

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 USE OF THE 4940-4990 MHz BAND 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 (herein referred to as the "Agreement").

ARTICLE I. Purpose

The purpose of this Protocol is to establish and adopt a plan for the equitable and compatible use of the 4940-4990 MHz band within the Sharing Zone defined in this Protocol.

ARTICLE II. Designation of Administrations and Definitions

1. 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") are hereby designated as the Administrations responsible for the implementation of this Protocol for the United States of America (hereinafter "United States") and for the United Mexican States (hereinafter "Mexico"), respectively, as provided in Article IV of the Agreement.

2. The term "Sharing Zone" is defined to include the area in each country within 48 kilometers (29.8 miles) from the common border between the United States and Mexico.

3. The term "counterpart operators" is defined to include operators of radiocommunication stations in both countries operating in frequency sub-bands in the 4940-4990 MHz band with geographic coverage areas situated contiguous to each other on each side of the common border and authorized by their respective Administrations to use the same sub-bands or portions of the same sub-bands.

ARTICLE III. Conditions of Use

1. All frequencies in the 4940-4990 MHz band shall be available to both Administrations on an equal basis for the provision of radiocommunication services within their respective national territories within the Sharing Zone.

2. Each Administration shall ensure that radiocommunication stations

in the 4940-4990 MHz band within the Sharing Zone shall be operated in accordance with the technical limitations specified in Appendix I.

3. Counterpart operators in both countries in adjacent coverage areas may exceed the transmitter power or power flux density (PFD) limitations specified in Appendix I only if all potentially affected counterpart operators in the other country agree to the nonconforming transmitter power or PFD limitations and if prior approval is obtained from the authorizing Administration of the counterpart operators that prefer to exceed the limitations.

4. All assignments by the Administrations in the 4940-4990 MHz band shall be subject to the condition that licensees take full advantage of interference mitigation techniques such as antenna directivity, polarization, frequency offset, shielding, site selection and/or power control to facilitate the implementation of, operation of and compatibility between systems.

#### ARTICLE IV. Protection of Radio Astronomy Operations

Licensees of the radiocommunication services in the band 4940-4990 MHz shall protect radio astronomy operations in the 4950-4990 MHz band from harmful interference, consistent with footnote 5.149 of the International Telecommunication Union Radio Regulations (ITU-RR), as adopted at the World Radiocommunication Conference, 2000. Radio astronomy stations that operate in the 4950-4990 MHz band in the United States of America, in proximity to the common border, are listed in Appendix II.

ARTICLE V. Differences in Interpretation or Application

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

ARTICLE VI. Relation to the Agreement

This Protocol forms an integral part of the Agreement and shall be known as Protocol 20, "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 Use of the 4940-4990 MHz Band for Terrestrial Non-Broadcasting Radiocommunication Services Along the Common Border", in the Index of Annex I of the Agreement.

ARTICLE VII. Appendices

Appendices I and II are integral parts of this Protocol.

ARTICLE VIII. Entry into Force, Amendment and Termination

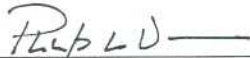
This Protocol shall enter into force on December 1, 2009, and it shall remain in force until it is replaced by a new protocol, or until terminated in accordance with Article VII of the Agreement.

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

IN WITNESS WHEREOF, the respective representatives have signed the present Protocol at Washington, this first day of December, 2009, in duplicate, in the English and Spanish languages, both texts being equally authentic.

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

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



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



Ms. Luz Ma. Gabriela Hernández Cardoso  
Under Secretary of Communications

FOR THE FEDERAL  
TELECOMMUNICATIONS  
COMMISSION OF THE  
UNITED MEXICAN STATES:



Mr. Héctor G. Osuna Jaime  
Chairman

## Appendix I

### Transmitter Power and Power Flux Density (PFD) Limitations for Stations Operating in the 4940-4990 MHz Band

1. Stations operating in the 4940-4990 MHz band shall not exceed the transmitter power levels corresponding to the transmission bandwidth given in Table A below. This limitation applies only to stations employing a directional antenna with a gain of 9 decibels referred to an isotropic source (9 dBi) or less. In addition, the transmission bandwidth of all stations operating in the 4940-4990 MHz band shall not exceed the band edges of the 4940-4990 MHz band.

**Table A: Limitations on Transmitter Power**

Transmission Bandwidth (MHz)	Peak Transmitter Power (dBm)
1	20
5	27
10	30
15	31.8
20	33

2. For stations employing a directional antenna with a gain greater than 9 dBi, the PFD shall not exceed  $-114 \text{ dBW/m}^2$  in any 1 MHz bandwidth at or beyond the common border, calculated using best engineering practices.

3. For stations operated in aircraft, the PFD shall not exceed  $-114 \text{ dBW/m}^2$  in any 1 MHz bandwidth at or beyond the common border, calculated using best engineering practices. Each Administration shall take measures to eliminate any harmful interference caused by its stations aboard aircraft to land stations of the other Administration at or beyond the common border.

Appendix II

Radio Astronomy stations that operate in the 4950-4990 MHz band  
in the United States of America, near the common border

Radio Astronomy Station	Longitude (deg min sec)	Latitude (deg min sec)	Height Above Mean Sea Level (m)
Kitt Peak, AZ	W 111° 36' 45"	N 31° 57' 23"	1902
Ft. Davis, TX	W 103° 56' 41"	N 30° 38' 06"	1606