
EXPENDITURE	Budget 1991	Expenditure 1991
	- Swiss francs -	
II. TECHNICAL COOPERATION SPECIAL ACCOUNTS BUDGET		
Sect. 21 - Technical Cooperation		
Administrative costs for 1991	6.940.100	5.994.122,06
	6.940.100	5.994.122,06
III. SUPPLEMENTARY PUBLICATIONS BUDGET		
Sect. 24 & 25 - Cost of publications issued in 1991 including overheads	8.346.500	9.101.126,54
Sect. 26 - Cost of the Telecommunication Journal and ITU Global Directory	1.610.000	1.250.664,20
Sect. 26 - Sundry	170.000	129.511,90
	10.126.500	10.481.302,64
Surplus income transferred to Publications capital account		1.932.688,92
	10.126.500	12.413.991,56

1991 budget including additional credits

BUDGET AND ACCOUNTS FOR 1991		
INCOME	Budget 1991	Expenditure 1991
- Swiss francs -		
II. TECHNICAL COOPERATION SPECIAL ACCOUNTS BUDGET		
UNDP contributions to defrayal of project costs	6.940.100	4.543.810,45
Contributions from funds-in-trust		1.174.265,55
Contributions from the Special fund for Technical cooperation		0,00
Other income:		
- Balance of account for payments granted for 1990		32.949,28
- Sundry income		194.610,42
		5.945.635,70
Excess expenditure for 1991		48.486,36
	6.940.100	5.994.122,06
III. SUPPLEMENTARY PUBLICATIONS BUDGET		
Sale of publications issued during 1991 and previous years	7.750.000	10.518.929,25
Sale of the Journal and the Global Directory	270.000	217.058,50
Advertisements in the Telecommunication Journal	1.200.000	840.124,84
Sundry	140.000	166.878,97
Withdrawal from the Publications capital accounts to cover additional credits - HLC Recommendations	671.000	671.000,00
	10.031.000	12.413.991,56
Excess expenditure	95.500	
	10.126.500	12.413.991,56

1991 budget including additional credits

ANNEX 3

LIST OF PUBLICATIONS ISSUED BY THE UNION IN 1991

	TITLE OF PUBLICATIONS	Number of copies	Total number of pages per language
1.	Resolutions and Decisions of the Administrative Council, 1991 update, 46th session <i>Supplement No. 27,</i>	F 300 E 500 S 150	100
2.	12 Notifications, Nos. 1277 to 1288	F 500 E 650 S 150	138
3.	Report on the activities of the Union in 1990	F 650 E 750 S 350	132 126 136
4.	Financial operating report for 1990	F 450 E 500 S 200	64
5.	30th report by the international Telecommunication Union on telecommunication and the peaceful uses of outer space, <i>fascicle 39, 1991</i>	F 300 E 600 S 200	108
6.	List of publications, <i>March 1991</i> <i>October 1991</i>	F 2000 E 4500 S 1500 F 2500 E 6000 S 1500	60 68
7.	Telecommunication Journal, 12 issues, <i>Volume 58, I-XII</i>	F 1900 E 4200 S 850	1016
8.	ITU Global Directory, <i>December 90 and July 91 issues,</i> <i>trilingual</i>	1500	774
9.	26 Operational Bulletins, Nos. 485 to 510, <i>trilingual</i>	1000	284
10.	26 Annexes "Information concerning the maritime mobile and maritime mobile satellite services", <i>trilingual</i>	900	754
11.	Final Acts of the Plenipotentiary Conference, Nice 89 <i>Arabic</i> <i>Russian</i> <i>Chinese</i>	F 2100 E 4000 S 800 370 300 60	400 400 396 400
12.	Final Acts of the Regional Administrative Conference for the Planning of VHF/UHF Television Broadcasting in the African Broadcasting Area and Neighbouring Countries, Arabic <i>Geneva, 1989</i>	60	134
13.	Radio Regulations, 1990 edition, <i>Loose-leaf edition</i> <i>Bound edition</i>	F 1500 S 1000 F 500 S 300	2772 2772
14.	List of international telephone routes, <i>trilingual</i> <i>31st edition 1990</i>	500	360
15.	List of indicators for the telegram retransmission system and telex network identification codes, <i>6th edition october 91</i>	700	230

	TITLE OF PUBLICATIONS	Number of copies	Total Number of pages per language
16.	Table of international telex relations and traffic, <i>trilingual</i> , 1990 edition	400	394
17.	TA Table, transferred account telegraph service, 7th edition, 1988, <i>trilingual</i> Supplement No. 3	450	226
18.	Yearbook of common carrier telecommunication statistics <i>trilingual</i> 18th edition, 1991	1000	464
19.	TA Booklet, <i>trilingual</i> 1991 edition	8000	156
20.	List of coast stations, List IV, 13th edition, 1991	20 000	836
21.	List of ship stations, <i>trilingual</i> 31st edition, 1991 Supplements Nos. 1 to 3	13 000 10 000	2104 624
22.	List of radiodetermination and special service stations, 10th edition, 1989, <i>trilingual</i> Supplement No. 4 part A part M	17 000 20 000	48 12
23.	Alphabetical List VIIA of call signs of stations used by the maritime mobile service, <i>multilingual</i> , 15th edition, 1991 Supplements 1, 2 and 3	16 000 16 000	664 312
24.	Alphabetical List of call signs of stations other than amateur stations, experimental stations and stations of the maritime mobile service (List VIIB), <i>trilingual</i> , 11th edition 1989, Supplement No. 3 12th edition, 1991	1500 1400	32 344
25.	25 General Secretariat Circulars, Nos. 27 to 51	F 800 E 1250 S 250	106
26.	51 IFRB Weekly Circulars, Nos. 1958 to 2008, <i>trilingual</i> Parts I, II, III and Special sections, Part IV,	350 350	14 440 (56) 814
27.	4 Summaries of monitoring information received by the IFRB, <i>trilingual</i> , Nos. 246 to 249	250	48 (7)
28.	Tentative high frequency Broadcasting Schedule, June, September and December 91; March 92, <i>trilingual</i>	250	2722
29.	High Frequency Broadcasting Schedule, May, September and November 89 and March, June, September and November 90, <i>trilingual</i>	200	2250

	TITLE OF PUBLICATIONS	Number of copies			Total Number of pages per language		
30.	Preface to the IFRB Weekly Circular and the International Frequency List, 12th edition 1988, update No. 4, March 91	F 250	E 500	S 100	204		
	13th edition, September 1991	F 200	E 400	S 100	382		
31.	12th edition 1988 of the International Frequency List on microfiches, trilingual Edition 12.6, March 91	250			(273)		
	13th edition, September 91	200			(276)		
32.	International Frequency List on CD-ROM, Edition 12.6 (1991-03-05)	200			(2 CD)		
	Edition 13.1 (1991-09-04)	300			(2 CD)		
33.	List of space radiocommunication stations and radioastronomy stations (List VIII A). <i>trilingual, Edition 8.10</i> <i>Section I</i>	300			8 (47)		
	<i>Section II</i>	300			(2)		
34.	4th edition of Annex 1 to the Regional LF/MF Broadcasting Agreement, (Regions 1 and 3), <i>trilingual</i> <i>Geneva, 1975, 1991 edition</i>	280			44 (3)		
35.	XVIIth CCIR Plenary Assembly, Düsseldorf, 1990						
	<i>Volume I</i>	F 550	E 1600	S 300	96		
	<i>Annex</i>	F 550	E 1600	S 300	796	788	766
	<i>Volume II</i>	F 400	E 1300	S 250	52		
	<i>Annex</i>	F 400	E 1300	S 250	640	648	656
	<i>Volume III</i>	F 400	E 1400	S 250	96		
	<i>Annex</i>	F 400	E 1400	S 250	304	304	296
	<i>Volume IV</i>	F 450	E 1800	S 300	76		
	<i>Annex</i>	F 450	E 1800	S 300	758	778	768
	<i>Volume IV/IX.2</i>	F 550	E 1800	S 300	28		
	<i>Annex</i>	F 550	E 1800	S 300	276	272	276
	<i>Volume V</i>	F 600	E 2200	S 350	120		
	<i>Annex</i>	F 600	E 2200	S 350	662	664	644
	<i>Volume VI</i>	F 450	E 1600	S 250	116		
	<i>Annex</i>	F 450	E 1600	S 250	480	474	470
	<i>Volume VII</i>	F 400	E 1300	S 250	52		
	<i>Annex</i>	F 400	E 1300	S 250	194	198	190
	<i>Volume VIII</i>	F 500	E 1800	S 300	344		
	<i>Annex I</i>	F 500	E 1800	S 300	444	428	424
	<i>Annex II</i>	F 500	E 1800	S 300	398	396	394
	<i>Annex III</i>	F 500	E 1800	S 300	728	702	724
	<i>Volume IX.1</i>	F 600	E 2000	S 350	168		
	<i>Annex</i>	F 600	E 2000	S 350	472	462	472

	TITLE OF PUBLICATIONS	Number of copies			Total Number of pages per language		
	<i>Volume X Annex</i>	F 550	E 1800	S 300	228		
		F 550	E 1800	S 300	314	312	290
	<i>Volume X/XI.2 Annex</i>	F 550	E 1800	S 300	40		
		F 550	E 1800	S 300	690	684	686
	<i>Volume X/XI.3 Annex</i>	F 450	E 1500	S 300	132		
		F 450	E 1500	S 300	68	68	64
	<i>Volume XI.1 Annex</i>	F 600	E 2000	S 350	160		
		F 600	E 2000	S 350	722	720	710
	<i>Volume XII Annex</i>	F 550	E 1800	S 350	188		
		F 550	E 1800	S 350	374	374	382
	<i>Volume XIII</i>	F 500	E 1300	S 350	152		
	<i>Volume XIV</i>	F 400	E 1300	S 250	390		
	<i>Volume XV.1</i>	F 500	E 1500	S 300	162		
	<i>Volume XV.2</i>	F 500	E 1500	S 300	76		
	<i>Volume XV.3</i>	F 500	E 1500	S 300	268		
	<i>Volume XV.4</i>	F 500	E 1500	S 300	122		
	<i>Addendum No.1 Vol. XV.4</i>	F 500	E 1500	S 300	4		
36.	CCIR Handbook on Satellite Telecommunications 1991 edition <i>Supplement No. 1</i>	F 300	E 700	S 100	32		
37.	Handbook of curves for Radio wave propagation over the surface of the earth, <i>trilingual</i> 1991 edition	500			372		
38.	CCIR Recommendation 705: HF Transmitting Antennas. Characteristics and Diagrams and accompanying computer program on diskette, 1991 edition	F 200	E 400	S 100	128		
39.	Compatibility between the aeronautical radionavigation service, the aeronautical mobile (R) service and the FM sound-broadcasting stations in the VHF bands 1991 edition	F 200	E 400	S 100	162		
40.	CCIR Atlas of Ionospheric Characteristics - Report 340-6 <i>trilingual</i> 1991 edition	500			120		
41.	Blue Book, IXth CCITT Plenary Assembly, Melbourne, 1988, Russian edition <u>Fascicles</u>						
	<i>IV.2</i>	60			136		
	<i>VIII.4</i>	60			512		
	<i>X.3</i>	60			31		
	<i>III.9</i>	60			98		
	<i>VIII.5</i>	60			591		

	TITLE OF PUBLICATIONS	Number of copies			Total Number of pages per language		
	Arabic edition <i>Fascicles</i> II.2 100 482 VI.11 100 518 VIII.2 100 702 VIII.4 100 588 VIII.6 100 298 Chinese edition <i>Fascicles</i> II.3 60 388 III.2 ▪ 230 III.7 ▪ 382 III.8 ▪ 282 III.9 ▪ 108 V ▪ 440 VI.10 ▪ 146 VI.12 ▪ 96 VII.4 ▪ 132 VIII.1 ▪ 522 VIII.2 ▪ 542 VIII.4 ▪ 530 X.2 ▪ 186 French, English and Spanish editions <i>Fascicles</i> Terms and definitions I.3 F 800 E 5500 S 450 900 904 920 Index I.4 F 800 E 8600 S 460 712 680 708						
42.	Catalogue of CCITT Recommendations - <i>Published in 1991</i>	F 250	E 500	S 150	56		
43.	New CCITT Recommendations and modified existing CCITT Recommendations, <i>published in 1991</i> 1 Rec. F73 98 Recommendations	F 300 F 300	E 1000 E 700	S 200 S 200	8 2836		
44.	Guidelines for Implementing a Signalling System No. 7 Network CCITT, <i>1991 edition</i>	F 200	E 500	S 100	116		
45.	General Plan for the development of the regional telecommunication network in Asia and Oceania, <i>trilingual 1990 edition</i>	400			134		
46	General Plan for the development of the regional telecommunication network in Africa, <i>trilingual 1991 edition</i>	300			96		
47.	Construction, installation, jointing and protection of optical fibre cables, <i>1990 edition</i>	F 300	E 850	S 200	108		
48.	ISDN field trial Guidelines, <i>1991 edition</i>	F 250	E 500	S 100	112		

[illegible]

	TITLE OF PUBLICATIONS	Number of copies	Total Number of pages per language
REPRINTS			
54.	CCITT directives concerning the protection of telecommunication lines against harmful effects from electric power and electrified railway lines, <i>Fascicles</i> VI I IX V VII IV III VIII	 E 50 E 50 E 50 E 60 E 50 E 60 E 80 E 100	 64 144 282 72 82 230 288 40

ANNEX 4

ACTIVITIES OF THE INFORMATION SERVICES DEPARTMENT IN 1991

1. Introduction

The Information Services Department (IS Dept), previously called Computer Department, is the ITU focal point for information technology (IT) systems and services and plays a major role in equipping the organization with the IT capabilities which are vital to the achievement of the Union's mission. The 1991 activities of the department are reported in relation to the initial implementation of recommendations mandated by the High Level Committee (HLC). The focus is mainly from the perspective of Administrations and other external users and reflects the increasing complexity and scope of IS Dept activities as IT usage becomes more demanding and more integrated with the services and products of the Union. A short statement of the main activities in 1991 is presented in section 4.1.4 of the main body of the report.

2. Implementation of HLC Recommendations

2.1 Co-operation with other organizations

REC 1 "We recommend that the ITU play a leading role by working co-operatively, more strategically, and in a more systematic manner, with other intergovernmental and non-governmental organizations to ensure that, at the international level, a more comprehensive approach be taken to the broader issues of the global information economy and society."

The IS Dept continued its close collaboration with international organizations including UN NY, World Bank, ISO, IEC, and OECD. This includes participation in planning for a proposed UN Communications Network, the Advisory Committee for the Co-ordination of Information Systems (ACCIS), the ISO Council Committee on Standardization Principles (STACO) and other activities. The World Bank cooperated in providing data for the ITU's Telecom Statistical Indicators project. ITU shared expertise with the UNCED for IT support for the 1992 World Environmental Conference to be held in Rio de Janeiro.

2.2 Co-operation with regional organizations

REC 2 "... we recommend that the ITU should ... work in a co-operative fashion, and more strategically, with the main regional organizations."

The IS Dept collaborates closely with ETSI in the development of compatible computer-based communications systems. An electronic link has been established between the ITU's TIES system and ETSI's standards bulletin boards. The department also participated in the Electronic Document Handling (EDH) group for the Inter-regional Telecommunication Standards Conference (ITSC) which includes the ITU's CCIs, ETSI, T1, TTC, etc.

2.3 Information exchange

2.3.1 Computer-based Communication Systems

REC 46 "We recommend that the ITU proceed as quickly as practicable into the large-scale use of electronic information storage and exchange. We support the consultant's recommendation, in Chapter VI, that information exchange, including continuing development of the TIES system, be treated as one of the eight priority projects to be addressed in the Information Services area."

The HLC report identified this area as one of the 8 high priority applications, in particular the enhancement of information exchange with ITU field offices and with participants in ITU activities. Consolidation of the telecommunications infrastructure (X.25, X.400, dialup, fax, telex) in collaboration with operators, emphasis in the co-operation with the world-wide UN telecommunication network and implementation of interconnection with Internet should encourage and enlarge participation in ITU activities from developing countries, academic and research communities.

High priority was given to the evaluation of electronic mail systems, recognizing their key role in the improvement of working methods and procedures. A panel representing all the organs was established to select an electronic mail system for use at ITU. The group identified a set of user requirements and carried out trials of leading e-mail systems.

Substantial additions have been made to the TIES capabilities and facilities. A link to the Internet was planned and ordered, for implementation in 1992. There are presently over 600 registered external users of TIES (in addition to ITU staff).

2.3.2 Document exchange

REC 47 "We have also been observing the work taking place in the CCITT on electronic information storage and exchange, and have noted the co-operation occurring with other international organizations and the ITU Information Services Department. We recommend that this work be pursued vigorously with the aim of having substantial progress made by the end of 1991."

The Department participated in the work of CCITT Ad Hoc Res. 18 working group on Electronic Document Handling as well as the subsequent ITSC EDH group (see section 2.2). A project for electronic mail based document exchange is under way. The IS Dept also supplied machine-readable material for an experimental project of Internet access to CCITT recommendations conducted at the Digital Resource Institute of the University of Colorado.

2.4 Information systems planning and Information Services Department

REC 90 "Believing that the ITU should be the leader within the UN system in the effective use of information technology to facilitate internal and external communications, we recommend the adoption of the consultant's proposal to implement a formal information systems planning process (IS8). This includes the formation of a consolidated Information Services Department ... and an Information Technology Steering Committee composed of members from each Bureau and the major General Secretariat departments."

The Coordination Committee established the Information Systems Steering Committee (ISSC) as recommended. This Committee now provides effective direction on priorities and policies.

The restructuring of the former Computer Department into a more consolidated Information Services Department liaising with the ISSC is intended to achieve the major objective defined by HLC REC 90 (i.e. to "focus high-level attention on information technology strategies and objectives, and to better coordinate ITU activities in this area"). The re-organized Department is better prepared to meet the challenges of the current ITU environment and the provision of Information Technology systems and services. An effort is being made to focus on the service aspects of Information Services, so as to be truly responsive to the needs of users; following the directives of the Secretary General, particular attention is paid to the requirements of external users.

2.5 Progress on some of the main Information Management recommendations

REC 91 Endorsement of BAH recommendations in the Information Management area (these recommendations are designated IS1 through IS15).

2.5.1 Transfer of Applications from Siemens (IS4)

The first result of these activities (e.g., the transfer of all IDMS-based applications to mainframe B) is that mainframe A is no longer in use. This leads to significant savings for the 1992 budget. Support of the UNIX/Ingres client/server environment has started and will favour the continued transfer of applications from the Siemens mainframes.

2.5.2 Introduction of UNIX Operating System Platform (IS3, IS4, IS5)

The UNIX direction offers a more open environment facilitating data access and connectivity among applications, improved portability of applications, world-wide availability of UNIX Servers from many manufacturers, wide offer of software packages and convergence of mainframe and network cultures. The IS Department is placing a strong emphasis on the fast implementation of the UNIX platform and its smooth integration into the network environment. This direction widely supported in the ITU goes much further than the BAH recommendations which were lacking in this important area. This will allow the efficient establishment of new applications in the high priority areas. Two UNIX systems were installed at ITU in 1991.

2.5.3 Introduction of Ingres Relational Database Management System (IS3, IS4, IS5)

An inter-organ working group examined several leading client/server Database Management Systems and recommended Ingres. The evaluation effort included installation and test of the two leading contenders.

The Ingres direction offers the immediate availability of relational database technology in the ITU network environment supporting standard SQL and client/server architectures. The IS Department is integrating this new open environment into the existing ITU network environment.

Two pilot applications using Ingres have already been implemented in the IS Department. The first is to provide a central database of all meetings and conferences sponsored by ITU and the second is for CCITT Recommendations. Both these applications are designed to be accessed by internal and external users. The IFRB is also developing two production applications using Ingres.

2.5.4 Deployment of Personal Computers (IS10)

The smooth operation of headquarters - and consequently the quality of service to Administrations - depends upon the staff's ability to use the available IT tools effectively. Much progress has been made to achieve an ITU-wide standard 386-based PC on every desktop (replacement of existing 286-based PCs and installing additional 386-based machines). At the same time the Windows Graphical User Interface (GUI) and corresponding applications packages have been upgraded. The network environment has been continuously improved to keep pace with the load associated with this widespread deployment of more powerful PCs.

2.5.5 End User and Specialist Training (IS7, IS9, IS11, IS15)

The increased number of PC users and availability of more sophisticated desk-top productivity tools will not be totally effective without a parallel and proportional increase in training and support services. The effectiveness of the Training and Support Center (TSC) has been re-established and enhanced to the limits of current resources in order to respond to end user training needs in the evolving software environment.

Specialist training for the selected operating system environment (UNIX) and database platform (Ingres) has commenced and demonstrated this approach for future applications development.

2.5.6 Telecommunications (IS6, IS7)

The IS Department is absorbing the additional responsibilities in the telecommunications area in a very cost effective manner. Work has started in the replacement of the aging telex system, a high priority task not identified by BAH. Planning for replacement of the 8 year old PABX with an ISDN-compatible digital exchange began in 1991, with the installation to be completed in late 1992. The replacement of the PABX with the introduction of voice mail is a high priority HLC recommendation.

2.6 Progress on some of the eight priority application areas

REC 91 Endorsement of BAH recommendations on the eight high priority applications: Space Notification (IFRB), Project Management (BDT), Human Resources Management, Financial Management, Translation Support Systems, Document Exchange and Telecom Information Exchange Services (TIES), Telecom Indicators, Document Production System.

2.6.1 BDT Integrated System for Project Management

The IS Dept was involved in BDT project managements requirements analysis; evaluation of various package solutions; organization of a prototype solution using a software package in the UNIX/Ingres environment.

2.6.2 Information Systems for Human Resources Management

A functional analysis and conceptual design was performed for personnel management in general and contract management specifically. The detailed specification is a solid basis for the evaluation of different solutions offered by various software packages. Maintenance of existing Short Term Payroll, Permanent Payroll and Pension Systems. Development of a pension system using the new Ingres environment.

2.6.3 Information Systems for Financial Management

Main activities included: maintenance, support and extension of the accounting systems; continuation of PC integration with the SAP financial management package; continuation of the sales system implementation. Participation in the planning of the implementation of the FM recommendations (budgeting study by Plaut, etc.)

2.6.4 Translation Support and Terminology

In cooperation with Common Services, identification of alternatives for the evolution of the ITU Terminology data base.

2.6.5 Document exchange

See section 2.3.2

2.6.6 Telecom Information Exchange Services (TIES)

See section 2.3.1

2.6.7 Telecom Statistical Indicators

Preparation of a report describing requirements for ITU telecom indicators, and analyzing products and markets. Participation in CCITT meetings studying the statistical yearbook requirements. Implementation of a statistical yearbook system. Collaboration with BDT on questionnaire design for collection of statistical data; preparation of European telecom indicators document for European Regional Telecom Conference and demonstration of remote access to Telecom Indicators databases via TIES at the conference.

Analysis and design of a Global Telecommunication Tariffs application based on raw data collected and provided by Lynx Technologies, Inc. The application is in its initial stages of development and will be built using Ingres.

2.6.8 The existing Document tracking system was extended to support Administrative Conferences and a project started in cooperation with Common Services for development of detailed document planning, scheduling and tracking facilities.

3. **Other activities**

The IS Dept has responsibilities for operation of the IT infrastructure and support of continuing application areas, apart from the priority systems identified by BAH.

3.1 Conference support

Major logistical and network support were provided for Telecom 91, the CCIR block meetings held in the CICG, and for the Prague Regional Telecom Development Conference. IS Dept staff was responsible for project coordination for the Telecom 91 Global Messaging Service.

3.2 Logistical support and expertise were provided for procurements for computing and data communication equipment for use at ITU field offices and in connection with other BDT activities. The IS Dept also arranged for the purchase by ITU staff at an advantageous price, of PCs comparable to those used at ITU.

3.3 In the Maritime Services area: Implementation of major changes (MOB 87 decisions) to the Coast Station system and publication; development of Word for Windows interface for Tables and Annexes of the List of Ship Stations; development of a registration system for incoming notifications and outgoing mail for Special Services section; design and analysis of a system for preparing the List of Call Signs; system support in the extraction and preparation of Maritime Services publications (Lists 4, 5, 6, 7A and 7B); migration of Coast Station and Ship Station systems to IDMS new release and to the remaining Host B mainframe, implementation of a CD-ROM soft version of the List of Ship Stations for in-house reference purposes.

3.4 Publication Systems for Telecom Journal and various service lists were migrated to the desktop publishing environment. The use of Word for Windows was extended throughout ITU, with substantial additional training and development of new templates and macros. A PostScript imagesetter was introduced; procedures for the use of the new systems were developed.

3.5 The IDMS mainframe database environment was upgraded to the most recent release, tested, and moved from mainframe A to mainframe B. IDMS is frozen at the current release level. These actions provide a stable IDMS environment with minimal support requirements for on-going mainframe database applications.

3.6 Enhancements and additional server capacity were installed for the ITU's TELnet local area network. High speed, high capacity tape cartridge systems were installed to improve backup/restore capabilities. Major improvements in the Ethernet distribution equipment were planned and purchased, with installation to be completed early in 1992. An uninterruptable power supply (UPS) was installed for the Tower equipment room.

3.7 Desktop software

Many additional copies of software used at ITU were purchased, and much installed software was updated to latest versions. Project Planning software (Microsoft Project) was introduced for use in many areas at ITU; two series of training courses on project planning using this software were held.

3.8 IS Dept staff carried out consulting missions, in co-operation with BDT, in Ethiopia and Morocco. Started distribution of surplus Personal Computers (286-based) from ITU Headquarters to Telecommunication projects in developing countries.

3.9 IS Dept staff participated in numerous professional courses, seminars and conferences.

ANNEX 5

(concerning item 4.1.5.3 of the Report)

INFORMATION EXCHANGE SERVICES PROVIDED BY TELECOMMUNICATIONS REGULATIONS AND RELATIONS BETWEEN MEMBERS DIVISION

Serial information services	Register of formal notices of the ITU	Printed monthly in three separate language editions entitled Notification, with an annual index.
	Register of administrative and operational information concerning telecommunication services and facilities	Printed bi-weekly in a single trilingual edition entitled Operational Bulletin, with information concerning the maritime mobile and maritime mobile-satellite services printed separately entitled Annex to the Operational Bulletin. Twenty-six issued in 1991. Some of the information contained in the individual service supplements described below is also published, as soon as the information is available, in the Operational Bulletin.
	Annex to the Operational Bulletin	Information system file printed bi-weekly in a single trilingual edition and annexed to the Operational Bulletin. 25 issues were published within the year, with issues Nos. 500 and 501 containing information received from Administrations concerning special call-signs, and in issue No. 474 containing information relating to optional provision No. 2731 of the Radio Regulations, concerning radio-communication between amateur stations of different countries.
General information services	ITU Global Directory of world telecommunication entities	Information system files made available in low-cost paper, magnetic and externally accessible electronic forms. One edition has been published in 1991.
	Chronological statistics concerning public telecommunication services and facilities	Information system files printed annually in a single trilingual bound edition entitled Yearbook of Public Telecommunication Service Statistics. The 18th edition was issued in 1991, covering the period 1980-1989.
Information services regarding telecommunication network operations and applications	International Telecommunication Services - General Information	Information system file printed in a single trilingual loose-leaf edition with annual supplements as General Information Relating to the Operation of the International Telegraph, Data Transmission and Telematic Services (Facsimile, Teletex, Videotex, etc.). This information system was maintained, but no supplements were issued in 1991.

Information services regarding telecommunication network operations and applications (continued)	International Telephone Traffic Routing	Information system file printed annually in a trilingual bound edition as List of International Telephone Routes. The 31st edition of the List was issued in 1991.
	International Telegram Traffic Routing	Information system file printed in a trilingual bound edition as List of Telecommunication Channels used for the Transmission of Telegrams. This information system was maintained, but no supplements were issued in 1991.
	Basic Telegram Tariffs	Information system file printed in a trilingual loose-leaf edition with annual supplements as Table of Rates for Telegrams. This information system was maintained, but no supplements were issued in 1991.
	Telegraph Offices of the World	Information system file printed every five years in a three volume trilingual bound edition entitled List of Telegraph Offices. This information system was maintained, but no supplement was issued in 1991. Contacts have been established with UPU to evaluate the interest of a common ITU/UPU reference work with all places having public offices and postal codes.
	Telegraph Service Availability using an International Credit Card	Information system file printed in a single trilingual loose-leaf edition entitled TA (Transferred Account) Table. Supplement 3 was issued in 1991. Additionally, extracts from the file are printed annually in a single trilingual bound edition (credit card format) entitled TA Booklet, for the information of TA credit card users. One edition was issued in 1991.
	International Telex Traffic Routing and Statistics	Information system file printed annually in a single trilingual bound edition entitled Table of International Telex Relations and Traffic. One edition was issued in 1991.
	Telegram and Telex Indications and Codes	Information system file printed in a single trilingual loose-leaf edition with annual supplements as Indicators for the Telegram Retransmission System and Telex Network Identification Codes. One edition was issued in 1991.
	Gentex Traffic International Routing	Information system file printed every two years in a single trilingual loose-leaf edition with annual supplements entitled Gentex Table. This information system was maintained, but no supplement was issued in 1991.

Information services regarding telecommunication network operations and applications (continued)	Bureaufax Traffic Routing	Information system file printed in cooperation with the Universal Postal Union in a single trilingual loose-leaf edition with annual supplements entitled Bureaufax Table. This information system was maintained, but no supplement was issued in 1991.
Information services regarding radiocommunication and radio system operations	Radio Regulations (RR)	In pursuance of Resolution 325 of MOB-87 the new edition of Appendix 25 was prepared in collaboration with the IFRB Secretariat. The new edition will be available both in paper and machine-readable form.
	Maritime Mobile Manual	The new edition of the Manual has been prepared providing necessary information (including appropriate texts from the Convention (Nairobi, 1982), Radio Regulations, CCIR and CCITT publications) relevant to commercial maritime mobile and maritime mobile-satellite services and, in particular, to the GMDSS (Global Maritime Distress and Safety System).
	Country Symbols	Information system file printed as The List of Country Symbols. The list was revised and reformatted and data made available for consultation on the network.
	Coast Stations	Information file printed in a single trilingual edition entitled "List of Coast Stations". Due to the major frequency changes to coast stations on 1st July 1991, the 13th Edition had been withheld from publishing from December 1990 to October 1991. The Edition now contains particulars of stations that provide public correspondence, in accordance to Radio Regulation 2201A, and an additional Annex relating to stations participating in the Global Maritime Distress and Safety System (GMDSS).
	Ship Stations	Information system file printed in a single trilingual edition entitled "List of Ship Stations". The 31st Edition, two ordinary Supplements and one Recapitulative Supplement were issued in 1991.
	Radiodetermination and Special Service Stations	Supplement No. 4 to the 10th Edition was issued in April, 1991. It was not possible to issue the 11th Edition, scheduled for October, due to the replacement of the old Digiset with a new photocomposition machine that required the development of a new software with new working procedures and tools for the composition of the edition. The new edition is due in March, 1992.

Information services regarding radiocommunication and radio system operations (continued)	Station Call Signs	<p>Information system file printed in two separate trilingual editions entitled "List of Call Signs and Numerical Identities of Stations Used by the Maritime Mobile and Maritime Mobile-Satellite Services" (List VIIA) and "List of Call Signs of Stations other than Amateur Stations, Experimental Stations and Stations of the Maritime Mobile Service" (List VIIB). Supplements 1 and 2 to the 11th Edition of List VIIB were issued in 1990.</p> <p>The 15th Edition of List VIIA was issued in March, 1991 and three recapitulative quarterly Supplements. Supplement No. 3 and the 12th Edition of List VIIB were issued in 1991 (April and October, respectively).</p>
	Monitoring Stations	<p>There are normally insufficient notifications within a year for the issue of a Supplement and notices from Administrations were published in Operation Bulletins Nos. 489, 491, 498 and 502.</p>
