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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY



INTERNET SATELLITE SYSTEMS, INC.

10909 Sanden Dr., Suite 300, Dallas, TX 75238

Web Site ♦ <http://www.ibcwireless.com>

Phone (214) 343-7200 ♦ Fax (214) 343-7277 ♦ email - intsatsys@aol.com

October 15, 2001

John W. Kennedy
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

**Re: Application of Internet Satellite Systems, Inc. ("ISS")
To Modify Experimental Station WB2XFR**

Dear Mr. Kennedy:

The purpose of this letter is to respond to the Federal Communication Commission ("FCC" or "Commission") request of September 27, 2001, that ISS further justify its request that the FCC increase the number of authorized units from 100 units per site to 400 units. Because ISS has a valid need to engage in more robust testing of its experimental facilities, the Commission should permit ISS to increase the number of units as requested.

ISS is currently planning to offer Distance Learning, Tele Medicine, and High-speed Internet to the rural America. ISS is testing its head-end equipment to be used in the rural areas where there exists low-density population. ISS estimates that there will ultimately be no less than 500 end users in each rural area. Therefore, ISS is requesting to test its equipment by increasing the authorized number of units per site to 400. This type of authorization will allow ISS to determine accurate specifications to finalize the design of its IP data gateway, modulator, and S\ servers.

ISS therefore requests the Commission to increase the number of test sites from 100 to 400, at each site location, for the following reasons:

1. The experimental locations are very versatile in terrain and population. Therefore, the testing at each site location will give a better understanding of the performance of the transmit and receive sites in different settings, such as more trees, more hills, etc.

2. If authorized to increase the number of units to 400 per site, ISS will gain better knowledge of how to compute microwave propagation path better through hills, trees etc.

3. The aim of this project is to provide advanced telecommunication services and high-speed Internet, in digital format, to rural settings. The estimated load on each head-end will be less than 500 end users, therefore requesting the increase in units will allow ISS to test its transmission and reception equipment at the highest possible load.

4. ISS wishes to test the capacity of its IP data gateway, modulator, and transmitter to determine how they will perform at a higher number of units. ISS will utilize the 400 units to discover the type of throughput and speed every site can obtain. Once the performance data is obtained, ISS will be better able to determine the correct specifications for its network and transmission equipment.

5. ISS will have the ability to check the saturation point of the transmission antenna for 400 end users and determine the correct specifications for it.

6. An increase in units will allow ISS to check the speed of the delivery in mb/s and test it for the duration (how long ISS can sustain the same transmission rate) by turning on all of the end users sites simultaneously. A greater number of the test units will provide ISS with more reliable test results. More importantly, ISS seeks to test its equipment in a practical environment; ISS estimates that the number of end users that will be served by each head-end deployed in rural settings will be approximately 400.

Based on the foregoing, ISS urges the FCC to increase the authorized units to 400 per site to allow for the proper testing of its equipment and network. Because the Commission's recent decision concerning broadband deployment, describes the Commission's need to extend the type of coverage and service ISS will offer to its users, ISS strongly urges the Commission to grant its request to increase the authorized units to 400.¹

¹ See *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, Second Report*, CC Docket No. 98-146, FCC 00-290 (rel. Aug. 21, 2000).

We trust that the foregoing is responsive to your inquiry. If you have any questions concerning this matter, please contact our communications counsel, Russ Taylor, at 202-661-8717, or rtaylor@mintz.com.

Sincerely,

H. S. Patel

Harish Patel