

**NARRATIVE STATEMENT, REQUEST FOR NATIONWIDE
SCOPE, AND REQUEST FOR LIMITED MARKET STUDY**

Narrative Statement. By this application, Trex Enterprises Corporation (“Applicant”) seeks Commission consent for the testing and experimentation of a fixed, point-to-point data communications system using the upper millimeter wave bands, *i.e.*, spectrum above 70 GHz. In this experiment, Applicant seeks to test transmissions in the 71-76 GHz and 92-95 GHz bands.

The proposed experiment is in the public interest because, in accordance with Section 5.63 of the Commission’s Rules, it will contribute to the development, extension, or expansion, or utilization of the radio art. Heretofore, the upper millimeter wave band has not been used or developed by commercial interests and has only been used lightly by government interests. Advances in technology have led to the development of equipment that offers the possibility of providing high-speed, high throughput communications in bands of spectrum that were previously thought to be unusable or marginally useable. It should be noted that significant development and testing has already been undertaken with respect to Applicant’s technology and Applicant is confident that its real-world testing will yield positive and fruitful results.

The Applicant wishes to continue its testing. More specifically, the Applicant wants to demonstrate that its technology can provide reliable high-speed, high-throughput communications in all weather conditions. In addition, the experiment will establish the distances at which communications links may be reliably maintained. If successful, the Commission and the American public may find significant and important uses or spectrum above 70 GHz.

Nationwide Scope. Although the application only specifies Black Mountain, San Diego, California, as a testing site, Applicant intends to test at several locations, including locations in Hawaii and Alaska. Applicant requests that, pursuant to this application, it be provided with the ability to test anywhere in the United States as long as the appropriate environmental and non-interference requirements, if any, are satisfied. The nationwide scope of the experimental license will permit Applicant to its equipment in varying weather conditions. This will enable the Applicant to gain valuable information on the effect of different environments on upper millimeter wave band communications.

If the Commission does not believe the experimental license should be granted on a nationwide scope, Applicant requests the opportunity to meet with the Commission to discuss establishing the geographic scope of the experiment.

Allocation Status of 71-76 GHz and 92-95 GHz Bands. Currently the 71-74 GHz, 74.0-75.5 GHz, and 92-95 GHz bands are allocated on a co-primary basis for fixed, mobile, and fixed-satellite services, as well as mobile satellite services (71-74 GHz band) and radiolocation (92-95

GHz band). All three bands are allocated for Federal Government and Non-Federal Government use. See 47 C.F.R. § 2.106. WRC-2000 extended the co-primary allocation of fixed, mobile, and fixed satellite services to the 75.5-76.0 GHz band. WRC-2000 also added a broadcasting/broadcasting satellite allocation to the 74-76 GHz band. In the 92-95 GHz band, WRC-2000 eliminated the co-primary allocation of fixed and mobile services from the 94.0-94.1 GHz band and added a Radio Astronomy allocation to the band. Between current allocations and allocations from WRC-2000, the 71-76 GHz band and the 92-95 GHz, except for the 94.0-94.1 GHz, are allocated for fixed services, such as what Applicant wishes to test. Therefore the Commission can grant an experimental license for fixed services in these bands that are or will be consistent with current allocations or allocations in WRC-2000.

SUPPLEMENTAL STATEMENT REGARDING REQUEST FOR MARKET STUDY AUTHORIZATION

Limited Market Study. In conjunction with its experimentation regarding the use of above 70 GHz millimeter wave bands, pursuant to Section 5.3(j) and 5.93 of the Commission's Rules, Applicant requests that it be authorized to conduct limited market studies.

Initially, Applicant intends to conduct limited market studies in conjunction with two resort hotels in the Hawaiian Islands. These studies will provide invaluable insight and information regarding the use of above 70 GHz millimeter wave bands to provide reliable high-speed, high-throughput wireless data communications to remote rural areas, *i.e.*, areas where there is no access to fiber wireline facilities. It is anticipated that the cost of the trials will be funded in part by Applicant, the remotely-located resorts, and possibly the local tourist bureau. It is not Applicant's intention to realize profits from any limited market study for private sector wireless data communications.

It should be noted that during the term of the requested experimental license, Applicant intends to identify additional opportunities for limited market study trials regarding the use of above 70 GHz millimeter wave bands for private sector wireless data communications. Like the Hawaiian studies, Applicant does not intend to profit from such limited market studies.