



1997 Report

A brown silhouette of a world map is centered on the page. Overlaid on the map is the main title in blue text.

**International
Negotiations and Notifications
Concerning Radio Services**

July 1997

**Includes In-depth Summaries of Negotiations and
Agreements With Canada and Mexico**

**Planning & Negotiations Division
International Bureau
Federal Communications Commission
Washington, DC 20554**

Preface

This report provides information on notifications and negotiations activities related to radio services that have been carried out by the Federal Communications Commission (FCC). It details the full range of negotiations and notifications activities for the past few years, and catalogues the various international radio communication arrangements and agreements to which the Commission is a party. This 1997 Report updates the initial report on this subject, which was published in 1995.

The FCC's responsibilities for international negotiations and notifications involving radio services are carried out by the International Bureau's Planning and Negotiations Division. We do not, however, carry out these activities in isolation. Indeed, most of the activities described in this Report involved substantial participation by the relevant operating Bureaus and Offices within the FCC. In addition, the international negotiations activities involved a number of other government agencies - most notably, the Department of State and the National Telecommunications and Information Administration within the Department of Commerce.

This is a staff report. It is not the result of any official Commission or government action. As such, no obligations are imposed nor are any rights created by the issuance of this Report. The information presented in this Report is believed to be current and accurate as of 1 June 1997. However, readers are cautioned not to derive legal opinions from this report; but, instead should consult the original texts cited herein for complete details of negotiated agreements.

Additional copies of this report may be obtained from the Commission's contractor, International Transcription Services, 1919 M Street, N.W., Room 246, Washington DC 20554, (202) 857-3800 or at the FCC World Wide Web site: <http://www.fcc.gov>. Copies of the texts of the international agreements referred to herein are on file in the International Bureau's Public Reference Room located at 2000 M Street, N.W., Room 102, Washington, DC 20554, (202) 418-1492.

Finally, if you have comments or questions regarding this Report, please contact our Division by calling (202) 418-2150.

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I. EXECUTIVE SUMMARY

Because radio communication services have the potential to produce transmissions that go beyond national borders, international coordination is often required to protect service and avoid interference. This is generally accomplished through bilateral and multilateral treaties and agreements. Whenever new radio communication services are developed, negotiations with affected countries are necessary in order to develop the appropriate agreement. Once the agreement is completed, stations in the new radio communication service are subject to the procedures in the agreement in order to protect their service areas and avoid interference to others. It is the responsibility of the International Bureau's Planning and Negotiations Division to negotiate and tailor these cross border agreements to satisfy our radio spectrum requirements. After agreements are reached, the Division administers related coordination and notification functions.

This 1997 Report on *International Negotiations and Notifications Concerning Radio Services* is an update of the 1995 Report and includes new developments in both the negotiations and notifications areas. In the Negotiations area three new protocols were negotiated with Mexico covering Fixed Point-to-Point, Aeronautical Radionavigation and Communications, and Paging Services. In addition, a Memorandum of Understanding with Mexico was signed concerning the initial deployment of digital television (DTV) stations in the border area. Other activities undertaken by the Bureau include ongoing discussions with both Mexico and Canada on DTV, Digital Audio Radio Service (DARS), the flexible Wireless Communications Service (WCS), Local Multipoint Distribution Service (LMDS) and the application of digital techniques to the existing Multipoint Distribution Service (MDS). In the Notifications area, several new and innovative projects are ongoing, including the AM Database Verification Project with Mexico. Additionally, since our last report, substantial progress has been made in computerizing and modernizing our international notifications, most notably in the automation of the processing of correspondence with the ITU related to Space Services.

In view of a continuing focus on our northern and southern neighbors, we have included in this report separate sections on negotiations with Canada and with Mexico. Each section contains highlighted information on frameworks for negotiation, brief profiles of current domestic regulatory developments in each country, current activities and accomplishments, existing agreements, and issues for future action. As relevant, we have included maps of the U.S./Canadian and U.S./Mexican border areas showing coordination zones for different services.

With regard to U.S./Canadian negotiations, over the last three years, the FCC participated in five Radio Technical Liaison Committee (RTLCL) meetings, five digital audio radio service (DARS) meetings, one broadcast meeting, and one special bilateral meeting with Industry Canada. Specific accomplishments include:

- 1) Completion and signing of a broadband Personal Communications Service (PCS) frequency sharing arrangement for 1850-1990 MHz (November 1994 RTLCL meeting).
- 2) Presentation by the U.S. to Canada and discussion of proposed draft arrangements for sharing of frequencies at 220-222 MHz and for roaming of satellite mobile earth terminals (METs) (July 1995, April 1996, January 1997, and March 1997 RTLCL meetings).
- 3) Continued discussions with Canada on a variety of ongoing non-broadcast topics, including refarming (450-470 MHz band), narrowband PCS implementation (900 MHz band), spread spectrum, wind profilers, 28-31 Gigahertz (GHz) allocations, Intelligent Transportation systems, receiver spurious emissions above 960 MHz, U.S. government spectrum reallocation, digital electronic messaging systems (DEMS) multichannel multipoint distribution service (MMDS), and local multipoint distribution systems (LMDS) (July 1995, April 1996, January 1997, and March 1997 RTLCL meetings).
- 4) Continued discussions on coordination of plans for implementation of DARS pursuant to allocations made at WARC-92¹ and digital radio plans for Canada (August 1995, February 1996, September 1996, January 1997, and March 1997).
- 5) Continued discussions on implementation of the AM expanded band, electronic database exchange of all broadcast bands, and agreement in principle on changes to the FM Agreement (February 1996 and September 1996).

¹ See Final Acts of the World Administrative Radio Conference for Dealing with Frequency Allocations in Certain Parts of the Spectrum (WARC-92), Malaga-Torremolinos, 1992 (International Telecommunication Union, Geneva).

With regard to U.S./Mexico negotiations, over the past three years, bilateral meetings on non-broadcast matters were held in March, April, May, September, and December of 1995, July 1996, and February 1997. Bilateral meetings on broadcast matters were held in April 1995, and April 1996. Meetings dedicated to ATV were held in September 1996, as well as February and March 1997. Specific accomplishments include:

- 1) Signature of final protocols concerning broadband (1800 MHz band) and narrowband (900 MHz band) PCS services (May 1995).
- 2) Establishment of a working group to expedite coordination of satellite earth stations operating at 2 GHz and 6 GHz (September 1995).
- 3) Signature of a Letter of Understanding concerning interim implementation of a proposed protocol on paging (929-930 MHz and 931-932 MHz) (December 1995).
- 4) Signature of modifications to annexes of an existing protocol on public air-to-ground radio services (December 1995).
- 5) Signature of a protocol concerning fixed point-to-point (932.5-935 MHz and 941.5-944 MHz) services along the U.S/Mexico border (April 1996).
- 6) Signature of a protocol concerning aeronautical radionavigation and communications services along the U.S/Mexico border (April 1996).
- 7) Signature of a final protocol concerning paging in the 929-930 MHz and 931-932 MHz bands along the U.S/Mexico border (February 1997).
- 8) Signature of a Memorandum of Understanding concerning Digital Television (DTV) along the U.S/Mexico border (April 1997).
- 9) Exchange of technical information and discussion of coordination procedures concerning radio frequencies used in fighting forest fires in Southern California (September 1995 and February 1997).
- 10) Exchange of technical information and regulatory approaches concerning frequencies used for cross-border spread spectrum applications (902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz) (September 1995).
- 11) Discussions and exchange of data to verify the plan of AM assignments associated with the existing AM agreement (April 1995 and April 1996).

- 12) Discussions regarding updating the existing TV agreements, including treatment of LPTV coordinations and DTV developments, and to complete implementation of the existing FM agreement (April 1995 and April 1996).
- 13) Work on draft protocol concerning roaming of METs (September 1995).
- 14) Discussions of possible new agreements on interactive video and data service (IVDS) and intelligent vehicle highway systems (IVHS) (March 1995).

As a result of the accomplishments listed above, the implementation and enhancement of a number of services were realized. For example, discussions with Industry Canada resulted in the authorization of a U.S. licensee to operate an MMDS system in the Detroit area utilizing digital signals, enabling significant channel capacity expansion. The current agreement permits only analog signals. As a result of these discussions, this agreement is being permanently modified. In the U.S./Mexico arena, the paging agreement recently signed includes terms which encourage cross border business arrangements. This has raised bilateral interest in a number of joint paging ventures that seek to achieve a virtually transparent border. Other services are also in line to reap the benefits of these cross border cooperative efforts.

Moreover, the Division will continue to work toward enabling our licensees to optimize service possibilities with the fewest administrative and geographic barriers. Over the next twelve months, discussions on services including DARS, DTV, LMDS, and WCS will continue to unfold.

This Report also includes several appendices. Appendix A contains a table of frequency bands subject to international agreements and arrangements with Canada and Mexico. Appendix B contains a listing of Canadian agreements and arrangements. Appendix C contains a listing of Mexican agreements. Appendix D contains the 1994 and 1996 High Level Consultative Commission Communiqués and Work Programs for U.S.-Mexico coordination. Appendix E contains copies of all FCC Public Notices concerning international agreements and coordination issued by the International Bureau through March 1997. Appendix F contains detailed charts and graphs of the total volume of international notifications processed by the International Bureau through March 1997.

In order to make it as accessible and as widely available as possible, this Report is now accessible on the FCC World Wide Web site: <http://www.fcc.gov>.

II. NEGOTIATIONS - BACKGROUND

Because radio signals do not recognize national boundaries, all radio communication services can involve a certain amount of transborder transmissions and in many cases require international coordination to avoid interference. Some protection is afforded through worldwide international treaties.² However, in general, terrestrial stations operating at frequencies above 28 megahertz (MHz) are not covered by worldwide international treaty. Protection for terrestrial stations operating at such frequencies must be obtained through bilateral or regional agreements. The United States (U.S.) has entered into a number of bilateral and regional arrangements for services operating at frequencies above 28 MHz, as well as for selected non-broadcast services operating at frequencies below 28 MHz.³ Most agreements are with our immediate border neighbors, Canada and Mexico. With respect to broadcast operations which may have extensive geographic reach, particularly AM and high frequency (HF) radio broadcasting, the U.S. has entered into regional agreements and/or multinational coordinations.⁴

² For example, the Radio Regulations established conditions for international recognition and protection of certain categories of frequency assignments made by administrations. See Radio Regulations (International Telecommunication Union, Geneva: Edition 1990, revised 1994 and 1996.) See also, International Telecommunication Convention, (Nairobi, 1982), revised at Nice, 1989, and the Constitution and Convention of the International Telecommunication Union, (Geneva: Edition 1992), revised at Kyoto, 1994.

³ For the U.S., these agreements may be treaties brought into force after the advice and consent of the Senate, or executive agreements, concluded pursuant to the constitutional authority of the President and existing statutory authority, including the Federal Communications Act of 1934, as amended and 22 U.S.C., Sec. 2656. Binding international communications agreements are negotiated and concluded in conjunction with the Department of State in accordance with procedures set forth in 22 C.F.R., Part 181, and Volume 11, Foreign Affairs Manual, Chapter 700 (Circular 175 procedure). These procedures ensure the legal basis of the proposed agreement, appropriate preparations for and conduct of negotiations, and conformance of the text with appropriate form and formalities.

⁴ In particular, AM radio is coordinated on a regional basis. The United States must coordinate AM radio with countries in Region 1 - Northern Asia, including Russia; in Region 2 - North, Central, and South America; in Region 3 - Southeast Asia, Australia, and Oceania. Due to propagation characteristics which may affect several other countries, certain aviation, marine and broadcast services are coordinated on a multilateral basis and HF (shortwave) broadcasting is coordinated on an international basis.

In certain cases, interim working arrangements or memoranda of understanding, which are not binding under international law may be negotiated. This is the case most frequently in the context of arrangements negotiated with Canada and Mexico. These interim working arrangements and memoranda of understanding, although not binding as a matter of international law, are observed by both countries. They provide a mechanism for coordinating spectrum allocated for new services in the border areas on a temporary basis until a formal agreement is concluded.

The U.S. delegations to bilateral negotiations are officially organized and led by the Office of International Communications and Information Policy (CIP), Department of State. CIP obtains the necessary negotiating authority (Circular 175) and works with foreign administrations to establish the overall agenda for negotiations at each bilateral session. CIP also coordinates U.S. positions with the expert offices within the FCC, as well as with other U.S. agencies, including the Commerce Department's National Telecommunications and Information Administration (NTIA), the Federal Aviation Administration (FAA), the Coast Guard, Department of Defense (DoD), and the National Aeronautics and Space Administration (NASA), when appropriate. Within the U.S. delegation, the FCC is the lead expert agency with regard to non-government radio frequencies and communications service rules, while NTIA is the lead for government radio frequencies and communications service rules. In the case of shared government and non-government radio frequencies, both agencies work jointly.

FCC preparation for bilateral negotiations is led by staff of the Negotiations Branch, Planning & Negotiations Division, International Bureau. Preparations are made in close cooperation with other bureaus and offices within the FCC that have licensing responsibilities or expert technical knowledge regarding the subject service, including the Mass Media Bureau, the Wireless Telecommunications Bureau, and the Office of Engineering and Technology.

III. NEGOTIATIONS, CONSULTATIONS, AND AGREEMENTS WITH CANADA

A. Canadian Counterpart Authorities

Three Canadian federal authorities are involved in communications coordination issues: Industry Canada (which replaced the former Department of Communications), the Canadian Radio-Television and Telecommunications Commission and the Department of Canadian Heritage.

Industry Canada. The Department is in charge of national economic issues and the FCC's primary counterpart for technical coordination. The Department's main role is to provide policy advice, industry sector information, and business services. It is a consolidation of four former departments and agencies. It assumed the former Department of Communication's role in formulating, integrating and coordinating policies and regulations regarding telecommunications, broadcasting, information technologies and competition in the marketplace. It is responsible for issuing licenses, allocating radio frequencies, and establishing national policy for radio communication. Industry Canada represents Canada's interests in bilateral and multilateral negotiations regarding the use of radio spectrum. Of the three agencies discussed here, Industry Canada has the exclusive responsibility to negotiate spectrum issues.

In 1995, Industry Canada reorganized its telecommunications responsibilities. Under the Assistant Deputy Minister for Spectrum, Information, Technologies and Telecommunications, there are four General Directorates: (1) Radiocommunications & Broadcasting Regulation; (2) Spectrum Engineering; (3) Information Technologies Industry; and (4) Telecommunications Policy. Generally, the Spectrum Engineering Directorate is responsible for developing all new spectrum allocation and frequency sharing arrangements with the U.S. The Radiocommunications & Broadcasting Regulation Directorate focuses mainly on in-service non-broadcast and broadcast operations (including notifications, interference resolution, etc.). Some satellite regulatory matters are based in this group as well.

Canadian Radio-Television and Telecommunications Commission (CRTC). All major telecommunications suppliers operating in Canada are subject to the jurisdiction of the CRTC. The CRTC is federally-constituted and functions as a quasi-judicial independent body. As the Canadian federal regulatory body, the CRTC's main responsibility is to approve tariffs and rates of return. It also has the power to make regulations, set service standards, authorize construction plans, and investigate company operations.

Department of Canadian Heritage. The Department of Canadian Heritage is in charge of arts, heritage, culture, and broadcasting. It was established to support and encourage a strong sense of Canadian identity and heritage based on Canadian bilingualism and multiculturalism. The CRTC is part of this Department and reports to Parliament through the Minister of Canadian Heritage.

B. Framework for U.S./Canada Negotiations

Negotiations with Industry Canada on frequency sharing arrangements are conducted in several bilateral arenas involving various U.S. agencies. The State Department has overall lead responsibility. Generally, the FCC participates in discussions and negotiations as one of the primary expert agencies. However, in technical discussions dealing with specific topics of interest, the FCC may take the lead.

Niagara Senior Level Consultative Meetings. The Niagara meetings are the highest level consultations on communications matters involving the most senior officials in Industry Canada, the U.S. State Department (CIP), the FCC, and the NTIA. First held in 1980, the Niagara senior level group meets periodically depending on inter-governmental consultative requirements. The topics discussed cover national, bilateral, and multilateral activities of the two countries.

The last Niagara meeting was held in Washington DC in early 1994. At that meeting, a list of issues to be addressed in the 1994-1995 time frame was drawn up. This list included matters dealing with Direct Broadcast Satellite (DBS) and DARS policy, universal service, TV/media violence, ITU, Inter-American Telecommunications Conference (CITEL), transborder satellite policy, cellular resale, international carriers and accounting rates, the North American Numbering Plan, information infrastructure, U.S. and Canadian telecommunications reforms, and issues related to the NAFTA, General Agreement on Trade in Services (GATS) and the Asia Pacific Economic Cooperative (APEC).

High Level Meetings. Other meetings with Canada are conducted on an ad hoc basis and include senior FCC and Industry Canada staff. They are overseen by the State Department and scheduled as needed and cover a full range of technical issues, both broadcast and non-broadcast. Some of the meetings are informal and occur in the same time frame as other meetings that representatives of the U.S. and Canada jointly attend, e.g., ITU-R Study Group meetings.

Non-Broadcast Allocations and Technical Coordination. Coordination between the U.S. and Canada for the use of non-broadcast spectrum begins very early in the spectrum allocation and planning process for both countries. Discussions usually begin under the auspices of the Radio Technical Liaison Committee (RTLCL). The RTLCL provides a forum

for direct exchange of information between the technical experts of both countries with the aim of promoting early coordination on spectrum allocations and facilitating achievement of spectrum sharing arrangements necessary for licensing of individual stations. RTLC meetings have been conducted between Industry Canada and FCC technical experts since the early 1980's, approximately 1-3 times per year. In the RTLC, technical and spectrum allocation information has been exchanged, and frequency sharing arrangements for fixed/land mobile terrestrial communications services have been discussed, leading to arrangements for services including PCS, cellular, and paging. The RTLC discussions are co-chaired by senior-level FCC and Industry Canada officials.

Broadcast Allocations and Technical Coordination. Coordination between the U.S. and Canada for the use of broadcast spectrum is conducted between Industry Canada and FCC broadcast experts under the auspices of State Dept.'s CIP and Industry Canada. Meetings are conducted whenever there is a need (generally once or twice a year) and result in agreements and their associated arrangements.

C. U.S./Canadian Agreements

Broadcast.

There are three agreements currently in effect with Canada:

1) *Agreement Between the Government of the United States of America and the Government of Canada Relating to the AM Broadcasting Service in the Medium Frequency Band*, 1984 for use of the 535-1605 kilohertz (kHz) band;

1a) associated with the AM Agreement is the *Interim Working Arrangement Between the Federal Communications Commission and the Department of Communications Relating to the AM Broadcasting Service in the Medium Frequency Band*, 1991 for use of the expanded band 1605-1705 kHz;

2) *The FM Agreement Between the Government of Canada and the Government of the United States of America Relating to the FM Broadcasting Service*, 1991 and its associated *Working Arrangement*; and

3) *The TV Agreement Between the Government of Canada and the Government of the United States of America Relating to the TV Broadcasting Service*, 1994 and its associated *Working Arrangement* covers the VHF, and UHF TV bands and the low power television service (LPTV).

Non-Broadcast.

The principal agreement governing the allocation and use of frequency bands by terrestrial non-broadcasting radiocommunications services along the common border is the *Agreement Concerning the Coordination and Use of Radio Frequencies Above Thirty Megacycles per Second, with Annex (Above 30 MHz Agreement)*. This agreement was signed into effect on October 24, 1962, and has been subsequently amended. This agreement covers both government and non-government frequency use, and covers frequency bands utilized in such diverse services as aeronautical mobile, maritime public correspondence, railroad radio, air-to-ground radio, land mobile, cellular radio, personal communications service, point-to-point and point-to-multipoint services, paging, multipoint distribution services and fixed microwave operations.⁵

The Above 30 MHz Agreement is comprised of the six "Arrangements" which address different sets of frequency bands. These arrangements identify coordinating agencies and establish coordination procedures for different frequency bands, including specification of the distance from the border within which coordination must take place.

Coordination under this agreement is generally made with reference to coordination zones that are encompassed by the geographical lines, "Lines A, B, C, and D", that are described in the agreement (see U.S./Canadian Border Coordination Maps). "Line A" is used to define the coordination zone in the U.S. along the main U.S.-Canada border while "Line B" fulfills the same requirement on the Canadian side. "Lines C and D" are used to establish the coordination zones along the Alaska-Canada divide (see U.S. (Alaskan)/Canadian Border Coordination Map). The coordination distance from the border following these Lines is generally about 70 miles, but the distance is variable where the border diverts non-linearly. There are instances, particularly in some of the interim working arrangements, where these Lines are not applicable and actual distances are specified.

Since the Above 30 MHz Agreement originally became effective, in addition to the amendments that have been made, interim working arrangements have been adopted for certain non-government bands. These typically address certain services within specified band segments and are associated with one of the six Arrangements. Frequently, coordination and notification procedures set forth in the interim working arrangements are specified through reference to one of the six Arrangements.

⁵ Frequency coordination under this Agreement involves both government and non-government (commercial) spectrum and is performed by a number of agencies within both governments. Under this agreement, the FCC coordinates with Industry Canada on non-government use and jointly with other U.S. agencies for shared spectrum use.

The six "Arrangements" of the Above 30 MHz Agreement are as follows:

- Arrangement A: *Arrangement Between the Canada Department of Transport and the U.S. Federal Communications Commission for the Exchange of Frequency Assignment Information and Engineering Comments on Proposed Assignments along the Canada-United States Borders in Certain Bands Above 30 Mc/s.*

This Arrangement is the primary instrument for FCC/Industry Canada non-government, non-broadcast coordination of the fixed and land mobile services.

- Arrangement B: *Arrangement for the Exchange of Frequency Assignment Information and Engineering Comments on Proposed Assignments along the Canada-United States Borders in Certain Aviation Bands.*

This Arrangement is the cornerstone of notifications relating to aeronautical services. The Federal Aviation Administration is the primary administrator for the coordination of radionavigation and radiocommunication functions in these bands, however, the FCC has responsibility in certain bands subject to this Arrangement.

- Arrangement C: *Arrangement for Frequency Coordination of Fixed Installation Radars.*

This Arrangement is primarily associated with defense related radar use on government frequency bands and its administration is performed by the Joint Chiefs of Staff.

- Arrangement D: *Arrangement Between the Canada Department of Transport and the U.S. Interdepartment Radio Advisory Committee (IRAC) for the Exchange of Frequency Assignment Information and Engineering Comments on Proposed Assignments along the Canada-United States Borders in Certain Bands Above 30 Mc/s.*

This Arrangement relates to coordination of terrestrial and earth station frequency assignments that are within the shared government and non-government frequency bands specified therein. IRAC functions as the U.S. coordinating entity for these bands.

- Arrangement E: *Arrangement Between the Department of Communications of Canada and the National Telecommunications and Information Administration and the Federal Communications Commission of the United States Concerning the Use of the 406.1 MHz to 430 MHz Band in Canada-United States Border Areas.*

This Arrangement establishes the procedures for the use of the band 406.1-430.0 MHz by fixed and mobile services; and for use of the band 420-430 MHz for the radiolocation service within the U.S. and for the mobile (primary) and fixed (secondary) services within Canada. NTIA is the coordinating agency for the U.S.

- Arrangement F: *Arrangement Between the Department of Communications of Canada and the Federal Communications Commission of the United States Concerning the Use of the Band 806 to 890 MHz along the Canada-United States Border.*

This Arrangement covers the coordination of land mobile radio services operating in the 806-890 MHz band in the border area.

Associated arrangements and attachments listed by service category are as follows:

- Aeronautical Mobile (R) Service:

128-132 MHz: *Interim Arrangement on the Coordination and Use of 25 kHz Frequency Assignments in the Aeronautical Mobile (R - en route) Service Sub-band 128.8125-132-0125 MHz.* A table specifies the channels designated for use by each of the Administrations. Signed: December 20, 1977, and associated with Arrangement B.

136.5-137.0 MHz: *Interim Channeling Arrangement for the Aeronautical Mobile (R) Service Utilizing 25 kHz Channels for the Band 136-137 MHz.* A table specifies the channels specified for use by the Administrations. Signed: January 15, 1992, and associated with Arrangement B.

- Maritime Mobile:

Appendix 18 (156.8/162.0 MHz): Revised Attachments A and B to Arrangement A. Maritime Mobile Frequencies Appearing in Appendix 18 of the international Radio Regulations. Signed: June 8, 1973.

Vancouver/Seattle Area (156.55/156.72 MHz): Attachment C to Arrangement A. Frequency Usage for Vessel Traffic Systems in the General Vancouver/Seattle Area. Signed: August 2, 1976.

West Coast VHF (156/174 MHz): Revised Attachment D to Arrangement A. Channelling Arrangement for the West Coast VHF Maritime Public Correspondence. Signed: February 20, 1984.

157 MHz: *VHF Channelling arrangement for Parallel Mobile Public Correspondence on the Great Lakes and the St. Lawrence Seaway/Agreement to Promote Safety on the Great Lakes by Means of Radio.* Signed: December 29, 1978, and associated with Arrangement A.

· Railroad Radio:

160-161 MHz: *Arrangement for Railroad Radio Frequency Assignment Plan for 30 kHz Narrow-Band Assignments.* Signed: July 28, 1960, and associated with Arrangement A.

· Air/Ground Radio:

454-459 MHz: *Arrangement for 400 MHz Air/Ground Channel Designations and Frequency Assignments.* Twelve 25 kHz channel pairs are established for use on a geographic/coordination basis. Signed: June 24, 1971, and associated with Arrangement A.

849-851/894-896 MHz: *Interim Arrangement Concerning Air-to-Ground Radio Services.* Covers the coordination and operation of air-to-ground, ground-to-air stations and applies to properly situated ground stations within 885 km of the border. Ten multichannel blocks are fully available to both countries. Signed: August 28, 1992, and associated with Arrangement F.

· Land Mobile Services:

806-890 MHz: *Arrangement for the Use of Land Mobile Services.* Amended the Agreement Concerning Allocation of UHF TV Channels. (This is the basis for Arrangement F). Signed: April 7, 1982.

821-824/866-869 MHz: *Interim Arrangements for Land Mobile Radio.* Arrangement allots channel pairs evenly; power and height limits are imposed where they fall into the 3 sharing zones and 2 protection zones that are defined in the document. There are also 5 nationwide public safety channel mutual aid channel pairs specified. Signed: August 15, 1990, and associated with Arrangement F.

896-901/935-940 MHz: *Interim Arrangement for Land Mobile Service.* Arrangement is effective within 140 km of the border. Frequencies are divided evenly on an *a priori* basis and different power and antenna height restrictions apply depending upon in which sharing zone the station is located. Signed: August 15, 1990, and associated with Arrangement F.

· Cellular Services:

824-825/845-849/869-870/890-894 MHz: *Arrangement Concerning Cellular Radio Systems.* Terms call for equal spectrum sharing through close technical coordination. In general, a maximum signal limit of 35 dBuV/m at the border is permitted. Signed: January 8, 1990, and associated with Arrangement F.

· Personal Communications Services:

901-902/930-931/940-941 MHz: *Interim Arrangement for Narrowband PCS.* Establishes a common plan for the equitable use of these bands for Narrowband PCS Systems within a distance of 120 km from the common border. The Arrangement establishes a channel plan that includes 15 paired channels and 9 unpaired channels per Administration. Where operators agree to share a channel, such agreements are to be submitted to the Administrations for review. Signed: September 22, 1994.

1850-1990 MHz: *Interim Arrangement for Broadband PCS.* Establishes a common plan for the shared and equitable use of the band for Broadband PCS within a 72 km distance from the common border. The band 1910-1930 MHz is reserved for low power unlicensed PCS. All PCS systems must be coordinated with any potentially effected existing fixed point-to-point operations within 120 km from the common border. No new fixed systems will be authorized in the band. Where operators agree to share channels, such arrangements are to be submitted to Administrations and are subject to review. Signed: November 14, 1994, and associated with Arrangement A.

· Point-to-Multipoint Services:

928-929/952-953 MHz: *Arrangement Concerning Point-to-Multipoint Systems.* Using Lines A, B, C & D as general limiting distances, bands are divided into 3 groups with each country receiving a priority segment plus a third common band segment, use subject to case-by-case coordination. Signed: August 7, 1991.

- Paging:

All Paging Frequencies: *Arrangement on Trans-Border Paging Operation.* Specifies the terms for acceptability of transborder paging operations while also noting the undesirability of the offering of service to subscribers of the other country. Signed: June 25, 1971.

929-932 MHz: *Interim Arrangements on Paging Operations.* Using Lines A & B for the 929 MHz band, allots 929.0-929.5 MHz for Canadian use and 929.5-930.0 for U.S. usage. For the 931 MHz segment, the channel distribution varies in specified population centers, but elsewhere across the border it is evenly divided between the two countries including 3 common nationwide channels. Signed: January 11, 1994; August 14, 1992; April 20, 1988; February 10, 1987; and September 14, 1983.

- Point-to-Point and Point-to-Multipoint Fixed Services:

932-935/941-944 MHz: *Interim Arrangement on Point-to-Point and Point-to-Multipoint Fixed Services.* Within Lines A,B,C, & D provides priority use for Canadians systems in 932.0-932.25 Mhz and 941.0-941.25 MHz bands, and priority use for the U.S. in the 932.25-932.50 MHz and 941.25-941.50 MHz bands. The remaining portions of the bands are subject to the terms of Arrangement A with slight modification. Signed: September 19, 1994, and associated with Arrangement A.

- Multipoint Distribution Service:

2500-2686 MHz: *General FCC/DOC Understanding Concerning the Coordination of the Band within 80 km of the Border (31 MDS Channels).* Terms apply to operations within 80 km of the border. Both countries have access to all channels. Use of frequency offset and antenna gain and polarization criteria specified; a coordination threshold PFD at the border of -70 dBW/m². Signed: March 23, 1989. Discussions are currently underway to append technical criteria that would permit the use of digital systems under this understanding.

- Fixed and Mobile Services:

4400/5000 MHz Signed August 12, 1984

17.7-23.6 GHz (for specific band segments): *Interim Arrangement for Coordination of Fixed and Mobile Stations.* Supersedes the provisions of the Above 30 MHz Agreement by requiring the coordination of all fixed and mobile services in the specified band segments. Signed: July 8, 1995.

Satellite Service:⁶

- *All Satellite News-Gathering (SNG) Frequencies: Understanding Concerning U.S./Canada Cross-Border Roaming of SNG Units.* Signed August 1992.

In August, 1992 there was an exchange of letters between the FCC and the Canadian Department of Communications that defined SNG, for purposes of service implementation in the two countries. Additionally the letters provided an expedited procedure for the authorization of the cross-border roaming of SNG units between the two countries while remaining in communication using that country's space segment. Finally, the letters reserved the right for each governmental authority to review such temporary authorizations after a reasonable period to determine if the other country's space segment can provide the necessary facilities, while considering the needs for flexibility and for appropriate utilization of in-orbit facilities.

- *Transborder Satellite Policies for Very Small Aperture Satellite (VSAT) Earth Stations:* This series of letters exchanged between the FCC and Canada's Department of Communications (now Industry Canada) outlines the policies and conditions for the use of U.S. and Canadian VSATs and fixed-satellite service satellites in each country. Dated 1972, 1982, and 1989.
- *Mobile Satellite Terminal Cross-Border Roaming.* This exchange of letters facilitated U.S./Canadian cross-border roaming of certain MSS/RDSS mobiles using the Geostar and Qualcomm satellite systems. Dated May/April 1991.
- *Trilateral Arrangement Regarding the Use of the Geostationary Orbit Reached by Canada, Mexico and the United States.* This "working arrangement" provides for the shared use of the geostationary orbit between 103 degrees W.L. and 123 degrees W.L., and of the 3700-4200 MHz, 5925-6425 MHz, 11.7-12.2 GHz, and 14.0-14.5 GHz frequency bands. FCC Public Notice dated September 2, 1988.
- *Broadcast Satellite /Fixed Services.* Coordination of systems operating in the 17.7-19.7 GHz and 21.2-23.6 GHz bands. Signed July 8, 1995.

Additional information on the interim working arrangements for which the FCC has coordination responsibilities are listed in Appendices A and B.⁷

⁶ A full description of all satellite coordination between the U.S. and other countries is beyond the scope of this Report.

⁷ The tables in Appendix A present this information organized by frequency band.

D. Overview of Activities and Accomplishments

November 1994 Bilateral Meeting of the U.S./Canada RTLC. This meeting was held for the primary purpose of finalizing an interim Broadband PCS frequency sharing arrangement (1850-1990 MHz), which was signed on November 14, 1994.

July 1995 Bilateral Meeting of the U.S./Canada RTLC. Topics addressed at this meeting included a draft 220-222 MHz sharing arrangement, refarming, PCS implementation issues, a new MSS roaming agreement, spread spectrum issues (Part 15 applications), wind profilers, 28 GHz allocations, Automatic Vehicle Monitoring systems, receiver spurious emissions above 960 MHz (relative to interference to VSATs), spectrum reallocation from U.S. government to non-government use, and MDS. Progress was made on each topic. The U.S. presented the Canadians with a new draft 220-222 MHz arrangement. On the impending use of the 900 MHz PCS band, discussions centered on licensee agreements with transborder partners and what appropriate conditions would be required to assure that an administration's priority for a designated channel would not be affected should the business arrangement between the partners be invalidated.

August 1995 U.S./Canada DARS Bilateral Meeting. This meeting was held to begin the coordination of U.S. and Canadian plans for the establishment of digital audio broadcasting services that were allocated by WARC-92. Coordination issues are significant because, in accordance with WARC-92 allocations, each country will operate in different frequency bands and must share with other terrestrial services in the other country. Currently, the U.S. plans satellite operation in the S-band while Canada plans terrestrial operation in the L-band. Moreover, coordination requirements of aeronautical telemetry uses will factor into the discussion. This meeting represented a good-faith effort on all sides to resolve, through negotiations, a problem that resulted from the unsuccessful efforts of WARC-92 to find a common band for the satellite and complementary terrestrial digital audio services of all countries. At the meeting, country positions were clearly stated and commitments were made to exchange technical and operational information as reference for a small bilateral working group to begin to determine the extent of possible compatibility of the proposed services of the two countries.

February 1996 U.S./Canada DARS Bilateral Meeting. This was the second meeting on this subject. The status of activities occurring in both countries since the last meeting was presented. Various technical and operational information was exchanged in discussions concerning the extent of possible compatibility of the proposed services of the two countries. It was agreed to work on various interference relationships and investigate mitigation techniques for the next meeting.

February 1996 U.S./Canada Broadcast Bilateral Meeting. At this meeting agreement in principle was reached concerning changes to the FM Broadcasting Agreement. Agreed changes included increasing the Class A maximum effective radiated power (ERP) from 3 to 6 kW and allowing low power FM stations to increase their maximum ERP from 50 watts to 250 watts. These changes will take effect upon the exchange of diplomatic notes. Other areas of discussion concerned domestic decisions regarding implementation of the AM Expanded Band (1605-1705 kHz) and electronic exchange of databases for AM, FM, and TV.

April 1996 Bilateral Meeting of the U.S./Canada RTLC. Topics addressed at this meeting included review of the draft 220-222 MHz sharing arrangement based on the FCC rulemaking, refarming of land mobile frequencies, updates on PCS implementation issues, 28 GHz allocations for Local Multipoint Communications Service (LMCS), 37 GHz allocations, receiver spurious emissions above 960 MHz (relative to interference to VSATs), spectrum reallocation from U.S. government to non-government use, and MDS. Progress was made on each topic. The FCC reviewed its proposals/actions outlined in the September 1995 MO&O/NPRM. The FCC and IC agreed to establish guidelines mutually to make the realignment process less disruptive. On the impending use of the 900 MHz PCS band, IC issued authorizations to the four entities awarded permits by the Ministry in December, 1995. The relocation of fixed point to point operators was reported to be on schedule.

September 1996 U.S./Canada DARS Bilateral Meeting. This was the third meeting on this subject. The status of activities occurring in both countries since the last meeting was reviewed. There was much discussion on the progress of coordination studies in both the L and S bands in efforts to increase compatibility of the proposed services of the two countries. In this regard, the U.S. presented a proposal for common use of the L-band allocation. It was agreed to continue work on various interference relationships and continue investigating mitigation techniques as well as consider the U.S. proposal for the next meeting.

January 1997 U.S./Canada DARS Bilateral Meeting. This was the fourth meeting on this subject. The status of activities occurring in both countries since the last meeting was reviewed. IC presented a counter-proposal for use of the L-Band. There was discussion on the progress of coordination studies in both the L and S bands in efforts to increase compatibility of the proposed services of the two countries. It was agreed to continue work on various interference relationships and continue investigating mitigation techniques as well as consider the U.S. proposal and Canadian counter-proposal for the next meeting.

January 1997 Bilateral Meeting of the U.S./Canada RTLC. Sharing coordination issues addressed at this meeting included the draft 220-222 MHz sharing arrangement, non-DARS (2.3 GHz), review of the current 2.5 GHz (MDS) agreement, 4.6 GHz for General Wireless Communications Service, LMDS/LMCS (28-31 GHz) and in the bands between 36 and 51 GHz. Information exchange items included refarming, wireless access at 3.5 GHz, 5

GHz unlicensed operation, NTIA/FCC spectrum transfer, allocations above 40 GHz, FCC auction update, intercarrier arrangements between Canadian and U.S. licensees, and progress on the rewrite of the "Above 30 MHz" agreement.

March 1997 U.S./Canada DARS Bilateral Meeting. This was the fifth meeting on this subject. The status of activities occurring in both countries since the last meeting was reviewed. The U.S. presented a revised proposal for use of the L-Band. Canada agreed to discuss it with its industry and inform the U.S. of the results. There was discussion on the progress of coordination studies in both the L and S bands in efforts to increase compatibility of the proposed services of the two countries. It was agreed to continue work on various interference relationships and continue investigating mitigation techniques for the next meeting.

March 1997 Bilateral Meeting of the U.S./Canada RTLC. Topics addressed at this meeting included review of the 2.5 GHz MDS Agreement, update on the draft 220-222 MHz sharing arrangement, LMDS/LMCS (28 GHz), and 36-51 GHz uses.

E. Issues for Future Action

In the broadcast area, issues to be addressed throughout 1997 and 1998 include continued planning for implementation of the AM expansion band, continuation of discussion of parameters leading to an agreement on digital television (DTV), and continued consultations on coordination of MMDS and DARS operations.

In the non-broadcast area, an extensive ongoing inter-agency effort to reformulate the Above 30 MHz Agreement will continue.⁸

Additionally, discussions with Canada will focus on developing a roaming agreement for METs, implementing coordination procedures for broadband PCS operations in the 1850-1990 MHz band and continuing coordination of spectrum planning through the RTLC.

⁸ Coordination of U.S. positions among federal government agencies on U.S./Canadian spectrum issues is carried out within the IRAC's subcommittee Ad Hoc 181. This group is chaired by the State Department and includes participation by the NTIA, the FCC and other federal agencies. Its current major activity is the development of an updated version of the Above 30 MHz Agreement by incorporating the provisions of various "interim arrangements" that have been adopted between the U.S. and Canada since 1962.

IV. NEGOTIATIONS, CONSULTATIONS, AND AGREEMENTS WITH MEXICO

A. Mexican Counterpart Authorities

Secretaría de Comunicaciones y Transportes (SCT). The highest Mexican authority over telecommunications matters is Secretariat of Communications and Transports, led by a cabinet level Minister. The Minister officially signs all international telecommunications agreements. The authority directly responsible for day-to-day regulatory decisions is the Subsecretariat of Communications and Technological Development, led by an Undersecretary. These entities are referred to collectively in this report as the SCT. Within the SCT, delegations for bilateral treaty discussions are led by the Coordinator for International Negotiations, who reports directly to the Undersecretary. As in the U.S., the Coordinator brings experts together from the SCT as well as other Mexican government agencies and state-owned companies as required to address the points of bilateral discussions.

The *Comision Federal de Telecomunicaciones (CFT)*, established in 1996, is the primary telecommunications regulatory body in Mexico, although SCT retains certain important responsibilities. On some issues, CFT makes decisions requiring little, if any input from SCT; while on other issues CFT must obtain the approval of SCT or SCT has the lead. In general, most international issues should be coordinated with the SCT and CFT. Major CFT decisions are made by vote of a four person Commission, with the Chairman having the deciding vote. According to Mexican law and regulations, the CFT's functions with respect to radio include: carry out studies; grant, modify and revoke concessions (licenses) and permits, submit (for approval by the SCT) a frequency allocation and coordination program; administer the radio-electric spectrum; coordinate (with the SCT) frequency issues regarding satellites; establish mandatory equipment standards; certify equipment; and establish and maintain a registry of telecommunications. In its role as federal administrator of radio spectrum, CFT sets parameters for power, modulation and other technical issues, grants equipment approvals, establishes auction processes, maintains databases of users and frequencies, and performs technical analysis. The SCT seeks the opinion of CFT's technical experts before publishing decisions.

Telecomunicaciones de Mexico (TELECOMM). TELECOMM is the Mexican government-owned satellite administration. Currently, TELECOMM participates in all international negotiations concerning space station and ground station coordination. Governmental responsibilities for satellite-related coordination ultimately will be undertaken directly by the SCT.

B. Framework for U.S./Mexico Negotiations

U.S. negotiations with Mexico regarding border frequency sharing arrangements are led by State Department's CIP with the FCC participating as one of the primary expert agencies. They are organized under the auspices of the High Level Consultative Commission on Telecommunications (HLCC), originally constituted in 1990. This high level meeting of senior U.S. and Mexican government officials is convened approximately every two years or as needed for the exchange of views on important regulatory, standards, administrative and telecommunications policy issues; for the signature of new agreements and protocols; and for the establishment of cooperative work plans.

At the fourth U.S./Mexico HLCC meeting⁹ held in Williamsburg, Virginia, in June 1994, a landmark Framework Agreement was signed that consolidated a large number of agreements and memoranda of understanding previously reached between the U.S. and Mexico, and established an efficient procedure for entering into additional agreements, called "protocols," which become amendments to the Framework Agreement and are thus binding international agreements.¹⁰

The fifth and most recent U.S./Mexico HLCC meeting was held in Morelia, Mexico in April 1996. The 1996-97 Work Plan established at that meeting identified an extensive array of issues related to the allocation and technical coordination of broadcast and non-broadcast services as well as satellite policy matters, telecommunications policies, multilateral activities (ITU and CITELE related), exchange of information by electronic means, and telecommunications training.¹¹ At this meeting new protocols on aeronautical radionavigation and communications service and point-to-point microwave services were signed. Additionally, the work plan provides for the establishment of a regularized exchange of information on spectrum planning developments in each country.

⁹ Prior meetings of the High Level Consultative Commission were held at Cocoyoc, Morelos (September 1990), Chestertown, Maryland (July 1991), and Queretaro, Mexico (August 1992).

¹⁰ A copy of the News Release issued jointly by the State Department (CIP), the FCC, and the NTIA on June 23, 1994, including the text of the Williamsburg Communique and the 1994-1995 U.S./Mexico Work Plan, is contained in Appendix C.

¹¹ A copy of the News Release issued jointly by the State Department (CIP), the FCC, and the NTIA on May 3, 1996, including the text of the Morelia Communique and the 1996-1997 U.S./Mexico Work Plan, is contained in Appendix C.

Broadcast and Non-Broadcast Consultations. Generally, two non-broadcast and two broadcast bilateral meetings take place on an annual basis between sessions of the High Level Consultative Commission. These negotiations are organized and led by the State Department, with participation by the FCC and other federal agencies, as appropriate. The negotiations follow agendas set in cooperation with the SCT consistent with the work plan established at the most recent HLCC Meeting. The negotiations, which may span several months, if not years, ultimately yield agreements (or protocols/memoranda of understandings) which may be signed by the senior officials of the particular agencies affected.

*Interference Resolution - Mixed Commission.*¹² To facilitate interference-free operations in accordance with existing frequency sharing protocols and agreements, informal meetings are held as needed between the FCC's Compliance and Information Bureau's (CIB) regional monitoring offices and the SCT regional spectrum administration officials. During these meetings of the "Mixed Commission," specific interference cases are analyzed relative to existing treaty specifications and agreement is often reached on means to eliminate the interference. CIB may bring in technical representatives of the affected licensees and other FCC experts to facilitate the discussions. Additionally, the Notifications Branch, in cooperation with the CIB, maintains the *Mexican Interference Database and Updates*, a report that documents events and activities relevant to dozens of pending interference cases affecting U.S. stations. The report provides a comprehensive centralized resource to assist in the coordination process by supplying a chronological history of the individual cases and their associated technical details. Specific interference cases are coordinated with representatives of the SCT headquarters and field staffs, with input from representatives of the affected stations and their engineering and legal representatives.

C. U.S./Mexico Agreements

Broadcast.

There are two AM agreements with Mexico:

- 1) *Agreement Between the Government of the United States of America and the Government of the United Mexican States Relating to the AM Broadcasting Service in the Medium Frequency Band*, 1986 for use of the 535-1605 kilohertz (kHz) band; and
- 2) *Agreement Between the Government of the United States of America and the Government of the United Mexican States for the Use of the Band 1605 to 1705 kHz in the AM Broadcasting Service*, 1992 for use of the AM expanded band 1605-1705 kHz.

¹² Also referred to (in Spanish) as the "Comision Mixta Encargada de Resolver Asuntos de Radiointerferencia" (CMERAR).

An FM *Agreement Between the Government of the United States of America and the Government of the United Mexican States Relating to the FM Broadcasting Service in the 88-108 MHz Band* was signed in 1992.

The following two TV agreements with Mexico were amended to provide for low power TV (LPTV) usage in 1988:

- 1) *United States-Mexico VHF Television Agreement*, signed in 1962, and
- 2) *Agreement Relating to Assignments and Usage of Television Broadcasting Channels in the Frequency Range 470-806 MHz (Channels 14-69) Along the United States-Mexico Border*, signed in 1982.

Non-Broadcast.

The *Agreement Between the Government of the United States of America and the Government of the United Mexican States Concerning the Allocation and Use of Frequency Bands by Terrestrial Non-Broadcasting Radiocommunication Services Along the Common Border* (Framework Agreement) was signed at the 4th HLCC meeting on behalf of the U.S. by all three of the senior U.S. telecommunications officials.¹³

The Framework Agreement deals with a range of non-broadcast issues and provides for the attachment of service-specific protocols, which may be agreed upon from time to time between the regulatory authorities of each country, specifically the SCT and the FCC.¹⁴ Each individual protocol sets forth channel allotments and conditions for use for the subject service. The six original protocols annexed to the Framework Agreement in 1994, represented (a) updated consolidations of prior agreements and memoranda of understanding (MOU) reached at previous Consultative Commission meetings,¹⁵ and (b) new agreements on selected fixed and mobile service topics. Following the 4th HLCC meeting two new protocols were signed, and at the 5th HLCC meeting two additional protocols were signed. A structural index of the Framework Agreement is contained in Appendix C.

¹³ Ambassador Vonya B. McCann, Deputy Assistant Secretary of State for International Communications and Information Policy; Reed E. Hundt, Chairman, Federal Communications Commission; and Larry Irving, Assistant Secretary of Commerce for Communications and Information.

¹⁴ Appropriate Circular 175 Authority will be required for new topics.

¹⁵ The prior versions of the agreements and MOUs consolidated into the Framework Agreement were thereby terminated.

- Terrestrial Non-Broadcasting Radiocommunications Services:
Agreement Between the Government of the United States of America and the Government of the United Mexican States Concerning the Allocation and Use of Frequency Bands by Terrestrial Non-Broadcasting Radiocommunications Services Along the Common Border (1994 Framework Agreement). The 1994 Framework Agreement (and its associated protocols) was established to ensure the equitable use of frequency bands by terrestrial non-broadcasting radiocommunications services in the common border area. The allocation of bands for specific radio services and the conditions for their use are set forth in protocols which are attached as annexes to the Framework Agreement. This agreement was signed on June 16, 1994, in Williamsburg, VA and entered into force on June 2, 1995.¹⁶ These protocols, which concern a variety of land mobile services (including SMR, cellular and PCS) as well as public air-to-ground and fixed point-to-multipoint services, are briefly summarized below.

- Specialized Mobile Radio Service:

220-222 MHz: *Protocol Concerning the Allocation and Use of the Channels in the 220-222 MHz Band for Land Mobile Services Along the Common Border.* It establishes a common plan for the use of this band within a 120 km distance on each side of the border. This band has been allocated in the U.S. for use by the Specialized Mobile Radio Service (SMRS).

- Land Mobile Services:

470-512 MHz: *Protocol Concerning the Use of the 470-512 MHz Band for Land Mobile Services Along the Common Border.* This band is allocated to both land mobile and (television) broadcasting services. This protocol recognizes the differing levels of requirements for these services in the two countries and establishes a requirement to coordinate assignments made for stations within 150 km of the common border (a greater distance may be agreed for assignments near the Pacific coast).

¹⁶ The two protocols concerning Personal Communications Service (PCS) also are formally associated with the 1994 Framework Agreement, but were signed in Washington, D.C. on May 16, 1995 and entered into force on that same date.

806-824/851-869 and 896-901/935-940 MHz: *Protocol Concerning the Use of the 806-824/ 851-869 and 896-901/935-940 MHz Bands for Land Mobile Services Along the Common Border.* This Protocol establishes a common plan for the use of frequencies for Land Mobile services which include Public Safety Mutual Aid and SMRS within a 110 km distance from the border. The channels are evenly divided as specified in the appendices to this Protocol.

· Cellular Services:

824-849/869-894 MHz: *Protocol Concerning the Use of the 824-849/ 869-894 MHz Bands for Public Radiocommunications Services Using Cellular Systems Along the Common Border.* This Protocol establishes the technical parameters for cellular systems in these bands and a requirement for coordination within a 72 km distance from the common border. Coordination occurs directly between the carriers licensed in each country and the conclusions are subject to approval by each administration.

· Air-to-Ground Services:

849-851/894-896 MHz: *Protocol Concerning the Use of the 849-851/ 894-896 MHz Bands for Public Air to Ground Radio Services.* This Protocol establishes a common plan for the use of frequencies within a 885 km distance from the common border for Public Air to Ground Radio Service. The spectrum is divided into 10 channel blocks and each specific site is coordinated. Channel blocks are assigned to specific sites. Sites not already specified require individual coordination.

· Fixed Point-to-Multipoint:

932-932.5/941-941.5 MHz: *Protocol Concerning the Allotment and Use of the 932.0-932.5/ 941.0-941.5 MHz Bands for Fixed Point-to-Multipoint Services Along the Common Border.* This Protocol establishes an allotment plan for the use of the channels within a 113 km distance from the common border for fixed point-to-multipoint radiocommunications stations.

· Fixed Point-to-Point:

932.5-935/941.5-944 MHz: *Protocol Concerning the Allotment and Use of the 932.5-935/941.5-944 MHz Bands for Fixed Point-to-Point Services Along the Common Border.* This Protocol establishes an allotment plan for the use of the channels within a 60 km distance from the common border for fixed point-to-point radiocommunication stations.

· Personal Communications Services:

901-902/930-931 MHz: *Protocol Concerning the Allocation and Use of the Bands 901-902 MHz, 930-931 MHz, and 940-941 MHz for Personal Communications Services Along the Common Border.* This Protocol establishes a channel plan for the equitable use of these bands for Narrowband PCS Systems within a distance of 120 km from the common border (see U.S./Mexican Border Coordination Map on page 51). The agreement establishes a channel plan that includes 15 paired channels and 9 unpaired channels per administration. Where operators agree to share a channel, such arrangements are to be submitted to the administrations for review.

1850-1990 MHz: *Protocol Concerning the Use of the Band 1850-1990 MHz for Personal Communications Services Along the Common Border.* This Protocol establishes a common plan for the equitable use of the band for Broadband PCS within a 72 km distance from the common border. The band 1910-1930 MHz is reserved for low power unlicensed PCS. All PCS systems must be coordinated with any existing fixed point-to-point stations. The Protocol provides protection for existing fixed point-to-point operations within 120 km from the common border. However, the countries agree that no new fixed systems will be authorized in the band. Use in the border area is based on equal access. Operator-to-operator agreements are permitted (as with the cellular protocol) but subject to review/approval of the administrations.

· Paging:

929-930/931-932 MHz: *Protocol Concerning the Use of the 929-930 MHz and 931-932 MHz Bands for Paging Services Along the Common Border.* This Protocol establishes a common plan for the equitable use of the band for one-way paging within a 120 km distance from the common border. It identifies priority channels each administration. Twelve channels are designated as shared. The Protocol also allows for operators in both countries to form joint operating partnerships to expand service areas and avoid transborder conflicts.

· Aeronautical Radionavigation and Communications:

Protocol Concerning the Use of the Bands Allocated to the Aeronautical Radionavigation and Aeronautical Communications Services Along the Common Border. This Protocol establishes a procedure for the coordination of frequency assignments in various identified frequency bands for the aeronautical radionavigation and aeronautical communications services along the common border. It allows each administration to use all the channels in each frequency band, provided it does not cause harmful interference to stations in the other country.

There are three additional non-broadcasting terrestrial agreements in effect between the U.S. and Mexico that concern spectrum use: (1) an agreement regarding satellite earth station coordination (signed at Chestertown 1991); (2) an agreement concerning multipoint distribution services (signed at Queretaro 1992); and (3) an agreement concerning use of the 17.7-17.8 GHz band (signed at Washington, 1993).

- Satellite Earth Station Coordination Procedures:

5925-6425 MHz: *Agreement Between the Government of the United States of America and the Government of the United Mexican States Regarding an Earth Station Coordination Procedure.* This agreement covers the band 5925-6425 MHz and was signed July 2, 1991, in Chestertown MD. It entered into force on February 2, 1993. It establishes a procedure for coordinating the operation of earth stations that are part of one or more fixed-satellite service networks with terrestrial fixed stations in the same band.

17.7-17.8 GHz: *Agreement Between the Government of the United States of America and the Government of the United Mexican States on the Use of the 17.7-17.8 GHz Band.* This agreement was signed June 23, 1993, in Washington, DC. It establishes sharing conditions for use of the band to facilitate operation of the fixed and broadcasting-satellite services on both sides of the common border.

- Multipoint Distribution Services:

2500-2686 MHz: *Agreement Between the Government of the United States of America and the Government of the United Mexican States Concerning the Assignment of Frequencies and Usage of the 2500-2686 MHz Band Along the United States-Mexico Border.* The purpose of this agreement is to establish a procedure for the assignment of channels and use of the 2500-2686 MHz band for point-to-multi-point distribution services within 80 kilometers of the common border. The 31 channels, each having a 6 MHz bandwidth, are divided into 8 groups (labelled A through H). Assignment of these groups is based on specific coordination criteria, and excluding the locations specified in the Annexes, the groups are available for use by both administrations. This agreement was signed on August 11, 1992, in Queretaro, Mexico. It entered into force on July 2, 1993.

D. Overview of Activities and Accomplishments

Since 1995, twelve bilateral sessions were held between the U.S. and Mexico, seven on non-broadcasting matters, and five on broadcasting matters:

March 1995 Bilateral on Non-Broadcast Matters. Discussions were held on new agreements for: (1) broadband and narrowband PCS; (2) paging in the 929-930 MHz and 931-932 MHz bands; (3) fixed point-to-point services in the 932.5-935 MHz and 941.5-944 MHz bands; (4) IVDS; (5) IVHS; and (6) aeronautical radionavigation service. Updates of existing agreements were reviewed for public air-to-ground service and satellite earth station coordinations. Other information exchanged included changes in the organizational structures of the FCC and the SCT, auction mechanisms, compliance with existing agreements, and adoption of a new meeting schedule.

April 1995 Bilateral on Non-Broadcast Matters. Continuing discussions were held regarding the prospective new agreements for broadband and narrowband PCS, paging in the 929-930 MHz and 931-932 MHz bands, fixed point-to-point services in the 932.5-935 MHz and 941.5-944 MHz bands. Both PCS agreements were brought to near completion and further work was identified on the two draft protocols in the remaining two services.

April 1995 Bilateral on Broadcast Matters. Discussions were held regarding compliance with existing broadcast agreements regarding broadcast interference cases, the AM database verification project, implementation of the FM agreement, certain LPTV coordinations, developments in ATV, the overall need to update the existing TV agreements, and an exchange of information on DARS. Important agreement was reached at this session to undertake the database verification of U.S. and Mexican AM radio stations as they conform to the existing bilateral agreement. Completion of the AM verification project had been anticipated during 1996; however, due to the complexity of this effort, the schedule is under review with expected completion in late 1997.

May 1995 Bilateral on Personal Communications Services. A brief bilateral of staff officials met to finalize the parallel Spanish and English language versions of the Narrowband and Broadband PCS agreements. These agreements were signed in Washington, DC on May 16, 1995, by Ambassador Vonya McCann and FCC Chairman Reed E. Hundt for the U.S., and SCT Secretary Carlos Ruiz Sacristan, for Mexico.

September 1995 Bilateral on Non-Broadcast Matters. Discussions in September 1995 were held on a wide number of topics. These included the coordination and use of radio frequencies in fighting forest fires in Southern California; the allocation and use of the aeronautical radionavigation and aeronautical communications bands; a draft agreement relating to transborder service continuity for METs in the mobile satellite services; use of the

929-930 MHz and 931-932 MHz bands for paging services; use of channels in the 932.5-935 MHz and 941.5-944 MHz bands for fixed point-to-point services; and modifications to annexes of the protocol on public air-to-ground radio services. A useful exchange of views took place regarding the allocations for and coordination of cross-border spread spectrum communications links in the 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz bands. A very productive joint working group was set up during the bilateral session to review the existing United States/Mexican 2 and 6 GHz earth station agreements to expedite the coordination of these satellite earth stations. At the end of the meeting, a demonstration of the FCC's spectrum analysis software was provided to the Mexican delegation.

December 1995 Bilateral on Non-Broadcast Matters. This meeting was held in preparation for the next U.S./Mexico High Level Consultative Commission meeting to discuss possible agreements (protocols) that might be signed. The focus of the meeting was regarding paging in the 900 MHz band. It resulted in the signing of a "Letter of Understanding" concerning the temporary use the 929-930 MHz and 931-932 MHz bands in the border area on December 19, 1995.

April 1996 Bilateral on Broadcast Matters. Discussions were continued regarding compliance with existing broadcast agreements concerning broadcast interference cases, the AM database verification project, implementation of the FM agreement, certain LPTV coordinations, developments in ATV, the overall need to update the existing TV agreements, and an exchange of information on DARS. Completion of the AM verification project was reviewed and is now expected to be completed in late 1997.

July 1996 Bilateral on Non-Broadcast Matters. This meeting was limited to discussions on a draft protocol on paging in the 929-930 MHz and 931-932 MHz bands in the border area.

September 1996 Bilateral on Broadcast Matters. This meeting was limited to discussions and exchange of information concerning DTV. This included review of developments in the U.S. and Mexico.

February 1997 Bilateral on Broadcast Matters. This meeting was limited to discussions and exchange of information concerning DTV. This included review of developments in the U.S. and Mexico, review of databases of operating analog (NTSC) stations needed to be protected, consideration of planning principles, and interim planning arrangements. The U.S. presented a draft "Memorandum of Understanding" intended on establishing the principles to be applied in order to allow temporary use of the existing TV bands for DTV until a new or revised TV Agreement can be negotiated.

February 1997 Bilateral on Non-Broadcast Matters. This meeting included a brief discussion of coordination procedures concerning radio frequencies used in fighting forest fires in Southern California. The main topic concerned discussions on a draft protocol on paging in the 929-930 MHz and 931-932 MHz bands in the border area and resulted in the signing of a protocol on February 27, 1997.

March 1997 Bilateral on Broadcast Matters. This meeting was limited to discussions and exchange of information concerning DTV and DARS. This included review of developments in the U.S. and Mexico, review of databases of operating analog (NTSC) stations needed to be protected, consideration of planning principles, and interim planning arrangements for DTV. The draft "Memorandum of Understanding" was reviewed, revised, and then signed on April 2, 1997. This understanding allows the U.S. to go forward with the timely introduction of DTV in the U.S.-Mexico border area.

E. Issues for Future Action

Throughout 1997 and 1998, discussions with Mexico in the broadcast area will focus on completion of the AM database verification project, determination of technical changes required to the TV agreement, particularly to include LPTV and DTV developments, and continued exchange of information on MMDS and DARS.

In the non-broadcast area, inter-agency coordination is expected to continue on issues of mutual interest.¹⁷ Specifically, work will continue on an agreement on MET roaming, coordination procedures to protect U.S. fire fighting frequencies, cross-border spread spectrum usage, implementation of the broadband and narrowband PCS protocols, and exchange of information on IVDS and IVHS. Special coordination issues concerning satellites will include continued discussion of coordination of earth stations in 2/6 and 7/8 GHz bands, exchange of information and discussion of coordination issues for DARS, and implementation of provisions in the Mexican 1995 Act requiring mutual agreement between Mexico and its border neighbors on reciprocal terms of access to domestic markets of foreign satellites.

¹⁷ Coordination of U.S. positions among federal government agencies on U.S./Mexico spectrum issues is carried out within the IRAC's subcommittee Ad Hoc 170. This group is chaired by the State Department and includes participation by the NTIA, the FCC and other federal agencies.

V. MULTILATERAL NEGOTIATIONS AND AGREEMENTS

A. AM Broadcasting

Because of the long distances AM signals can travel at night via skywave propagation, AM agreements must cover a much larger geographic area, are much more complex, and result in the need to coordinate with other countries beyond Canada and Mexico. Complex engineering studies are required to analyze interference issues because of the effects of the ionosphere on the propagation of electromagnetic waves in the AM frequency band.

In addition to bilateral agreements, four ITU multilateral agreements are in force affecting the use of AM broadcasting frequencies in the United States. They include the *North American Regional Broadcasting Agreement, 1950 (NARBA)*, the *Regional Agreement for the Medium Frequency Broadcasting Service in Region 2, Rio de Janeiro, 1981 (1981 Rio Agreement)*, the *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 (1975 LF/MF Agreement)*, and the *Regional Administrative Radio Conference to Establish a Plan for the Broadcasting Service in the Band 1605 - 1705 kHz in Region 2, Rio de Janeiro, 1988 (1988 Rio Agreement)*.

The NARBA agreement governed the allotment and use of all AM (535-1605 kHz) stations for the United States, Cuba, Canada, the Dominican Republic, and the Bahamas until it was effectively superseded by the 1981 Rio Agreement. Technically, NARBA still applies between the U.S., Bahamas, and the Dominican Republic, since these countries have not formally abrogated the agreement.

The 1981 Rio Agreement affects AM broadcasting assignments in the Americas and contains criteria that significantly differs from many NARBA provisions concerning interference protection, including the elimination of clear channels. It provides for separate bilateral agreements as long as they are consistent with its provisions. To provide for greater domestic flexibility, and in some cases greater interference protection, the U.S. entered into negotiations with both Canada and Mexico culminating in agreements signed in 1984 and 1986, respectively.

The 1975 LF/MF Agreement establishes the plan and associated provisions for AM broadcasting assignments outside of the Americas. It also governs the use of the AM band in U.S. territories in the South Pacific, such as Guam and Saipan. The technical criteria in some ways are different from those of the 1981 Rio Agreement. For example, channel spacing is 9 kHz instead of 10 kHz used in the 1981 and 1988 Rio Agreements.

The 1988 Rio Agreement affects AM broadcasting assignments in the Americas for the use of the expanded AM band (1605-1705 kHz). It also provides for separate bilateral agreements as long as they are consistent with its provisions. As in the case of the 1981 Rio Agreement, the U.S. entered into bilateral negotiations with both Canada and Mexico. An interim working arrangement with Canada was reached in 1991, and an agreement with Mexico was signed in 1992.

B. International Broadcasting

Transmissions of high frequency (HF), or shortwave international broadcast stations are intended for direct reception by the general public in foreign countries.¹⁸ These stations use high power transmitters and directional antennas and may broadcast to several areas of the world, simultaneously, using multiple transmitters and antennas. There are both government and private international broadcast stations. The U.S. government operates the Voice of America, Radio Free Europe/Radio Liberty, and Radio Free Asia under the Broadcasting Board of Governors. The FCC regulates privately owned international broadcast stations which includes 22 licensees with a combined total of 61 transmitters and 81 antennas.

All stations in this service operate without exclusive use of any frequency, and must share the allocated spectrum with all other international broadcasters in the world. As a result of seasonal propagation changes, stations may have to make frequency changes regularly. Accordingly, frequencies are coordinated and authorized on a seasonal basis. The potential for mutual interference around the world is great because these signals travel extreme distances.

ITU World Radio Conferences (WRC) have attempted, without success, to develop centralized planning processes for this service. The scope and dynamic character of the requirements, as well as spectrum limitations, have worked against such efforts. Article 17 of the ITU Radio Regulations contains coordination procedures and encourages bilateral and/or multilateral coordination of station operating schedules to resolve interference.

In 1963, an informal frequency coordination group (1963 group) was formed for the purpose of reducing mutual interference among several large western nation broadcasters. The group is composed of representatives of the Voice of America, Radio Free Europe/Radio Liberty, British Broadcasting Corporation, Deutsche Welle, Radio Nederland, Radio Canada International, and the FCC. In 1990, another informal group was formed which includes the aforementioned broadcasters plus broadcasters from west and east Europe, Russia, Turkey, Iran, and Algeria. This group is called the High Frequency Coordination Conference (HFCC). The results of its coordination meetings are notified to the ITU and administrations. In

¹⁸ HF Broadcasting is regulated under Part 73, Subpart F of the Commission's Rules, 47 C.F.R. Sec. 73.701 *et seq.*

August, 1994, the FCC became a member of the HFCC. This has enhanced our voice in the coordination process.

As required by Article 17 of the Radio Regulations, the FCC must coordinate operational frequency uses for its HF licensees and notify them to the ITU. Under the current coordination meeting process, there are four coordination meetings held each year of the 1963 group and two meeting each year of the HFCC. These coordination efforts will continue throughout 1997. Additionally, the Commission is in the process of detailed preparations for HF issues to be addressed at WRC-97, including the possible revision to the method by which HF frequencies are coordinated worldwide under Article 17.

VI. NOTIFICATIONS

A. Introduction

Notifications are data submissions to other administrations or the ITU which are necessary to fulfill U.S. obligations under International Telecommunication Union (ITU) treaties, other multilateral or regional agreements, and bilateral agreements with Canada and Mexico. Coordinations are exchanges of information among potentially affected administrations for the purpose of resolving interference issues. The notification and coordination processes together provide U.S. stations with protection against harmful interference from foreign stations.

The Notifications Branch of the International Bureau's Planning and Negotiations Division is responsible for performing all notifications required by bilateral, multilateral and ITU treaties and agreements to which the US is a signatory. While there are similarities in notification requirements among the various services and agreements, there are also a variety of elements and procedures that vary from service to service. For example, completion of the ITU registration process for AM radio requires that applicable regional agreement provisions are completed before application of the procedures for recordation of frequency assignments in the ITU's Master International Frequency Register. Another specialized procedure is the Advanced Publication requirements for satellite systems. Advanced Publications are used in certain space system services as an early step in the registration process to provide an initial notice to other administrations that a particular satellite system is being planned. This facilitates coordination and planning of satellite systems early in the design process before rigid design decisions are finalized. Other unique procedures and recording requirements are discussed below in individual sections related to particular services.

B. Notification Services

The International Bureau's Planning and Negotiations Division performs all international notifications, including assignments of stations licensed by the FCC and those authorized by the NTIA and the International Telecommunications Satellite Organization (INTELSAT) that need to be notified to the ITU.¹⁹ The Notifications Branch provides the following six notification services:

- 1) All terrestrial frequency assignment notices to the ITU pursuant to Article 12 of the ITU Radio Regulations;
- 2) Notification and recording in the ITU Master International Frequency Register of Frequency Assignments of all U.S. terrestrial radiocommunication stations;
- 3) AM notifications to the ITU pursuant to the AM broadcasting under the 1981 Rio Agreement, 1988 Rio Agreement, and 1975 LF/MF Agreement;
- 4) Coordination and notification of satellite activities to individual countries and the ITU under Articles 11, 12, 13, 14, 15, and 15A of the ITU Radio Regulations;
- 5) Multilateral coordination of FCC licensed HF International Broadcasting stations pursuant to Article 17 of the ITU Radio Regulations; and
- 6) Notification of changes in the use of AM, FM, TV, low power FM (LPFM), low power TV (LPTV), multipoint distribution service (MDS), ITFS, aeronautical, and U.S. fixed land mobile frequencies with Mexico and Canada pursuant to bilateral agreements with each country.

Tables illustrating the overall volume of notifications, fluctuations over the quarters spanning the period from October 1994 to March 1997, and variations by service are contained in Appendix F. The total number of notifications fluctuated dramatically from one quarter to the next, reaching a peak of 13,188 in the summer of 1995, to a minimum of 6,501 in the following quarter. Notifications for the period 1995 through 2nd quarter 1997 totalled 86,427 with nearly half (38,486) processed through an automated system with Canada.

¹⁹ The FCC chairs the "International Notification Group" (ING), which is a permanent subgroup of the IRAC. The ING administratively coordinates the notification correspondence between the U.S. administration, the ITU, and other countries; thus, the FCC serves as a central "post office" for all notifications and coordinations including those for government frequency assignments authorized by the NTIA and similar correspondence of INTELSAT.

The Bureau also coordinated and submitted seasonal broadcasting schedules for 22 shortwave broadcasting licensees reflecting a total of 10,043 frequency hours for this reporting period. This volume illustrates the significant coordination activity associated with numerous schedule changes inherent in this service.

By far the most labor intensive notifications, however, are in the domestic broadcast services, particularly AM radio. Each notification, whether it is received from a foreign administration, appears in ITU Weekly Circulars, or is proposed by the U.S., requires complex engineering studies to determine possible interference.

No processing backlogs exist currently in the notifications area, despite the significant volume. There are, however, cases where the FCC may not act on a pending application because of international restrictions. For instance, there are hundreds of LPTV applications pending Mexican concurrence.²⁰ Additionally, delays have occurred with FM notifications with Mexico because interim implementation provisions under the current agreement provide for processing notifications in batches of equivalent size for each administration. There are 27 AM applications that are pending due to delays experienced with the ITU registration process or with the Mexican Verification Project.

C. Database and Automation Projects

The FCC is continually working to increase the efficiency and accuracy of the notifications process, both through improvement of assignment databases and in the coordination with other administrations in the development of automated notifications processing systems as follows:

ITU Information. A significant amount of information issued by the ITU is now accessed electronically by FCC staff, saving considerable resources. Full utilization of this information was achieved by software configured by the staff of the Planning & Negotiations Division. The ITU information, which includes the International Frequency List, Space Radiocommunications Stations, Weekly Circulars and ITU-R²¹ Recommendations, is available electronically in the International Bureau's public reference room. The Notifications Branch manages the procurement and distribution of ITU publications for all offices of the FCC.

²⁰ There are approximately 350 U.S. LPTV station applications pending because their proposed operating parameters exceed the acceptable parameters contained in the current LPTV Agreements with Mexico and therefore require Mexican concurrence. Of these, due to mutually exclusive situations among the proposals, approximately 100 have been notified to Mexico and await a response.

²¹ ITU-R is the radiocommunications sector of the International Telecommunication Union.

These publications consist of the final acts of telecommunication conferences, lists of radio stations and satellite networks, operational bulletins, newsletters, weekly circulars, recommendations, handbooks, radio regulations, etc. A selected set of documents is available in the International Bureau's Reference Room.

Software Implementation for ITU's TerRaSys Project

In an ITU Circular Letter dated April 12, 1995, the Radiocommunications Bureau of the ITU outlined its plans for modernizing its information systems. With this modernization, the ITU expects to improve services to administrations; facilitate the sharing of PC-based software and data with administrations and other users; and maximize the flexibility and minimize the costs of implementing changes to the Radio Regulations, procedures, and enhancements in technology. To achieve these objectives, the ITU intends to design an entirely new information system called the Terrestrial Radiocommunication System (TerRaSys). The conversion to TerRaSys will require changes in the formats of notifications, both paper and electronic. The Notifications Branch provides input and suggestions to the ITU as well as requests clarification of some of the significant issues affecting FCC processes. The most recent ITU Circular letter dealing with this subject was dated November 4, 1996. It was devoted to the explanation of concepts related to electronic data submission for the project. The TerRaSys project will take several years and the FCC intends to continue full participation in the future developments of this project.

ITU Space Services Automation. Due to an increasing backlog in processing submissions for coordination and notification of assignments in the space services, the ITU developed an electronic notification form and additional software for distribution and analysis of electronic publications. The Notifications Branch staff and other government agencies analyzed beta versions of the electronic form software and submitted comments and suggestions to the ITU. The electronic form and space weekly circular CD's are expected in late FY97.

HF Coordination. In 1995, coordination information concerning U.S. shortwave radio licensees was placed on the Internet at the FCC's World Wide Web site. Due to the frequency with which HF assignments are changed and the complexity of the coordinations for this service, immediate access to relevant information over the Internet provides significant advantages to licensees and the public.²²

²² The FCC Public Notice dated October 27, 1995, concerning the placement of this information on the Internet is contained in Appendix E.

Bilateral Broadcast Coordination. The most significant broadcast database project involving Mexico concerns the AM radio service. In 1995, the U.S. and Mexico agreed to procedures and a timetable for verification of 3,480 Mexican and 10,046 U.S. AM assignment records in an updated database. Although the work associated with the AM database verification has been more complex and time consuming than initially anticipated, substantial progress is being made by both Mexico and the United States. When completed, the database will remove longstanding uncertainties that have affected existing and prospective AM broadcasters in the U.S.

Between October 1995 and March 1997, the US/Mexican Interference Updates have been utilized to resolve two separate Mexican FM interference cases. Interference from XHTIJ, 97.7 MHz, Tijuana, Mexico adversely affected both KIFM, 98.1 MHz, San Diego, California and KSON, San Diego, California. Interference from XHRM, 92.5 MHz, Tijuana, Mexico adversely affected KKBT, 92.3 MHz, Los Angeles, California. Other databases maintained on Mexican broadcast operations are used by Planning and Negotiations Division staff to assist in confirming and resolving international interference encountered by U.S. FM and TV licensees.

The Notifications Branch recently concluded an FM database verification with Canada. This verification involved examining over 2,600 Canadian records for accuracy and the preparation of over 4,100 U.S. records for submission to Canada. Database verification is periodically performed in order to insure accuracy, since erroneous or obsolete database records often preclude the placement of new FM stations.

The Notifications Branch has completed the process of conducting a TV database verification with Canada. This verification involved examining over 1,500 Canadian records for accuracy and the preparation of over 2,900 US records for submission to Canada. Database verification is periodically performed in order to insure accuracy, since erroneous or obsolete database records often preclude the placement of new TV stations. With regard to Mexican verifications, during this reporting period, updates have been utilized in the resolution of two Mexican LPTV interference cases, channel 19 and channel 62 in San Diego.

Bilateral Non-Broadcast Coordination. No database or automation projects with Mexico currently exist for non-broadcast services. The U.S., however, conducted extensive discussions with Mexico concerning a shared mutual interest of having more accurate and electronically accessible information on each country's non-broadcast frequency allocations and station assignments. Microwave coordinations with Mexico are processed manually. The total number of transborder microwave coordination actions with Mexico for Fiscal Year 1995 was 347. For Fiscal Year 1996, the total was 1022. For the first two quarters of Fiscal Year 1997, the total number of transborder microwave coordination actions with Mexico was 206.

The most significant non-broadcast automation project with Canada is the coordination serial number (COSER) system for coordination of frequency assignments of stations operating above 30 MHz. By treaty, technical parameters of such stations within the border zone must be exchanged before licensing and operation. The FCC and Industry Canada maintain databases concerning U.S. and Canadian licensed operations respectively. Each country can access the other country's database automatically. Maintenance of the U.S. database involves several different offices within the FCC. Technical meetings between participating FCC offices and Canadian counterparts are held approximately every other year to clear database problems and review procedures. In Fiscal Year 1995, the total number of automated COSER system coordinations was 16,591. For Fiscal Year 1996, the total was 15,603. For the first two quarters of 1997, the total number of COSER system coordinations was 6,292.

D. Broadcast Services - Notifications

1. AM Broadcasting

(a) AM Notifications for Canada & Mexico

The Notifications Branch conducts all engineering studies required in connection with U.S. AM notifications to Canada and Mexico and evaluations of all notifications received from those administrations. The studies involve technical and legal aspects of the proposals. Separate interference studies are necessary for day and night operations of stations in the AM band. Daytime studies require groundwave analysis of co-channel and three upper and lower adjacent channel frequencies. Night studies require complex analysis of the cumulative effects of multiple nighttime stations utilizing the root-sum-square (RSS) method. Also, for night studies involving U.S. Class A stations, an analysis must be performed to ensure that the nighttime 0.5 mV/m - 50% nighttime skywave contour is adequately protected. Further, on certain frequencies, protection during critical hours (the transitional time near sunrise and sunset) must be analyzed.

After review of the notifications, the staff prepares detailed written comments and engineering reports on the acceptability or unacceptability of all Canadian & Mexican AM notifications. These reports form the basis for the future acceptability of all Canadian and Mexican proposals as well as related U.S. AM station proposals.

The total number of AM Notifications for Canada and Mexico for 1995 was 1561. In 1996, the total was 1642. In the first two quarters of Fiscal Year 1997, the total number of AM Notifications for Canada and Mexico was 602.

(b) ITU - AM Registrations

The ITU registration process for AM facilities has two separate components. First, in order to ensure protection to United States AM facilities, U.S. stations parameters must be properly notified to the ITU which involves a multi-step process in which stations notify the ITU in accordance with the framework of the applicable Plan Agreement, either the 1981 Rio Agreement or the 1975 LF/MF Agreement, and then follow-up with proper Article 12 notification for inclusion in the ITU's International Frequency List (IFL). Completion of this process entitles the U.S. station to protection from potential interference from any station worldwide. The second component involves continual comprehensive engineering review of the ITU's Weekly Circulars and its applicable associated Special Sections (RJ81 and GE75) in order to ascertain if any recently published foreign proposed facilities would cause impermissible interference to United States stations. These engineering studies often require technical analysis to determine whether adequate protection is being provided to U.S. stations. Additionally, Article 12 studies may involve analyses utilizing the procedures contained in IFRB Circular-letter No. 662, IFRB Rules of Procedure for the Assignments of the Broadcasting Service in the Band 525 - 1606.5 kHz, otherwise known as the "Finding Diagram" method.

After the studies have been completed, detailed finding reports are prepared which document the results of the studies and serve as an historical reference for future studies. Depending upon the results of the engineering analysis, any necessary correspondence is prepared and sent to the ITU or the applicable foreign administration.

The total number of ITU AM registrations for Fiscal Year 1995 was 896. For 1996, the total was 993. For the first two quarters of 1997, the total number of ITU AM registrations was 465.

2. FM Broadcasting

(a) Canada and Mexico Agreements

The potential for interference from FM and television signals generally extends for a few hundred kilometers. For this reason, it is necessary only to coordinate most U.S. FM stations with Canada and Mexico and only within a specified distance on either side of the respective border. An agreement for the allotment and use of FM (88-108 MHz) channels in the U.S./Canada border area was signed in 1947. A similar agreement was signed with Mexico in 1972. Significant changes to FCC rules have been made since the signing of these agreements. For this reason, negotiations with both countries were conducted to update provisions relative to domestic rules and develop improved technical standards and procedures to more effectively deal with congestion in the border areas. New agreements were signed

with Canada and Mexico in 1991, and 1992, respectively. Included in each agreement are tables of allotments and technical standards for the administrations to consider new allotments and assignments within 320 km of their respective borders (see U.S./Canadian Border Coordination Map on page 34). These agreements also contain technical criteria for coordination of LPFM stations.

(b) FM Notifications to Canada, Mexico and ITU

FM allotments and assignments are notified and evaluated under the pertinent bilateral agreement or international treaty. Engineering evaluations are performed by the Planning and Negotiations Division staff on all U.S. and foreign proposals to insure acceptability under the technical criteria specified in each agreement. After a review of each proposal, the staff coordinates each U.S. proposal or responds to each foreign proposal through a standard notification letter. FM notifications in Puerto Rico, the Virgin Islands, and America Samoa are sent to the ITU for coordination. These evaluations are made according to ITU-R technical criteria. The Notifications Branch maintains a tracking system of all FM proposals which are coordinated with Canada and Mexico.

Coordination, however, is often a complex process. Each agreement sets forth specific time frames within which to respond to an international referral. If the referral is not responded to by the FCC within this time frame, the foreign administration usually has the right to classify the proposal as acceptable, regardless of its actual potential for causing interference.

Foreign administrations often submit station referrals in large batches, which frequently contain technical errors that might cause interference to U.S. stations. The resolution of these discrepancies often involves direct correspondence (written and/or by telephone) with U.S. counterparts.

The FCC prefers to coordinate FM stations on a case-by-case basis rather than by group referrals. This decreases the amount of time an applicant must wait before the station can commence operation. Each foreign administration, however, has a different philosophy regarding spectrum management. For example, the 1992 U.S./Mexico FM Agreement contains a more relaxed set of allocation criteria than the previous agreement. In order to monitor the impact of these new criteria, it was mutually agreed to implement the agreement in phases. Discussions are currently underway to begin full implementation of the agreement.

The total number of FM notifications processed for Fiscal Year 1995 was 1988. For 1996, the total was 597. For the first two quarters of Fiscal Year 1997, the total number of FM notifications processed was 321.

3. TV and LPTV Broadcasting Services

(a) Canada and Mexico Agreements

Working arrangements for the allotment and use of VHF (54-72 MHz; 76-88 MHz; and 174-216 MHz) and UHF (470-806 MHz) television channels were established between the United States and Canada in the Television Agreement of 1952. A revised Agreement was signed in 1994 which combined the two working arrangements and revised LPTV technical standards. The Agreement of 1994 includes tables of allotments and technical standards for both administrations to consider new allotments and assignments within 400 kilometers of the border and contains technical criteria for the coordination of LPTV stations (see U.S./Canadian Border Coordination Map).

Similar agreements are in effect with Mexico. The VHF Television Agreement of 1962 covers the allotment and use of VHF channels within 400 km of the border, while the UHF Television Agreement of 1958, modified in 1982, covers UHF allotments within 320 km of the border. Modifications to both Agreements were made in 1988 to provide for coordination of LPTV stations (see U.S./Mexican Border Coordination Map).

(b) TV Notifications to Canada, Mexico and ITU (including LPTV)

Television allotments and assignments are notified and evaluated under the pertinent bilateral agreement or international treaty. Notifications Branch staff conduct engineering evaluations on all U.S. and foreign proposals to ensure acceptability under the technical criteria specified in each agreement. Bilateral engineering evaluations are based on separation standards and contour overlap. Stations which do not meet the separation standards are classified as short-spaced and are evaluated by contour overlap. With regard to Canadian Agreements, interference from a new station to an existing station is permissible as long as the interference zone occurs over water or within the land areas of the administration proposing the new station.

Overlap studies are conducted by employing the CURVES computer program, which calculates field strength contours based on effective radiated power (ERP) and height above average terrain (HAAT), and by then entering these contour values into a plotting program in order to examine where the overlap occurs geographically. U.S. and foreign directional antenna patterns for short-spaced stations are extrapolated from graphs listing the relative field of the station. Based on this relative field strength and the maximum ERP, the interference contours are calculated and plotted along the relevant azimuths in order to ensure that a station's actual operating parameters do not produce interference. With regard to Mexico, no interference overlap is permissible.

ITU FM and TV calculations involve criteria specified in ITU-R Recommendations and Reports. When evaluating a station, such factors as terrain profile and propagation characteristics (i.e., over land or water) are considered when calculating whether or not harmful interference is produced.

After a review of each proposal, the Notifications Branch staff coordinates each U.S. proposal or responds to each foreign proposal through a standard notification letter. TV notifications in Puerto Rico, the Virgin Islands, and America Samoa are sent to the ITU for coordination. These evaluations are done according to ITU-R technical criteria. The Notifications Branch maintains a tracking system of all TV proposals being coordinated.

There is currently a backlog of approximately 265 U.S. LPTV station applications which involve US/Mexico border negotiations. Some of these applications have been pending for over ten years in anticipation of a new LPTV agreement with Mexico. The current U.S./Mexico LPTV Agreement restricts notifications for these stations. These applicants abide by current domestic criteria and do not cause interference to Mexican stations, however, they cannot be notified until a new agreement is in place.

The total number of TV notifications processed in Fiscal Year 1995 was 172. For 1996, the total was 236. For the first two quarters of Fiscal Year 1997, the total number of TV notifications was 247.

E. International Notifications

(a) Frequency Assignments for the Fixed and Mobile Services

The international notification of frequency assignments of stations capable of causing harmful interference to the stations of other countries greatly enhances frequency management by reducing the likelihood of harmful interference, and providing a useful basis for resolving interference cases when they occur. The notified services include land stations communicating with aircraft, ships, and land vehicles. The notification process is essential in providing interference free use of frequencies for public safety. Additionally, the notification process reduces economic losses that could run into the millions of dollars if unprotected.

The total number of fixed and mobile notices sent to the ITU for Mobile Services for Fiscal Year 1995 was 7241. The total for Fiscal Year 1996 was 1163. For the first two quarters of Fiscal 1997, the total number of fixed and mobile notices sent to the ITU for Mobile Services was 519.

(b) HF International Broadcasting Notifications

As required by Article 17, the FCC must coordinate operational frequency use for its HF licensees and notification to the ITU. The total number of HF frequency hours submitted during Fiscal Year 1995 was 4012. The total for Fiscal Year 1996 was 4012. For the first two quarters of 1997, the total number of HF frequency hours submitted was 2019.

(c) Satellite Systems

Detailed international coordination of satellite space systems is performed by the International Bureau's Satellite Division, and is not covered in this Report. The Planning and Negotiations Division does, however, exchange all messages for administration-to-administration satellite coordination and transmit notifications, including those for satellite systems, required under international regulations and treaties.

The Notifications Branch serves as the single U.S. contact point for matters involving notifications and coordinations for space service systems. Notifications and coordinations for U.S. non-government, government and INTELSAT systems are transmitted to the ITU and foreign administrations.²³ The Notifications Branch maintains a database of transmittals as well as the current postal and telefax addresses for these foreign destinations.

Incoming correspondence, coordination requests and data are distributed by the Notifications Branch to each of the U.S. sectors (the IRAC's Space Systems Group, the FCC's Satellite Engineering Branch and INTELSAT) as appropriate. Special sections of the ITU's Weekly Circular containing published data on U.S. and foreign satellite networks are distributed²⁴ by the Branch to the Satellite Engineering Branch and the International Bureau's Reference Room.

The Notifications Branch creates and maintains a file for every domestic and foreign space network published by the ITU or for which information is provided to the U.S. by a foreign administration. These files include all related publications from the ITU and correspondence to and from the ITU and foreign administrations.

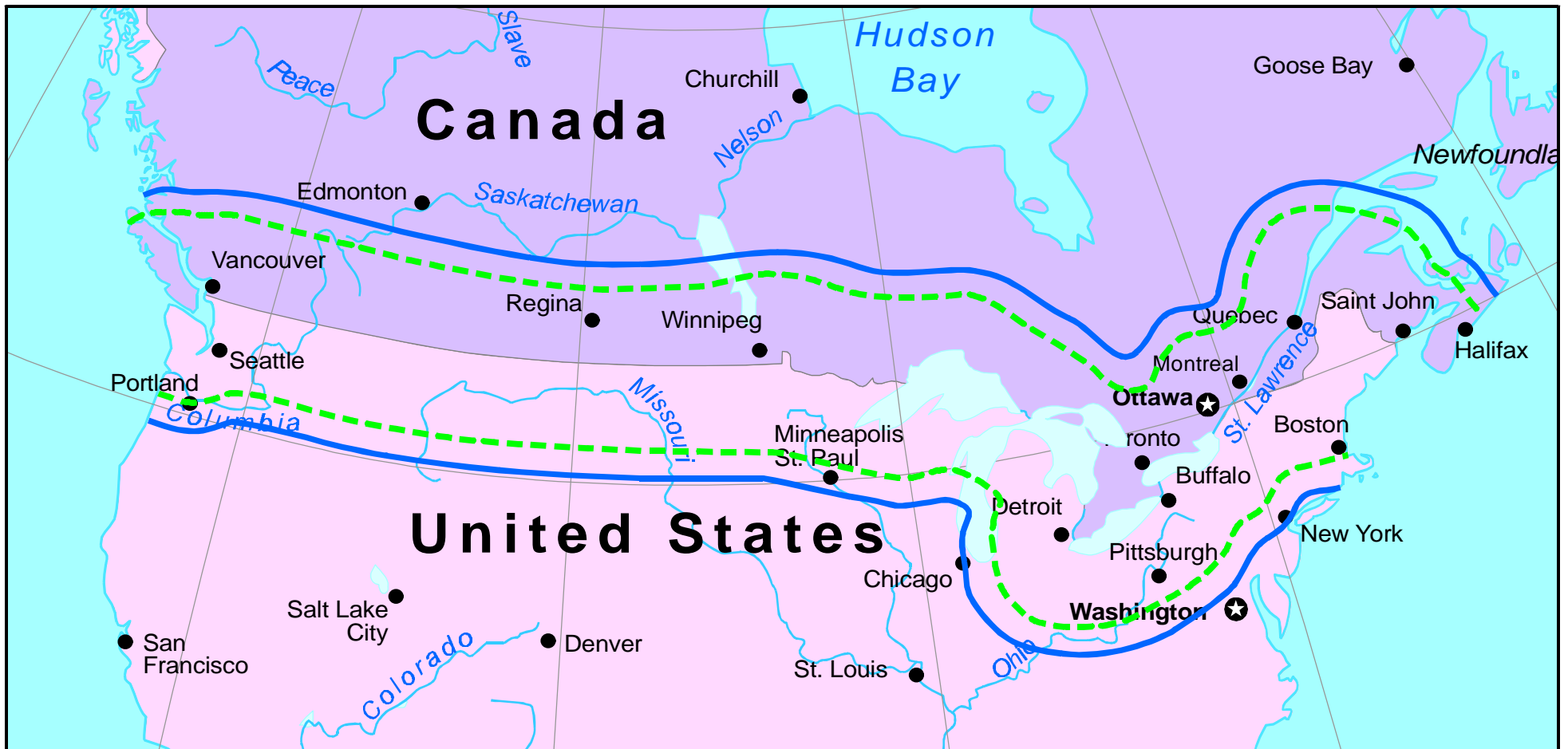
The Branch's staff consults with the Satellite Engineering Branch, INTELSAT and government agencies on the satellite-related procedures in the ITU Radio Regulations. In this capacity, the staff represents the FCC at monthly meetings of IRAC's Space Systems Group (SSG) that regulates government space systems.

²³ This function is carried out for the Commission and government agencies under the aegis of the International Notifications Group (ING), which is a permanent sub-group of the IRAC.

²⁴ Approximately 1200.

From October, 1995 through September, 1996, the Notifications Branch received and distributed 959 incoming messages originating with the ITU and other administrations. During the same period, the Branch transmitted 1,366 outgoing messages to foreign points. The Branch reviewed or commented on 3,292 items for the SSG consideration. The Branch also transmitted the following number of items to the ITU and other countries:

- 212 Advance Publications of planned satellite networks.
- 247 Coordination Requests required by Article 11, Article 14, and Resolution 46 of the International Radio Regulations.
- 100 Notifications of satellite networks frequency assignments for registration in the ITU's Master Register.



DISCLAIMER: This map is just for visual display and is not to be considered accurate for coordination analysis.

NOTE: US/CAN Coordination of the AM Expanded Band is by allocation and the LP VHF is by assignment.

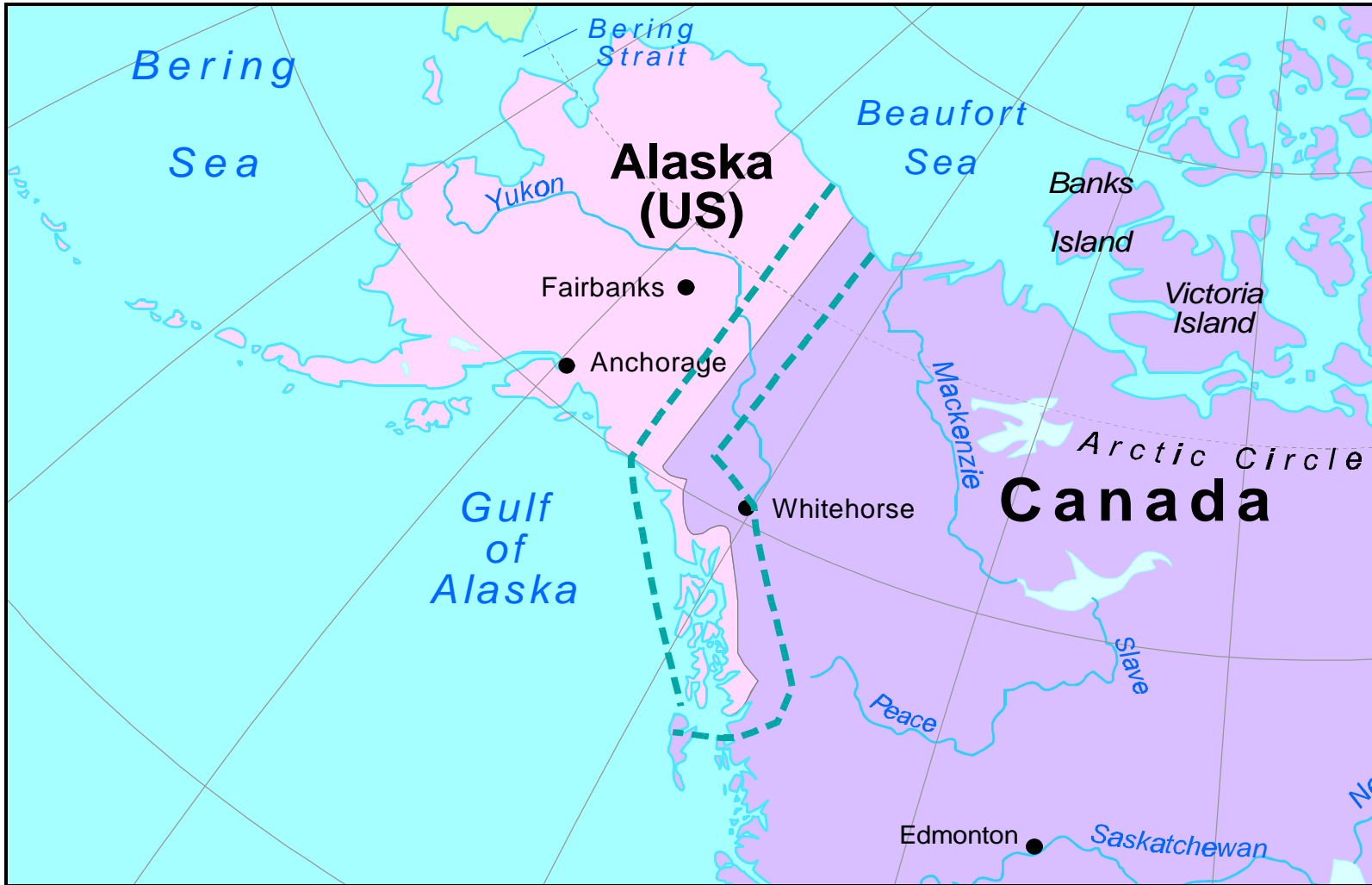
US/CAN B.C. Coord. Lines	
—	VHF (Chs. 2-13) 400 Km UHF (Chs. 14-69) 400 Km
- - -	FM (88-108 MHz) 320 Km



DISCLAIMER: This map is just for visual display and is not to be considered accurate for coordination analysis.

US/CAN Non-B.C. Coord. Lines

- PCS (1850-1990 MHz) 120 Km
- PCS (901~941 MHz) 120 Km
- - - Above 30 MHz Lines A & B for bands below 470 MHz



DISCLAIMER: This map is just for visual display and is not to be considered accurate for coordination analysis.

US/CAN Non-B.C. Coord. Lines
 — Above 30 MHz Lines C & D for bands below 470 MHz



DISCLAIMER: This map is just for visual display and is not to be considered accurate for coordination analysis.

US/MEX Broadcast Coordination Lines

- VHF (TV chs 2-13) 400 Km
- UHF (TV chs 14-69) 320 Km
FM (88-108 MHz) 320 Km
- · - AM Expanded (1605-1705 KHz) 450 Km



DISCLAIMER: This map is just for visual display and is not to be considered accurate for coordination analysis.

US/MEX Non-Broadcast Coordination Lines

- PCS (1850-1990 MHz) 120 Km
- PCS (901~941 MHz) 120 Km

APPENDIX A

Agreements Categorized by Frequency

**Frequency Bands Subject to
U.S. / Canada Bilateral Agreements, Arrangements and Letters**

Frequency Band (MHz)		Title	Signing Date	Effective Date	Coordination Distance/ Allocation Principle	Purpose	Requisite Bilateral Data Exchange
Low	High						
0.535 (535 kHz)	1.605 (1605 kHz)	AM Radio Broadcasting Agreement	17-Jan-84	17-Jan-84	Entire Country/Equal Access	Coordinate AM assignments to avoid interference.	Notification is on a case by case basis. Data reviewed every 5-year period.
1.605 (1605 kHz)	1.705 (1705 kHz)	AM Radio Interim Working Arrangement	28-Feb-91	28-Feb-91	500 km on either side of the common border/ Reciprocal Access	Coordinate AM expanded band assignments in the border area to avoid interference.	Notification is on a case by case basis. No periodic review required at this time
30.000	and above	Above 30 MHz Agreement	24-Oct-62	24-Oct-62 24-Jun-65 (amended)	Distance can vary depending on band and Arrangement. Generally, Lines A & B used.	Coordination and use of non-broadcast and non-satellite spectrum allocations. All arrangements and letters listed below for applicable services are associated with and subject to this framework document.	As required by pertinent arrangement associated with Agreement.
54.000	72.000	Covered under UHF and VHF TV Broadcasting Agreement	3-Nov-93	5-Jan-94	400 km on either side of the common border/ Equal Access	Coordinate TV broadcasting service assignments in the border area to avoid interference.	Notification is on a case by case basis. At the end of each calendar quarter, Administrations shall exchange a list of all accepted notifications made during that three-month period. Each year both Administrations shall exchange, verify, and reconcile the complete notifications in that year period.
76.000	88.000	Covered under UHF and VHF TV Broadcasting Agreement	3-Nov-93	5-Jan-94	400 km on either side of the common border/ Equal Access	Coordinate TV broadcasting service assignments in the border area to avoid interference.	At the end of each calendar quarter, Administrations shall exchange a list of all accepted notifications made during that three-month period. Each year both Administrations shall exchange, verify, and reconcile the complete notifications in that year period.
88.000	108.000	FM Broadcasting Agreement	26-Nov-90	25-Feb-91	320 km on either side of the common border/ Equal Access	Coordinate FM allotments and assignments in the border area.	At the end of each calendar quarter, Administrations shall exchange a list of all accepted notifications made during that three-month period. Each year both Administrations shall exchange, verify, and reconcile the complete notifications in that year period
136.500	137.000	Aeronautical Mobile (R) Service Arrangement	1-Nov-91	15-Jan-92	From 50 to 600 nautical miles depending on the type of station.	Assigns priority channel use for the band with appropriate conditional requirements.	Arrangement subject to review after 15-Jan-97.
174.000	216.000	Covered under UHF and VHF TV Broadcasting Agreement	3-Nov-93	5-Jan-94	400 km on either side of the common border/ Equal Access	Coordinate TV broadcasting service assignments in the border area to avoid interference.	Notification is on a case by case basis. At the end of each calendar quarter, Administrations shall exchange a list of all accepted notifications made during that three-month period. Each year both Administrations shall exchange, verify, and reconcile the complete notifications in that year period.

**Frequency Bands Subject to
U.S. / Canada Bilateral Agreements, Arrangements and Letters**

Frequency Band (MHz)		Title	Signing Date	Effective Date	Coordination Distance/ Allocation Principle	Purpose	Requisite Bilateral Data Exchange
Low	High						
454.000	459.000	UHF Public Air/Ground Radio Channel Assignment Letters	24-Jun-71	24-Jun-71	966 km on either side of the common border/ 12 paired channels.	Max ERP 100 watts for U.S. stations and 40 watts for Canadian stations.	No periodic data exchange required
470.000	806.000	Covered under UHF and VHF TV Broadcasting Agreement	3-Nov-93	5-Jan-94	400 km on either side of the common border/ Equal Access	Coordinate TV broadcasting service assignments in the border area to avoid interference.	Notification is on a case by case basis. At the end of each calendar quarter, Administrations shall exchange a list of all accepted notifications made during that three-month period. Each year both Administrations shall exchange, verify, and reconcile the complete notifications in that year period
806.000	890.000	Land Mobile Radio Services Arrangement	7-Apr-82	7-Apr-82	For the Bands 806-821 and 851-866 MHz: 140 km on either side of the common border/ Equal Access except in the specific sharing zones and protected zones. The primary channel rules apply based on the channel location. Bands 821-851 and 866-890 MHz Equal Access/ specific usage criteria deferred.	Within each zone area, the Agencies may use their allotted portions of spectrum subject to the ERP and EAH limits as specified in the Annex A.	No periodic review of data required.
806.000	890.000	Land Mobile - Canadian Use Letters (Special Coordination)	11-Apr-86	11-Apr-86	140 km on either side of the common border/ Private use for six channels.	U.S. use on six frequencies originally allocated to Canada, east of 81 degrees longitude. Max ERP 125 watts for the base stations.	No periodic review of data required.
806.000	890.000	Land Mobile - Sharing Letters (Special Coordination)	15-Oct-86	27-Jan-87	140 km on either side of the common border/ Special request.	Canadian request for using U.S. sharing zone frequency. Request granted as secondary, non-interference base to existing and future U.S. assignments.	No periodic review of data required.
821.000	824.000	Land Mobile Services Interim Arrangement	17-Sep-90	17-Sep-90	140 km on either side of the common border/Channel divided by three sharing zones, two protection zones, and special sharing zones with agreed unequal division.	Unrestricted use allowed on Administration's primary channels; secondary use allowed on other Administration's channels if pfd of 107 dBW/m2 is not exceed at the border.	No data exchange required.

**Frequency Bands Subject to
U.S. / Canada Bilateral Agreements, Arrangements and Letters**

Frequency Band (MHz)		Title	Signing Date	Effective Date	Coordination Distance/ Allocation Principle	Purpose	Requisite Bilateral Data Exchange
Low	High						
821.000	851.000	Coordination of Cellular Systems Letters of Understanding	12-Jun-85	12-Jun-85	Equal Access on all channels Coordination among operators Notification of private operator arrangements to FCC and IC. Cell sites within 72 km of border require notification	Except for agreement between Agencies 35 dBuV/m is not to extend beyond border.	Interoperator arrangements require notification. Cell sites within 72 km of border are notified. No scheduled review of databases mandated.
824.000	825.000	Cellular Radio Systems (Addition to 12-Jun-85 L.O.U.)	8-Jan-90	8-Jan-90	72 km on either side of the common border/ Equal Access	Licensees to make adjustments to eliminate interference to other operations services.	Administrations required to provide technical data on systems within border zone. Notification is on a case by case basis. No scheduled review of databases mandated.
845.000	849.000	Cellular Radio Systems (Addition to 12-Jun-85 L.O.U.)	8-Jan-90	8-Jan-90	72 km on either side of the common border/ Equal Access	Licensees to make adjustments to eliminate interference to other operations services.	Administrations required to provide technical data on systems within border zone. Notification is on a case by case basis. No scheduled review of databases mandated.
849.000	851.000	Air/Ground Radio Interim Arrangement	28-Aug-92	31-Aug-92	885 km on either side of the common border/Channels divided into 10 blocks as specific in the Appendix A. Fully available to both countries	Max ERP 30 watts (air). 100 watts (ground); low power 1 watt ERP and ground station for radio service to aircraft on the ground has 480 km coordination distance.	Sites not already specified require individual coordination. No regular update schedule specified.
866.000	890.000	Coordination of Cellular Systems Letters of Understanding	12-Jun-85	12-Jun-85	Equal Access on all channels Coordination among operators Notification of private operator arrangements to FCC and IC. Cell sites within 72 km of border require notification	Except for agreement between Agencies 35 dBuV/m is not to extend beyond border.	Interoperator arrangements require notification. Cell sites within 72 km of border are notified. No scheduled review of databases mandated.
866.000	869.000	Land Mobile Services Interim Arrangement	17-Sep-90	17-Sep-90	140 km on either side of the common border/Channel divided by three sharing zones, two protection zones, and special sharing zones with agreed unequal division.	Unrestricted use allowed on Administration's primary channels; secondary use allowed on other Administration's channels if pfd of 107 dBW/m2 is not exceed at the border.	No data exchange required.
869.000	870.000	Cellular Radio Systems (Addition to 12-Jun-85 L.O.U.)	8-Jan-90	8-Jan-90	72 km on either side of the common border/ Equal Access	Licensees to make adjustments to eliminate interference to other operations services.	Administrations required to provide technical data on systems within border zone. Notification is on a case by case basis. No scheduled review of databases mandated.
890.000	894.000	Cellular Radio Systems (Addition to 12-Jun-85 L.O.U.)	8-Jan-90	8-Jan-90	72 km on either side of the common border/ Equal Access	Licensees to make adjustments to eliminate interference to other operations services.	Administrations required to provide technical data on systems within border zone. Notification is on a case by case basis. No scheduled review of databases mandated.

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Frequency Band (MHz)		Title	Signing Date	Effective Date	Coordination Distance/ Allocation Principle	Purpose	Requisite Bilateral Data Exchange
Low	High						
894.000	896.000	Air/Ground Radio Interim Arrangement	28-Aug-92	31-Aug-92	885 km on either side of the common border/Channels divided into 10 blocks as specific in the Appendix A. Fully available to both countries.	Max ERP 30 watts (air). 100 watts (ground); low power 1 watt ERP and ground station for radio service to aircraft on the ground has 480 km coordination distance.	Sites not already specified require individual coordination. No regular update schedule specified.
896.000	901.000	Land Mobile Services Interim Arrangement	15-Aug-90	17-Sep-90	140 km on either side of the common border/ Channel divided by specific sharing zone and protection zone arrangements outside of the designated Advanced Train Control System (ATCS) channels.	Arrange sharing plans to adjust particular demographic circumstances for land mobile services to avoid interference.	Notification is on a case by case basis. Each Administration shall exchange assigned frequencies every three months.
901.000	902.000	Narrowband PCS - Interim Arrangement	22-Sep-94	22-Sep-94	120 km on either side of the common border/ a priori 50% -50% channel division: 24 channels for each country, 30 paired channels and 18 unpaired channels.	All stations are limited to 7 watts ERP.	No data exchange required
928.000	929.000	Point-to-Multipoint Services Interim Arrangement	7-Aug-91	2-Sep-91	145 km separation to existing master stations. Frequency divided into three groups and with primary assignment rules.	Allotment plan for equitable distribution of channels; unprotected use of other Administration's channels allowed if pfd of -100 dBw/m2 is not exceeded at the border.	No data exchange required.
929.000	930.000	Paging - Interim Arrangement	14-Sep-83 (amended)	14-Sep-83 (amended)	Lines A & B use restrictions at common border/ A priori channel divisions.	Administrations have full use of their allotted channels. Special coordinations performed for operators with cross border partners to permit use of other Admin's channel.	No requirement for periodic updated data exchange
930.000	931.000	Narrowband PCS - Interim Arrangement	22-Sep-94	22-Sep-94	120 km on either side of the common border/ a priori 50% -50% channel division: 24 channels for each country, 30 paired channels and 18 unpaired channels.	Base stations are limited to 3,500 watts ERP Mobile stations are limited to 7 watts ERP.	No requirement for periodic updated data exchange

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Frequency Band (MHz)		Title	Signing Date	Effective Date	Coordination Distance/ Allocation Principle	Purpose	Requisite Bilateral Data Exchange
Low	High						
931.000	932.000	Paging - Interim Arrangement	14-Sep-83 (amended)	14-Sep-83 (amended)	Lines A & B restrictions at common border/ A priori channel divisions.	Administrations have full use of their allotted channels. Special coordinations performed for operators with cross border partners to permit use of other Admin's channel.	No requirement for periodic updated data exchange
932.000	935.000	Point-to-point and Point-to-Multipoint Fixed Services Interim Arrangement	19-Sep-94	19-Sep-94	932.5-935 MHz/ Equal Access. using terms of Arrangement A 932-932.5 MHz a priori channel division for point to multipoint.	Unrestricted use allowed on Administration's primary channels; unprotected use allowed on other Administration's channels if pfd of -100 dBW/m2 is not exceeded at the border.(for 932-932.5 MHz segment)	No requirement for periodic updated data exchange
935.000	940.000	Land Mobile Services Interim Arrangement	15-Aug-90	17-Sep-90	140 km on either side of the common border/ Channel divided by specific sharing sectors and sharing and protection zone ERP & EAH limits. Also protection to designated Advanced Train Control System (ATCS) channels.	Flexible sharing plans to adjust particular demographic circumstances for land mobile services to avoid interference.	Notification is on a case by case basis. Each Administration shall exchange assigned frequencies every three months.
940.000	941.000	Narrowband PCS - Interim Arrangement	22-Sep-94	22-Sep-94	120 km on either side of the common border/ a priori 50% -50% channel division: 24 channels for each country, 30 paired channels and 18 unpaired channels.	Base stations are limited to 3,500 watts ERP Mobile stations are limited to 7 watts ERP.	No requirement for periodic updated data exchange
941.000	944.000	Point-to-Point Point-to-Multipoint Fixed Services Interim Arrangement	19-Sep-94	19-Sep-94	941.5-944 MHz/ Equal Access. using terms of Arrangement A/ 941-941.5 MHz a priori channel division for point to multipoint.	Unrestricted use allowed on Administration's primary channels; unprotected use allowed on other Administration's channels if pfd of -100 dBW/m2 is not exceeded at the border.(for 941-941.5 MHz segment)	No requirement for periodic updated data exchange
952.000	953.000	Point-to-Multipoint Services Interim Arrangement	7-Aug-91	2-Sep-91	145 km separation to existing master stations. Frequency divided into three groups and with primary assignment rules.	Allotment plan for equitable distribution of channels; unprotected use of other Administration's channels allowed if pfd of -100 dBW/m2 is not exceeded at the border.	No requirement for periodic updated data exchange

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Frequency Band (MHz)		Title	Signing Date	Effective Date	Coordination Distance/ Allocation Principle	Purpose	Requisite Bilateral Data Exchange
Low	High						
1850.000 (1.85 GHz)	1990.000 (2 GHz)	Broadband PCS - Interim Arrangement	14-Nov-94	14-Nov-94	120 km on either side of the common border/ Equal Access.	Coordinate all PCS vis a vis any existing fixed microwave operators. PCS operators to reach mutually acceptable cross border operating conditions with each other.	Due to its early stage, 2 GHz PCS operation has only begun to operate in either country, this arrangement to be reviewed in the near future to assess the need for further adjustment to the arrangement.
2500.000 (2.5 GHz)	2686.000 (2.686 GHz)	Multipoint Distribution Services Interim Arrangement	23-Mar-89	23-Mar-89	80 km on either side of the common border/ Access 31 channels by both administrations.	Comply with technical requirements to skip coordination step. Only notification of the use of the assignment is required. Detailed technical parameters are listed in the arrangement.	Data to be reviewed in every 2 years.
17700.000 (17.7 GHz)	17800.000 (17.8 GHz)	Fixed Services/ BSS	29-Feb-92	29-Feb-92	Entire country/Equal Access	Maximum aggregated power flux density is -109 dBW/m ² at the border. The BSS will not be implemented before 1/1/2007, except by mutual agreement.	No data exchange required at this time.
17700.000 (17.7 GHz)	19700.000 (19.7 GHz)	Fixed and Mobile Stations Interim Arrange- ment.	8-Jul-95	8-Jul-95	55 km on either side of the common border/ Equal Access.	Coordinate prior to licensing stations in the fixed and mobile services.	Notification is on a case by case basis.
21200.000 (21.2 GHz)	23600.000 (23.6 GHz)	Fixed and Mobile Stations Interim Arrange- ment.	8-Jul-95	8-Jul-95	55 km on either side of the common border/ Equal Access.	Coordinate prior to licensing stations in the fixed and mobile services.	Notification is on a case by case basis.

Frequency Bands Subject to U. S. / Mexico Bilateral Agreements

Frequency Band (MHz)		Title	Signing Date	Effective Date	Coordination Distance/ Allocation Principle	Purpose	Requisite Data Exchange
Low	High						
0.535 (535 KHz)	1.605 (1605 KHz)	AM	28-Aug-86	27-Apr-87	Entire Country/Equal Access	Coordinate AM assignments to avoid interference.	Notification is on a case by case basis. No periodic review required
1.605 (1605 KHz)	1.705 (1705 KHz)	AM (Expanded)	11-Aug-92	30-May-95	450 km on either side of the common border/ Reciprocal Access	Coordinate AM expanded band assignments in the border area to avoid interference.	Notification is on a case by case basis. No periodic review required
54.000	72.000	VHF-TV	18-Apr-62	18-Apr-62	400 km on either side of the common border/Equal Access	Coordinate VHF-TV expanded band assignments in the border area to avoid interference.	Notification is on a case by case basis. No periodic review required
54.000	72.000	LPTV-VHF	14-Sep-88	26-Sept-88	400 km on either side of the common border/Equal Access	Coordinate low power VHF-TV assignments in the border area to avoid interference.	Notification is on a case by case basis. No periodic review required
76.000	88.000	VHF-TV	18-Apr-62	18-Apr-62	400 km on either side of the common border/Equal Access	Coordinate VHF-TV expanded band assignments in the border area to avoid interference.	Notification is on a case by case basis. No periodic review required
76.000	88.000	LPTV-VHF	14-Sep-88	26-Sept-88	400 km on either side of the common border/Equal Access	Coordinate low power VHF-TV assignments in the border area to avoid interference.	Notification is on a case by case basis. No periodic review required
88.000	108.000	FM	11-Aug-92	2-June-95	320 km on either side of the common border/Equal Access	Coordinate FM expanded band assignments in the border area to avoid interference.	By 3/31 of each year, Administrations shall exchange a list of all accepted notifications made during the previous calendar year and verify within 60 days. Semi-annually. Administrations shall exchange lists of notifications in that six months period.
108.000	118.000	Protocol 9 Aeronautical Radionavigation and Communications	26-Apr-96	26-Apr-96	No specified distance. Coordination required to avoid harmful interference.	Establishes procedures for coordination of frequencies and sets conditions for use. Attempts to provide equal access to all frequencies without any apriori channel plans. The bands noted here are jointly coordinated by the FCC and FAA. The protocol also lists eight bands administered solely by the FAA and four bands for which no coordination is required at this time.	In June of each year recapitulative lists of assignments are to be exchanged. The FAA will serve as intermediary for the FCC in the submission of the U.S. annual list.
118.000	137.000						

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Frequency Band (MHz)		Title	Signing Date	Effective Date	Coordination Distance/ Allocation Principle	Purpose	Requisite Data Exchange
Low	High						
174.000	216.000	VHF-TV	18-Apr-62	18-Apr-62	400 km on either side of the common border/Equal Access	Coordinate VHF-TV expanded band assignments in the border area to avoid interference.	Notification is on a case by case basis. No periodic review required
174.000	216.000	LPTV-VHF	14-Sep-88	26-Sept-88	400 km on either side of the common border/Equal Access	Coordinate low power VHF-TV assignments in the border area to avoid interference.	Notification is on a case by case basis. No periodic review required
220.000	222.000	Protocol 1 Land Mobile (SMRS)	16-Jun-94	2-Jun-95	120 km on either side of the common border/ a priori 50% - 50% channel division	Unlimited use allowed on administration's primary channels; secondary use allowed on other Administration's channels if pfd of .86 dBW/m2 is not exceeded at the border.	In May of each year, summary lists of assignments are to be exchanged.
470.000	512.000	Protocol 2 Land Mobile (UHF-TV channels 14 - 20), offshore Radio Telecom-Services.	16-Jun-94	2-Jun-95	150 km on either side of the common border - near the cosas may require greater distance on a case by case basis/ Access as needed but only after corrdination for full protection to TV stations.	Permits use of Offshore Radio Telecommunications operations while fully protecting UHF - TV stations.	Notification is on a case by case basis. No periodic review required.
470.000	806.000	UHF-TV	18-Jun-82	17-Jan-83	320 km on either side of the common border/Equal Access	Coordinate UHF-TV expanded band assignments in the border area to avoid interference.	Notification is on a case by case basis. No periodic review required
470.000	806.000	LPTV-UHF	21-Nov-88	21-Nov-88	320 km on either side of the common border/Equal Access	Coordinate low power UHF-TV assignments in the border area to avoid interference.	Notification is on a case by case basis. No periodic review required
806.000	824.000	Protocol 3 Land Mobile (Public Safety SMRS, et al)	16-Jun-94	2-Jun-95	110 km on either side of the common border/ Channels divided evenly as specified in Appendices.	Equally divided band Allotment Plan, unrestricted use allowed on Administration's primary channels; secondary use allowed on other Administration's channels if pfd of 107 dBW/m2 is not exceeded at the border.	No data exchange required.

Frequency Bands Subject to U. S. / Mexico Bilateral Agreements

Frequency Band (MHz)		Title	Signing Date	Effective Date	Coordination Distance/ Allocation Principle	Purpose	Requisite Data Exchange
Low	High						
824.000	849.000	Protocol 4 Public Radiocom (Cellular)	16-Jun-94	2-Jun-95	72 km on either side of the common border/ Equal Access - no channel plan dividing spectrum.	Licensees to make adjustments to eliminate interference to other operations servcies. Protected contour for base station is 39 dBw.	Administrations required to provide technical data on systems within border zone.
849.000	851.000	Protocol 5 Public Air to Ground Radio Service	16-Jun-94	2-Jun-95	885 km on either side of the common border/ Each specific site is coordinated and assigned a channel block	Max ERP 30 watts (air). 100 watts (ground); Low power 1 watt ERP ground station for radio service to aircraft while on the ground has 480 km coordination distance.	Sites not already specified require individual coordination. No regular update schedule specified.
851.000	869.000	Protocol 3 Land Mobile (Public Safety SMRS, et al)	16-Jun-94	2-Jun-95	110 km on either side of the common border/ Channels divided evenly as specified in Appendices.	Equally divided band Allotment Plan, unrestricted use allowed on Administration's primary channels; secondary use allowed on other Administration's channels if pfd of 107 dBW/m2 is not exceeded at the border.	No data exchange required.
869.000	894.000	Protocol 4 Public Radiocom (Cellular)	16-Jun-94	2-Jun-95	72 km on either side of the common border/ Equal Access - no channel plan dividing spectrum	Licensees to make adjustments to eliminate interference to other operations servcies. Protected contour for base station is 39 dBw.	Administrations required to provide technical data on systems within border zone.
894.000	896.000	Protocol 5 Public Air to Ground Radio Service	16-Jun-94	2-Jun-95	885 km on either side of the common border/ Each specific site is coordinated and assigned a channel block	Max ERP 30 watts (air). 100 watts (ground); Low power 1 watt ERP ground station for radio service to aircraft while on the ground has 480 km coordination distance.	Sites not already specified require individual coordination. No regular update schedule specified.
896.000	901.000	Protocol 3 Land Mobile (Public Safety SMRS, et al)	16-Jun-94	2-Jun-95	110 km on either side of the common border/ Channels divided evenly as specified in Appendices.	Equally divided band Allotment Plan, unrestricted use allowed on Administration's primary channels; secondary use allowed on other Administration's channels if pfd of 107 dBW/m2 is not exceeded at the border.	No data exchange required.

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Frequency Band (MHz)		Title	Signing Date	Effective Date	Coordination Distance/ Allocation Principle	Purpose	Requisite Data Exchange
Low	High						
901.000	902.000	Protocol 8 for Narrowband PCS (Mobile)	16-May-95	16-May-95	120 km on either side of the common border/ a priori 50% - 50% channel division; 15 paired channels, 9 unpaired channels per Administration	Secondary use of other Administration's channels allowed if pfd of - 99 dBW/m2 is not exceeded at the border and primary user is fully protected. Max ERP 7 watts (mobile), 3.5 kW (base) with an HAAT adjustment.	No regularly scheduled exchange required; where operators agree to share a channel, such arrangements are to be submitted to the Administrations for review with Administration's response within 60 days of receipt.
929.000	930.000	Protocol 10 Paging Services	27-Feb-97	27-Feb-97	120 km on either side of the common border. Different channel plans for 929 and for 931 operations. Frequencies/Areas designated for U.S., Mexico, or shared use.	Establish common plans for the use of these paging bands and specify technical criteria for their use.	In May of each year recapitulative lists of assignments are to be exchanged.
930.000	931.000	Protocol 8 for Narrowband PCS (Base)	16-May-95	16-May-95	120 km on either side of the common border/ a priori 50% - 50% channel division; 15 paired channels, 9 unpaired channels per Administration	Secondary use of other Administration's channels allowed if pfd of - 99 dBW/m2 is not exceeded at the border and primary user is fully protected. Max ERP 7 watts (mobile), 3.5 kW (base) with an HAAT adjustment.	No regularly scheduled exchange required; where operators agree to share a channel, such arrangements are to be submitted to the Administrations for review with Administration's response within 60 days of receipt.
931.000	932.000	Protocol 10 Paging Services	27-Feb-97	27-Feb-97	120 km on either side of the common border. Different channel plans for 929 and for 931 operations. Frequencies/Areas designated for U.S., Mexico, or shared use.	Establish common plans for the use of these paging bands and specify technical criteria for their use.	In May of each year recapitulative lists of assignments are to be exchanged.
932.000	932.500	Protocol 6 Fixed Point to multipoint	16-Jun-94	2-Jun-95	113 km on either side of the common border/ a priori 50% - 50% channel division	Allotment plan for equitable distribution of channels; Secondary use of other Administration's channels if pfd of - 100 dBW/m2 is not exceeded at the border.	Summary lists are to be exchanged in October of each year.
932.500	935.000	Protocol 8 Fixed Point to Point	26-Apr-96	26-Apr-96	60 km on either side of the common border with channel pairs designated for assigned use.	Establishes a common plan for the equitable use of the bands for fixed point to point operations.	In October of each year recapitulative lists of assignments are to be exchanged. By April 26, 1998 the protocol will be jointly reviewed to develop a new protocol. It will terminate on April 26, 1999 if it has not been replaced or extended.
935.000	940.000	Protocol 3 Land Mobile (Public Safety SMRS, et al)	16-Jun-94	2-Jun-95	110 km on either side of the common border/ Channels divided evenly as specified in Appendices.	Equally divided band Allotment Plan, unrestricted use allowed on Administration's primary channels; secondary use allowed on other Administration's channels if pfd of 107 dBW/m2 is not exceeded at the border.	No data exchange required.

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Frequency Band (MHz)		Title	Signing Date	Effective Date	Coordination Distance/ Allocation Principle	Purpose	Requisite Data Exchange
Low	High						
940.000	941.000	Protocol 8 for Narrowband PCS (Base)	16-May-95	16-May-95	120 km on either side of the common border/ a priori 50% - 50% channel division; 15 paired channels, 9 unpaired channels per Administration	Secondary use of other Administration's channels allowed if pfd of - 99 dBW/m2 is not exceeded at the border and primary user is fully protected. Max ERP 7 watts (mobile), 3.5 kW (base) with an HAAT adjustment.	No regularly scheduled exchange required; where operators agree to share a channel, such arrangements are to be submitted to the Administrations for review with Administration's response within 60 days of receipt.
941.000	941.500	Protocol 6 Fixed Point to multipoint	16-Jun-94	2-Jun-95	113 km on either side of the common border/ a priori 50% - 50% channel division	Allotment plan for equitable distribution of channels; Secondary use of other Administration's channels if pfd of - 100 dBw/m2 is not exceeded at the border.	Summary lists are to be exchanged in October of each year.
941.500	944.000	Protocol 8 Fixed Point to Point	26-Apr-96	26-Apr-96	60 km on either side of the common border with channel pairs designated for assigned use.	Establishes a common plan for the equitable use of the bands for fixed point to point operations.	In October of each year recapitulative lists of assignments are to be exchanged. By April 26, 1998 the protocol will be jointly reviewed to develop a new protocol. It will terminate on April 26, 1999 if it has not been replaced or extended.
1850.000	1990.000	Protocol 7 for Broadband PCS	16-May-95	16-May-95	72 km for other PCS operations and 120 km for fixed point-to-point operations	Coordinate all PCS vis a vis any existing fixed pointe-to-point stations to protect (TIA/EIA TSB-1 OF) or relocate fixed users to other band.	No regularly scheduled exchange; where operators agree to share a channel, such arrangements are to be submitted to the Administrations for review with Administration's response within 60 days of receipt.
1910.000	1930.000	Protocol 7 for Broadband PCS	16-May-95	16-May-95	72 km for other PCS operations and 120 km for fixed point-to-point operations	Coordinate all PCS vis a vis any existing fixed pointe-to-point stations to protect (TIA/EIA TSB-1OF) or relocate fixed users to other band.	No regularly scheduled exchange; where operators agree to share a channel, such arrangements are to be submitted to the Administrations for review with Administration's response within 60 days of receipt.
2500.000	2686.000	MMDS	11-Aug-92	2-Jul-93	80 km on either side of the common border/Equal Access	Coordinated multi-point distribution services in the border area to avoid interference.	By 3/31 of each year, Administrations shall exchange a list of all accepted notifications made during the previous calendar year and verify within 60 days. Semi-annually, Administrations shall exchange lists of notifications for that six month period.

**Frequency Bands Subject to
U. S. / Mexico Bilateral Agreements**

Frequency Band (MHz)		Title	Signing Date	Effective Date	Coordination Distance/ Allocation Principle	Purpose	Requisite Data Exchange
Low	High						
5000.000	5250.000	Protocol 9 Aeronautical Radionavigation and Communications	26-Apr-96	26-Apr-96	No specified distance. Coordination required to avoid harmful interference.	Establishes procedures for coordination of frequencies and sets conditions for use. Attempts to provide equal access to all frequencies without any apriori channel plans. The bands noted here are jointly coordinated by the FCC and FAA. The protocol also lists eight bands administered solely by the FAA and four bands for which no coordination is required at this time.	In June of each year recapitulative lists of assignments are to be exchanged. The FAA will serve as intermediary for the FCC in the submission of the U.S. annual list.
5925.000	6425.000	Earth Station	2-Jul-91	2-Feb-93	Depending on transmitter power and antenna diameter; can be one of four lines across the southern tier of States/ Equal Access.	Coordinate earth stations that are part of fixed satellite network(s) and with terrestrial fixed stations to avoid interference.	Twice each year; the second half of May and the second half of November; also recapitulative lists every 18 months.
9000.000	9200.000	Protocol 9 Aeronautical Radionavigation and Communications	26-Apr-96	26-Apr-96	No specified distance. Coordination required to avoid harmful interference.	Establishes procedures for coordination of frequencies and sets conditions for use. Attempts to provide equal access to all frequencies without any apriori channel plans. The bands noted here are jointly coordinated by the FCC and FAA. The protocol also lists eight bands administered solely by the FAA and four bands for which no coordination is required at this time.	In June of each year recapitulative lists of assignments are to be exchanged. The FAA will serve as intermediary for the FCC in the submission of the U.S. annual list.

APPENDIX B

Indices to Canadian Agreements

U.S./CANADA AGREEMENTS

BROADCAST AGREEMENTS AND ARRANGEMENTS CURRENTLY IN EFFECT WITH CANADA

AM RADIO (535-1605 kHz):

Agreement Between the Government of the United States of America and the Government of Canada Relating to the AM Broadcasting Service in the Medium Frequency Band.

Signed: January 17, 1984

AM RADIO (1605-1705 kHz):

Interim Working Arrangement Between the Federal Communications Commission and the Department of Communications Relating to the AM Broadcasting Service in the Medium Frequency Band. Signed: February 28, 1991

FM RADIO (88-108 MHz):

Agreement Between the Government of Canada and the Government of the United States of America Relating to the FM Broadcasting Service, and its associated Working Arrangement.

Signed: February 25, 1991

TELEVISION (VHF & UHF) and LPTV:

Agreement Between the Government of Canada and the Government of the United States of America Relating to the TV Broadcasting Service, and its associated Working Arrangement

Signed: January 5, 1994

**NON-BROADCAST AGREEMENTS AND ARRANGEMENTS
CURRENTLY IN EFFECT WITH CANADA**

The principal instrument governing the allocation and use of frequency bands by terrestrial non-broadcasting radiocommunications services along the common border is ~~the~~ *Agreement Concerning the Coordination and Use of Radio Frequencies Above Thirty Megacycles per Second, with Annex*, as amended (the Above 30 MHz Agreement). This Agreement was signed and entered into force between the Government of Canada and the Government of the United States of America on October 24, 1962. It has been amended several times and is currently undergoing further review. The Agreement itself is divided into six specific Arrangements which have numerous appendices. The six Arrangements are:

Arrangement A

Arrangement Between the Department of Transport and the Federal Communications Commission for the Exchange of Frequency Assignment Information and Engineering Comments on Proposed Assignments along the Canada-United States Borders in Certain Bands Above 30 Mc/s.

Maritime Mobile Appendix 18 (156.8/162.0 MHz):

Revised Attachments A and B to Arrangement A.
Maritime Mobile Frequencies Appearing in Appendix 18 of the International Radio Regulations. Signed: June 8, 1973.

Maritime Mobile Vancouver/Seattle Area (156.55/156.72 MHz):

Attachment C to Arrangement A.
Frequency Usage for Vessel Traffic Systems in the General Vancouver/Seattle Area. Signed: August 2, 1976.

West Coast VHF Maritime (156/174 MHz):

Revised Attachment D to Arrangement A.
Channelling Arrangement for the West Coast VHF Maritime Public Correspondence. Signed: February 20, 1984.

Maritime Public Safety Correspondence (157 MHz):

Attachment E to Arrangement A.
VHF Channelling arrangement for Parallel Mobile Public Correspondence on the Great Lakes and the St. Lawrence Seaway/ Agreement to Promote Safety on the Great Lakes by Means of Radio. Signed: December 29, 1978.

East Coast VHF Maritime (157.20/162.02 MHz):

Attachment F to Arrangement A.

Channelling Arrangement for the East Coast VHF Maritime Mobile Public Correspondence. Signed: December 29, 1978.

Railroad Radio (160-161 MHz):

Canadian Railroads Radio Frequency Assignment Plan for 30 kHz Narrow-Band Assignments. Signed: July 28, 1960.

Maritime Radio Beacons (285/325 kHz):

Memorandum of Understanding Concerning the Coordination of the Marine Radio Beacons of Canada and the United States. Signed: August 22, 1962.

Interim Arrangements and Understandings

Land Mobile Services: 896-901/935-940 MHz.

Signed: August 15, 1990.

Personal Communications Services: 901-902/930-931/940-941 MHz.

Interim Arrangement for Narrowband PCS. Signed: September 22, 1994.

Point-to-Multipoint Services: 928-929/952-953 MHz.

Signed: August 7, 1991.

Paging Frequencies:

Provision of Trans-Border Radio Paging Service by United States and Canadian Licensees to Subscribers Across the Border. Signed: June 25, 1971.

Paging: 929-932 MHz.

Interim Arrangements on Paging Operations. Signed: January 11, 1994; August 14, 1992; April 20, 1988; February 10, 1987; and September 14, 1983.

Point-to-Point and Point-to-Multipoint Fixed Services: 932-935/941-944 MHz.

Signed: September 19, 1994.

Personal Communications Services: 1850-1990 MHz.

Interim Arrangement for Broadband PCS. Signed: November 14, 1994.

Multipoint Distribution Service: 2500-2686 MHz. General FCC/DOC Understanding

Concerning the Coordination of the Band within 80 km of the Border (31 MDS Channels). Signed: March 23, 1989.

Fixed and Mobile Services (4400/5000 MHz):

Signed: August 12, 1984.

Fixed and Mobile Services (17.7-23.6 GHz for specific band segments):

Interim Arrangement for Coordination of Fixed and Mobile Stations.

Signed: July 8, 1995.

Letters

Air/Ground Radio (454-459 MHz):

400 MHz Air/Ground Channel Designations and Frequency Assignments.

Signed: June 24, 1971.

Terrestrial Mobile Radio:

Cross-Border Operation. Signed: November 27, 1985.

Arrangement B

Arrangement for the Exchange of Frequency Assignment Information and Engineering Comments on Proposed Assignments along the Canada-United States Borders in Certain Aviation Bands.

Interim Arrangements

Aeronautical Mobile (R) Service: 128-132 MHz. Interim Arrangement on the Coordination and Use of 25 kHz Frequency Assignments in the Aeronautical Mobile (R) Service Sub-band 128.8125-132.0125 MHz. Signed: December 20, 1977.

Aeronautical Mobile (R) Service: 136.5-137.0 MHz. Interim Channeling Arrangement for the Aeronautical Mobile(R) Service Utilizing 25 kHz Channels for the Band 136-137 MHz. Signed: January 15, 1992.

Arrangement C

Arrangement for Frequency Coordination of Fixed Installation Radars.

Arrangement D

Arrangement Between the Department of Transport and the Interdepartment Advisory Committee for the Exchange of Frequency. Assignment Information and Engineering Comments on Proposed Assignments along the Canada-United States Borders in Certain Bands Above 30 Mc/s.

Arrangement E

Arrangement Between the Department of Communications of Canada and the National Telecommunications and Information Administration and the Federal Communications Commission of the United States Concerning the Use of the 406.1 MHz to 430 MHz Band in Canada-United States Border Areas.

Arrangement F

Arrangement Between the Department of Communications of Canada and the Federal Communications Commission of the United States Concerning the Use of the Band 806 to 890 MHz along the Canada-United States Border.

Cellular Radio 824-825/845-849/869-870/890-894 MHz:

Arrangement Concerning Cellular Radio Systems. Signed: January 8, 1990.

Interim Arrangements

Land Mobile Services: 821-824/866-869 MHz.

Signed: August 15, 1990.

Air/Ground Radio: 849-851/894-896 MHz.

Signed: August 28, 1992.

Letters

Land Mobile -Canadian Use (806-890 MHz):

Exchange of Letters Pertaining to the Land Mobile Radio Services Operating in the Band 806-890 MHz Concerning the Spectrum Made Available for Canadian Use East of 81 Degrees West Longitude. Signed: April 11, 1986

Land Mobile-Sharing (806-890 MHz):

Exchange of Letters Pertaining to the Land Mobile Radio Service Operating in the Band 806-890 MHz Concerning the Sharing of Frequencies in Sector 2 of Sharing Zone 1. Signed: October 15, 1986.

All Mobile Frequencies: *Arrangement on Cross-Border Land Mobile Telephone Services.*

Exchange of letters in which the terms of the 1952 U.S./Canada Convention were waived to permit the operation of the terrestrial mobile telephone radio units associated with common carriers of both countries to operate in either country without a permit.

Signed: April 15, 1991.

Satellite Services:

All Satellite News-Gathering (SNG) Frequencies: Understanding Concerning U.S./Canada Cross-Border Roaming of Satellite News-Gathering (SNG) Units. Signed: August 1992

Transborder Satellite Policies for Very Small Aperture Satellite (VSAT) Earth Stations:
This series of letters exchanged between the FCC and Canada's Department of Communications (now Industry Canada) dated 1972, 1982, and 1989

Mobile Satellite Terminal Cross-Border Roaming.

This exchange of letters dated May/April 1991.

Trilateral Arrangement Regarding the Use of the Geostationary Orbit Reached by Canada, Mexico and the United States.

This "working arrangement" was put on FCC Public Notice September 2, 1988.

Fixed Services/BSS (17.7-23.6 GHz):

Coordination of Broadcast Satellite and Fixed Services Operating in the Bands 17.7-19.7 GHz and 21.2-23.6 GHz. Signed: February 29, 1992.

APPENDIX C

Indices to Mexican Agreements

U.S./MEXICO AGREEMENTS

BROADCAST AGREEMENTS CURRENTLY IN EFFECT WITH MEXICO

AM RADIO (535-1605 kHz):

Agreement Between the Government of the United States of America and the Government of the United Mexican States Relating to the AM Broadcasting Service in the Medium Frequency Band. Signed: August 28, 1986

AM RADIO (1605-1705 kHz):

Agreement Between the Government of the United States of America and the Government of the United Mexican States For the Use of the Band 1605-1705 kHz in the AM Broadcasting Service. Signed: August 11, 1992

FM RADIO (88-108):

Agreement Between the Government of the United States of America and the Government of the United Mexican States Relating to the FM Broadcasting Service in the Band 88-108 MHz. Signed: August 11, 1992

VHF-TV Channels 2-13:

United States-Mexico VHF Television Agreement. Signed: April 18, 1962

UHF-TV Channels 14-69:

Agreement Relating to Assignments and Usage of Television Broadcasting Channels in the Frequency Range 470-806 MHz (Channels 14-69) Along the United States-Mexico Border. Signed: June 18, 1982

Low Power VHF-TV:

Agreement Between the Governments of the United Mexican States and the United States of America Relating to the Assignment of Low Power Television Stations Along the Border.

Signed: September 14, 1988

Low Power UHF-TV:

Agreement Amending the Agreement Relating to Assignments and Usage of Television Broadcasting Channels in the Frequency Range 470-806 MHz (Channels 14-69) Along the United States-Mexico Border.

Signed: June 18, 1982

DIGITAL TELEVISION:

Memorandum of Understanding Between the Federal Communications Commission of the United States of America and the Secretaria de Comunicaciones Y Transportes of the United Mexican States Related to the Use of the 54-72 MHz, 76-88 MHz, 174-216 MHz, and 470-806 MHz Bands for the Digital Television Broadcasting Service Along the Common Border.

Signed: April 2, 1997

NON-BROADCAST AGREEMENTS AND PROTOCOLS CURRENTLY IN EFFECT WITH MEXICO

There are currently four separate non-broadcasting agreements in effect between the U.S. and Mexico: (1) an agreement regarding satellite earth station coordination (signed at Chestertown 1991); (2) an agreement concerning point-to-multipoint distribution services (signed at Queretaro 1992); (3) an agreement on the use of the 17.7-17.8 GHz band (signed at Washington 1993); and (4) the Framework Agreement concerning terrestrial non-broadcasting radiocommunications services (signed at Williamsburg 1994). These Agreements and their associated adjuncts are summarized below.

Agreement Between the Government of the United States of America and the Government of the United Mexican States Regarding an Earth Station Coordination Procedure

This Agreement covers band 5925-6425 MHz and was signed July 2, 1991, in Chestertown, MD. It entered into force on February 2, 1993. It establishes a procedure for coordinating the operation of earth stations that are part of one or more fixed-satellite service networks with terrestrial fixed stations in the same band.

Agreement Between the Government of the United States of America and the Government of the United Mexican States Concerning the Assignment of Frequencies and Usage of the 2500-2686 MHz Band Along the United States-Mexico Border

The purpose of this agreement is to establish a procedure for the assignment of channels and use of the 2500-2686 MHz band for point-to-multi-point distribution services within 80 kilometers of the common border. The 31 channels, each having a 6 MHz bandwidth, are divided into 8 groups (labelled A through H). Assignment of these groups is based on specific coordination criteria, and excluding the locations specified in the Annexes, the groups are available for use by both administrations. This agreement was signed on August 11, 1992, in Queretaro, Mexico. It entered into force on July 2, 1993.

Agreement Between the Government of the United States of America and the Government of the United Mexican States on the Use of the 17.7-17.8 GHz Band

This agreement was signed June 23, 1993, in Washington, DC. It establishes sharing conditions for use of the band to facilitate operation of the fixed- and broadcasting-satellite services on both sides of the common border.

Agreement Between the Government of the United States of America and the Government of the United Mexican States Concerning the Allocation and Use of Frequency Bands by Terrestrial Non-Broadcasting Radiocommunications Services Along the Common Border
(The Framework Agreement with its associated Protocols)

The Framework Agreement was established to ensure the equitable use of frequency bands by terrestrial non-broadcasting radiocommunications services in the common border area. The allocation of bands for specific radio services and the conditions for their use are set forth in Protocols which are attached as annexes to the Framework Agreement. This agreement was signed 16 June 1994, in Williamsburg, VA. It entered into force on 2 June 1995. The eleven Protocols are as follows:

LAND MOBILE SERVICES (220-222 MHz):

Protocol Concerning the Allocation and Use of the Channels in the 220-222 MHz Band for the Land Mobile Services Along the Common Border. It establishes a common plan for the use of this band within a 120 km distance on each side of the border. This band has been allocated in the U.S. for use by the Specialized Mobile Radio Service (SMRS).

LAND MOBILE SERVICES (470-512 MHz):

Protocol Concerning the Use of the 470-512 MHz Band for Land Mobile Services Along the Common Border. This band is allocated to both land mobile and (television) broadcasting services. This protocol recognizes the differing levels of requirements for these services in the two countries and establishes a requirement to coordinate assignments made for stations within 150 km of the common border (a greater distance may be agreed for assignments near the Pacific coast).

LAND MOBILE SERVICES (806-824/851-869 and 896-901/935-940 MHz):

Protocol Concerning the Use of the 806-824/851-869 and 896-901/935-940 MHz Bands for Land Mobile Services Along the Common Border. This Protocol establishes a common plan for the use of frequencies for Land Mobile services which include Public Safety Mutual Aid and SMRS within a 110 km distance from the border. The channels are evenly divided as specified in Appendices.

CELLULAR SYSTEMS (824-849/869-894 MHz):

Protocol Concerning the Use of the 824-849/869-894 MHz Bands for Public Radiocommunications Services Using Cellular Systems Along the Common Border. This Protocol establishes the technical parameters for cellular systems

in these bands and a requirement for coordination within a 72 km distance from the common border. Coordination occurs directly between the carriers licensed in each country and the conclusions are subject to approval by each administration.

AIR-TO-GROUND SERVICES (849-851/894-896 MHz):

Protocol Concerning the Use of the 849-851/894-896 MHz Bands for Public Air-to-Ground Radio Services. This Protocol establishes a common plan for the use of frequencies within a 885 km distance from the common border for Public Air-to-Ground Radio Service. The spectrum is divided into 10 channel blocks and each specific site is coordinated. Channel blocks are assigned to specific sites. Sites not already specified require individual coordination.

FIXED POINT-TO-MULTIPOINT SERVICES (932.0-932.5/ 941.0-941.5 MHz):

Protocol Concerning the Allotment and Use of the 932.0-932.5/941.0-941.5 MHz Bands for Fixed Point-to-Multipoint Services Along the Common Border. This Protocol establishes an allotment plan for the use of the channels within a 113 km distance from the common border for fixed point-to-multipoint radiocommunications stations.

The next two Protocols are also associated with the aforementioned framework Agreement but were signed in Washington, DC on May 16, 1995, and entered into force on that same date.

BROADBAND PCS (1850-1990 MHz):

Protocol Concerning the Use of the Band 1850-1990 MHz for Personal Communications Services Along the Common Border. This Protocol establishes a common plan for the equitable use of the band for Broadband PCS within a 72 km distance from the common border. The band 1910-1930 MHz is reserved for low power unlicensed PCS. All PCS systems must be coordinated with any existing fixed point-to-point stations. The Protocol provides protection for existing fixed point-to-point operations within 120 km from the common border. However, the countries agree that no new fixed systems will be authorized in the band. Use in the border area is based on equal access. Operator-to-operator agreements are permitted (as with the cellular protocol) but subject to review/approval of the administrations.

NARROWBAND PCS (901-902/930-931/940-941 MHz):

Protocol Concerning the Allocation and Use of the Bands 901-902 MHz 930-931 MHz and 940-941 MHz for Personal Communications Services Along the Common Border. This Protocol establishes a common plan for the equitable use of these bands for Narrowband PCS Systems within a distance of 120 km from the common border. The Agreement establishes a channel plan that includes 15 paired channels and 9 unpaired channels per administration. Where operators agree to share channel, such arrangements are to be submitted to administrations for review.

The next two Protocols are also associated with the aforementioned framework Agreement but were signed in Morelia, Mexico on April 26, 1996, and entered into force on that same date.

FIXED POINT-TO-POINT SERVICES (932.5-935/941.5-944 MHz):

Protocol Concerning the Allotment and Use of the 932.5-935/941.5-944 MHz Bands for Fixed Point-to-Point Services Along the Common Border. This Protocol establishes an allotment plan for the use of the channels within a 60 km distance from the common border for fixed point-to-point radiocommunication stations.

AERONAUTICAL RADIONAVIGATION AND COMMUNICATIONS

Protocol Concerning the Use of the Bands Allocated to the Aeronautical Radionavigation and Aeronautical Communications Services Along the Common Border. This Protocol establishes a procedure for the coordination of frequency assignments in various identified frequency bands for the aeronautical radionavigation and aeronautical communications services along the common border. It allows each administration to use all the channels in each frequency band, provided it does not cause harmful interference to stations in the other country.

The next Protocol is also associated with the aforementioned framework Agreement but was signed in Washington, DC on February 27, 1997, and entered into force on that same date.

PAGING SERVICES (929-930/931-932 MHz):

Protocol Concerning the Use of the 929-930 MHz and 931-932 MHz Bands for Paging Services Along the Common Border. This Protocol establishes a common plan for the equitable use of the band for one way paging within a 120 km distance from the common border. It identifies priority channels each administration. Twelve channels are designated as shared. The Protocol also allows for operators in both countries to form joint operating partnerships to expand service areas and avoid transborder conflicts.

APPENDIX D

High Level Consulative Commission 1994 and 1996 Communiques and
Work Plans for Mexico



NEWS

News media Information 202 / 418-0500
Recorded listing of release and texts
202 / 418-2222

Federal Communications Commission
1919 - M Street, N.W.
Washington, D. C. 20554

43619

This is an unofficial announcement of Commission action. Release of the full text of a Commission order constitutes official action. See MCI v. FCC, 515 F 2d 385 (D.C. Circ 1974).

June 23, 1994

JOINT PRESS RELEASE

U.S. Department of State
Federal Communications Commission
U.S. Department of Commerce

UNITED STATES-MEXICO
HIGH LEVEL CONSULTATIVE COMMISSION ON TELECOMMUNICATIONS
WILLIAMSBURG, VIRGINIA, JUNE 15-16, 1994

At the conclusion of the fourth meeting of the United States-Mexico High Level Consultative Commission on Telecommunications held in Williamsburg, Virginia, an agreement and six protocols were signed by the representatives of the two governments. The agreement is a framework agreement on terrestrial non-broadcasting services to which protocols can be annexed concerning the allocation and use of specific radio frequency bands by various radio services. The first six such protocols were signed at this meeting, including a protocol which will allow public air-to-ground radiocommunication service to be extended into the border area and throughout Mexico, and a protocol that will facilitate cellular roaming along U.S.-Mexico border, pursuant to carrier-to-carrier agreements.

(over)

The United States was represented at the meeting by Vonya B. McCann, Deputy Assistant Secretary of State for International Communications and Information Policy, Reed E. Hundt, Chairman of the Federal Communications Commission and Larry Irving, Assistant Secretary of Commerce for Communications and Information. Undersecretary for Communications and Technological Development, Andres Massieu Berlanga, represented the government of Mexico.

At the Williamsburg meeting, the U.S. and Mexican governments discussed technical, regulatory and international communications and information policy issues. Included in the issues discussed was the Administration's proposal for a National and Global Information Infrastructure. The U.S. and Mexico also discussed the imbalance between U.S. and Mexican carriers in settlement payments which are paid according to agreements which govern how a carrier is compensated for international calls from one country to another. These issues along with many others concerning satellites, broadcasting and radiocommunication services and methods for promoting competition through interconnection and other regulatory structures and processes were included in a work program adopted for 1994-1995.

For details on the agreement and protocols that were signed as well as the work program for next year, consult the Williamsburg Communique and the Work Program for 1994-1995 attached to this press release.

For additional information or copies of the Agreement or Protocols Please Contact:

Department of State: William H, Jahn
Telephone: (202) 647-2723
Facsimile: (202) 647-7407

Federal Communications Commission: Tom Walsh; Cathy S. Sandoval
Telephone: (202) 632-0935
Facsimile: (202) 632-0929

Department of Commerce: Sharon Bywater
Telephone: (202) 482-3186
Facsimile: (202) 482-1865

Attachments

Fourth Meeting of the United States-Mexico
High-Level Consultative Commission on Telecommunications

Williamsburg, June 15-16, 1994

Williamsburg Communiqué

The United States-Mexico High-Level Consultative Commission on Telecommunications has completed its fourth meeting, held at Williamsburg, Virginia. Topics of major importance in the area of telecommunications were discussed at the meeting, which will result in closer ties between both countries in not only their bilateral relationship but in the international context as well.

The United States Delegation was headed by Vonya McCann, Deputy -Assistant Secretary of State for International Communications and Information Policy. Also participating were Reed Hundt, Chairman of the Federal Communications Commission, and Larry Irving, Assistant Secretary of Commerce for Communications and Information.

The Mexican Delegation was headed by Andres Massieu Berlanga, Undersecretary for Communications and Technological Development, assisted by Jose Antonio Padilla Longoria, Coordinator for International Relations.

The results achieved by the Commission under the 1992-93 Work Program adopted at Queretaro in 1992 were reviewed at this meeting and a new Work Program for 1994-95 was adopted. The results of the 1992-93 Work Program were very satisfactory and were reflected in the signing of an important inter-governmental agreement, called the Framework Agreement, and six operative agreements, which are referred to as Protocols and are annexed to the Framework Agreement. These results have been reported to the Eleventh Meeting of the United States-Mexico Binational Commission.

The Commission's work during the 1994-95 period will occur during a time of tremendous political and technological development in the telecommunications arenas in both countries. In the U.S., the Clinton Administration's initiative toward a National Information Infrastructure and the accompanying legislative developments have highlighted the importance of telecommunications and information policy. In Mexico, the continuing success of Telmex since its privatization and the government's plans to introduce competition have likewise given

telecommunications an important place in Mexico's domestic agenda.

These domestic developments place added importance on the Commission's work. At the same time, technological developments in telecommunications, including low-earth orbit satellite (LEOs), personal communication services, and high-definition television, as well as the continuing convergence of technologies, demand the attention of the Commission and will be addressed in future work plans.

The work carried out during the 1992-93 work program led to the signing of the following documents:

- Agreement between the Government of the United States of America and the Government of the United Mexican States Concerning the Allocation and Use of Frequency Bands by Terrestrial Non-Broadcasting Radiocommunication Services Along the Common Border;
- Protocol Concerning the Allocation and Use of the Channels in the 220-222-MHz Band for [Land] Mobile Services Along the Common Border;
- Protocol Concerning the Use of the 470-512 MHz Band for Land Mobile Services Along the Common Border;
- Protocol Concerning Conditions of Use of the 824-849 and 869-894 MHz Bands for Public Radiocommunications Services Using Cellular Systems Along the Common Border;
- Protocol Concerning the Use of the 849-851 and 894-896 MHz Bands for Public Air-to-Ground Services;
- Protocol Concerning the Use of the 806-824/851-869 and 896-901/935-940 MHz Bands for Land Mobile Service Along the Common Border; and
- Protocol Concerning the Allotment and Use of Channels in the 932-932.5 and 941-941.5 MHz Bands for Point-to-Multipoint Radiocommunications Services Along the Common Border.

Both Administrations reaffirmed their desire to continue working on a coordinated basis at the International Telecommunication Union (ITU) and the Inter-American Telecommunications Commission (CITEL).

Both Delegations agreed on the 1994-95 Work Program, which is annexed to this Communique and pledged that the working groups will continue to examine key aspects of telecommunications that require cooperation and specific agreements in the areas of

coordination of the radio spectrum, regulation, and international matters.

Mexico agreed to host the next Bilateral Meeting of the Consultative Commission.

Andres Massieu Berlanga	Vonya B. McCann
Undersecretary for Telecommunications	Deputy Assistant Secretary
and Technological Development	for International Communications
Secretariat of Communications	and Information Policy
and Transport	U.S. Department of State

**UNITED STATES AND MEXICO
HIGH LEVEL CONSULTATIVE COMMISSION
ON TELECOMMUNICATIONS**

WORK PROGRAM FOR 1994 - 1995

1. TELECOMMUNICATIONS COORDINATION

A. SATELLITES

- 1) Continue work on procedures to facilitate the coordination of earth stations in the 2, 6, and 7-8 GHz bands in accordance with No. 1107 of the International Telecommunication Union Radio Regulations.
- 2) Facilitate the coordination in accordance with the International Telecommunication Union Radio Regulations of:
 - a) The Fixed Satellite Service Systems of both countries implemented in accordance with the Trilateral Arrangement on Orbital Positions,
 - b) Systems for Mobile Satellite Services at 1.5/1.6 GHz of both countries;
 - c) Low Earth Orbit Satellite Systems in bands around 137/148 MHz and, as appropriate, 1610/2483 MHz, with the intent to conclude agreements; and
 - d) Digital Audio Broadcasting Satellite Systems at 1.5 GHz and 2.3 GHz in order to conclude agreements.
- 3) In accordance with Article XIV-D of the INTELSAT Agreement, the two countries will enter into joint consultation, as appropriate, on their proposed respective satellite systems;
- 4) Exchange information on the regulation of Satellite News Gathering (SNG) transportable earth stations and conclude negotiations in order to sign a protocol for SNG cross border operation between the two countries on a temporary occasional use basis;

- 5) Establish discussions to review positions on INTELSAT and INMARSAT issues, including their organizational structures and the use of separate satellite systems.

B. BROADCASTING

- 1) Adopt a verification schedule for the AM stations in the band 535 - 1605 kHz and begin the station verification process;
- 2) Continue efforts to resolve cases of harmful interference with a goal of eliminating harmful interference;
- 3) Exchange views on initiatives to improve the quality of the AM broadcasting service;
- 4) Review and discuss the agreements in force concerning television in the VHF and UHF bands in order to determine suitable changes in the technical criteria to ensure acceptability of stations not complying with standardized parameters, in order to conclude a new agreement setting forth said changes;
- 5) Track progress on the implementation of the new FM agreement;
- 6) Exchange of information and discussion on the introduction of Advanced Televisions and High Definition Television, for the purpose of establishing the basis for the signing of a Memorandum of Understanding enabling both Administrations to develop their services;
- 7) Exchange of information and discussion on the introduction of Terrestrial and Satellite Digital Audio Broadcasting, for the purpose of establishing the basis for the signing of a Memorandum of Understanding enabling both Administrations to develop their services; and
- 8) Exchange information relating to technical standards and regulations with regard to competitive alternatives to conventional broadcasting including cable television, direct broadcasting satellite, and digital audio broadcasting.

C. RADIOCOMMUNICATIONS

- 1) Analyze alternatives for providing cross-border traffic.

- 2) Exchange information and explore how to address the use of unlicensed devices/systems for cross-border telecommunications, particularly those using spread spectrum modulation techniques.
- 3) Conclude discussions on the Protocol concerning the paging service in the 929-930 and 931-932 MHz bands along the common border.
- 4) Conclude discussions on the Protocol concerning the use of the 932.5-935 and 941.5-944 MHz bands along the common border.
- 5) Initiate discussions aimed at reaching agreements for the use of bands for fixed wireless telephony and future personal communications services (PCS).
- 6) Initiate negotiations in order to sign a protocol on the use of the 901-902, 930-931 and 940-941 MHz bands by Mobile Services.
- 7) Exchange information and initiate negotiations in order to sign a protocol on the use of the 1850-2110 MHz band by Mobile and Mobile Satellite Services;
- 8) Continue discussions aimed at establishing one or more protocols on the coordinated use of the following bands recognizing the different service types in each country (e.g., private radiotelephony, and mobile uses) and, where applicable, the introduction of reduced channel spacing to enhance capacity:
 - 3 - 30 MHz
 - 30 - 50 MHz
 - 148 - 150 MHz
 - 150 - 162 MHz
 - 162 - 174 MHz
 - 406.1- 420 MHz
 - 450 - 470 MHz
 - 470 - 512 MHz
- 9) Exchange information on sharing of Interactive Video and Data Services in the band 218-219 MHz.
- 10) Exchange information and begin discussions on modern communications systems for land transportation (for example, "Intelligent Vehicle Highway Systems").
- 11) Initiate negotiations in order to sign a protocol on the use of frequency

bands used by the Aeronautical Mobile, Aeronautical Radionavigation and Aeronautical Satellite Services;

- 12) Exchange information on how to develop a common procedure for the electronic exchange of data between Mexico and the U.S.A. on a regular basis in support of agreements and protocols on coordination.

II. TELECOMMUNICATIONS TRAINING

- 1) Cooperation on training in telecommunications topics, particularly and as a first stage, concerning measurements, standardization and certification, spectrum management and monitoring, signal analysis and propagation measurement techniques.
- 2) Cooperation in the identification of options and the establishment of programs for the development of technical projects and training support between the U.S. NTIA/Institute for Telecommunication Sciences and the Mexican Communications Institute, including the participation of other institutions.

III. INTERNATIONAL AFFAIRS

A. INTERNATIONAL TELECOMMUNICATION UNION ACTIVITIES

- 1) Coordinate preparations for and participation in the Plenipotentiary Conference, including possibly a bilateral meeting;
- 2) Coordinate preparations for participation in the 1995 World Radiocommunications Conference and the Council meeting; and
- 3) Coordinate follow-up activities resulting from the World Telecommunication Development Conference.

B. CITEL

Coordinate preparations for and participation in CITEL meetings.

IV. MIXED COMMISSION

- 1) Work to conclude a bilateral agreement regarding the functions of the Mixed Commission (CMERAR); and,

- 2) Consider which decisions, among those adopted by the Commission, need to be formalized between both countries.

V. EXCHANGE OF INFORMATION ON REGULATORY AND OTHER TELECOMMUNICATIONS ISSUES

A. ACCOUNTING RATES

Initiate discussions with regard to costing methodologies, and regulatory and policy questions affecting settlement rates and tariffs.

B. COMPETITION/INTERCONNECTION

Initiate discussions with regard to methods of promoting competition through interconnection and other regulatory structures and processes.

C. GLOBAL INFORMATION INFRASTRUCTURE

Initiate discussions on bilateral cooperation in developing the Global Information Infrastructure (GII), focussing on how to foster private investment, competition, open access to the network, appropriate and flexible regulation, and universal service. Discuss applications of telecommunications to education, health, the environment, and the interconnection of libraries through telecommunications.

D. OTHER EXCHANGES

Continue to exchange information on other legislative, regulatory, and policy issues in telecommunications, trends in technology, licensing issues, and operational aspects of communications services, including experimental authorizations and new services.

May 3, 1996

JOINT PRESS RELEASE

U.S. DEPARTMENT OF STATE
U.S. DEPARTMENT OF COMMERCE
FEDERAL COMMUNICATIONS COMMISSION

**UNITED STATES-MEXICO
HIGH LEVEL CONSULTATIVE COMMISSION ON TELECOMMUNICATIONS
MORELIA, MEXICO APRIL 25-26, 1996**

Last Friday the United States and Mexico concluded a very successful fifth meeting of the High Level Consultative Commission on Telecommunications in Morelia, Mexico. The meeting concluded with the signing of a communique, two protocols and work program for next year. Two days after the signing ceremony, negotiations were completed and the U.S. Ambassador to the United Mexican States, James R. Jones, signed an Agreement Concerning the Transmission and Reception of Signals from Satellites for the Provision of Satellite Services to Users in the U.S. and Mexico which promises important opportunities for U.S. businesses, consumers and programmers.

One of the protocols that was signed at Morelia concerned the use along the U.S./Mexico border of fifteen frequency bands allocated to the aeronautical radionavigation and aeronautical communications services. This protocol will allow the FAA to coordinate the use of frequencies in these bands, that are critical to the safety of commercial air traffic, with its counterpart (SENEAM) in Mexico. The other protocol that was signed concerned the use of selected frequency bands above 900 MHz by fixed point-to-point services.

The United States was represented at the meeting by Vonya B. McCann, United States Coordinator for International Communications and Information Policy, Department of State, Larry Irving, Assistant Secretary of Commerce for Communications and Information, National Telecommunications and Information Administration, and Don Gips, Deputy Chief of the International Bureau of the Federal Communications Commission. Undersecretary of Communications and Technological Development, Lic. Carlos Casasus Lopez Hermosa, represented the Government of Mexico.

At the Morelia meeting, the U.S. and Mexico governments discussed technical, regulatory and international communications and information policy issues. Issues that were discussed included the ITU Policy Forum, the Western Hemisphere Senior Telecommunications

Officials Meeting, and structural changes taking place in international telecommunications organizations. The U.S. and Mexico also discussed new technology and communication services being introduced and the necessity to work together to implement them in a compatible manner. The results of these discussions were reflected in a Work Program adopted for 1996-1997 which will follow through on the discussions that took place at Morelia.

Further information is contained in the "Morelia Communique", attached to this release.

For additional information or copies* of the documents mentioned, please contact:

Department of State: William H. Jahn, at (202) 647-2123

Department of Commerce: Nancy Eskenazi, at (202) 482-1864

Federal Communications Commission: Thomas Walsh at (202) 418-2118.

*Copies of the Morelia Communique, the US/Mexico Work Program, the Satellite Agreement and Protocols have also been placed on file at the FCC International Bureau Reference Room located on the first floor of 2000 M Street, N.W.

**Fifth Meeting of the United States - Mexico
High Level Consultative Commission on Telecommunications**

Morelia, Michoacan. 25-26 April 1996

Morelia Communique

The United States - Mexico High Level Consultative Commission on Telecommunications (HLCC) concluded, on this day, its Fifth Meeting in Morelia, Michoacan.

Issues of great importance to both countries concerning telecommunications were addressed at the meeting, highlighting the fact that these meetings have moved the relations of the two countries closer, both on the bilateral level and within the international context -- and in the latter sense, coordination of both countries' work in the International Telecommunication Union (ITU) and Inter-American Telecommunication Commission (CITEL) fora was effected.

The Mexican delegation was led by Mr. Carlos Casasus López-Hermosa Subsecretario de Comunicaciones y Desarrollo Tecnológico, with the participation of Messrs. Jose Antonio Padilla Longoria, Coordinador de Relaciones Internacionales; Luis Miguel Alvarez Alonso, Director General de Redes y Radio-comunicación; Enrique Melrose Aguilar, Director General de Administración del Espectro; and Federico Gonzalez Luna Bueno, Director General de Sistemas de Difusión, all of them from the Secretariat of Communications and Transport.

The United States Delegation was headed by Ambassador Vonya B. McCann, U.S. Coordinator, International Communications and Information Policy of the Department of State; also participating were Mr. Larry Irving, Assistant Secretary for Communications and Information of the Department of Commerce, and representing Chairman Reed Hundt of the Federal Communications Commission was Mr. Don Gips, Deputy Chief of the International Bureau.

The results achieved pursuant to the 1984 - 1995 Work Program were reviewed at this meeting. In this regard, the results obtained were very satisfactory and were reflected in the signing of the four operative agreements, referred to as Protocols, that are annexed to the Framework Agreement signed at the Fourth Meeting of the HLCC in Williamsburg, Virginia. These results

will be reported to the thirteenth meeting of the United States Mexico Binational Commission that will meet in Mexico City in May.

The work carried out pursuant to the Work Program established at the Fourth Meeting led to the signing of the following documents:

- Protocol on the Use of the 1850-1990 MHz Band for Personal Communications Services Along the Common Border;
- Protocol on the Use of the 901-902 MHz, 931-932 MHz, 940-941 MHz Bands, for Personal Communications Services Along the Common Border;
- Protocol on the Use of Channels in the 932.5 - 935 MHz and 941.5 - 944 MHz Bands for Fixed Point-to-Point Services Along the Common Border; and,
- Protocol on the Use of Bands Allocated to the Aeronautical Radionavigation Service and Aeronautical Communications Services Along the Common Border.

During the meeting, both countries exchanged views on important telecommunications issues including, among others, broadcasting, radiocommunications, and spectrum planning.

At the same time, both Delegations agreed to a telecommunications Work Program for 1996-1997, that is attached to this Communique and includes the basic issues related to satellites, broadcasting, radiocommunications, training, and international matters. The Delegations agreed that the Working Groups will continue to examine the key telecommunications issues that require cooperation and specific agreements.

It is important to point out that the work of the HLCC in 1996 - 1997 will take place during a period of great development in the telecommunications sector, within an environment of new telecommunications laws in both countries.

Additionally, it was recognized that the technological developments that are taking place on a global level in the field of telecommunications, such as low earth orbit satellite systems, personal communications systems, direct-to-home television, advanced television, and more, will require greater consideration by this HLCC. These issues will be the subject of future HLCC discussions.

sions.

Both Administrations reaffirmed their desire to continue working in a coordinated manner at CITELE and the ITU. In particular, both countries agreed to intensify efforts to reach a successful Conclusion to the World Telecommunication Policy Forum in October.

Finally, the Delegation of the United States agreed to host the next meeting of the HLCC.

Signed at Morelia, Michoacan, on April 26, 1996.

Vonya B. McCann

Ambassador
VONYA B. McCANN
United States Coordinator,
International Communications and
Information Policy,
United States Department of State

C. Casarus

Licenciado
CARLOS CASARUS LOPEZ-HERMOSA
Subsecretario de Comunicaciones y
Desarrollo Tecnoloaico
Secretaria de Comunicaciones y
Transportes.

**UNITED STATES AND MEXICO
HIGH LEVEL CONSULTATIVE COMMISSION
ON TELECOMMUNICATIONS**

WORK PROGRAM FOR 1996-1997

1. TELECOMMUNICATIONS COORDINATION

A. SATELLITES

- 1) Continue development and implementation of procedures to facilitate the coordination of earth stations in the 2, 6, and 74 GHz bands in accordance with No. 1107 of the International Telecommunication Union Radio Regulations.
- 2) Continue discussions and work toward the conclusion of a protocol permitting the use and operation of mobile earth terminals using satellites of either country.
- 3) Conclude negotiations in order to sign a protocol for the provision of Direct-to-Home and Broadcasting-Satellite services using satellites of either country.
- 4) Facilitate the coordination in accordance with the International Telecommunication Union Radio Regulations of:
 - a) The Fixed Satellite Service Systems of both countries implemented in accordance with the Trilateral Arrangement on Orbital Positions;
 - b) Systems for Mobile Satellite Services at 1.5/1.6 GHz of both countries;
 - c) Low Earth Orbit Satellite Systems in bands around 137/148 MHz and, as appropriate, 1610/2483 MHz, with the intent to conclude agreements; and
 - d) Digital Audio Broadcasting Satellite Systems at 1.5 GHz and 2.3 GHz with the intention of reaching agreements.
- 5) In accordance with Article XIV-D of the INTELSAT Agreement, the two countries will enter into joint consultation, as appropriate, on their proposed respective satellite systems;
- 6) Continue to exchange information on the regulation of Satellite News Gathering (SNG) transportable earth stations and conclude negotiations in order to sign a protocol for SNG cross border operation between the two countries on a temporary basis;
- 7) Continue discussions to review positions on INTELSAT and INMARSAT issues, including their organizational structures and the use of separate satellite systems;

B. BROADCASTING

- 1) General - Continue efforts to resolve cases of harmful interference with a goal of eliminating harmful interference.
- 2) AM Radio
 - a) Continue verification of databases of AM stations in the band 535 -1605 kHz.
 - b) Exchange views on initiatives to improve the quality of the AM broadcasting service
 - c) Exchange information on the introduction of the AM expansion band (1605 -1705 kHz) in both countries.
- 3) FM Radio - Evaluate results of full implementation of the FM agreement.
- 4) Television
 - a) Continue to exchange information relevant to the introduction of Advanced/Digital Television in both countries.
 - b) Review and discuss the agreements in force concerning television in the VHF and UHF bands in order to determine changes in the technical criteria to provide for fuller use of the bands including accommodation of: (i) stations operating at low power on a non-interference basis, and (ii) the introduction of Advanced/Digital television.
- 5) Exchange information and discuss the introduction of Terrestrial and Satellite Digital Audio Broadcasting, for the purpose of establishing the basis for the signing of a Memorandum of Understanding enabling both Administrations to develop their services; and
- 6) Exchange information relating to technical standards and regulations with regard to competitive alternatives to conventional broadcasting including cable television, direct broadcasting satellite, and digital audio broadcasting.

C. RADIOCOMMUNICATIONS

- 1) Analyze alternatives for providing cross-border traffic.
- 2) Establish a regularized exchange of information on spectrum planning developments in each country in order to identify situations where joint initiatives of introducing new technologies may benefit both countries.
- 3) Exchange information and explore how to address the use of non-licensed

devices/systems including those using spread spectrum modulation techniques and considering cross-border telecommunications applications.

- 4) Continue discussions aimed at establishing one or more protocols on the coordinated use of the following bands, recognizing the different service types in each country (e.g., private radiotelephony, and mobile uses) and, where applicable, the introduction of reduced channel spacing to enhance capacity:
 - * 138-144 MHz
 - * 148-150 MHz
 - * 150-162 MHz
 - * 162-174 MHz
 - * 380-400 MHz
 - * 406.1-420 MHz
 - * 450-470 MHz
 - * 470-512 MHz
- 5) Review the progress regarding the implementation of PCS services in the 1850-1990 MHz band including a) cross border PCS operations, and b) the interaction with and/or relocation of resident fixed point to point operations in the band, with a view toward finding measures both Administrations can take to facilitate the rapid establishment of a homogeneous PCS infrastructure.
- 6) Continue the exchange of information and begin discussions on modem communications systems for land transportation (for example, "Intelligent Vehicle Highway Systems").
- 7) Continue negotiations on the use of the bands 929-930 MHz and 931-932 MHz for Paging services along the common border with a view to concluding a protocol as soon as possible.
- 8) Exchange information relative to the introduction of Local Multipoint Distribution Services in each Country within the bands 27.5 - 29.5 GHz.
- 9) Exchange information relative to the introduction of new services and applications using frequency bands above 30 GHz.

II. EXCHANGE OF INFORMATION BY ELECTRONIC MEANS

- 1) Continue the development of a common procedure for the electronic exchange of data between Mexico and the USA on a regular basis in support of agreements and protocols on coordination.
- 2) Begin to discuss and coordinate efforts to increase mutual access to

information on telecommunications regulatory and policy matters through electronic networks such as the INTERNET.

III. TELECOMMUNICATIONS TRAINING

Formalize a program of technical co-operation and training, subject to funding limitations, orienting it to topics of common interest in the area of telecommunications and information technologies through activities such as: telecommunication postgraduate studies; information exchange programs on topics of interest to both parties; and development of engineering projects.

IV. INTERNATIONAL AFFAIRS

A. INTERNATIONAL TELECOMMUNICATION UNION ACTIVITIES

- 1) Coordinate preparations for and participation in the 1998 Plenipotentiary Conference, including possibly using bilateral or hemispheric fora for such effort;
- 2) Coordinate preparations and participation in the 1997 World Radiocommunication Conference;
- 3) Coordinate preparations and follow-up for the World Policy Forum.

B. CITEL, APEC and OECD

- 1) Coordinate preparations for and participation in CITEL, APEC and OECD meetings,
- 2) Discuss and coordinate efforts to encourage CITEL (in particular COMICITEL) and APEC to work on issues dealing with fostering liberalization and competition in telecommunications markets in the Americas and in the Asia-Pacific region,
- 3) Begin to coordinate preparations and participation in the next CITEL General Assembly.

C. SUMMIT OF THE AMERICAS

- 1) Exchange views and coordinate efforts with regard to hemispheric implementation of telecommunications-related provisions of the Summit of the Americas Plan of Action;
- 2) Coordinate preparations for and participation in the 1996 Senior Telecommunications Officials Meeting. Work to encourage high-level participation in the 1996 Senior Telecommunications Officials Meeting.

D. PARTICIPATION IN WTO

Continue to coordinate participation in meetings of the WTO with respect to telecommunications matters.

V. MIXED COMMISSION

Consider which decisions, among those adopted by the Commission, need to be formalized between both countries.

VI. EXCHANGE OF INFORMATION ON REGULATORY AND OTHER TELECOMMUNICATIONS ISSUES

A. ACCOUNTING RATES

Continue discussions and exchange of information and cooperation with regard to accounting rates and accounting rate policies including alternatives to accounting rates in an increasingly competitive telecommunications markets.

B. COMPETITION AND INTERCONNECTION POLICIES

Continue discussions, exchange of information and cooperation on regulatory and interconnection policies to foster more competition in telecommunications markets.

C. UNIVERSAL SERVICE AND RATE REBALANCING

Continue discussions, exchange of information and cooperation on policies that foster universal service and rate rebalancing in increasingly competitive telecommunications markets.

D. GLOBAL INFORMATION INFRASTRUCTURE

Continue discussions on bilateral cooperation in developing the Global Information Infrastructure. Discuss applications of telecommunications to education, health, the environment and interconnection of libraries.

E. OTHER EXCHANGES

Continue to exchange information on other legislative, regulatory, and policy issues in telecommunications, trends in technology, licensing, and operational aspects of communications services, including experimental authorizations and new services.

Ambassador
VONYA B. McCANN
United States Coordinator
International Communications
and Information Policy,
United States Department of State

Licenciado
CARLOS CASASUS LOPEZ HERMOSA
Subsecretario de Comunicaciones y
Desarrollo Tecnológico,
Secretaria de Comunicaciones y
Transportes

APPENDIX E

**International Bureau Public
Notices on Technical Coordination**



PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
1919 M STREET, N.W.
WASHINGTON, D. C. 20554

DA 94-1289

News media information # +1 (202) 418-0500.
Internet Anonymous FTP site: ftp.fcc.gov

Recorded listing of texts # +1 (202) 632-0002

November 21, 1994

US/CANADA INTERIM SHARING ARRANGEMENT FOR 2 GHz BROADBAND PCS

On November 14, 1994, representatives of the FCC and Industry Canada concluded a sharing arrangement for 2 GHz Broadband Personal Communications Services (PCS). This interim sharing arrangement provides for use of the 1850-1990 MHz band for PCS along the United States and Canada border. This sharing arrangement should assist parties intending to participate in the FCC auction process and should facilitate the eventual provision of PCS services along the border.

The principal provisions of this interim sharing arrangement are:

- o The frequency band 1850 - 1990 MHz is to be shared on an equal basis and both countries are to have full use of these frequencies for the provision of PCS services.
- o Additional use of the 1850-1990 MHz frequency band for fixed point-to-point microwave use is to be limited and discouraged and any new use of the 1910-1930 MHz band for fixed microwave operations is to be avoided. (The 1910-1930 MHz portion of the 1850-1990 MHz band has been designated for unlicensed PCS use in the United States and a similar type of use in Canada.)
- o Any new PCS use of these frequencies is not to cause harmful interference to existing fixed point-to-point microwave operations in the other country.
- o Coordination of all PCS systems within 120 km (75 miles) of the border is required and will be based on:
 - A technical analysis, using recognized industry procedures such as TA/EPA Bulletin (TSB10-F), that interference is not caused to existing microwave operations; or, alternatively,
 - A mutually acceptable arrangement between the PCS and fixed microwave operators.

- o Base stations in the 930-931 MHz and 940-941 MHz bands are limited to a maximum 3500 watts E.R.P with antenna height/power restrictions similar to FCC rules.
- o Stations in each country will have limited access to the channels allotted to the other country on a secondary basis.

For Broadband PCS:

- o The frequency band 1850-1990 MHz is to be shared on an equal basis and both countries are to have full use of this spectrum for the provision of PCS services.
- o The addition of new users to the 1850-1990 MHz frequency band for fixed point-to-point service operation is not permitted.
- o The 1910-1930 MHz portion of the band has been designated for very low power PCS use in the United States and Mexico (known as Unlicensed PCS in the U.S.).
- o Any new PCS use of these frequencies must not cause harmful interference to existing fixed point-to-point microwave operations in the other country.
- o Coordination of all PCS systems within 120 km (75 miles) of the common border with existing fixed point-to-point operations is required and will be based on:
 - A technical analysis, using recognized industry procedures such as TA/EPA Bulletin (TSB10-F) that interference is not caused to existing microwave operations; or
 - A mutually acceptable arrangement between the PCS and fixed microwave operators.
- o Licenses for PCS base station facilities within 72 km (45 miles) of the border will be conditioned to indicate that future coordination is required between Broadband PCS operators in both countries to ensure that interference is not caused to PCS operations in the other country and that the band is shared on an equal basis. This is similar to actions taken during the initial licensing of the cellular radio service.
- o The predicted or measured median field strength of any PCS base station is not to exceed 47 dBuV/m at any location at or beyond the border unless the affected PCS operators in the adjacent areas agree.

The full texts of these agreements have been placed on file at the International Bureau Reference Room. Copies are available from International Transcription Service at (202) 857-3800. For further information, contact Joslyn Read or Henry Straube in the Planning and Negotiations Division of the International Bureau at (202) 739-0424.



PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
1919 M STREET, N.W.
WASHINGTON, D. C. 20554

DA 95-1093

News media information # +1 (202) 418-0500.
Internet Anonymous FTP site: ftp.fcc.gov

Recorded listing of texts # +1 (202) 632-0002

May 16, 1995

INTERNATIONAL BUREAU ANNOUNCES AGREEMENT WITH MEXICO TO ENSURE PCS SERVICE ALONG THE BORDER

The United States and Mexico today signed coordination agreements for both Narrowband and Broadband Personal Communications Services (PCS). These agreements together with those reached with Canada last fall, ensure seamless and compatible PCS services along both our southern and northern borders. They protect the value of the PCS licenses already awarded in the FCC's auctions and will assist bidders in the remaining PCS auctions.

The agreements were signed for the U.S. by FCC Chairman Reed E. Hundt and Ambassador Vonya B. McCann, U.S. Coordinator International Communications and Information Policy (CIP) of the Department of State. They were signed for Mexico by Secretary Carlos Ruiz Sacristan of the Secretaria de Comunicaciones y Transportes (SCT). The signing took place at the annual meeting of the US/Mexico Bi-National Consultative Commission on Telecommunications held in Washington D.C. Under the auspices of the State Department's CIP, these agreements were negotiated this spring by the FCC's International Bureau in coordination with the Wireless Telecommunications Bureau.

The agreements provide for use of the 901-902 MHz., 930-931 MHz and 940-941 MHz bands for Narrowband PCS and for use of the 1850-1990 MHz band for Broadband PCS along the United States and Mexico border. Both Mexico and the U.S. recognized that compatible PCS operations at the border are best assured through coordination of operating and technical parameters by the PCS operators. Therefore, the agreements allow for - and even encourage - PCS operators in both countries to form joint operating contracts and partnerships to expand service areas and avoid transborder conflicts. The FCC and the Mexican SCT are to be notified of such agreements, which are subject to review or approval, as appropriate, by the respective agencies.

The principal provisions of these two new agreements are:

For Narrowband PCS:

- o The United States and Mexico shall each have primary use of 24 of the 48 available channels
- o Each Administration shall have full use of all the channels beyond 120 kilometers (75 miles) of the border.
- o Stations in the 901-902 MHz band and all mobile stations are limited to 7 watts E .R

- o Licenses for PCS base station facilities within 72 km (45 miles) of the border will be conditioned to indicate that future coordination is required between PCS operators in both countries to ensure that interference is not caused to PCS operations in the other country and that the band is shared on an equal basis. (This is similar to actions taken during the initial licensing of the cellular radio service.)
- o The predicted or measured median field strength of any PCS base station is not to exceed 47 dBuV/m at any location at or beyond the border unless the affected PCS operators in the adjacent areas agree.
- o Compatible PCS operations at the border are best assured through coordination of operating and technical parameters by PCS operators; and, PCS operators are to notify the FCC and Industry Canada of any agreements. Such agreements are subject to review by the Agencies.

The full text of the arrangement has been placed in GEN Docket No. 90-314 and copies are available from International Transcription Service at (202) 857-3800. For further information, contact Tom Mooring or Rod Small in the Office of Engineering and Technology at (202) 653-8114 (6) or Henry Straube in the International Bureau at (202) 254-3394.



PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
1919 M STREET, N.W.
WASHINGTON, D. C. 20554

DA 95-1823

News media information # +1 (202) 418-0500.
Internet Anonymous FTP site: ftp.fcc.gov

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August 18, 1995

LIST OF MEXICAN FIXED POINT-TO-POINT OPERATIONS IN 1850-1990 MHz (BROADBAND PCS) BAND AVAILABLE

On May 16, 1995 representatives of the United States and Mexico signed an agreement concerning the Broadband Personal Communications Services (PCS). This agreement provides for use of the 1850-1990 MHz band for Broadband PCS along the United States and Mexico border.

The agreement requires that any new PCS use of these frequencies not cause harmful interference to existing fixed point-to-point microwave operations in the other country. While additional use of the 1850-1990 MHz frequency band for fixed point-to-point use is to be limited and discouraged, all new PCS systems within 120 km (75 miles) of the border must coordinate with existing fixed point-to-point operations. Coordination is based on:

- A technical analysis, using recognized industry procedures such as TIA/EIA Bulletin (TSB10-F), that interference is not caused to existing fixed point-to-point operations; or, alternatively,
- A mutually acceptable arrangement between the PCS and fixed point-to-point operators.

To facilitate such coordination, the agreement provides for an exchange of lists containing pertinent data concerning the fixed point-to-point operations of each administration. The separate lists compiled by the U.S. and Mexico now have been placed on file in the International Bureau Reference Room. Copies are available from International Transcription Service at (202) 857-3800. For further information, contact Joslyn Read or Henry Straube in the International Bureau at (202) 739-0424.



NEWS

Federal Communications Commission
1919 - M Street, N.W.
Washington, D. C. 20554

News media Information 202 / 418-0500
Recorded listing of release and texts
202 / 418-2222

60379

This is an unofficial announcement of Commission action. Release of the full text of a Commission order constitutes official action. See MCI v. FCC, 515 F 2d 385 (D.C. Circ 1974).

October 26, 1995

INTERNATIONAL BUREAU ISSUES SPECIAL REPORT ON MEXICO

The International Bureau today released a **Special Report on Mexico: 1995 Federal Telecommunications Law and Reorganization of Secretaria de Comunicaciones y Transportes (SCT)**. The Report analyses the reorganization of SCT, the Mexican Telecom regulator, and the new Mexican telecommunications law. It was prepared by the International Bureau's Planning and Negotiations Division.

The Report is the first of a series intended to help guide Commission policy, and to assist U.S. industry and consumers. This is the first time the Commission has issued an analysis of foreign law for use by industry and consumers. The analysis is based both on the text of the statute and discussion with Mexican officials.

Mexico is the second most important trading partner of the U.S. Mexico is now undergoing significant legal and regulatory changes preparing for increased liberalization of the communications industry. Understanding these changes is critical for the Commission in the negotiation of border frequency sharing arrangements as well as in the development of international policies that affect both countries. Knowledge of the changing Mexican legal and regulatory regime also is critical to U.S. industry which does or wishes to do business there.

Some of the more important features of the new Mexican legal framework noted in the Special Report include: 1) amendment of Article 28 of the Mexican Constitution to permit privatization of, and encourage competition in, the Mexican satellite industry; 2) increase of foreign ownership limits to 49% for most services; 3) establishment of new spectrum use categories and specification of corresponding spectrum authorization requirements (e.g, "concessions" required for public telecommunications networks and spectrum use, "permits" generally required for resale services and transmitting earth stations, and "registration" required for value added services); 4) elimination of restrictions on services that can be provided by competitive public telecommunications networks including provision of long distance services after August 10, 1996; 5) authority for use of auctions to grant concessions for any non-governmental frequency use; 6) deregulation of receive-only earth stations; 7) adoption of open architecture principles for network interconnection; and 8) establishment of non-discriminatory tariffing principles. The new telecom law also provides that a new regulatory authority, independent from the SCT, shall be created by presidential decree no later than August 10, 1996.

The Special Report also identifies the current structure of the reorganized SCT, which now includes the Subsecretaria de Comunicaciones y Desarrollo Tecnológico (SCDT) (Subsecretary of Communications and Technological Development) headed by Carlos Casaus. SCDT is divided into four General Directorates: 1) Networks and Radiocommunications, 2) Broadcasting Systems 3) Telecommunications Policy and International Negotiations, and 4) Spectrum Administration. There is also a separate office for International Relations Coordination.

The Bureau's Special Report on Mexico will be followed in the near future by a series of additional reports on a variety of emerging international issues. Inquiries concerning the Report may be directed to Aileen A. Pisciotta, Chief, Planning & Negotiations Division at (202) 418-2150.

-FCC-



NEWS

Federal Communications Commission
1919 - M Street, N.W.
Washington, D. C. 20554

News media Information 202 / 418-0500
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202 / 418-2222

60408

This is an unofficial announcement of Commission action. Release of the full text of a Commission order constitutes official action. See MCI v. FCC, 515 F 2d 385 (D.C. Circ 1974).

Report No. IN 95-31

INTERNATIONAL ACTION

October 27, 1995

INTERNATIONAL BUREAU ANNOUNCES INTERNET ACCESS TO SHORTWAVE BROADCASTING SCHEDULES

The International Bureau announces that information about shortwave (or high frequency) international broadcasting stations licensed by the Commission is now available on the INTERNET. The FCC oversees the frequency coordination process for private U.S. shortwave broadcasters, developing consolidated schedules that are coordinated internationally. These schedules change on a seasonal basis at least twice a year -- with additional refinements made intermittently. Because of the frequency and complexity of the updates, use of the INTERNET will make more efficient the FCC's distribution of current information to shortwave broadcasters and the general public. The process is now handled manually.

The data available include station operating parameters, seasonal operational frequency schedules, international coordinated frequency schedules, current issues and announcements, and other related material. The information is available in two ways:

1) Using the World Wide Web: A new set of Web pages has been added on the Commission's INTERNET host that will provide access using commonly available WWW navigators such as Mosaic and Netscape. The pages then can be accessed by setting the location to:

http://www.fcc.gov/Bureaus/International/WWW/HF_broadcasting/hf.html

Alternatively you can access the FCC Welcome Page at

<http://www.fcc.gov/Welcome.html>

and follow the links to the International Bureau - Hot Topics - HF-Broadcasting.

2) Using "file transfer protocol": If a WWW browser is not available, the files can be retrieved using ftp. The Commission's ftp server is "ftp.fcc.gov". Login as "anonymous" and use your E-mail address as a password. HF files can be downloaded from the "/pub/Bureaus/International/WWW/HF_broadcasting" directory. HF Schedules and station parameter files are located in this directory and have a ".txt" file extension.

For further information, contact Tom Polzin or Charles Magnuson in the Planning and Negotiations Division of the International Bureau at (202) 418-2118 .

-- FCC --



NEWS

Federal Communications Commission
1919 - M Street, N.W.
Washington, D. C. 20554

News media Information 202 / 418-0500
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61182

This is an unofficial announcement of Commission action. Release of the full text of a Commission order constitutes official action. See MCI v. FCC, 515 F 2d 385 (D.C. Circ 1974).

Report No. IN-96-3

INTERNATIONAL ACTION

January 19, 1996

NEW PAGING ARRANGEMENT WITH MEXICO WILL PERMIT PROMPT LICENSING OF PAGING SERVICES ALONG THE BORDER AREA

FCC Chairman Reed E. Hundt and Mexico Undersecretary Carlos Casaus of the Secretaria de Comunicaciones y Transportes (SCT) signed on December 19, 1995 in Mexico City a Letter of Understanding Related to the Temporary Use of the 929-930 MHz and 931-932 MHz Bands for Paging Services Along the Common Border. The Letter of Understanding establishes an agreement in principle to a draft protocol concerning frequency allotments along the border for paging services in the 929 MHz and 931 MHz bands.

The arrangement has been under negotiation for several years. During that time, new paging services in the 931-932 MHz band were not authorized. With the signing of the Letter of Understanding, the FCC will resume licensing by applying the agreed upon allotment plan on an interim basis. Chairman Hundt said, "this important agreement will eliminate a longstanding impediment to action on a number of pending applications. I am delighted that we can now move swiftly to relieve a serious backlog."

The licensing of paging operations in the 929-930 MHz band has continued during the negotiations, although those licenses have been conditioned on compliance with any final agreement on paging frequencies that actually comes into force. Paging licenses for new operations in the 931-932 MHz band will be subject to similar conditions. It is anticipated that the actual paging protocol will be signed within the next few months.

Under the arrangement, each Administration is allotted specific frequencies for paging operations within particular geographic segments of the border. The coordination zone within which the allotment plan is effective extends 120 kilometers into each country along each side of the U.S./Mexico border.

The full texts of the Letter of Understanding and the associated draft paging protocol, with the details of the allotment plan, have been placed on file at the International Bureau Reference Room located on the first floor of 2000 M St. N.W. Copies are available from International Transcription Service at (202) 857-3800. For further information, contact Henry Straube, Planning and Negotiations Division, International Bureau at (202) 418-2150 or Ron Netro, Wireless Telecommunications Bureau at (202)418-1310.



February 28, 1997

JOINT PRESS RELEASE

**U.S. DEPARTMENT OF STATE
FEDERAL COMMUNICATIONS COMMISSION**

PAGING SERVICES AGREEMENT SIGNED WITH MEXICO

Yesterday, the United States and Mexico signed an agreement delineating technical provisions for the coordination and use of frequencies for Paging Services within 120 kilometers of the border in the 929-930 MHz and 931-932 MHz bands. The agreement, formally referred to as a "Protocol", has been in the process of negotiation for four years and its signing is a major step toward establishing long term stability for paging systems operating in the border area and it provides a reference upon which future service developments in the border area may be based.

The Protocol was signed for the U.S. by Ambassador Vonya B. McCann, U.S. Coordinator, International Communications and Information Policy (CIP) of the Department of State, and FCC Chairman Reed E. Hundt. Signing for Mexico was Carlos Casaus, Chairman of the Federal Telecommunications Commission of the Secretaria de Comunicaciones y Transportes (SCT). The signing took place at the Treaty Signing Room at the Department of State in Washington, D.C. The negotiating team included members of the FCC's International Bureau and Wireless Telecommunications Bureau, and State Department's CIP. Upon conclusion of the signing, a ceremony dedicated the proceedings to the late Wendell Harris, former Associate Chief of the FCC's International Bureau, whose efforts were instrumental in the development and negotiation of this Protocol. In attendance for the commemoration were Mr. Harris's wife, Mrs Ansonia Harris, and other members of the family.

The Protocol identifies priority channels for the Administrations across the full border for the 929 MHz band and within 7 longitudinal zones for the 931 MHz band. Twelve frequencies are designated as "shared channels", 6 each in the 929 MHz and 931 MHz bands. The Protocol allows for -- and even encourages -- operators in both countries to form joint operating partnerships to expand service areas and avoid transborder conflicts. The FCC and the Mexican SCT are to be notified of such agreements, which are subject to review or approval, as appropriate, by the respective agencies.

The principal provisions of the new agreement are:

- o Each Administration shall have full use of all the channels beyond 120 kilometers (75 miles) of the border.
- o Stations are limited to a maximum 1000 watts E.R.P. with antenna height/power restrictions similar to FCC rules.

- o All U.S. operations licensed before negotiations were initiated with Mexico in 1993, are identified for full protection from any use by a Mexican operation even on those channels designated for Mexico's primary use.
- o Stations on Mexican primary channels that were licensed after negotiations began will be allowed to continue operations but may be required to modify their technical parameters if necessary to resolve harmful interference or, in the absence of other mitigating arrangements, to discontinue operation to protect Mexican operations.
- o Stations in each country will have limited access to the channels allotted to the other country on a secondary basis.

More specific details for each band include:

- o For the 929-930 MHz band:
 - The United States and Mexico shall each have primary use of 17 of the 40 available channels.
 - Six channels are designated for shared use.
- o For the 931-932 MHz band:
 - On 34 of the 40 channels, there are seven geographic areas designated along the border and priority use in each area is specified for an Administration.
 - The remaining 6 channels are designated for shared use.

The Protocol is augmented by a Letter of Understanding signed by FCC Chairman Hundt and Carlos Casasus, Chairman of the Federal Telecommunications Commission, that emphasizes the resolve of the two agencies to collaborate on their activities to encourage paging operators on both sides of the border to strive for joint operating arrangements that will facilitate broader sharing of paging in the border zone.

The texts signed yesterday supersede the *Letter of Understanding Related to the Temporary Use of the 929-930 MHz and 931-932 MHz Bands for Paging Services Along the Common Border* which the United States and Mexico signed on December 19, 1995, in Mexico City, Mexico. The signing removes a number of administrative barriers that had restricted the issuance of new paging authorizations by the Commission during the negotiations interval. Allotments and priorities for frequencies and geographic areas designated for use by each Administration as specified in the Protocol can now be fully utilized.

The full text of the Paging Protocol has been placed on file at the International Bureau Reference Room located on the first floor of 2000 M St. N.W. Copies are available from International Transcription Service at (202) 857-3800.

For further information, contact Henry Straube in the Planning and Negotiations Division of the International Bureau at (202) 418-2150 or Ron Netro, Wireless Telecommunications Bureau at (202) 418-1310. The contact at the Department of State is: William H. Jahn, at (202) 647-2723



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Report No. IN-97-

April 18, 1997

UNDERSTANDING REACHED WITH MEXICO ON THE INTRODUCTION OF DIGITAL TELEVISION SERVICE WITHIN THE BORDER AREA

FCC Chairman Reed E. Hundt and Mexico Undersecretary of Communications and Technological Development Javier Lozano Alarcon of the Secretariat of Communications and Transportation (SCT) have signed the Memorandum of Understanding Between the Federal Communications Commission of the United States of America and the Secretaria de Comunicaciones y Transportes of the United Mexican States Related to the Use of the 54-72 MHZ, 76-88 MHZ, 174-216 MHZ and 470-806 MHZ Bands for the Digital Television Broadcasting Service Along the Common Border. The Memorandum of Understanding (MOU) establishes the principles to be applied in the allocation of frequencies for use by digital television (DTV) operations along the U.S./Mexican border.

Chairman Hundt said, "Because working together cooperatively has become standard practice in our bilateral efforts with Mexico, the understanding was reached in a very brief time. We are now focusing on arriving at a similar agreement on DTV with our friends in Canada in the near future."

The MOU provides for:

Continued adherence to the terms of bilateral agreements currently in affect governing the use of the 54-72 MHz, 76-88 MHz, 174-216 MHz and 470-806 MHz bands for television broadcasting;

Recognition that television broadcasting services utilizing digital techniques have the potential to deliver increased quality and diversity of service as well as provide for more efficient use of the TV spectrum;

Establishment of interim distance separations between digital stations and the current analog stations, and between digital stations, pending the establishment of permanent allocation criteria; and,

Recognition of the efforts put forth in the U.S. to assign DTV channels to existing analog stations and developments underway in Mexico to produce a DTV channelling plan. The Federal Communications Commission will be releasing a U.S. Table of Allotments for DTV in April of 1997, and will be issuing licenses to stations (assignments) within 275 km of the common border. However, those licenses will be conditioned on the outcome of further consultations between the Federal Communications Commission and the Secretaria de Comunicaciones y Transportes;

The MOU also includes understandings by both parties to:

1. Promote the introduction of DTV in their respective countries.
2. Work jointly to assign a second channel to the allotments referred to in Appendix I (Mexican NTSC) and Appendix II (U.S. NTSC) of the MOU,, with a bandwidth of 6 MHz for the transmission of digital television signals.
3. Establish a coordination distance of 275 km for DTV allotments and assignments.
4. Create TV allotments either for analog (NTSC) or digital (DTV) use. When the allotment is strictly for analog (NTSC) use, compliance with the technical criteria and the appropriate spacings specified in the existing agreements is required. When digital (DTV) allotments are involved, new distance separation requirements included in the MOU will be observed.
5. Work together to develop, within 4 to 6 months, a table of second channels for DTV using equitable and reciprocal criteria for both countries, with a view to signing a new television broadcast agreement which covers the full range of TV systems in the shortest possible time.

The full text of the Memorandum of Understanding has been placed on file at the International Bureau Reference Room located on the first floor of 2000 M St. N.W. Copies are available from International Transcription Service at (202) 857-3800. For further information, contact Henry Straube, Planning and Negotiation Division, International Bureau at (202) 418-2150 or Bruce Franca, Office of Engineering Technology at (202) 418-2470.

APPENDIX F

Notifications Data Tables

**Quarterly Productivity Report for
Notifications Branch
FY-95**

Service	Quarter 1	Quarter 2	Quarter 3	Quarter 4
AM Notifications Canada & Mexico	542	265	328	426
ITU AM Registrations	253	285	142	216
Bilateral FM Notifications	171	1219	324	274
Bilateral TV Notifications	15	105	28	24
HF Broadcasting Notifications	1003	1003	1003	1003
Automated COSER System Performance	2678	3891	7272	2750
ITU Notices for Mobile Services	1254	3405	2211	371
Mexican Microwave Coordinations	34	191	78	44
Number of Space Items Handled	1660	1250	1740	1270
Space Notifications & Coordinations	49	84	62	123
Total	7659	11698	13188	6501

**Quarterly Productivity Report for
Notifications Branch
FY-96**

Service	Quarter 1	Quarter 2	Quarter 3	Quarter 4
AM Notifications Canada & Mexico	251	211	558	622
ITU AM Registrations	261	247	274	211
Bilateral FM Notifications	103	85	194	215
Bilateral TV Notifications	128	58	36	14
HF Broadcasting Notifications	1003	1003	1003	1003
Automated COSER System Performance	3824	4523	4074	3182
ITU Notices for Mobile Services	35	441	295	392
Mexican Microwave Coordinations	62	49	16	895
Number of Space Items Handled	1118	1646	1915	2015
Space Notifications & Coordinations	193	98	195	73
Total	6978	8361	8560	8622

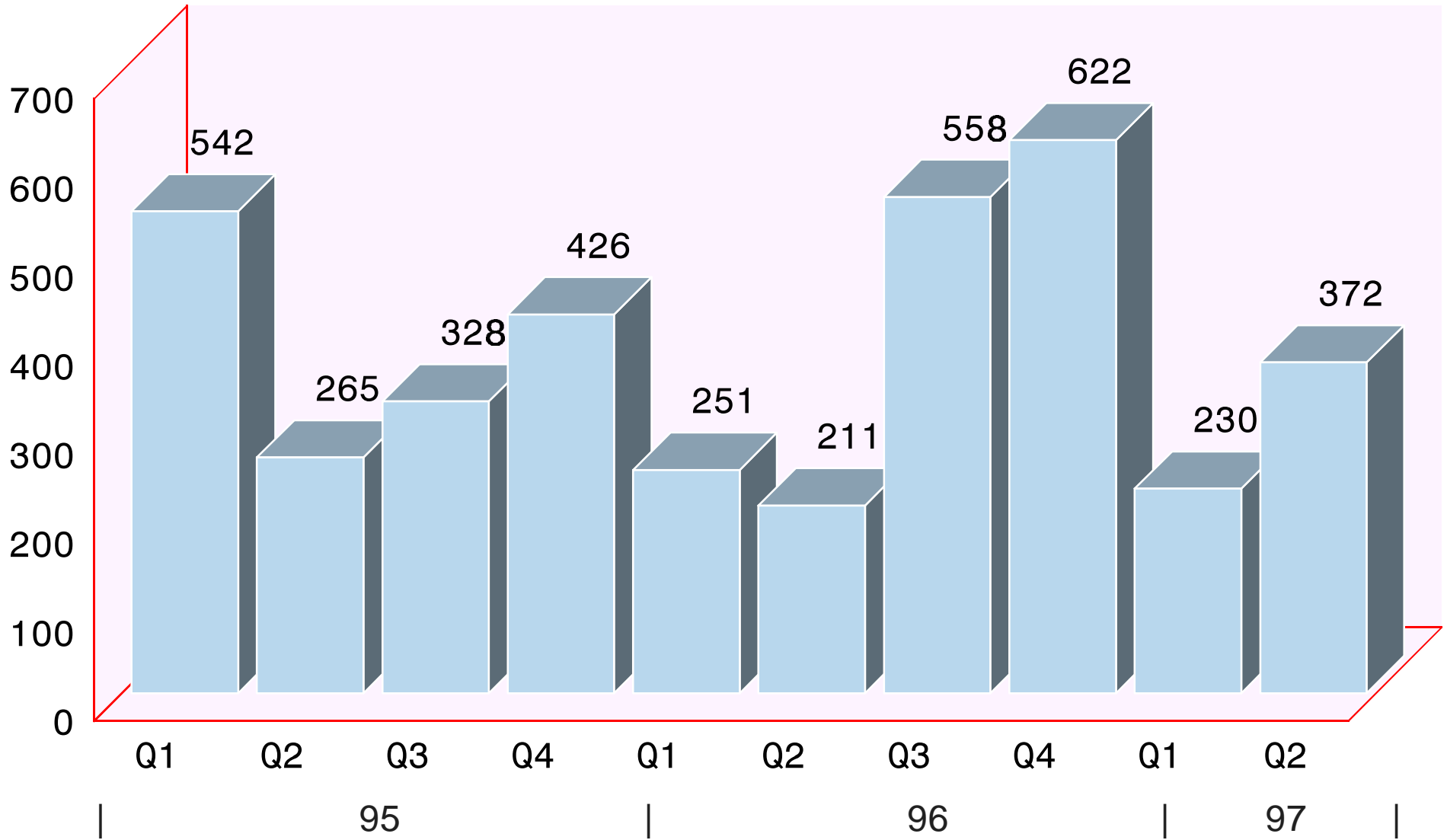
**Quarterly Productivity Report for
Notifications Branch
FY-97**

Service	Quarter 1	Quarter 2	Quarter 3	Quarter 4
AM Notifications Canada & Mexico	230	372		
ITU AM Registrations	228	237		
Bilateral FM Notifications	71	250		
Bilateral TV Notifications	19	228		
HF Broadcasting Notifications	1003	1016		
Automated COSER System Performance	2787	3505		
ITU Notices for Mobile Services	235	284		
Mexican Microwave Coordinations	172	34		
Number of Space Items Handled	2045	1892		
Space Notifications & Coordinations	195	57		
Total	6985	7875		

AM Notifications

Canada & Mexico

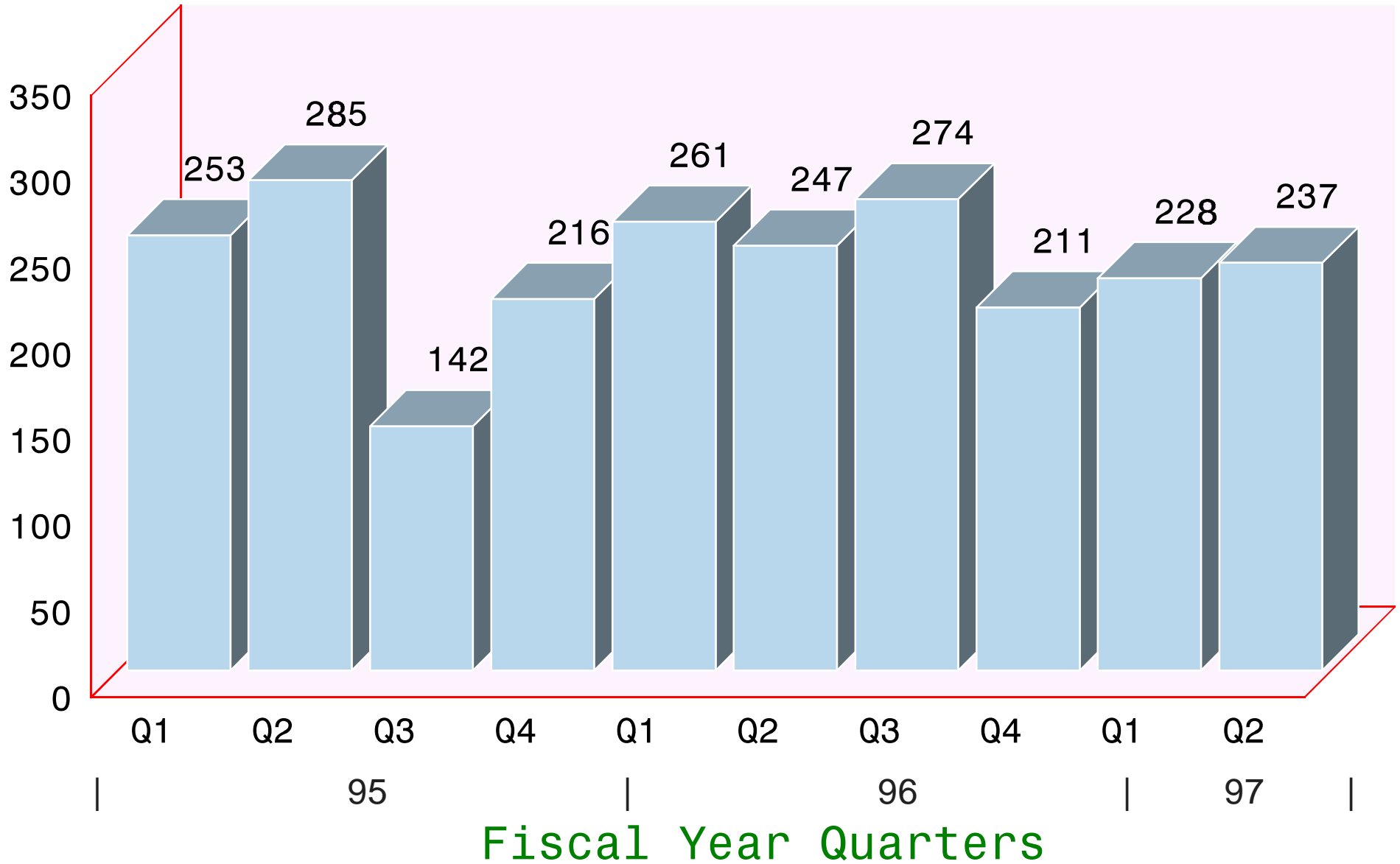
Notifications



Fiscal Year Quarters

ITU AM Registrations

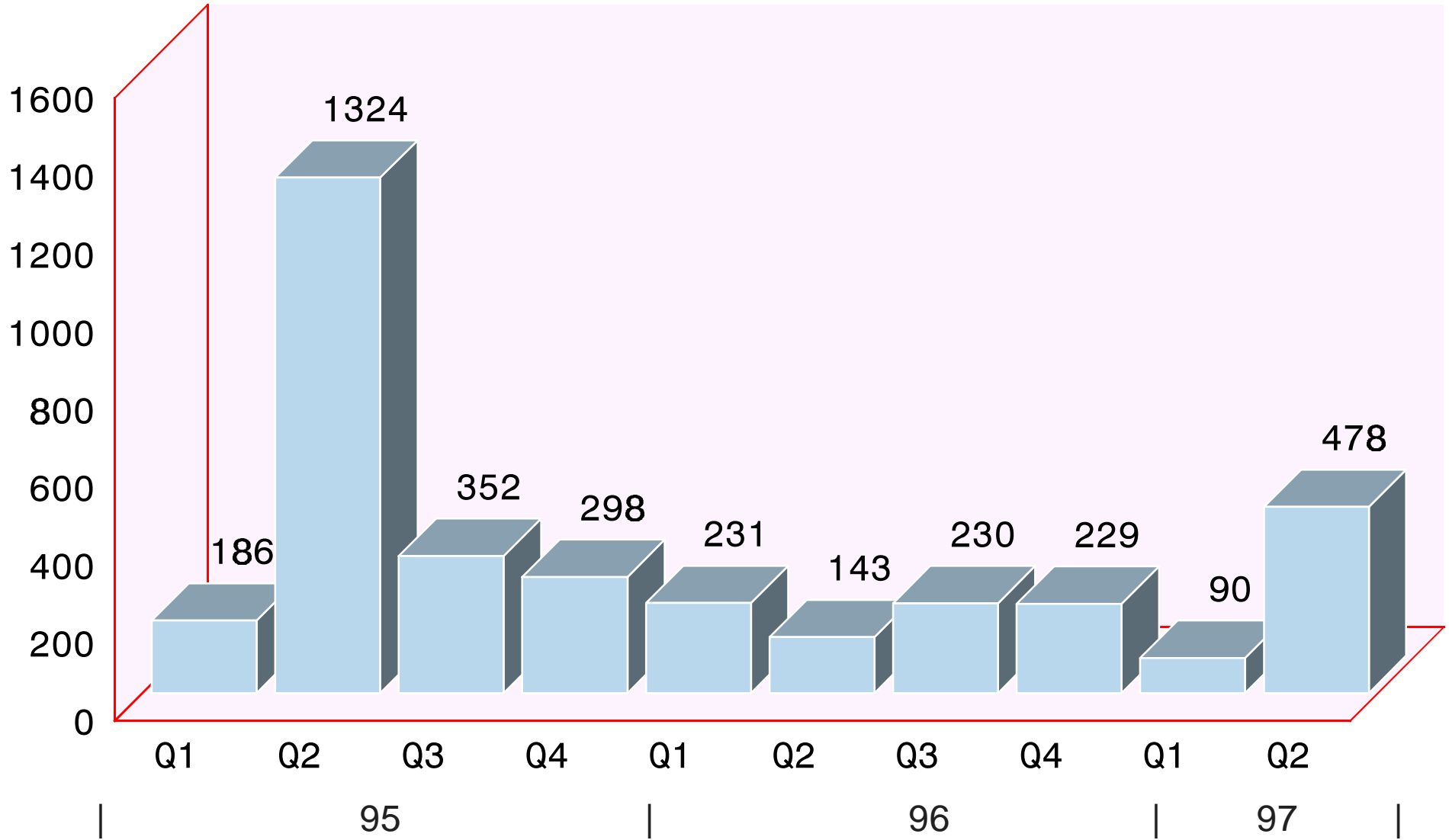
Notifications



Bilateral Notifications

FM & TV

Notifications

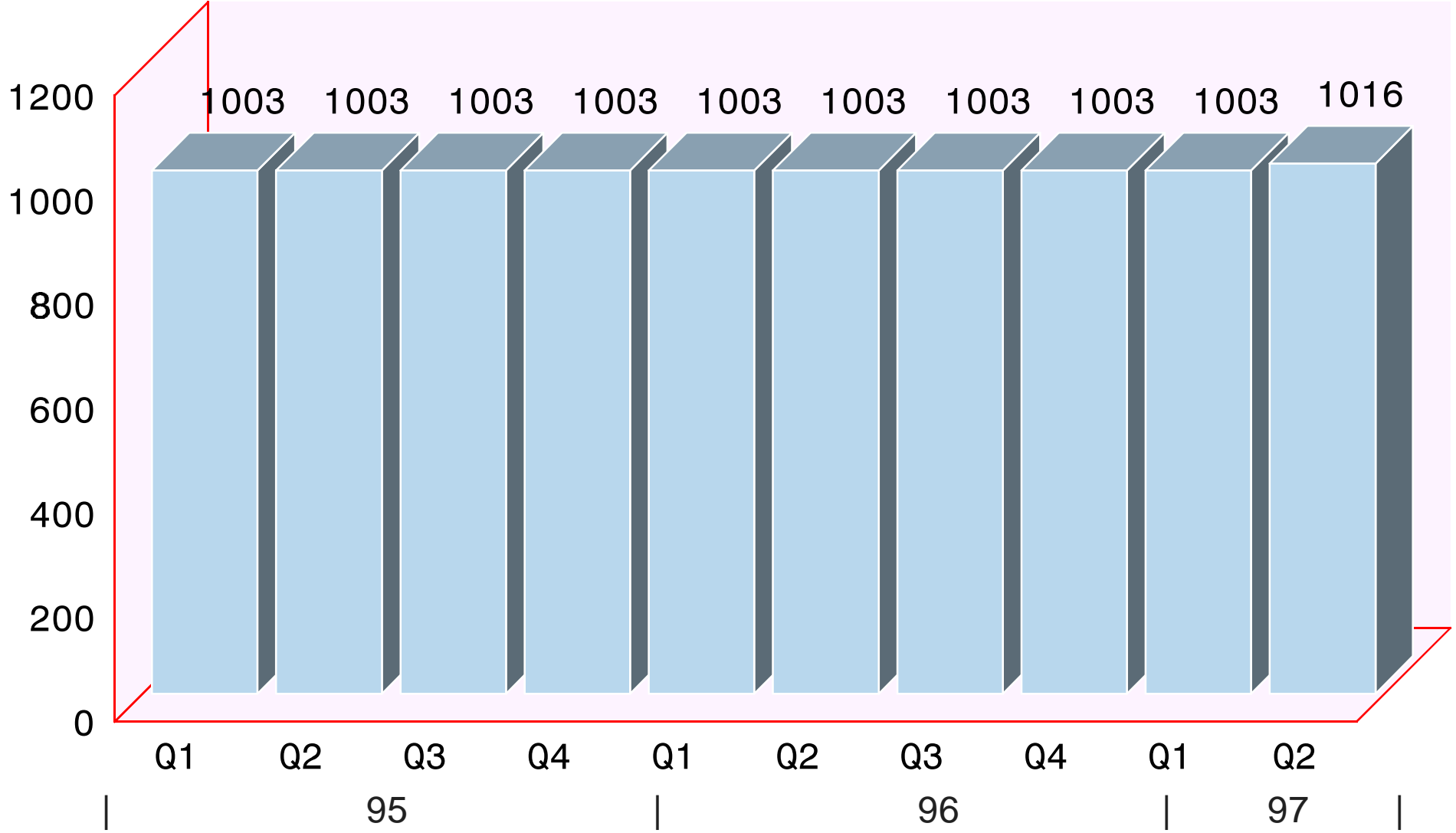


Fiscal Year Quarters

HF Notifications

The number of frequency hours remains constant because of the stable number of licensees in the HF service. The increase shown in the most recent quarter is a result of enhancements in the automated tracking software being utilized.

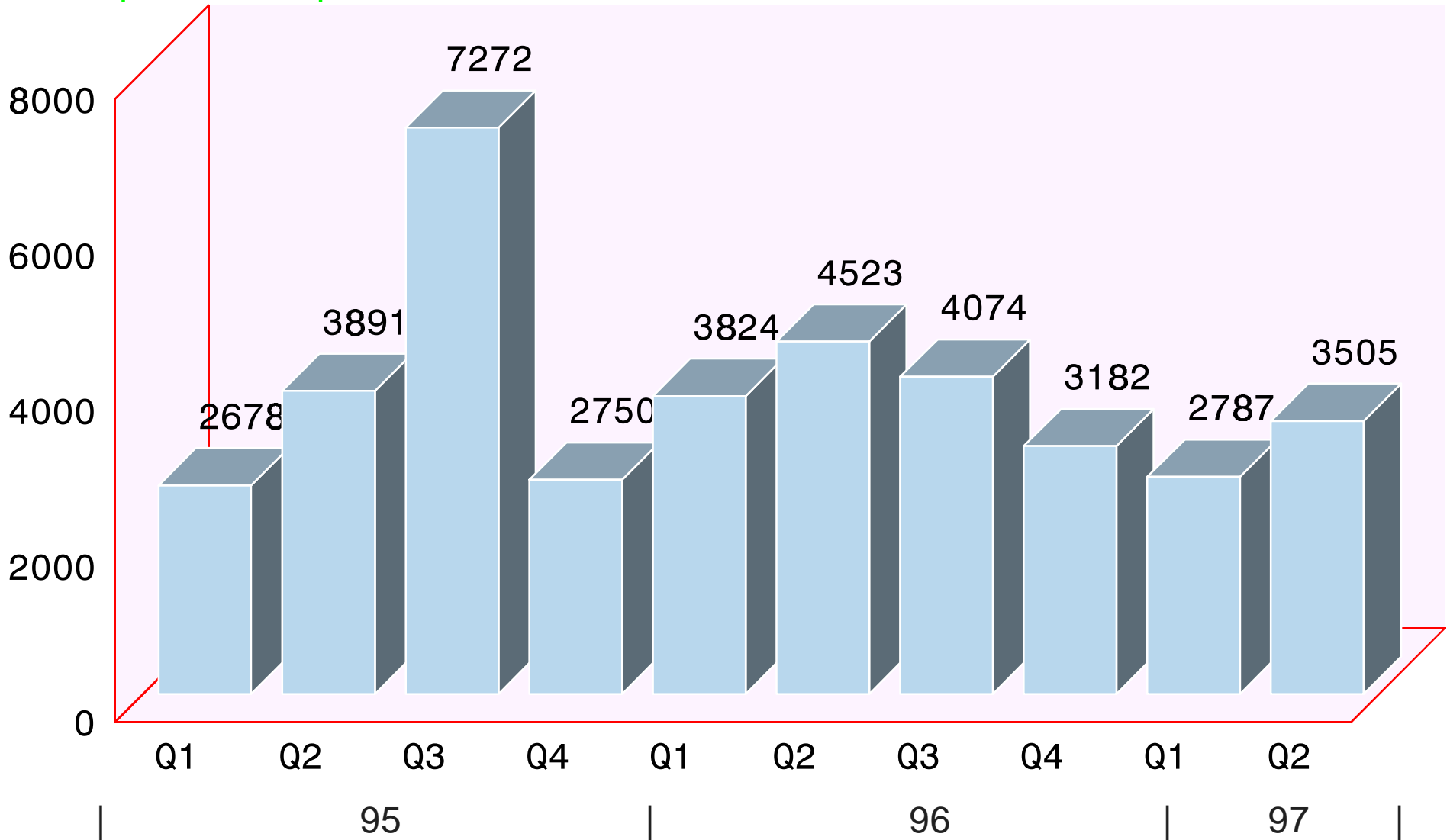
Frequency Hours



Fiscal Year Quarters

Automated COSER System Performance

Receipts & Disposals

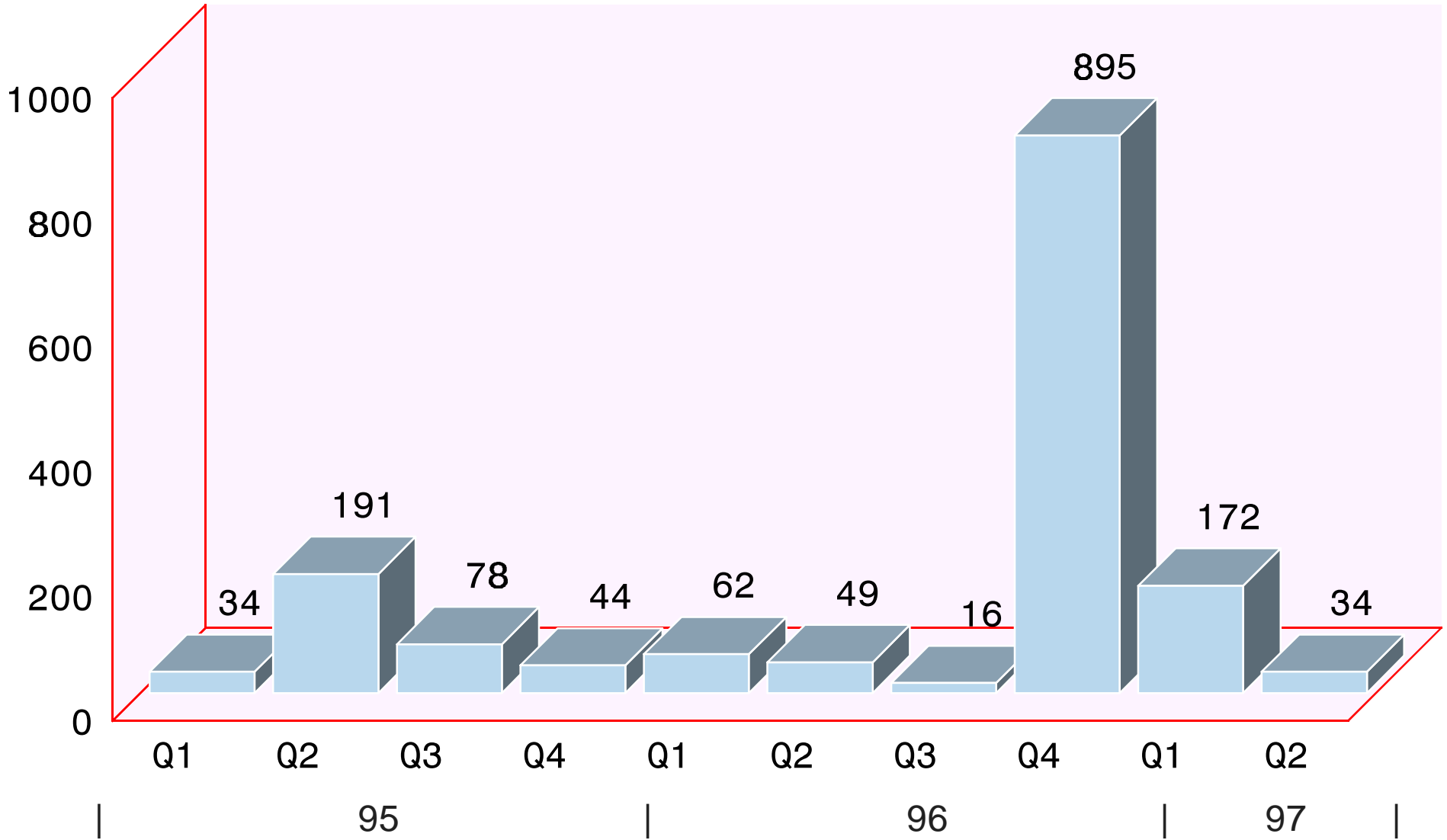


Fiscal Year Quarters

Microwave Coordination

Mexico

Coordinations

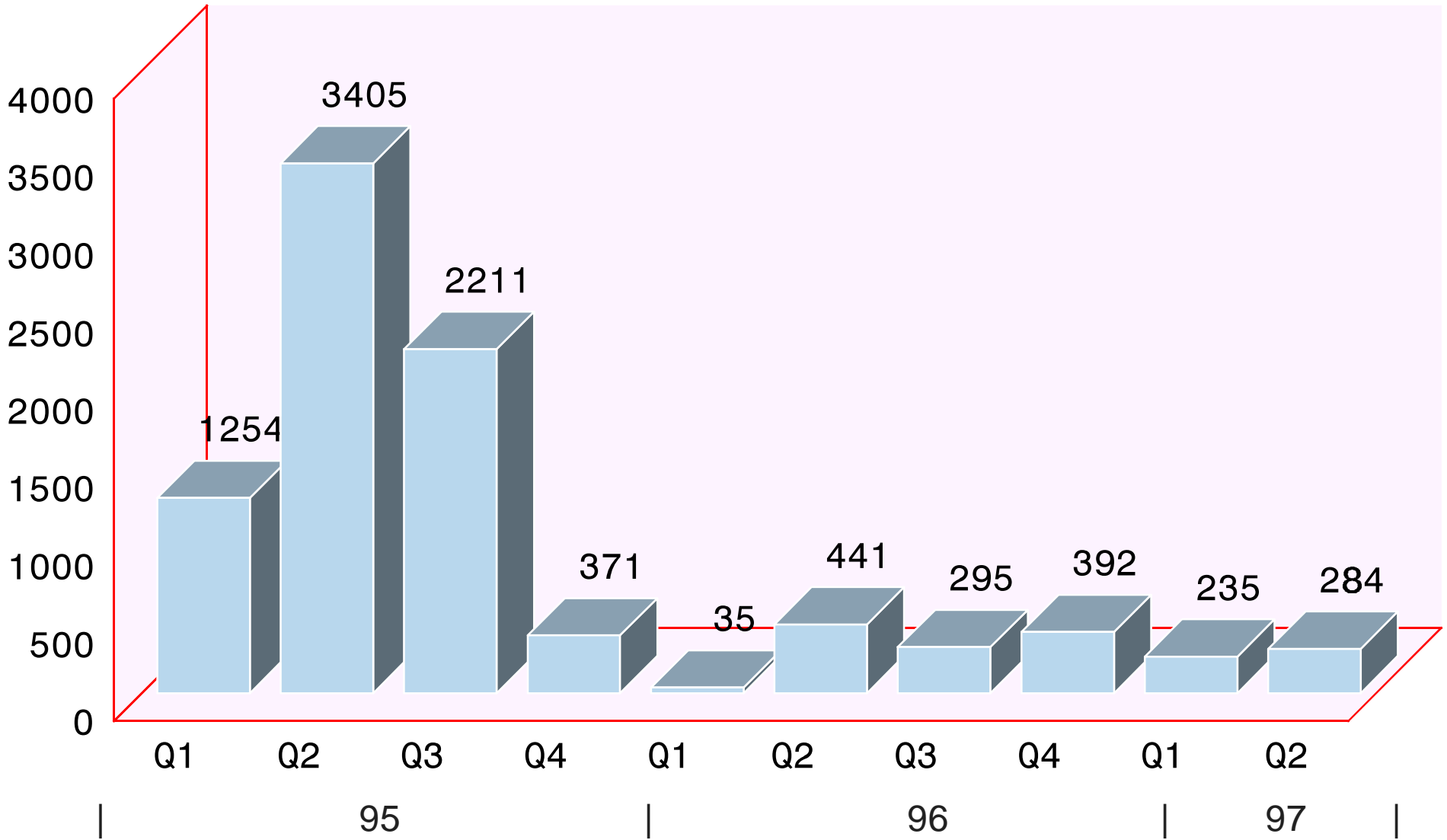


Fiscal Year Quarters

Notices Sent to ITU

Mobile Services

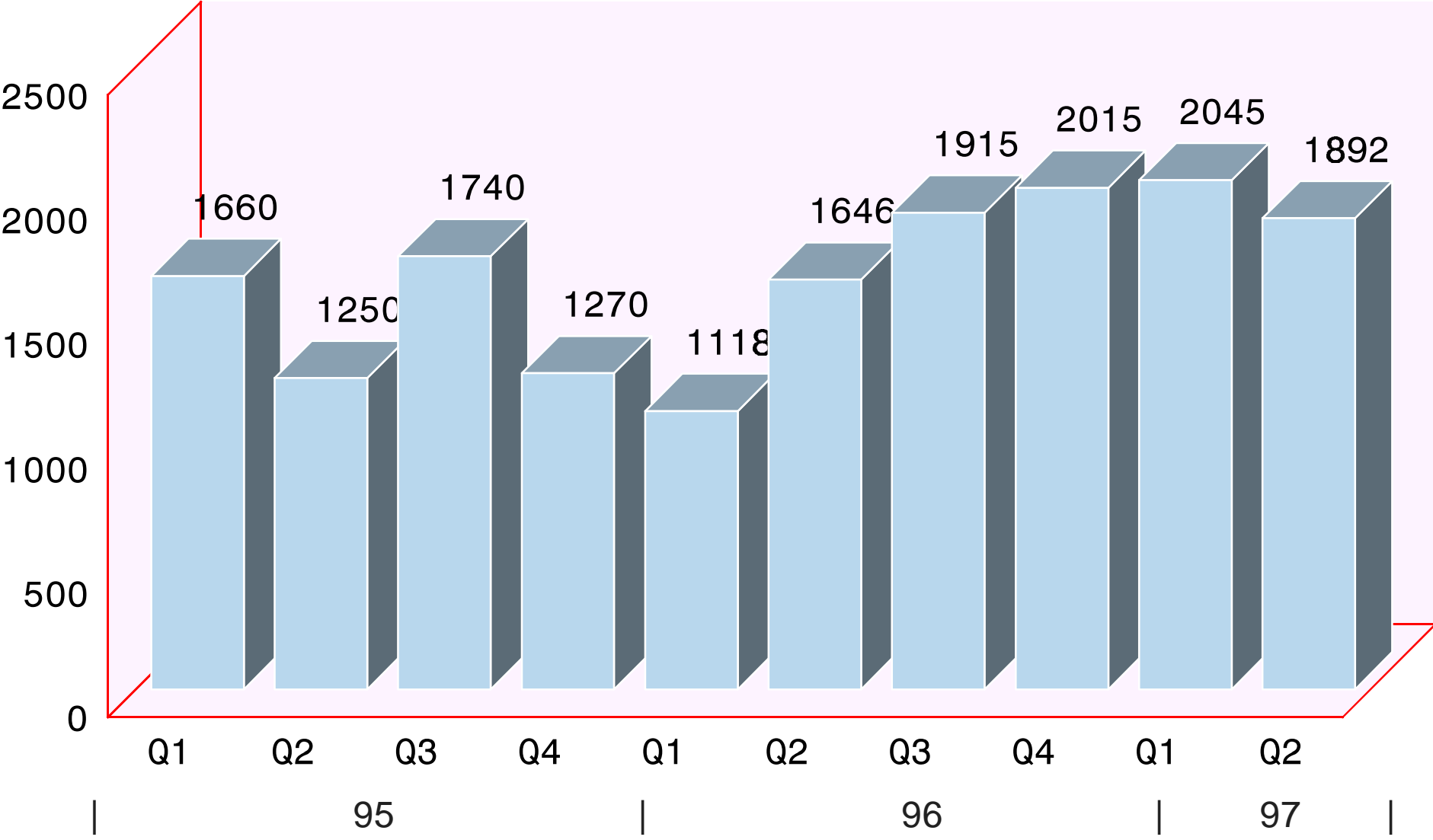
Notices



Fiscal Year Quarters

Space Services

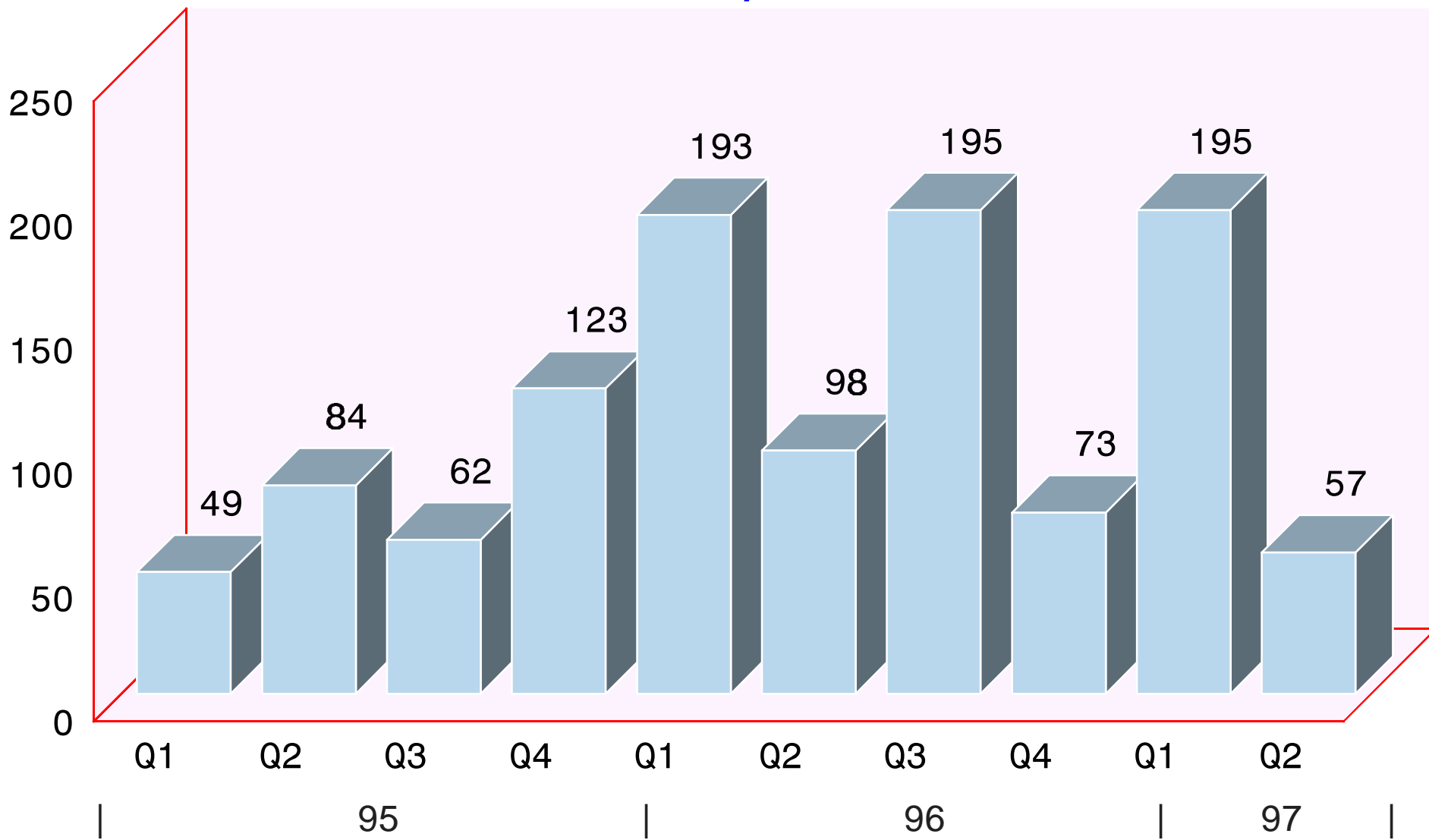
Space Items



Fiscal Year Quarters

Space

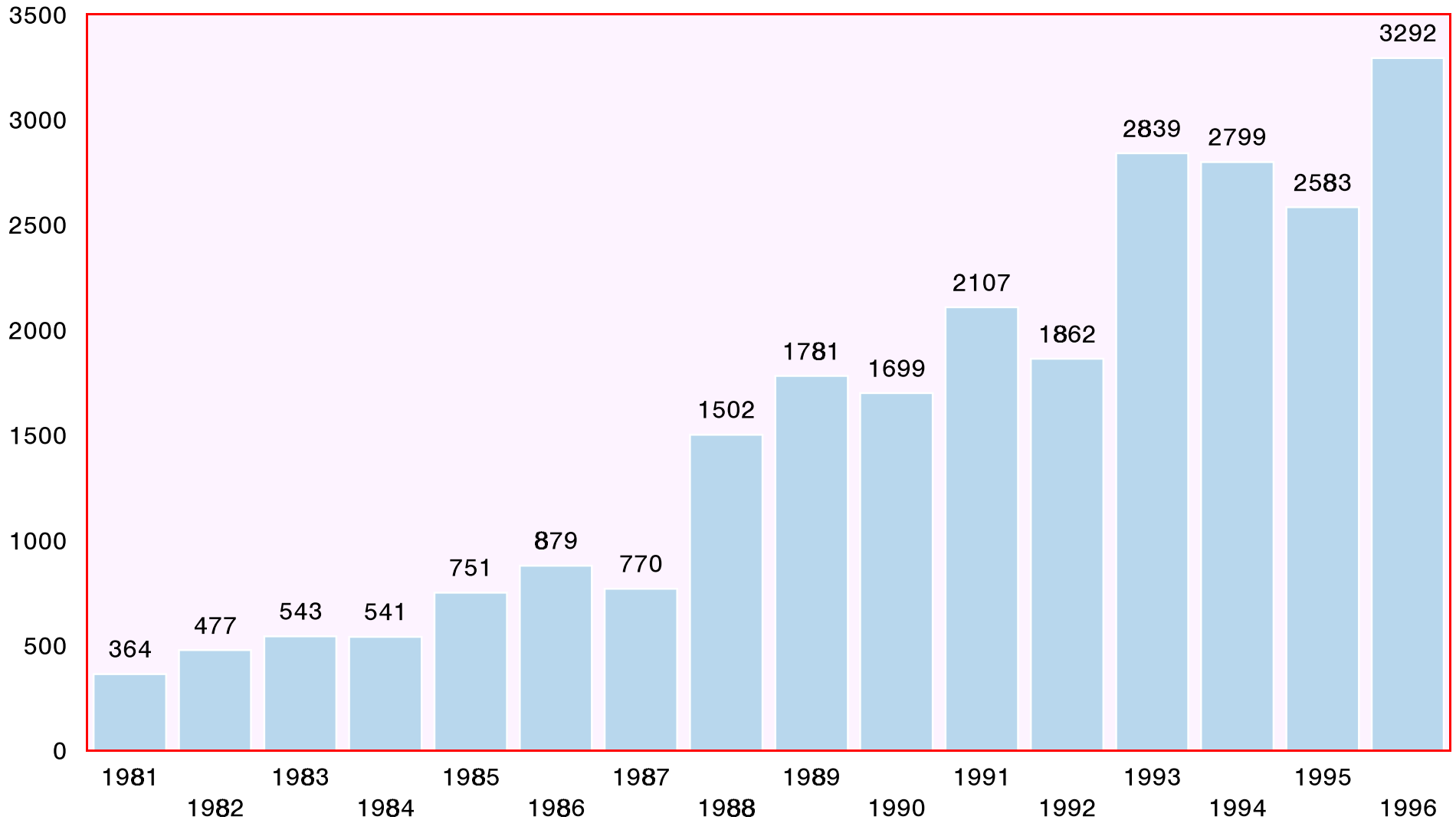
Number Notifications/Coordinations



Fiscal Year Quarters

Growth of the SSG Agenda

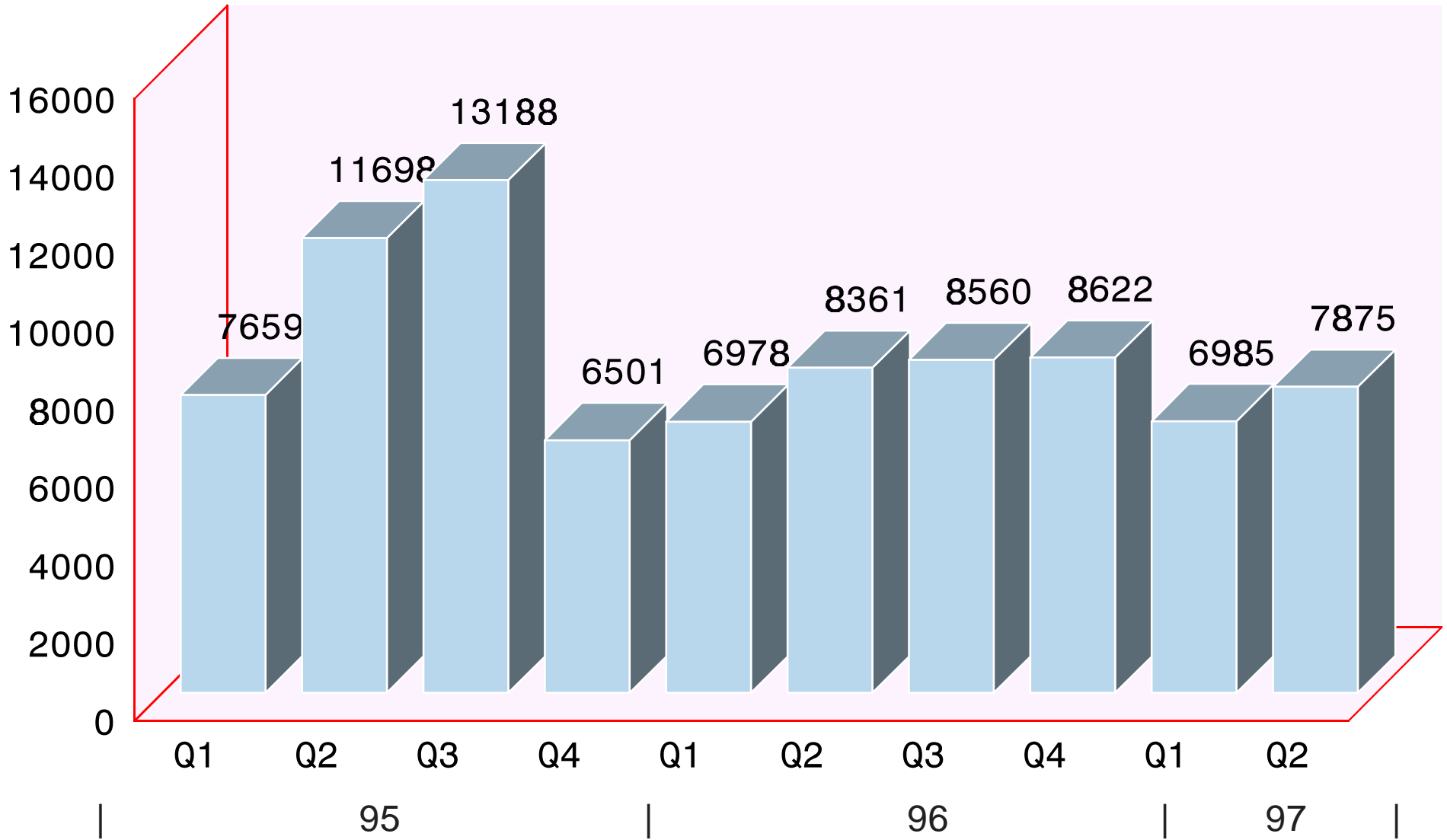
No. of SSG Items



Years

Division Totals

Number of Division Actions



Fiscal Year Quarters