

PROTOCOL CONCERNING
THE USE OF THE 849-851 AND 894-896 MHZ BANDS
FOR PUBLIC AIR-TO-GROUND RADIO SERVICE

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 June 16, 1994, herein referred to as the Agreement.

ARTICLE I. Purposes

The purposes of this Protocol are:

1. To establish and adopt a common plan for the use of the 849-851 and 894-896 MHz bands within a distance of 885 kilometers (550 miles) on each side of the common border for public air-to-ground radio service.
2. To establish the technical criteria that will permit each Administration to have full use of the bands.

ARTICLE II. Definition

For the purpose of this Protocol and as provided for in Article IV of the Agreement, the term Administration(s) shall refer to the Federal Communications Commission of the United States of America and the Secretaria de Comunicaciones y Transportes of the United Mexican States.

ARTICLE III. Channelization

1. The bands 849-851 MHz and 894-896 MHz shall be channelized and divided into ten channel blocks as set forth in Appendix I.

2. Each channel block shall be divided into control and communications channels with a guardband between the control and communications channels, as shown in Appendix I.

3. Each Administration may vary the number of control channels and communications channels in each channel block based on the requirements in each country.

4. The authorized channel bandwidths for each control channel and each communications channel shall be 3.2 kHz and 6.0 kHz, respectively.

ARTICLE IV. Station Locations/Channel Plan

1. Administrations may assign frequencies to ground stations to provide service to airborne mobile stations, as set forth in paragraphs 2 to 4, below.

2. No prior coordination is required for ground stations within 885 km (550 miles) of the United States/Mexico border provided they are located within 8 km (5 miles) of the coordinates specified in Appendix II or III are assigned frequencies from the channel block specified for that location. Any ground stations using the same channel block must be located within 3.2 km (2 miles) of each other.

3. Ground stations within 885 km (550 miles) of the United States/Mexico border not located within 8 km (5 miles) of the coordinates specified in Appendix II or III or using frequencies other than those specified for that location may be implemented only subject to the approval of both Administrations. Coordination of such ground stations will be undertaken by the system operators prior to request for approval by the Administrations.

4. No prior coordination is required for ground stations located beyond 885 km (550 miles) of the United States/Mexico border.

ARTICLE V. Technical Requirements

The maximum effective radiated power (ERP) of airborne mobile stations shall not exceed 30 watts. Except as specified in Article VI below, the maximum ERP of ground stations shall not exceed 100 watts.

ARTICLE VI. Low Power Stations

Administrations may assign a channel to a ground station at a location not specified in the block channeling plan contained in Appendix II or III for the provision of radio service to aircraft on the ground. In establishing such ground stations, the following restrictions apply:

a. The ERP of the ground station transmitter shall not exceed 1 watt;

b. The ground station may not be used to provide service to aircraft in flight;

c. Such channels shall not be assigned within 480 km (300 miles) of a location specified in Appendix II or III for that frequency or within 480 km (300 miles) of any other locations and channels coordinated by either Administration in accordance with paragraph 3 of Article IV of this Protocol;

d. No interference may be caused to any ground station providing service to aircraft in flight;

e. Such operations shall not claim protection from any ground station providing service to aircraft in flight;

f. The systems operators in each country are to consult with the systems operators in the other country regarding their use of the low power systems within 480 km (300 miles) of the United States/Mexico border to ensure interference-free

operations. Should any difficulties arise that cannot be resolved by the operators, the Administrations will assist in resolving the problem.

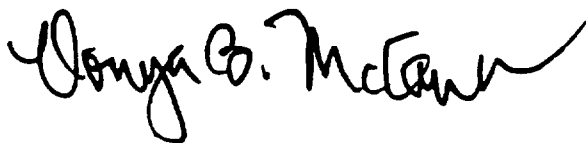
ARTICLE VII. Entry Into Force and Termination

This Protocol shall enter into force on the same date as the Agreement. It shall remain in force until it is replaced by a new Protocol, or until it is terminated in accordance with Article VII of the Agreement.

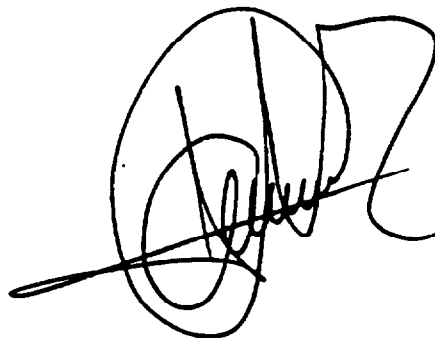
IN WITNESS WHEREOF, the respective representatives have signed the present Protocol.

Done at Williamsburg, Virginia, this sixteenth day of June, 1994, in duplicate, in the English and Spanish languages, both texts being equally authentic.

FOR THE GOVERNMENT OF THE
UNITED STATES OF AMERICA:



:
FOR THE GOVERNMENT OF THE
UNITED MEXICAN STATES:



APPENDIX I/APPENDICE I

GROUND TO AIR CHANNELS/CANALES TIERRA-AIRE
(CENTER FREQUENCY IN MHZ/FRECUENCIA CENTRAL EN MHZ)

CHANNEL BLOCK/NÚMERO DE BLOQUE DE CANAL

Channel No./ Número de Canal	10	9	8	7	6
C-1	849.0055	849.2055	849.4055	849.6055	849.8055
C-2	849.0115	849.2115	849.4115	849.6115	849.8115
C-3	849.0175	849.2175	849.4175	849.6175	849.8175
C-4	849.0235	849.2235	849.4235	849.6235	849.8235
C-5	849.0295	849.2295	849.4295	849.6295	849.8295
C-6	849.0355	849.2355	849.4355	849.6355	849.8355
C-7	849.0415	849.2415	849.4415	849.6415	849.8415
C-8	849.0475	849.2475	849.4475	849.6475	849.8475
C-9	849.0535	849.2535	849.4535	849.6535	849.8535
C-10	849.0595	849.2595	849.4595	849.6595	849.8595
C-11	849.0655	849.2655	849.4655	849.6655	849.8655
C-12	849.0715	849.2715	849.4715	849.6715	849.8715
C-13	849.0775	849.2775	849.4775	849.6775	849.8775
C-14	849.0835	849.2835	849.4835	849.6835	849.8825
C-15	849.0895	849.2895	849.4895	849.6895	849.8895
C-16	849.0955	849.2955	849.4955	849.6955	849.8955
C-17	849.1015	849.3015	849.5015	849.7015	849.9015
C-18	849.1075	849.3075	849.5075	849.7075	849.9075
C-19	849.1135	849.3135	849.5135	849.7135	849.9135
C-20	849.1195	849.3195	849.5195	849.7195	849.9195
C-21	849.1255	849.3255	849.5255	849.7255	849.9255
C-22	849.1315	849.3315	849.5315	849.7315	849.9315
C-23	849.1375	849.3375	849.5375	849.7375	849.9375
C-24	849.1435	849.3435	849.5435	849.7435	849.9435
C-25	849.1495	849.3495	849.5495	849.7495	849.9495
C-26	849.1555	849.3555	849.5555	849.7555	849.9555
C-27	849.1615	849.3615	849.5615	849.7615	849.9615
C-28	849.1675	849.3675	849.5675	849.7675	849.9675
C-29	849.1735	849.3735	849.5735	849.7735	849.9735
GB	849.1765-	849.3765-	849.5765-	849.7765-	849.9765-
	849.1797	849.3797	849.5797	849.7797	849.9797
P-6	849.1813	849.3813	849.5813	849.7813	849.9813
P-5	849.1845	849.3845	849.5845	849.7845	849.9845
P-4	849.1877	849.3877	849.5877	849.7877	849.9877
P-3	849.1909	849.3909	849.5909	849.7909	849.9909
P-2	849.1941	849.3941	849.5941	849.7941	849.9941
P-1	849.1973	849.3973	849.5973	849.7973	849.9973

GROUND TO AIR CHANNELS (CON'T)/CANALES TIERRA-AIRE (CONTINUACION)
 (CENTER FREQUENCY IN MHZ/FRECUENCIA CENTRAL EN MHZ)

CHANNEL BLOCK/NÚMERO DE BLOQUE DE CANAL

Channel No. / Número de Canal	5	4	3	2	1
C-1	850.0055	850.2055	850.4055	850.6055	850.5055
C-2	850.0115	850.2115	850.4115	850.6115	850.8115
C-3	850.0175	850.2175	850.4175	850.6175	850.8175
C-4	850.0235	850.2235	850.4235	850.6235	850.8235
C-5	850.0295	850.2295	850.4295	850.6295	850.8295
C-6	850.0355	850.2355	850.4355	850.6355	850.8355
C-7	850.0415	850.2415	850.4415	850.6415	850.8415
C-8	850.0475	850.2475	850.4475	850.6475	850.8475
C-9	850.0535	850.2535	850.4535	850.6535	850.8535
C-10	850.0595	850.2595	850.4595	850.6595	850.8595
C-11	850.0655	850.2655	850.4655	850.6655	850.8655
C-12	850.0715	850.2715	850.4715	850.6715	850.8715
C-13	850.0775	850.2775	850.4775	850.6775	850.8775
C-14	850.0835	850.2835	850.4835	850.6835	850.8835
C-15	850.0895	850.2895	850.4895	850.6895	850.8895
C-16	850.0955	850.2955	850.4955	850.6955	850.8955
C-17	850.1015	850.3015	850.5015	850.7015	850.9015
C-18	850.1075	850.3075	850.5075	850.7075	850.9075
C-19	850.1135	850.3135	850.5135	850.7135	850.9135
C-20	850.1195	850.3195	850.5195	850.7195	850.9195
C-21	850.1255	850.3255	850.5255	850.8255	850.9255
C-22	850.1315	850.3315	850.5315	850.7315	850.9315
C-23	850.1375	850.3375	850.5375	850.7375	850.9375
C-24	850.1435	850.3435	850.5435	850.7435	850.9435
C-25	850.1495	850.3495	850.5495	850.7495	850.9495
C-26	850.1555	850.3555	850.5555	850.7555	850.9555
C-27	850.1615	850.3615	850.5615	850.7615	850.9615
C-28	850.1675	850.3675	850.5675	850.7675	850.9675
C-29	850.1735	850.3735	850.5735	850.7735	850.9735
GB	850.1765-	850.3765-	850.5765-	850.7765-	850.9765-
	850.1797	580.3797	850.5797	850.7797	850.9797
P-6	850.1813	850.3813	850.5813	850.7813	850.9813
P-5	850.1845	850.3845	850.5845	850.7845	850.9845
P-4	850.1877	850.3877	850.5877	850.7877	580.9877
P-3	850.1909	850.3909	850.5909	850.7909	850.9909
P-2	850.1941	850.3941	850.5941	850.7941	850.9941
P-1	850.1973	850.3973	850.5973	850.7973	850.9973

AIR TO GROUND CHANNELS/CANALES AIRE-TIERRA
(CENTER FREQUENCY IN MHZ/FRECUENCIA CENTRAL EN MHZ)

CHANNEL BLOCK/NÚMERO DE BLOQUE DE CANAL

Channel No./ Número de Canal	10	9	8	7	6
C-1	894.0055	894.2055	894.4055	894.6055	894.8055
C-2	894.0115	894.2115	894.4115	894.6115	894.8115
C-3	894.0175	894.2175	894.4175	894.6175	894.8175
C-4	894.0235	894.2235	894.4235	894.6235	894.8235
C-5	894.0295	894.2295	894.4295	894.6295	894.8295
C-6	894.0355	894.2355	894.4355	894.6355	894.8355
C-7	894.0415	894.2415	894.4415	894.6415	894.8415
C-8	894.0475	894.2475	894.4475	894.6475	894.8475
C-9	894.0535	894.2535	894.4535	894.6535	894.8535
C-10	894.0595	894.2595	894.4595	894.6595	894.8595
C-11	894.0655	894.2655	894.4655	894.6655	894.8655
C-12	894.0715	894.2715	894.4715	894.6715	894.8715
C-13	894.0775	894.2775	894.4775	894.6775	894.8775
C-14	894.0835	894.2835	894.4835	894.6835	894.8835
C-15	894.0895	894.2895	894.4895	894.6895	894.8895
C-16	894.0955	894.2955	894.4955	894.6955	894.8955
C-17	894.1015	894.3015	894.5015	894.7015	894.9015
C-18	894.1075	894.3075	894.5075	894.7075	894.9075
C-19	894.1135	894.3135	894.5135	894.7135	894.9135
C-20	894.1195	894.3195	894.5195	894.7195	894.9195
C-21	894.1255	894.3255	894.5255	894.7255	894.9255
C-22	894.1315	894.3315	894.5315	894.7315	894.9315
C-23	894.1375	894.3375	894.5375	894.7375	894.9375
C-24	894.1435	894.3435	894.5435	894.7435	894.9435
C-25	894.1495	894.3495	894.5495	894.7495	894.9495
C-26	894.1555	894.3555	894.5555	894.7555	894.9555
C-27	894.1615	894.3615	894.5615	894.7615	894.9615
C-28	894.1675	894.3675	894.5675	894.7675	894.9675
C-29	894.1735	894.3735	894.5735	894.7735	894.9735
GB	894.1765-	894.3765-	894.5765-	894.7765-	894.9765-
	894.1795	894.3795	894.7595	894.7795	894.9795
P-6	894.1813	894.3813	894.5813	894.7813	894.9813
P-5	894.1845	894.3845	894.5845	894.7845	894.9845
P-4	894.1877	894.3877	894.5877	894.7877	894.9877
P-3	894.1909	894.3909	894.5909	894.7909	894.9909
P-2	894.1941	894.3941	894.5941	894.7941	894.9941
P-1	894.1973	894.3873	894.5973	894.7973	894.9973

AIR TO GROUND CHANNELS (CON'T)/CANALES AIRE-TIERRA (CONTINUACION)
(CENTER FREQUENCY IN MHZ/FRECUENCIA CENTRAL EN MHZ)

CHANNEL BLOCK/NÚMERO DE BLOQUE DE CANAL

Channel No./ Número de Canal	5	4	3	2	1
C-1	895.0055	895.2055	895.4055	895.6055	895.8055
C-2	895.0115	895.2115	894.4115	894.6115	894.8115
C-3	895.0175	895.2175	895.4175	895.6175	895.8175
C-4	895.0235	895.2235	895.4235	895.6235	895.8235
C-5	895.0295	895.2295	895.4295	895.6295	895.8295
C-6	895.0355	895.2355	895.4355	895.6355	895.8355
C-7	895.0415	895.2415	895.4415	895.6415	895.8415
C-8	895.0475	895.2475	895.4475	895.6475	895.8475
C-9	895.0535	895.2535	895.4535	895.6535	895.8535
C-10	895.0595	895.2595	895.4595	895.6595	895.8595
C-11	895.0655	895.2655	895.4655	895.6655	895.8655
C-12	895.0715	895.2715	895.4715	895.6715	895.8715
C-13	895.0775	895.2775	895.4775	895.6775	895.8775
C-14	895.0835	895.2835	895.4835	895.6835	895.8835
C-15	895.0895	895.2895	895.4895	895.6895	895.8895
C-16	895.0955	895.2955	895.4955	895.6955	895.8955
C-17	895.1015	895.3015	895.5015	895.7015	895.9015
C-18	895.1075	895.3075	895.5075	895.7075	895.9075
C-19	895.1135	895.3135	895.5135	895.7135	895.9135
C-20	895.1195	895.3195	895.5195	895.7195	895.9195
C-21	895.1255	895.3255	895.5255	895.7255	895.9255
C-22	895.1315	895.3315	895.5315	895.7315	895.9315
C-23	895.1375	895.3375	895.5375	895.7375	895.9375
C-24	895.1435	895.3435	895.5435	895.7435	895.9435
C-25	895.1495	895.3495	895.5495	895.7495	895.9495
C-26	895.1555	895.3555	895.5555	895.7555	895.9555
C-27	895.1615	895.3615	895.5615	895.7615	895.9615
C-28	895.1675	895.3675	895.5675	895.7675	895.9675
C-29	895.1735	895.3735	895.5735	895.7735	895.9735
GB	895.1765-	895.3765-	895.5765-	895.7765-	895.9765-
	895.1797	895.3797	895.5797	895.7797	895.9797
P-6	895.1813	895.3813	895.5813	895.7813	895.9813
P-5	895.1845	895.3845	895.5845	895.7845	895.9845
P-4	895.1877	895.3877	895.5877	895.7877	895.9877
P-3	895.1909	895.3909	895.5909	895.7909	895.9909
P-2	895.1941	895.3941	895.5941	895.7941	895.9941
P-1	895.1973	895.3973	895.5973	895.7973	895.9973

APPENDIX II

BLOCK CHANNELING PLANLIST OF GROUND STATIONS AND ASSOCIATED CHANNELING PLAN
FOR THE UNITED STATES OF AMERICA

LOCATION	N. LATITUDE	W. LONGITUDE	CHANNEL BLOCK
ALASKA:			
Anchorage	61° 11' 06"	149° 54' 42"	8
Corodova	60° 33' 00"	145° 43' 00"	5
Ketchikan	55° 21' 20"	131° 42' 33"	5
Juneau	58° 21' 18"	134° 34' 30"	4
Sitka	57° 03' 30"	135° 22' 01"	7
Yakutat	59° 30' 30"	142° 30' 00"	8
Alabama:			
Birmingham	33° 23' 24"	086° 39' 59"	2
Arizona:			
Phoenix	33° 35' 39"	112° 05' 12"	4
Winslow	35° 01' 17"	110° 43' 02"	6
Arkansas:			
Pine Bluff	34° 10' 56"	091° 56' 18"	8
California:			
Blythe	33° 36' 39"	114° 42' 24"	10
Eureka	40° 42' 59"	124° 12' 09"	8
Los Angeles	33° 56' 45"	118° 23' 03"	4
Oakland	37° 51' 12"	122° 12' 30"	1
S. San Francisco	37° 41' 15"	122° 26' 01"	6
Visalia	36° 19' 36"	119° 23' 22"	7
Colorado:			
Colorado Springs	38° 44' 39"	104° 51' 46"	8
Denver	39° 46' 45"	104° 50' 49"	1
Hayden	40° 29' 04"	107° 13' 08"	6
Florida:			
Miami	25° 48' 27"	80° 16' 30"	4
Orlando	28° 26' 53"	81° 22' 00"	2
Tallahassee	30° 24' 02"	84° 21' 18"	7
Georgia:			
Atlanta	33° 39' 05"	84° 25' 54"	5
St. Simons Island	31° 09' 22"	81° 23' 14"	6

Hawaii: Mouna Kapu	21° 24' 24"	158° 06' 02"	5
Idaho: Blackfoot Caldwell	43° 11' 34" 43° 38' 45"	112° 20' 57" 116° 38' 44"	8 10
Illinois: Chicago Kewanee Schiller Park	41° 46' 49" 41° 12' 05" 41° 57' 18"	87° 45' 20" 89° 57' 33" 87° 52' 57"	3 5 2
Indiana: Fort Wayne	40° 59' 16"	85° 11' 31"	7
Iowa: Des Moines	41° 31' 58"	93° 38' 54"	1
Kansas: Garden City Wichita	37° 59' 35" 37° 37' 24"	100° 54' 04" 97° 27' 15"	3 7
Kentucky: Fairdale	38° 04' 48"	85° 47' 33"	6
Louisiana: Kenner Shreveport	30° 00' 44" 32° 27' 09"	90° 13' 30" 93° 49' 38"	3 5
Massachusetts Boston	42° 23' 15"	71° 01' 03"	7
Michigan: Bellville Flint Sault Ste. Marie	42° 12' 17" 42° 58' 21" 46° 28' 45"	83° 29' 09" 83° 44' 22" 84° 21' 31"	8 9 6
Minnesota: Bloomington	44° 51' 30"	93° 13' 19"	9
Mississippi: Meridian	32° 19' 10"	88° 41' 33"	9
Missouri: Kansas St. Louis Springfield	39° 18' 37" 38° 42' 45" 37° 14' 28"	94° 41' 07" 90° 19' 19" 93° 22' 54"	6 4 9

Montana:			
Lewistown	47° 02' 56"	109° 27' 27"	5
Miles City	46° 25' 30"	105° 52' 30"	8
Missoula	47° 01' 05"	114° 00' 41"	3
Nebraska:			
Grand Island	40° 58' 00"	98° 19' 11"	2
Ogallala	41° 07' 11"	101° 45' 37"	4
Nevada:			
Las Vegas	36° 05' 35"	115° 10' 25"	1
Reno	39° 35' 13"	119° 55' 52"	3
Tonopah	38° 03' 43"	117° 13' 24"	9
Winnemucca	41° 00' 39"	117° 45' 58"	4
New Mexico:			
Alamogordo	32° 54' 46"	105° 56' 41"	8
Albuquerque	35° 03' 05"	106° 37' 13"	10
Aztec	36° 48' 42"	107° 53' 48"	9
Clayton	36° 27' 29"	103° 11' 16"	5
New Jersey:			
Woodbury	39° 50' 01"	75° 09' 21"	3
New York			
E. Elmhurst	40° 46' 21"	73° 52' 42"	1
Schuyler	43° 09' 09"	75° 07' 50"	2
Staten Island	40° 36' 05"	74° 06' 35"	9
North Carolina:			
Greensboro	36° 05' 54"	79° 56' 42"	9
Wilmington	34° 16' 10"	77° 54' 24"	3
North Dakota:			
Dickinson	46° 51' 05"	102° 47' 35"	7
Ohio:			
Pataskala	40° 04' 38"	82° 41' 57"	1
Oklahoma:			
Warner	35° 29' 31"	95° 18' 25"	4
Woodward	36° 24' 42"	99° 28' 50"	9
Oregon:			
Alabany	44° 38' 24"	123° 03' 36"	5
Klamath Falls	42° 06' 30"	121° 38' 00"	2
Pendleton	45° 35' 45"	118° 31' 02"	7

Pennsylvania: Coraopolis New Cumberland	40° 30' 33" 40° 11' 30"	80° 13' 27" 76° 52' 02"	4 8
South Carolina: Charleston	32° 54' 10"	80° 01' 20"	4
South Dakota: Aberdeen Rapid City	45° 27' 21" 44° 02' 36"	98° 25' 26" 103° 03' 36"	6 5
Tennessee: Elizabethton Memphis Nashville	36° 26' 04" 35° 01' 44" 36° 08' 44"	82° 08' 06" 89° 56' 15" 86° 41' 31"	7 10 3
Texas: Austin Bedford Houston Lubbock Monahans	30° 16' 37" 32° 50' 19" 29° 54' 37" 33° 37' 06" 31° 34' 58"	97° 49' 34" 97° 08' 03" 95° 24' 39" 101° 52' 14" 102° 54' 18"	2 1 9 7 6
Utah: Abajo Peak Delta Escalante Green River Salt Lake City	37° 50' 21" 39° 23' 15" 37° 45' 19" 38° 57' 54" 40° 39' 11"	109° 27' 42" 112° 30' 44" 111° 52' 27" 110° 13' 40" 112° 12' 06"	7 2 5 3 1
Virginia: Arlington	38° 52' 55"	77° 06' 18"	6
Washington: Seattle Cheney	47° 26' 08" 47° 33' 14"	122° 17' 35" 117° 43' 35"	4 1
West Virginia: Charleston	38° 19' 47"	81° 39' 36"	2
Wisconsin: Stevens Point	44° 33' 06"	89° 25' 27"	8
Wyoming: Riverton:	43° 03' 37"	108° 27' 23"	9

APPENDIX III

LIST OF GROUND STATIONS AND ASSOCIATED CHANNELING PLAN FOR THE UNITED MEXICAN STATES

<u>LOCATION</u>	<u>N. LATITUDE</u>	<u>W. LONGITUDE</u>	<u>CHANNEL BLOCK</u>
MEXICO D.F.	19° 05' 19"	99° 05' 19"	9/4
GUADALAJARA JAL	20° 31' 17"	103° 18' 39"	10/5
MONTERREY, N.L.	25° 46' 39"	100° 11' 19"	7/8
SAN LUIS POTOSI	22° 15' 15"	100° 56' 00"	3/6
ACAPULCO, GRO.	16° 45' 22"	99° 45' 13"	8
CHIHUAHUA, CHIH.	28° 42' 10"	105° 57' 50"	5
DURANGO, DGO.	24° 07' 30"	104° 31' 40"	2