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

In the Matter of

Revision of Part 15 of the Commission's
Rules Regarding Ultra-Wideband Transmission Systems — ET Docket No. 98-153

COMMENT BY A PRIVATE CITIZEN ON THE
DESIRABILITY OF MODIFYING THE RULES
OF PART 15 FOR SPREAD SPECTRUM RADIOS

I have been in contact with a local internet service provider headquartered in Lewistown, Montana. They are offering an internet connection service which I would like to buy in my hometown of Billings, Montana, but it is not available. This service is wireless connection to the internet through a spread spectrum radio modem.

I have been told by several knowledgeable professionals that the reason the local internet service providers cannot offer this access service to me is because the FCC regulations which control the manufacture of spread spectrum radio modems are so restrictive that it is impossible to mass manufacture consumer spread spectrum radio modems with enough power, bandwidth and frequency at an affordable consumer price.

There are ssr-modems are available now, but because of the current FCC restrictions, they cannot transmit over our distances and type of terrain without expensive multiple repeaters and retransmitters which require towers and additional equipment and maintenance costs. So these current restrictions to one watt of power and less desirable frequency ranges have forced the prices upwards on this net access service in 2 ways:
1. The spread spectrum radio modem itself is so narrowly constrained in power, frequency and bandwidth that manufacturing them is difficult, and this forces these devices to be engineered as extremely high precision radios;
2. The very short range of these restricted ssr-modems requires multiple repeaters and retransmitters to even get across a normal size county in Montana, or to get across one of our rural school districts or library servicing areas.

I have been told by people with great experience in using the various brands of ssr-modems which are now available that the high cost (over $500) of these ssr-modems could easily come into line with consumer modems built for wired POTS phone line connections, which range from about $100 - $200. But this can only happen if the FCC will revise the very limited power, frequency, and bandwidth restrictions it has placed on these devices which precludes them being manufactured for a mass market.

I want to state that I have personal experience of driving on many of the roads and highways of Montana, and much of the state is effectively "unused radio space." My same AM/FM car radio which picks up a dozen FM stations and a half dozen AM stations in Billings, picks up NO, zip, zero, nada, zilch AM or FM radio signals in huge vast areas of my rural state.

Furthermore, much, maybe most of the state cannot receive TV

broadcasts except right around the cities. Cable is the main or only access to TV for our non-urban areas. A large part of Montana is unused radio space. Interference by ssr-modems in the bands traditionally reserved to TV is not going to be a problem. These frequencies can be shared by spread spectrum radio modems to the great benefit of our rural consumers.

The major impediment to private, local internet service providers offering ssr-modem access to the home and student consumer is the FCC limitations which make these modems expensive to manufacture and which require the ISP's to use multiple retransmitters to cover any reasonable rural distance.

There are a few school districts in Montana which can afford direct T-1 connections to the internet using U.S.West landlines. Most of our rural schools and rural towns and county municipalities, including public libraries cannot afford a U.S.West T-1 at well over $1,000 per month---that is the same cost as a part-time employee, and this kind of ongoing monthly fee is beyond our ability to pay out here in the rural economy. Furthermore, U.S.West is not well liked as a service provider. We need better choices and affordable choices.

It is highly probable that local, small business ISP's will fill the need and desire of our schools, communities, municipalities, libraries, and volunteer organizations for internet connectivity at affordable prices if the ssr-modems can be brought into line with the wired modem prices and if the ISP can spread the cost of a T-1 or higher speed connection over the many different kinds of users in our rural localities.

Frankly, I pay close to $25 a month to U.S.West for a POTS line to my local ISP who advertises a 56Kbs connection, but my average download speed as actually measured is usually about 1-3 KILOBYTES/second. I have never gotten over 10 KILOBYTES/second on my U.S.West POTS line. U.S.West is not going to help the local population in this rural state. They (and their parent company) have had a monopoly now for over 50 years and all they do is raise prices, but they dont improve their services.

Please revise the Part 15 spread spectrum radio modem specifications to allow the manufacturers to build and sell spread spectrum radio modems suitable for the rural customers and rural local internet service providers in Montana. This means wider bands to operate in - as mentioned in the Notice of Inquiry (NOI) - and at lower frequencies so as to reduce the problem of rigorous line of sight placement, as well as permitting greater power for the needs of our rural areas.

Respectfully submitted,

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