

maintaining sufficient service link margins to reproduce the original information transmitted by the satellite. *Further Notice*, para. 138. The *Further Notice* notes the concerns of some commenters about the use of terrestrial repeaters to originate local programming, as well as the comments of the applicants in support of terrestrial repeaters. *Id.*, para. 139. The comments in support of terrestrial repeaters discuss the value of such facilities to improve the service link margin in difficult propagation environments and the complementary nature of the terrestrial facilities. *Id.*, para. 140. In discussing the licensing process for repeaters, the Commission recognizes that it would be burdensome for both the Commission and the licensees if a separate authorization process were required for each repeater. *Id.*, para. 142. At the same time, the Commission recognizes that it must consider the need to coordinate repeater operations with other countries that might be affected, and environmental processing and tower site issues. *Id.* The *Further Notice* includes specific proposed rules. *Id.*, Appendix C.

Discussion

The Need for Terrestrial Repeaters. AMRC supports the Commission's proposal to permit the use of terrestrial repeaters to improve the availability of DARS. Throughout the Commission's rulemaking and licensing process, AMRC has advocated the use of DARS to provide a high-quality, nationwide service. *See, e.g.*, Comments of AMRC (September 15, 1995). To operate a DARS system in the frequencies the Commission allocated to the service will require terrestrial repeaters to improve the effective coverage of the system. This is particularly important in a mobile environment, where without such facilities users would be subjected to an annoying loss of service while they are listening, as the signal level changes. In a digital environment, the loss of an adequate signal can be particularly annoying, since it can produce a total loss of audio. Terrestrial repeaters can be used very effectively to compensate for fading or

blockage of the satellite signal.^{2/}

The Licensing Process. AMRC supports the Commission's proposal to use a blanket licensing process. An individual licensing process will be unnecessary in almost all cases, in light of each licensee's exclusive authorization to use its frequencies. Interference issues can be resolved by requiring the licensees to maintain appropriate limits on their out-of-band emissions. To avoid interference to Canadian and Mexican stations, the U.S. DARS licensees can be required to operate their terrestrial repeaters within limits agreed to in coordination. Only if a licensee proposes to exceed those limits would an individual application be required. Operation of terrestrial repeaters would be required to comply with the Commission's rules concerning antenna structure clearance (Section 17.4) and radiation hazards (Sections 1.1301 and 1.1319). AMRC anticipates that its terrestrial repeater operations will not raise any unusual or difficult tower site or radiation hazard issues. As a general matter, terrestrial DARS repeaters will operate from the same kinds of towers and tower heights as broadcast transmitters and at a lower power.

The *Further Notice* proposes to use blanket licensing for terrestrial repeaters, but the actual proposed rules are somewhat ambiguous on this point. In particular, proposed new Section 25.144(e) requires licensees to make a specific showing concerning international coordination, antenna structure clearance, and environmental effects before the Commission will authorize their implementation. AMRC proposes as an alternative that the Commission permit DARS licensees to operate terrestrial repeaters without any prior approval process, as long as the licensee certifies

^{2/} AMRC has not yet determined the actual number of terrestrial repeaters that it will deploy. That number depends on several factors, including the final satellite system design, the results of frequency-specific propagation studies that have not been completed, and studies of the significance of blocking and of interference generated by various terrestrial sources, such as microwave ovens. In any event, AMRC anticipates that the deployment of some number of terrestrial repeaters will be critical to providing a high-quality service.

that any repeaters it operates are and will continue to comply with the Commission's rules. In isolated cases in which certification may not be possible, the licensee may submit a specific request to the Commission with a showing that a grant of a license for that particular facility would be in the public interest.^{3/}

Original Programming. AMRC views DARS as a nationwide service and does not intend to use its terrestrial repeaters to originate local programming. As such, it does not object to the Commission's proposal to preclude the use of terrestrial repeaters to originate programming.

Conclusion

Therefore, based on the foregoing, AMRC urges the Commission to permit flexible

^{3/} The new wording of Section 25.144(e) would be as follows:

...

Before implementing terrestrial gap-fillers, a satellite DARS licensee must certify that it is in compliance and will remain in compliance with the following:

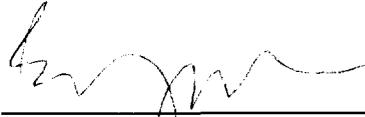
- (1) International coordination. Terrestrial transmitters operations are such that emissions of the licensee's system in Canada and Mexico do not exceed that which has been coordinated with the appropriate affected administration.
- (2) Antenna structure clearance. Terrestrial transmitter construction and alteration comply with the requirements of Section 17.4 of the Commission's Rules;
- (3) Environmental. Terrestrial transmitters comply with the Commission's Rules for environmental effects as defined by Sections 1.1301 through 1.1319 of the Commission's Rules.

If, with respect to one or more specific terrestrial repeaters, an applicant is unable to provide such a certification or the certification becomes invalid, the licensee must submit individual applications for authority to operate the repeaters at issue.

deployment of terrestrial repeaters as part of DARS, as discussed above.

Respectfully submitted,

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