

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of Application of)	
)	
SHERBURNE WRIGHT EDUCATIONAL)	File No. BLMPIF-20020729AAB
TECHNOLOGY COOPERATIVE)	
)	
For Authority to Modify Instructional Television)	
Fixed Service Station WHR847, Buffalo,)	
Minnesota)	

MEMORANDUM OPINION AND ORDER

Adopted: August 26, 2003

Released: September 2, 2003

By the Chief, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau:

1. This *Memorandum Opinion and Order* address the petition to deny filed by Twin Cities Telecommunications Group Inc. (Twin Cities) against the above-captioned application filed by Sherburne Wright Educational Technology Cooperative (Sherburne) for authority to make major changes to Instructional Television Fixed Service (ITFS) Station¹ WHR847, Buffalo, Minnesota. For the reasons discussed below, we grant the Twin Cities Petition.

2. *Background.* ITFS stations are intended primarily to provide a formal educational and cultural development in aural and visual form.² ITFS licensees make use of the spectrum to provide formal classroom instruction, distance learning, and videoconference capability to a wide variety of users.³ In 1998, the Commission adopted technical rule changes designed to provide ITFS licensees flexibility to employ digital technology in delivering two-way communications services including high-speed and high-capacity data transmission and Internet service on a regular basis.⁴

3. On July 13, 1987, Sherburne's application⁵ to construct and operate an ITFS station on the G Group channels⁶ at Buffalo, Minnesota, was granted and assigned the call sign WHR847. Twin Cities is currently authorized to operate ITFS Station WHR487 on the G Group channels in Minneapolis, Minnesota, which is 33 miles (53 kilometers) from Sherburne's authorized location.⁷

¹ A fixed station operated by an educational organization and used primarily for the transmission of visual and aural instructional, cultural, and other types of educational material to one or more fixed receiving locations.

² 47 C.F.R. § 74.931.

³ *Id.*

⁴ See Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions, MM Docket No. 97-217, *Report and Order*, 13 FCC Red 19112 (1998).

⁵ File No. BPIF-19860728DH.

⁶ The G Group channels consist of the frequencies 2644-2650 MHz, 2656-2662 MHz, 2668-2674 MHz, and 2680-2686 MHz. See 47 C.F.R. § 74.902(a).

⁷ *Id.* at 3.

4. On July 29, 2002, Sherburne filed the captioned modification application to replace two directional antennas⁸ with one omnidirectional antenna,⁹ add digital emission type 64QAM and decrease equivalent isotropically radiated power (EIRP).¹⁰ The application appeared on public notice as accepted for filing on August 7, 2002.¹¹ On September 16, 2002, Sherburne amended its application¹² to change the transmitting antenna model.¹³ On October 1, 2002, Twin Cities filed a timely petition to deny against Sherburne's original application.¹⁴ On October 24, 2002, Sherburne submitted an opposition to the Twin Cities Petition.¹⁵

5. *Discussion.* Twin Cities alleges that Station WHR487 would receive harmful co-channel interference within its protected service area (PSA) from Sherburne's proposed facilities and requests that Sherburne's application be dismissed.¹⁶ In its Opposition, Sherburne states that the information on transmitting antenna provided in its modification application was incorrect¹⁷ and that the typographical error was corrected in its September 16, 2002 amendment.¹⁸ Sherburne contends that its application complies with the Commission's Rules because the modification would not cause any additional harmful interference to Station WHR487.¹⁹

6. Section 74.903(a)(1) of the Commission's rules requires the applicant to engineer its system to provide at least 45 dB of co-channel interference protection within the PSA of all other authorized or previously proposed stations.²⁰ An applicant seeking to make major changes to an ITFS station must include an analysis of the potential for harmful interference to any existing or previously proposed stations if the proposed transmitting antenna has an unobstructed electrical path to other stations or within

⁸ Sherburne's ITFS station WHR847 is currently authorized to operate with two directional antennas - a horizontally polarized Andrew 623506-G with an azimuth of 270° and a vertically polarized Andrew 62071-G with an azimuth of 90°.

⁹ See FCC Form 330, Section V. Sherburne proposes to use an Andrew model HMD12HO antenna. Sherburne's original application provided conflicting information on the transmitting antenna. On the FCC Form 330 and Exhibit 1, applicant shows the antenna made and model as HMD12VO (a vertically polarized antenna). In its interference analysis, Sherburne claimed to be using a horizontally polarized omnidirectional antenna. See Application, Exhibit E, p. 2. In its September 16, 2003 amendment, Sherburne resolved the discrepancy and clarified that it was proposing to use a horizontally polarized antenna. See Amendment, File No. BLMAIF-20020916AAB (filed Sept. 16, 2002).

¹⁰ EIRP is the product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna. See 47 C.F.R. § 21.2.

¹¹ See WTB Public Notice Report No. 1249 (rel. Aug. 7, 2002).

¹² In its amendment, Sherburne submitted the same interference statement that had previously been submitted with the original modification application.

¹³ Amendment.

¹⁴ Petition to Deny ITFS Modification Application BLMPIF-20020729AAB (filed Oct. 1, 2002) (Twin Cities Petition).

¹⁵ Opposition (filed Oct. 24, 2002) (Opposition).

¹⁶ Twin Cities Petition.

¹⁷ See Opposition at 2.

¹⁸ File No. BLMAIF-20020916AAB.

¹⁹ See Opposition at 2-3.

²⁰ 47 C.F.R. § 74.903(a)(1).

80.5 km (50 mi) of the coordinates of any such stations.²¹ Sherburne has failed to submit an adequate interference study with its modification application. Instead of providing an interference analysis, Sherburne merely submitted a list of the ITFS and MMDS stations within 100 miles and made an unsupported claim that its proposed facilities would not cause harmful interference to any station within 100 miles.²² Based on the record in this proceeding, including the Division staff's analysis of the technical information provided in both the modification application and the associated amendment, we find that there are several areas where the desired-to-undesired signal ratio is less than 45 dB. For instance, from Sherburne's proposed transmitter site, there appear to be areas of interference found by the staff study located at 14 miles away at a bearing of 32°, 8 miles away at a bearing of 21°, 2 miles at a bearing of 0°, 11 miles away at a bearing of 208°, 5 miles away at a bearing of 229°, 3 miles away at a bearing of 336°, and 17 miles away at a bearing of 197°. While Sherburne claims that it would not cause any additional interference to Station WHR487, it has failed to establish that fact because it did not provide a study comparing the current level of interference to the level of interference that would result after the modification.²³ Therefore, we are granting the Twin Cities Petition and directing the Licensing and Technical Analysis Branch to dismiss Sherburne's application.

7. Accordingly, IT IS ORDERED, pursuant to Sections 4(i) and 309 of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), 309, and Section 74.911 of the Commission's Rules, 47 C.F.R. § 74.911, the Petition to Deny filed by the Twin Cities Telecommunications Group Inc. on October 1, 2002, IS GRANTED.

8. IT IS FURTHER ORDERED, pursuant to Sections 4(i) and 309 of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), 309, and Sections 73.3566 and 74.912 of the Commission's rules, 47 C.F.R. §§ 73.3566, 74.912, that the Licensing and Technical Analysis Branch, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau SHALL DISMISS the application filed on July 29, 2002 by the Sherburne Wright Educational Technology Cooperative (File No. BLMPIF-20020729AAB).

9. This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission's rules, 47 C.F.R. § 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

D'wana R. Terry
Chief, Public Safety and Private Wireless Division
Wireless Telecommunications Bureau

²¹ 47 C.F.R. § 74.903(b).

²² Application, Exhibit E, p. 2.

²³ Sherburne argues that digital operation is predicted to cause no greater interference than analog operation. Application, Exhibit E, p. 2. Given that Sherburne proposes other changes to its station, we find that statement, standing alone, to be insufficient to demonstrate compliance with the Commission's Rules.