



TOYOTA

TOYOTA TECHNICAL CENTER, USA, INC.

Exhibit #97620

June 23, 1997

Mr. Carl Huie
Federal Communications Commission
Experimental Radio Services
PO Box 358320
Pittsburgh, PA 15251-5315

Subject: Toyota Technical Center's Application for an New Radio Station Authorization

Dear Carl,

As was discussed in our telephone conversation this week, Toyota would like to apply for a New Radio Station Authorization for the purpose of operating a mobile radar device mounted to the chassis of our Advanced Safety Vehicle (ASV). The radar device gathers input for collision avoidance systems. Your office provided a 3-month Special Temporary Authority (copy attached) earlier this year for a system demonstration at a Media Symposium on the Toyota Arizona Proving Grounds in April, 1997. Toyota would like to demonstrate the ASV to The ABC Evening News at the Arizona Proving Grounds during the week of July 20, 1997. A 2-year Authorization would eliminate the need to file frequent STA applications.

The radar device operates in the milliwave frequency band of $59.5 \text{ GHz} \pm 37.5 \text{ MHz}$, the attenuation of which is 15 dB/km. The unit is manufactured by Fujitsu Ten and has a model number DML4N-30211 with a Japan MPT certification number 89767. The device has an effective radiated power emission of 4 milliwatts, with an antenna gain of $30 \text{ dB} \pm 1 \text{ dB}$. The spurious power emission is less than 100 microwatts. The detection range is 100 meters or more, and the signal is classified as a Frequency Modulated - Continuous Wave type device. The unit is mounted less than 1 meter above the road. A single vehicle with unit will be imported for demonstration purposes. Verification of the system operation will be conducted prior to the media demonstration, and an authorization start date of July 14, 1997 would give us ample time to perform these tasks.

If further information is necessary, I will be pleased to provide the information upon request.

Sincerely,

Jim Bauer
Staff Engineer, Electro-Mechanics