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**Central Dakota Telecommunications Consortium**

Bowdon • Fessenden • Gackle • Jamestown • Medina  
Mankato • Pingree-Buchanan • Tappen • Wimbleton-Courtenay

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FCC MAIL ROOM

Federal Communications Commission  
445 12th St., SW  
Washington, DC 20554

Re: FCC 00-455, ET Docket No. 00-258, RM-9920 and 9911

February 13, 2001

Dear Chairman Powell:

I am concerned about the future of the ITFS spectrum, which is under assault in the Commission's Notice of Proposed Rule Making on 3G spectrum allocations that was released January 5, 2001. ITFS is an important part of our educational program at Central Dakota Telecommunications Consortium. Moreover, preservation of the full ITFS band is absolutely critical if wireless broadband is to become a reality not only for our students but also for our entire community.

As you are aware, recent rule changes have opened the ITFS spectrum to the implementation of wireless two-way video and broadband data services, including high speed Internet access. The educational power of ITFS has been expanded under the digital two-way rules to provide advanced learning services, interactive video, and wireless broadband Internet. As distance learning becomes more robust and interactive, ITFS offers educational institutions throughout the country an affordable high-speed on-ramp to the broadband Internet for students and adult learners in the classroom, at home and at work. This goal was recently cited as the first priority for policymakers by the bipartisan Congressional Web-Based Education Commission. In addition, fixed wireless broadband promises to bring a competitor to DSL and cable modem technologies to our community, making broadband access not only more widely available but also more affordable.

ITFS does not only benefit schools, students and adult learners, however. In addition to the broad range of community programming currently carried on ITFS spectrum, the recent two-way order has filled a void where legislation and regulation have failed to produce affordable, ubiquitous broadband Internet access for Americans. Working in conjunction with wireless communications companies, ITFS spectrum is being used to bring broadband to underserved populations in rural, urban and otherwise isolated communities nationwide. ITFS licensees are therefore serving the educational community as they help the nation and the Commission to bridge the Digital Divide.

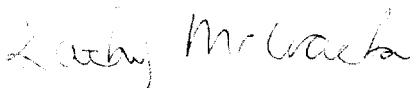
If the Commission reallocates any part of the ITFS spectrum for 3G mobile device services, the capacity, usefulness, and value of ITFS would be significantly diminished. Even if only part of the spectrum is taken away, many educational institutions would lose their ITFS service altogether, while others would face new equipment costs, service disruption and

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cutbacks, lower quality of service and signal interference. In either scenario, the ITFS community would be incapable of supporting advanced wireless services and promoting the development of broadband services to the educational community and to underserved communities nationwide.

If the ITFS spectrum is compromised in any way, these public benefits will be lost. We at the Central Dakota Telecommunications Consortium hope that you will support us in maintaining the integrity of our spectrum and in keeping this ~~treasured~~ educational resource alive and strong.

Sincerely,



Kathy McCracken, Coordinator  
Central Dakota Telecommunications Consortium

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Enclosure

## WHAT IS MICROWAVE TECHNOLOGY?

Years ago the Federal Communications Commission (FCC) authorized only 1 television broadcast band of frequencies called VHF (very high frequency). In 1950, UHF (ultra high frequency) was added. Then in 1983, SHF (super high frequency) was authorized. Multichannel Multipoint Distribution Service (MMDS) is the name given to using SHF to transmit audio, video, and data through the air. The FCC also set aside a portion of SHF frequencies for educational purposes called Instructional Television Fixed Service (ITFS). Since there is no need for miles of cable to connect each home, this service is called "wireless" cable TV. "Wireless" TV is available in areas where traditional cable companies do not provide service, such as small towns and rural areas. The picture quality is as good as, or better than cable systems.

## HOW DOES WIRELESS CABLE WORK?

Scrambled channels of programming from satellites are received at the CDTIC tower (18 miles southwest of Carrington). The programming signals are processed and fed into special transmitters which send out the programming through the air to the coverage area. Special equipment is required to receive the scrambled "wireless" signal, which is available in an area from Sheyenne to Gackle and Sanborn to Dawson.

## WHAT DOES THE FUTURE HOLD?

CDTC is presently working with Jamestown College to install an ITV classroom on their campus. We are also planning to interconnect with the Barnes County ITV System after it is constructed.

## HOW CAN I GET MORE INFORMATION?

For more information call the CDTIC Coordinator at 701-674-8201, or stop in at the CDTIC office at 630 N 5<sup>th</sup> St. in Carrington. You can also contact the Coordinator via fax at 701-674-8121 or email at kmac@daktel.com

<http://www.cdtic.com>

CDTC



CDTC

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## CENTRAL DAKOTA TELECOMMUNICATIONS CONSORTIUM

## *Interactive Television (ITV) The Future of Education*

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## WHO IS CDTCS?

## WHAT DOES AN ITV CLASSROOM LOOK LIKE?

## HOW IS IT USED?

After several years of planning, the Central Dakota Telecommunications Consortium officially began on July 20, 1993, when Bowdon, Fessenden, Gackle/Streater, Jamestown, Medina, Midkota (Bismarck, Glenfield, Sutton, McHenry & Grace City), Pingree/Buchanan, Tappen and Wimbleton/Courtenay schools signed a Joint Powers Agreement. CDTCS is working jointly with Central Dakota Television (CDTVC) of Carrington, to provide telecommunications to member schools using microwave technology. In 1997 Bowdon and Fessenden schools consolidated, eliminating the need for ITV equipment at Bowdon.

## WHAT ARE CDTCS GOALS

This consortium was formed to provide interactive television service and support to its members, by:

1. Enhancing curriculum offerings in member districts.
2. Providing staff inservice using telecommunications.
3. Providing community education and service.
4. Investigating new technologies for school use.
5. Providing student, staff, and community, access to technology.
6. Increasing resource sharing between member schools.

Using microwave technology and the IITS channels set aside by the FCC, CDTC established a two-way ITV system that transmits live, high quality audio and video between several sites. An instructor at the home site can see and hear the students in the remote sites, and the students can see and hear the teacher and all the other students. Various high school classes are sent and received by member schools: College Algebra, Finite Math, Trigonometry, Psychology & Sociology are dual credit classes. Other classes include: Art I-IV, Child Development, Parenting, Family Living, French I-IV, German I, Spanish I-IV, Ag. Business, Ag. Marketing, Animal Science, Plant Science and Veterinary Science.

Our collaboration with CDTVC makes it possible for us to broadcast directly into CDTVC customers' homes. Programs can be broadcast live from any of our ITV classrooms, taped in advance using our ITV equipment, or using a previously prepared videotape. We have 1-800 numbers which allow viewers to call the ITV classroom to ask the program presenter questions during a live broadcast. If a program or course requires interaction between the instructor and teacher, people must drive to their local high school to participate. If a program or course doesn't require interaction, people register and their signal is scrambled so they can participate at home.

All of the classrooms have identical equipment, which include: 2 - 45" televisions (one in front for the students to watch and the other in back for the teacher to watch), 3 cameras (one focused on the teacher, one on the students and an overhead camera that is used in place of the blackboard/whiteboard and overhead), a VCR, student microphones, teacher microphones, tables and chairs. All of the classrooms also have a computer connected into the system.

## WHO CAN USE THE SYSTEM AFTER SCHOOL HOURS?

Farm groups, firefighters, nurses, business people, teachers, economic development leaders, legislators, church groups, industry organizations, etc. In other words, anyone who has the need to meet with another group in another location where travel becomes an obstacle, can benefit from ITV.

Courses, meetings and events that would normally be unavailable to individual schools and communities are feasible using ITV.

Having events scheduled over ITV enable people to experience lifelong learning without having to drive a great distance.