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July 2, 1998

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

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Re: 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 and RM-9060: EX PARTE COMMUNICATION

Dear Ms. Salas:

I am writing in response to the Federal Communications Commission's June 12, 1998 *Public Notice* in MM Docket No. 97-217 to express the strong support of Hybrid Networks, Inc. for the expeditious adoption of the new technical rules and policies proposed by wireless cable operators, ITFS licensees, MDS licensees and equipment vendors, representing more than 100 companies, that commenced this proceeding (the "Petitioners"). The regulatory regime crafted by the Petitioners reasonably protects existing MDS and ITFS operations, while permitting the rapid deployment of two-way facilities in a manner that will be commercially viable and very beneficial for the public.

As the Commission considers the issues in this proceeding, it should recognize that the Petitioners undertook an enormous task – affording protection to existing MDS and ITFS facilities equivalent to what they enjoy today, while at the same time permitting the rapid inauguration of two-way services. The technical rules proposed by the Petitioners, coupled with the methodologies advanced for demonstrating compliance with those rules, accomplish those objectives in a manner that is reasonable and fair. While a small minority has expressed vague concerns, the shortage of counter-proposals is evidence of the Petitioners' success. The proposed rules and methodologies do an exceptional job of regulating the installation of response stations, while at the same time allowing installations to proceed without delay. Our engineers have confirmed that the methodologies proposed by the Petitioners are extremely conservative. Indeed, if anything the recent revisions made by the Petitioners to quell concerns may have made

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the methodologies too conservative, unnecessarily precluding two-way service.

Moreover, and perhaps most importantly, as protective as the proposed technical rules and methodologies are, the Petitioners have recognized that because certain assumptions underlay their proposals that, while conservative, may not apply in every case, situations may develop where impermissible electrical interference occurs that was not predicted. In those situations, the Petitioners have provided the ultimate safety net -- they have proposed in no uncertain terms that any unanticipated interference will have to be cured or the response station will have to cease operations. Particularly in light of this protection, there is no reason to burden the process of deploying MDS and ITFS response stations with any of the additional requirements suggested by the Catholic Television Network (CTN).

Because of the conservative nature of the proposed rules and the safety net that the Petitioners have proposed, the Commission should reject calls for limiting response station use to just a few MDS channels or requiring spectrally inefficient guardbands. Our technical staff is confident that so long as the 0 dB adjacent channel desired-to-undesired signal ratio requirement is enforced (and the Petitioners have proposed to retain that requirement), response stations can operate without causing adjacent channel interference. Although CTN has apparently retreated from its initial proposal for a 24 MHz guardband, even its current call for establishment of a 6 MHz guardband is unduly restrictive and could, as a practical matter, preclude many ITFS licensees from ever deploying two-way services on their own channels.

Hybrid also concurs with the Petitioners that the fears of interference due to extreme overload have been greatly exaggerated. As the Petitioners have correctly demonstrated, such overload will rarely occur, and will never occur where, as in most markets, all MDS and ITFS channels are collocated and response stations will be oriented towards the transmission site. And, the Petitioners have correctly pointed out that there are a host of techniques that can be deployed to prevent any interference before it occurs. Since the Petitioners have proposed rules under which the licensee of the response station will have to cure interference or cease operating, the licensee has every incentive to carefully engineer the response station and take all necessary protective steps. Moreover, in the unlikely event that interference occurs despite those protective steps, other techniques exist that can be deployed to immediately cure that unanticipated interference. To adopt CTN's burdensome proposals for avoiding even this minuscule risk of interference would be akin to using a neutron bomb to kill a fly.

Finally, Hybrid must express its concern that this proceeding be resolved as rapidly as possible. As Commissioner Powell has noted several times, even if correct, a decision made too late might as well have never been made. We fear that could prove to be the case here. We strongly agree with the views expressed by American Telecasting, Inc. in its April 9, 1998 *ex parte* letter to Commissioner Powell that time is of the essence if MDS and ITFS channels are to be successfully deployed for two-way services. LMDS, WCS, DEMS, 39 GHz and other

services are capable of providing many of the same two-way services that can be provided over MDS and ITFS. Licensees in those services already have a head start and a far more conducive regulatory environment. If this proceeding is permitted to drag on longer, a window of opportunity for MDS and ITFS licensees to deploy two-way services may pass by. Hybrid Networks has itself been hurt by this delay by being subject to the postponement of revenues it could otherwise have achieved as the MDS and ITFS operators have waited for authorization while other wireless frequency operators and the cable TV industry have started services.

Here are some additional thoughts from Hybrid's perspective that will enhance the new technical rules and policies:

- The Commission should adopt rules that will permit all MDS and ITFS channels to be used for response stations assuming compliance with reasonable rules that make adequate provisions for interference protection.
    - Adoption of the rules proposed by the Petitioners will allow MDS and ITFS to evolve from a backward and underutilized video service, to a state-of-the-art, highly interactive, two-way information vehicle. While some ITFS licensees will continue to use ITFS for the broadcast of lecture format instructions as they have for decades, the Petitioners have proposed a regulatory system that will allow more forward-thinking educators to use ITFS in highly innovative ways. This approach leaves behind the moribund talking heads approach and opens up these frequencies to become the new library at Alexandria as a great boon to education for the nation.
    - Because of the technical limitations which make the return path connection run at lower speeds than the downstream, any proposals that would limit return paths to just some of the channels could result in insufficient return path capacity. This would effectively deprive ITFS licensees of the ability to provide two-way services over their own channels.
    - Some laws restricting the location and number of channels that can be converted for return path use in a market, as proposed by CTN, could result in insufficient return path capacity also.
    - Unless enough channels are available to meet the demand for return path use by subscribers, commercial operations will not be viable and financial support for ITFS will suffer.

- The interference protection rules proposed by the Petitioners are extremely conservative.
    - Before constructing response stations, an applicant must submit a detailed application to the FCC and neighboring stations showing compliance with the existing 45 dB/0 dB D/U ratios, be subjected to a 60-day petition to deny period,

and then must always cure any harmful electrical interference that results from response stations.

- The 45 dB and 0 dB benchmarks have proven to be too conservative in the field; they have been used since the early 1980s and there have been only a handful of situations in which actual interference has occurred.
- Moreover, the methodology proposed by the Petitioners for determining compliance with these interference protection standards is extremely conservative, requiring a series of worst case assumptions.
- Without any other commercial operators can be counted upon to take great care in the design and location of response stations, since the marketplace would react negatively if an operator has to discontinue commercial service to a location that has started to receive service.
- Since a two-way system which actually causes no interference could still fail to pass the overly severe screen standard proposed; it is not likely that any two way system could pass these tests.
- By freeing the FCC staff from routine application duties, they will be available to quickly resolve any complaints of actual interference that do arise.

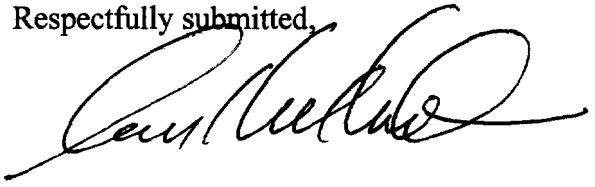
♦ The Commission should allow rapid deployment of two-way facilities.

- The viability of commercial service would be undercut if subscribers to two-way services must wait 30 days or more for testing to occur prior to initiation of service. The handicap imposed by such a wait would artificially restrict competition; potential subscribers want immediate service, and no other competing two-way service is required to undertake similar testing. If truly competitive commercial two-way wireless service is not viable, financial support for ITFS will be diminished.
- The testing period proposed by CTN is regulatory overkill. Because 45 dB and 0 dB interference protection standards are conservative, the proposed methodology for demonstrating compliance with those standards is also conservative. System operators have a strong incentive to engineer systems to avoid interference; the risk of actual interference is almost nonexistent.

- The proposed protection for response station hubs is appropriate and will not be unduly difficult for adjacent channel licensees to meet.

Thank you for consideration of Hybrid's point of view on these matters.

Respectfully submitted,



Carl S. Ledbetter
Chairman, President and Chief Executive Officer
Hybrid Networks, Inc.

cc: Hon. William E. Kennard
Hon. Susan Ness
Hon. Harold Furchtgott-Roth
Hon. Michael K. Powell
Hon. Gloria Tristani
Roy Stewart
Keith Larson
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