

BROADCAST SPORTS TECHNOLOGY
FCC Form 442, Exhibit A
Experimental Application

Applicant, Broadcast Sports Technology (BST), is a manufacturer and provider of video transmission equipment for remote video and film production at sporting events, and in particular, automobile competitions, including automobile racing events throughout the United States. The principal products of BST are video camera/transmitters which provide in-car video for film and videotape production.

BST is in the process of development of new video camera/transmitter equipment. The goal of the company is to use compression technology to permit a greater number of cameras and transmitters to be used in the same available bandwidths, thus to permit camera operation in more race cars during the same race than is possible with currently authorized devices. BST is experimenting with video compression techniques and newer, more compact camera/transmitter devices for in-car use. Given the harsh ambient conditions in the cars, the development of more reliable, smaller, and smaller bandwidth devices is an important goal with respect to the furtherance of this technology, which both television and film audiences increasingly appreciate and expect.

Operation pursuant to this experimental authority will be limited to certain automobile racing events over a period of eighteen months within the Continental United States, Alaska and Hawaii, to permit real-time testing of new designs. It is anticipated that thereafter, based on the results of the tests, a final version of a new camera/transmitter will be developed and an application for type acceptance will be filed with the Commission for permanent authorization. The equipment being tested would actually be used in the cars, and transmissions therefrom would be used in production during the period of the developmental authorization.

Given the nature of the experimental operation to be conducted, it is requested pursuant to Section 5.55(b) of the Rules that up to ten mobile transmitters be authorized for simultaneous operation, to determine interference parameters between and among the camera/transmitter units. The frequency bands requested for such operation are allocated domestically, according to Section 2.106 of the rules, for fixed and mobile operation, government radiolocation, and secondary amateur use. Prior to initiation of operation at any location in the 2300-2310, or 2390-2425 MHz bands, applicant will coordinate with local amateur frequency coordinators. With respect to operation at 2310-2390 MHz, applicant will coordinate in advance of commencement of operation with the Aeronautical Flight Test Radio Coordination Council (AFTRCC). No interference will be caused to any licensee, and upon any complaint, operation will be terminated immediately.

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This application is submitted as an application for a new experimental authorization. However, the applicant has recently received an experimental authorization for certain telemetry and telecommand operation (a separate and different course of experimental operation for a shorter period of time) at frequencies in the 450 MHz, 470-608 MHz, and 944-952 MHz bands. See, File No. 3541-EX-PL-92, call sign KO2XDO, granted February 12, 1993. Should it be more expedient for the Commission, modification of that authorization to include the operation requested herein as well, such would be agreeable to the applicant, provided that the additional time for such operation requested herein is provided in the modified authorization.

The goals of the operation are to determine optimum frequencies, bandwidth, and circuit configuration for mobile video camera/transmitter units, and the proper techniques for optimizing the number of camera/transmitters in race cars that can be operated simultaneously. This will culminate in the filing of type acceptance applications for new video camera/transmitter devices.