

PROTOCOL  
BETWEEN THE DEPARTMENT OF STATE  
OF THE UNITED STATES OF AMERICA AND  
THE SECRETARIAT OF COMMUNICATIONS AND TRANSPORTATION  
OF THE UNITED MEXICAN STATES  
CONCERNING THE ALLOTMENT, ASSIGNMENT AND USE OF THE 806-824/851-869  
MHz AND 896-901/935-940 MHz BANDS FOR TERRESTRIAL  
NON-BROADCASTING RADIOCOMMUNICATION SERVICES  
ALONG THE COMMON BORDER

This Protocol is being concluded pursuant to 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, signed at Williamsburg, Virginia, June 16, 1994 (hereinafter referred to as the “1994 Agreement”).

## ARTICLE I. Purposes

The purposes of this Protocol are:

1. To establish and adopt a plan for the equitable allotment and use of sub-bands in the 806-824/851-869 MHz and 896-901/935-940 MHz frequency bands within the Sharing Zone defined in this Protocol;
2. To create public safety mutual aid channels for use on both sides of the common border, as set forth in Article III, paragraph 2;
3. To establish the technical criteria that will permit each Administration to regulate the use of the frequency bands and sub-bands referred to in paragraph 1 of this Article along the common border; and
4. To establish conditions of use so that each Administration may assign and use frequencies of transmission in the sub-bands allotted to the other country, provided this causes no interference to stations operating within the other country.

## ARTICLE II. Definitions

1. For the purposes of this Protocol and as provided for in Article IV of the 1994 Agreement, the term “Administration” or “Administrations” shall refer with equal effect to the Federal Communications Commission of the United States of America (hereinafter “FCC”) and the Secretariat of Communications and Transportation of the United Mexican States (hereinafter “SCT”).
2. For the purposes of this Protocol, the term “Sharing Zone” is defined to include the border areas within the United States and Mexico and their

respective territorial waters as set forth in Appendix I.

3. For the purposes of this Protocol, the term “frequency of transmission” or “frequencies of transmission” is defined as a radio communications channel or channels with a center frequency specified in megahertz (MHz) and any necessary associated bandwidth on both sides of the center frequency.

4. For the purposes of this Protocol, the term “counterpart operators” is defined to include operators of communications networks operating in certain frequency sub-bands in the 806-824/851-869 MHz and 896-901/935-940 MHz bands with geographic coverage areas situated contiguous to each other on opposite sides of the U.S.-Mexican border and authorized by their respective Administrations to use the same sub-bands or portions of the same sub-bands.

5. For the purposes of this Protocol, the term “co-primary allotment” is defined as the sub-bands 818.5 – 824 MHz and 863.5-869 MHz in which counterpart operators may be authorized by both Administrations to use the channels without restriction, except as noted further.

6. For the purposes of this Protocol, the term “800 MHz ESMR<sup>1</sup> System” is defined as an 800 MHz (806-824 MHz/851-869 MHz) system that uses multiple, interconnected, multi-channel transmit/receive cells capable of frequency reuse and automatic handoff between cell sites to serve a larger number of subscribers than is possible using non-cellular technology.

7. An “800 MHz High-Density ESMR System” is defined as an 800 MHz ESMR System which: (1) Has more than five overlapping interactive sites featuring handoff

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<sup>1</sup> ESMR – Enhanced Specialized Mobile Radio

capability; and (2) Has one fifth, or more, of such sites with an antenna height of less than 30.4 meters (100 feet) above ground level and an antenna height above average terrain (HAAT) of less than 152.4 meters (500 feet), which employs directional transmitting antennas, and uses a minimum of twenty or more paired 25 kHz bandwidth channels or 500 kHz or more of equivalent spectrum bandwidth.

ARTICLE III. Conditions of Use

1. In the Sharing Zone, each Administration is allotted on a primary basis for base and mobile transmissions the sub-bands in the frequency bands 806-824/851-869 MHz and 896-901/935-940 MHz set forth in Tables III and IV of Appendix II. A mobile station authorized to operate in any of the primary allotments established for an Administration in Table III or IV may also transmit on any frequency assigned to its associated base station by that Administration. Each Administration shall transition incumbent operators as anticipated in Article V and ensure that stations in its national territory are assigned and operated so that the bandwidth of the frequency of transmission of those stations does not exceed the primary frequency allotments for that country that are set forth in Appendix II.

2. The following paired channels shall be available to the Administrations as public safety mutual aid channels for coordination of communications between public safety agencies or for other similar emergency communications between the United States and Mexico:

<u>Channel</u>	<u>Mobile Transmit</u>	<u>Base Transmit</u>
Calling	806.0125 MHz	851.0125 MHz

Tactical-1	806.5125 MHz	851.5125 MHz
Tactical-2	807.0125 MHz	852.0125 MHz
Tactical-3	807.5125 MHz	852.5125 MHz
Tactical-4	808.0125 MHz	853.0125 MHz

These mutual aid channels shall be used only for coordination of tactical communications between public safety agencies on either side of the border (either for intra-country or cross border communications) and shall not be used for administrative or other routine communications. Authorized mobile units utilizing these mutual aid channels may also transmit on the base transmit frequencies.

3. Each Administration shall ensure that radiocommunication stations that are assigned in sub-bands allotted as primary within the Sharing Zone shall be operated in accordance with the effective radiated power (ERP) and antenna height limitations specified in the following table (Table I). These limitations shall not apply to stations in the co-primary allotment:

Table I

Average of the Antenna Height Above Average Terrain on Standard Radials in the Direction of the Common Border <sup>2 3</sup>	Maximum ERP in Any Direction Toward the Common Border per 25 kHz
Meters	Watts per 25 kHz (Maximum)
0 to 503	500
Above 503 to 609	350
Above 609 to 762	200
Above 762 to 914	140
Above 914 to 1066	100
Above 1066 to 1219	75
Above 1219 to 1371	70
Above 1371 to 1523	65
Above 1523	5

4. Frequencies of transmission within the primary allotments of one Administration shown in Tables III and IV of Appendix II may be assigned by the other Administration to stations located within the latter Administration's territorial segment of the Sharing Zone under the following conditions:

- a. The maximum power flux density (PFD) at any point at or

<sup>2</sup> Standard radials are 000°, 045°, 090°, 135°, 180°, 225°, 270°, 315°, relative to True North.

<sup>3</sup> The Height Above Average Terrain on any standard radial is based on the average terrain elevation above mean sea level.

beyond the border shall not exceed  $-107 \text{ dBW/m}^2$  per 25 kHz bandwidth;

b. Counterpart operators of communications networks in the primary frequency sub-bands (806-818.5/851-863.5 MHz and 896-901/935-940 MHz) may exceed the maximum PFD in sub-paragraph 4.a above if both Administrations and all potentially affected counterpart operators in the other country agree to the proposed PFD level;

c. Each Administration shall take appropriate measures to eliminate any harmful interference caused by stations operating within its own territory to stations operating in sub-bands allotted as primary to the other country pursuant to this Protocol; and

d. Stations operating under this provision (Article III, paragraph 4) shall be considered as secondary and shall not cause harmful interference nor be granted protection against harmful interference from stations whose Administration has primary use of the frequency allotment as long as the stations on the primary frequency allotment operate in accordance with the technical limitations set forth in paragraphs 1 and 3 of this Article.

5. In addition to the use of the public safety mutual aid channels in paragraph 2 above, counterpart operators may also establish cross border interoperable public safety communications on other frequencies of transmission within the 806-824/851-869 MHz band pursuant to the agreement of all potentially affected counterpart operators and the approval of both Administrations.

6. Pursuant to Article IV of this Protocol, stations operating on frequencies of transmission designated as co-primary to both Administrations in Tables III and IV of Appendix II (818.5-824/863.5-869 MHz) shall not exceed a PFD level of  $-107 \text{ dBW/m}^2$  in 25 kHz bandwidth at or beyond the border unless all potentially affected counterpart operators of communications networks in these band segments agree to a higher level.

7. In cases where there is no counterpart operator within 110 kilometers (68.35 miles) of the border and where an operator seeks to exceed the PFD level in paragraph 4.a or paragraph 6 above, any request to do so shall be presented to the Administration of the country where the operator is licensed. If both Administrations, after coordinating with each other, find the proposed operation acceptable, the Administration exercising jurisdiction over the operator may then authorize the operation for a period of time until a counterpart operator initiates operation on the other side of the border.

8. Beyond the Sharing Zone, the Administrations' use of the 806-824/851-869 MHz and 896-901/935-940 MHz bands shall in no way be restricted under this Protocol.

#### ARTICLE IV. Co-primary Sub-bands

Each Administration shall ensure that radiocommunication stations in the co-primary allotment (818.5 – 824 MHz/863.5-869 MHz) shall be operated in accordance with the following conditions:

1. Each Administration shall only permit operations by 800 MHz High-Density ESMR Systems as defined in Article II above in order to maximize the efficiency of spectrum use;

2. The 800 MHz High-Density ESMR Systems operating in the co-primary allotment shall not exceed a PFD level of -107 dBW/m<sup>2</sup> per 25 kHz bandwidth at or beyond the border unless all potentially affected counterpart operators of 800 MHz High-Density ESMR Systems agree to a higher level;

3. Each Administration shall take appropriate measures to eliminate any harmful interference caused by cell sites operating in its respective territory and affecting the cell sites of any counterpart operator, except that each Administration may permit transmissions at PFD levels above  $-107$  dBW/m<sup>2</sup> per 25 kHz bandwidth at or beyond the border to which all affected counterpart operators have agreed; and

4. In the co-primary allotment, each Administration shall require its counterpart operators to notify the other Administration's counterpart operators in writing with at least one year's notice should one co-primary counterpart operator intend to transition from 25 kHz bandwidth technology to wider bandwidth technology.

ARTICLE V. Transition to the Allotment of Frequency Sub-bands Specified in Appendix II

The Administrations shall establish a Bilateral Task Force that will support the timely and equitable transition of incumbent operators of communications networks in the frequency bands 806-824/851-869 MHz to replacement channels in the allotment plan specified in Appendix II or to replacement channels outside the 806-824/851-869 MHz band.<sup>4</sup> The Task Force shall identify the reasonable costs for incumbent operators in Mexico to transition to replacement channels. As part of this transition, the Administrations shall ensure that operators or related corporate entities operating in the co-primary allotment cover all such reasonable costs of incumbent operators in Mexico that are associated with the transition to comparable facilities on the replacement channels and that are consistent with understandings agreed to by the Task Force. Furthermore, the Administrations shall ensure that incumbent operators may continue to operate in conformity with the allotment plan specified in the

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<sup>4</sup> For transitions to bands outside the 806-824/851-869 MHz band, the incumbent operators shall be responsible for conforming to existing international agreements and domestic regulatory requirements.

previous Protocol 3 in Annex I of the 1994 Agreement, the “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,” signed on June 16, 1994, until those operators, under the direction of their respective Administrations, have changed their frequencies of operation to the designated replacement channel or channels. If the replacement channels are outside the 806-824/851-869 MHz band, the Administrations shall ensure that operators or related corporate entities operating in the co-primary allotment cover the associated costs of the transition to the incumbent operators in Mexico only up to an amount comparable to the reasonable cost of a transition inside the 806-824/851-869 MHz band.

ARTICLE VI. Differences in Interpretation or Application

Any difference arising from the interpretation or application of this Protocol shall be resolved through agreement of the Authorities set forth in Article IV of the 1994 Agreement.

ARTICLE VII. Relation to the 1994 Agreement

This Protocol forms an integral part of the 1994 Agreement and shall be referred to as Protocol 3, “*Protocol between the Department of State of the United States of America and the Secretariat of Communications and Transportation of the United Mexican States Concerning the Allotment, Assignment and Use of the 806-824/851-869 MHz and 896-901/935-940 MHz Bands for Terrestrial Non-Broadcasting Radiocommunication Services Along the Common Border,*” in Annex I of the 1994 Agreement. This Protocol shall replace the existing Protocol 3 in the Index of Annex I of the 1994 Agreement, the “*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,*” signed on June 16, 1994, in its entirety.

ARTICLE VIII. Appendices

Appendices I and II are integral parts of this Protocol.

ARTICLE IX. Entry Into Force, Amendment and Termination

This Protocol shall enter into force on the date that it is signed and it shall remain in force until it is replaced by a new protocol or is terminated in accordance with Article VII of the 1994 Agreement.

This Protocol may be amended in accordance with Article V of the 1994 Agreement.

IN WITNESS WHEREOF, the respective representatives have signed the present Protocol.

Done at Washington, D.C., this eighth day of June, 2012, in duplicate, in the English and Spanish languages, both texts being equally authentic.

FOR THE DEPARTMENT OF  
STATE OF THE UNITED STATES  
OF AMERICA:

*/Original signed by Philip L. Verveer/*

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Ambassador Philip L. Verveer  
United States Coordinator for  
International Communications and  
Information Policy

FOR THE SECRETARIAT OF  
COMMUNICATIONS AND  
TRANSPORTATION OF THE  
UNITED MEXICAN STATES:

*/Original signed by Héctor Olavarría Tapia/*

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Mr. Héctor Olavarría Tapia  
Under Secretary of Communications

*/Original signed by Mony de Swaan Addati/*

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Mr. Mony de Swaan Addati  
Chairman, Federal  
Telecommunications Commission

## APPENDIX I

### Areas Within Which the Frequencies Are to Be Protected

#### U.S.-MEXICO SHARING ZONE

The Sharing Zone is defined as the areas covered by a distance of 110 kilometers (68.35 miles) from the U.S.-Mexico common border into the national territory of each country and includes areas of the Pacific Ocean and the Gulf of Mexico.

These areas are enclosed by the boundaries shown on the map below and are further defined in Table II.



**Table II**

The following geographic coordinates (corresponding to NAD83) define the U.S.-Mexico Sharing Zone in the national territory of each country. Point 1 is located in the Pacific Ocean due west from the U.S.-Mexico common border and defines the starting point of the Sharing Zone. The boundary of the Sharing Zone is then defined by plotting each geographic point in advancing numerical order in a clockwise direction.

ID	longitude decimal degrees	latitude decimal degrees	longitude deg/min/sec	latitude deg/min/sec
1	-122.1324	31.5235	122/07/56 W	31/31/24 N
2	-119.2616	32.0537	119/15/41 W	32/03/13 N
3	-118.5985	33.3415	118/35/54 W	33/20/29 N
4	-118.1657	33.5837	118/09/56 W	33/35/01 N
5	-117.7038	33.6483	117/42/13 W	33/38/53 N
6	-117.0916	33.5693	117/05/29 W	33/34/09 N
7	-114.4342	33.7229	114/26/03 W	33/43/22 N
8	-113.5516	33.1732	113/33/05 W	33/10/23 N
9	-110.9020	32.3491	110/54/07 W	32/20/56 N
10	-109.0659	32.3519	109/03/57 W	32/21/06 N
11	-108.6352	32.7974	108/38/06 W	32/47/50 N
12	-106.1107	32.8123	106/06/38 W	32/48/44 N
13	-103.8529	31.0554	103/51/10 W	31/03/19 N
14	-103.5560	30.2756	103/33/21 W	30/16/32 N
15	-103.1130	30.7142	103/06/46 W	30/42/51 N
16	-102.1958	30.9402	102/11/45 W	30/56/24 N
17	-100.4516	30.6660	100/27/05 W	30/39/57 N
18	-97.9163	27.0978	97/54/58 W	27/05/52 N
19	-97.1379	26.9756	97/08/16 W	26/58/32 N
20	-96.5071	27.0384	96/30/25 W	27/02/18 N
21	-93.4156	27.0181	93/24/56 W	27/01/05 N
22	-91.0891	26.7119	91/05/20 W	26/42/42 N
23	-90.5847	26.7851	90/35/04 W	26/47/06 N
24	-88.1724	26.6918	88/10/20 W	26/41/30 N
25	-88.2459	24.6980	88/14/45 W	24/41/52 N
26	-90.4566	24.7738	90/27/23 W	24/46/25 N
27	-90.9949	24.6998	90/59/41 W	24/41/59 N
28	-93.4595	24.9541	93/27/34 W	24/57/14 N
29	-96.6737	24.9901	96/40/25 W	24/59/24 N
30	-97.3714	24.7983	97/22/17 W	24/47/53 N
31	-98.0746	24.9511	98/04/28 W	24/57/03 N
32	-99.7404	25.5613	99/44/25 W	25/33/40 N
33	-101.9323	28.7236	101/55/56 W	28/43/24 N
34	-102.6689	28.0418	102/40/08 W	28/02/30 N
35	-103.3540	27.8941	103/21/14 W	27/53/38 N
36	-105.1973	28.7692	105/11/50 W	28/46/09 N
37	-105.8133	29.9143	105/48/47 W	29/54/51 N
38	-106.9438	30.7571	106/56/37 W	30/45/25 N
39	-107.3627	30.7571	107/21/45 W	30/45/25 N
40	-107.7697	30.3269	107/46/11 W	30/19/36 N
41	-111.2398	30.3160	111/14/23 W	30/18/57 N

42	-115.4915	31.6420	115/29/29 W	31/38/31 N
43	-117.2764	31.4945	117/16/34 W	31/29/40 N
44	-117.8588	30.4207	117/51/31 W	30/25/14 N
45	-118.2297	30.1897	118/13/47 W	30/11/22 N
46	-121.8613	29.5104	121/51/40 W	29/30/37 N

## Appendix II

### Allotment of Frequency Sub-bands (Tables III and IV) in the 806-824/851-869 MHz and 896-901/935-940 MHz bands

**Table III**

#### **Specific Allotments for Mobile Station Operation**

<u>Mobile Frequency Sub-bands</u>	<u>Primary Country</u>
806.00 – 812.25 MHz	U.S.
812.25 – 818.50 MHz	Mexico
818.50 – 824.00 MHz	U.S. and Mexico (Co-primary)
896.0000 – 898.50625 MHz	U.S.
898.50625 – 901.0000 MHz	Mexico

**Table IV**

#### **Specific Allotments for Base Station Operation**

<u>Base Frequency Sub-bands</u>	<u>Primary Country</u>
851.00 – 857.25 MHz	U.S.
857.25 – 863.50 MHz	Mexico
863.50 – 869.00 MHz	U.S. and Mexico (Co-primary)
935.0000 – 937.50625 MHz	U.S.

<u>Base Frequency Sub-bands</u>	<u>Primary Country</u>
937.50625 – 940.0000 MHz	Mexico