

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.**

<p>In re Application of</p> <p>Western Tele-Communications, Inc.</p> <p>For Authorization for a Transmit/Receive Earth Station to be Used in Connection with a Direct Broadcast Satellite at 119°W.L.</p>	<p>File No. 1735-DSE-P/L-96</p>
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ORDER

Adopted: November 25, 1996

Released: November 26, 1996

By the Chief, Satellite and Radiocommunication Division, International Bureau:

I. INTRODUCTION

1. By this order we grant an application filed by Western Tele-Communication, Inc. ("WTCI"), dated July 31, 1996, for authority to operate a transmit/receive earth station to be used in connection with a Direct Broadcast Satellite ("DBS") at the 119°W.L. orbital location¹. EchoStar Satellite Corporation ("EchoStar") and Directsat Corporation ("Directsat"), affiliated DBS licensees also assigned to 119°W.L., filed a joint petition to deny the application. For the reasons set forth below, we dismiss the EchoStar/Directsat petition and grant WTCI's application, subject to the conditions specified in this order.²

II. BACKGROUND

2. WTCI's affiliate Tempo Satellite, Inc., holds a construction permit for an 11

¹ *Public Notice*, Report No. DS-1665 (September 18, 1996).

² WTCI's earth station authorization will be issued separately from this order, and the conditions set forth in this order will be reflected in the instrument of authorization.

channel DBS satellite at 119° W.L.³ WTCI proposes to uplink multiple channels of video programming and data from a new earth station at its existing facilities in Littleton, Colorado to a DBS satellite at 119° W.L. WTCI states that this earth station will also be used to provide launch support, tracking, telemetry and control ("TT&C") and "on orbit" testing for Tempo's satellite at 119°W.L.⁴

3. EchoStar is operating a DBS satellite on the odd-numbered channels from channels 1 to 21 at 119.2° W.L. Directsat recently launched a DBS satellite that will operate at 118.8°W.L. on the even numbered channels 2-20⁵. Tempo's construction permit covers channels 22 to 32 at 119° W.L. In their petition to deny, EchoStar and Directsat argue that WTCI seeks to use frequencies that are not associated with Tempo's satellite and that would cause interference into their satellite operations at 119.2° W.L. EchoStar and Directsat urge us to require that WTCI demonstrate that its operations will not interfere with those of EchoStar and Directsat.⁶

III. DISCUSSION

4. In its application, WTCI refers to the entire 17.3-17.8 frequency band allocated for uplink to DBS satellites rather than the specific uplink frequencies corresponding to channels assigned for use by Tempo. EchoStar and Directsat assert that any operation by WTCI on channels below 22 will result in harmful interference to their systems. We do not view WTCI's request as overly broad. In granting an earth station application, we routinely license the entire allocated bandwidth. In the DBS context we envision that the operating frequencies of the feeder link earth station are limited by the channels authorized to the DBS space station it is communicating with. In fact, earth station authorizations granted to EchoStar and Directsat also reference the entire 17.3-17.8 uplink frequency band allocated to DBS. The Broadcast Satellite Service Plan and associated feeder link Plan for Region 2 ("Region 2 BSS Plans")⁷ specify the uplink frequency to be used with each channel assignment at a DBS orbital location. Assuming that WTCI's affiliate, Tempo, is ultimately

³ See *Tempo Satellite Corporation*, 7 F.C.C. Rcd. 6597 (1992) (granting orbital/channel assignments to Tempo Satellite, Inc.). Tempo will operate its satellite at 118.8° W.L. as allowed by the Region 2 BSS Plan.

⁴ Tempo has filed an application to modify this satellite. This request is pending. This Order is without prejudice to any future Commission action on that application.

⁵ Directsat's application for a license to cover its DBS operations is granted in a separate order today.

⁶ WTCI filed a Motion for Leave to File Response, pursuant to Section 1.45(c) of the Commission's rules, 47 C.F.R. § 1.45(c), stating that good cause exists to grant such a motion in view of EchoStar's and Directsat's submission, in its Joint Reply, of new and contradictory information with respect to EchoStar's TT&C operations. We grant WTCI's motion for good cause shown.

⁷ The BSS Plan for Region 2 in the 12.2 - 12.7 GHz band and its associated Feeder Link Plan in the 17.3 - 17.8 GHz band are contained in Appendices 30 and 30A, respectively.

granted a license to operate its satellite at 118.8°W.L., it will be expected to use those uplink frequencies associated with channels 22 through 32. Similarly, EchoStar and Directsat are expected to use the uplink frequencies associated with their individual channel assignments.

5. We also reject Echostar and Directsat's request that we delay grant of WTCI's application until WTCI submits a technical demonstration that Tempo's DBS operations on channel 22 with left-hand circular polarization at 118.8° W.L. will not cause harmful interference to Echostar's operation on channel 21 with right-hand circular polarization at 119.2° W.L. The use of adjacent channels on opposite polarizations on satellites separated by 0.4 degrees is consistent with the Region 2 BSS Plans. In addition, the Region 2 BSS Feeder Link Plan is based on a feeder-link antenna diameter of five meters. WTCI proposes to use a 13.1 meter antenna dish, which will further reduce the possibility of interference between adjacent satellites.

6. EchoStar and Directsat also raise concerns about WTCI's proposed TT&C operations. Echostar maintains that WTCI's use of the 17.301 - 17.305 GHz frequency band for TT&C functions may cause interference to EchoStar's first channel. WTCI's proposed TT&C uplink band, however, is seven MHz from the band edge of EchoStar's first channel at 17.312 GHz. In addition, Echostar operates its first channel using right-hand circular polarization, while WTCI proposes to use left-hand circular polarization for its TT&C functions. The separation of frequencies between WTCI's TT&C operations and EchoStar's first channel, coupled with the opposite polarization to be employed on the channel adjacent to EchoStar's, is sufficient to avoid harmful interference to EchoStar's operations. EchoStar presents no technical evidence to the contrary.

7. Similarly, we reject the contention that WTCI's TT&C downlink operation on 12.201 - 12.203 GHz band will cause interference to the petitioners TT&C operations in the same frequency band. In their Reply, EchoStar and Directsat state that EchoStar is currently using 12.210 GHz, not 12.201 - 12.203 GHz, for tracking functions.⁸ WTCI's proposed operations are thus separated by seven MHz from Echostar's TT&C operations, and we do not expect it to cause unacceptable interference to its operations.

8. We do not accept Echostar's and Directsat's view that WTCI's proposed TT&C operations must or should be in higher frequencies because they are closer to Tempo's operations in channels 22 to 32, rather than in lower frequencies, which are closer to EchoStar's proposed operations. The Region 2 BSS Plans specify 12 MHz guardbands at the upper and lower edges of the BSS uplink and downlink frequency bands. The Region 2 BSS Plans provide for use of this spectrum for transmissions in the space operation service (TT&C functions). The Commission's rules do not indicate a preference for either the upper

⁸ We note that neither EchoStar's application nor its ITU submissions reflect this use of Ku-band frequencies for TT&C functions. EchoStar requested and was granted a waiver to use C-band frequencies in lieu of Ku-band frequencies for TT&C functions. We will address any Ku-band use by EchoStar for TT&C in a separate proceeding.

guardband or the lower. We do not anticipate that WTCI's TT&C operations in the lower guardband will affect EchoStar's or Directsat's operations. We thus see no justification for denial of WTCI's request for authorization to perform TT&C functions in the specified bands.

9. Last, we find no merit in EchoStar's contention that additional information is required in WTCI's earth station application. Specifically EchoStar and Directsat argue that WTCI must demonstrate that the cross-polar isolation is sufficient, that spurious emissions will not cause interference to other channels, and that the side lobes of WTCI's antenna comply with Commission's rules. The showing in WTCI's application is sufficient for a grant. WTCI certifies in its earth station application that its side lobe antenna patterns comply with the Commission's rules. Although all applicants must comply with all applicable Commission rules, we do not generally require earth station applicants to provide a technical showing of compliance.

10. For the reasons stated above, we believe that grant of WTCI's application will serve the public interest, convenience, and necessity. Operation of the station is consistent with the Commission's technical requirements and should not cause unacceptable interference to other DBS satellites. Moreover, granting this application will permit WTCI to provide DBS service to the entire contiguous United States via Tempo's DBS satellite. To the extent that objections to WTCI's application relate directly to Tempo's separate application to modify its proposed space station operations, this order will be conditioned upon the outcome of that separate proceeding. We expect to address Tempo's pending modification application in the near future.

11. WTCI's radio station authorization will be issued under separate cover, pursuant to this order and subject to the conditions set forth below. Additional technical information about WTCI's earth station operations will be required in compliance with ITU Radio Regulations. WTCI will be required to provide the information requested in Annex 2 of Appendix 30A, for submission to the ITU to begin the procedure to modify the Region 2 BSS plan to include WTCI's technical parameters. In addition, WTCI will be required to provide the information requested in Annex 1 of Appendix 30A in order to demonstrate that no other administrations are affected by their systems. Until the Region 2 BSS Feeder Link Plan is modified to include WTCI's technical feeder link parameters, this earth station will not cause harmful interference or receive protection from assignments of other Administrations in the Plan. It is expected that all U.S. DBS providers will coordinate their satellite and earth station operations, including operations during transfer orbit, with the operation of in-orbit satellites of the U.S. and other affected Administrations.

12. Accordingly, pursuant to authority delegated by Section 0.261 of the Commission's Rules, 47 C.F.R. § 0.261, IT IS ORDERED that the application filed by Western Tele-Communications, Inc., File No. 1735-DSE-P/L-96, IS GRANTED, subject to the conditions below.

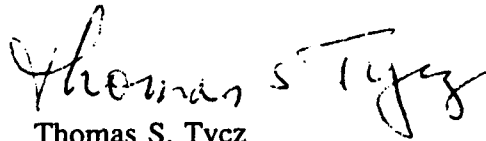
13. IT IS FURTHER ORDERED that grant of this authorization is without prejudice to our disposition of the pending application of Tempo Satellite, Inc. to modify its DBS construction permit, File No. DBS 88-04/93-02MP, and may be subject to further conditions or requirements that may be deemed appropriate as a result of the modification proceeding.

14. IT IS FURTHER ORDERED that Western Tele-Communications must submit, within 60 days of the date of adoption of this order, (1) the information requested in Annex 2 of Appendix 30A of the ITU Radio Regulations, and (2) the information requested in Annex 1 of Appendix 30A, demonstrating that no other administrations are affected by its earth station operations.

15. IT IS FURTHER ORDERED that the petition to deny the application of Western Tele-Communications, Inc. filed by EchoStar Satellite Corporation and Directsat Corporation IS DISMISSED.

16. IT IS FURTHER ORDERED that this Order is effective upon adoption.

FEDERAL COMMUNICATIONS COMMISSION

A handwritten signature in black ink that reads "Thomas S. Tycz". The signature is written in a cursive style with a large initial 'T' and 'S'.

Thomas S. Tycz
Chief, Satellite and Radiocommunication Division
International Bureau