

Broadcast Sports International, LLC
Application for Special Temporary Authority
File No. 1577-EX-ST-2021

Narrative Explanation of Operation and Course of Experimentation

Broadcast Sports International, LLC (BSI) is a preeminent video production company engaged in production of sports and other entertainment programming, electronic news gathering and program production for broadcast and other media distribution. It is routinely retained to provide video production at automobile racing events, professional golf tournaments and other sporting events in the United States. BSI has been retained by NASCAR to develop an enhanced system for providing video, audio and data from each car at a race, both for network broadcast purposes and for purposes of fan enhancement at individual racing events. This new system has been developed by BSI, and it has been tested pursuant to a granted STA (See, WR9XMQ, File No. 0080-EX-ST-2021 at NASCAR racing events earlier this year. It involves short-range transmission of video, as is currently done, but on an expanded basis from many race cars, and also transmission of data over short paths to provide real-time telemetry from the race cars to the race audience and for broadcast purposes. The system utilizes a variety of frequency bands between 5.650 GHz and 7.500 GHz for low-power video and data emissions. The new system required a total redesign of the microwave transmitters deployed in the race cars. The design is complete, and the testing has been successful.

However, BSI cannot construct licensable equipment for installation in the race cars at all venues using this new design, due to the acute, temporary global shortage of integrated circuits. Due to that “chip shortage”, BSI is unable to complete and deploy these 5.6-7.5 GHz transmitters prior to the end of May, 2022. It is anticipated that by June of 2022, the chip shortage will be resolved, and BSI can proceed with its developed new 5.6-7.5 GHz system. In the meantime, however, NASCAR has obligated BSI, by January of 2022, to supply the NASCAR racing series with live, on-board camera coverage from every car in the race for their network and online clients, for delivery of video for viewers. This necessitates the transmission of 40 simultaneous, 8-MHz wide COFDM microwave carriers for video, audio and data at each race venue.

In the past, BSI has obtained AFTRCC-coordinated FCC STAs for 2360-2390 MHz and 1435-1525 MHz, and, where possible, has made licensed use of the 2 GHz LTTS/BAS band at 2025-2110 MHz for automobile racing events. Even if the entirety of this spectrum is available at each NASCAR race venue during early 2022, however, it will not be sufficient to provide the number of video bandwidth channels needed by NASCAR that will ultimately be provided by the 5.6-7.5 GHz system developed by BAS. Based on extensive research, the only band that could be used that would provide sufficient bandwidth to provide the service to NASCAR that it requires is at 2180-2290 MHz, which is allocated for exclusive Federal government use. This application requests, *on a one-time, not to be repeated basis*, use of that band for short-range, terrestrial, video and data transmission at low power and low power spectral density.

The schedule would be very limited, extending from February 6 through May 29, 2022 at 15 racing venues, for typically two days per location, including set up and testing and the use of the

system during the actual race. Most race venues are in rural areas. The 2022 schedule is as follows:

6-Feb 13-Feb Daytona Beach FL
18-Feb 20-Feb Homestead FL
25-Feb 27-Feb Las Vegas NV
4-Mar 6-Mar Fontana CA
11-Mar 13-Mar Sonoma CA
18-Mar 20-Mar Phoenix AZ
25-Mar 27-Mar Bristol TN
1-Apr 3-Apr Richmond VA
7-Apr 9-Apr Martinsville VA
22-Apr 24-Apr Talladega AL
28-Apr 30-Apr Kansas KS
6-May 8-May Darlington SC
13-May 15-May Dover DE
20-May 22-May Austin TX
27-May 29-May Charlotte NC

The occupied bandwidth at each venue would be 8 MHz per channel, at 250 mW maximum power output, and 0 dB gain, omnidirectional antennas, mounted at up to 4 feet AGL inside the track areas. Emissions outside the race venue would be highly attenuated.

BSI has no intention of making any use of the 2180-2290 MHz band after chip sets are available for its new 6-7 GHz system in mid-2022 or at any venue other than as specified above.

Should any interference be reported to the Stop Buzzer contact, all operation will cease at that location and not resume unless and until the complainant is satisfied that the interference has been remediated or it is not caused by the BSI testing. At the end of each test at each location, the equipment under test will be removed and retained by BSI, without exception. **The Stop Buzzer contact for each event will be Mr. Matt Butler, whose mobile telephone number is 410-693-5933.**

Any questions should be addressed to BSI's Communications Counsel:

Christopher D. Imlay
Booth, Freret & Imlay, LLC
14356 Cape May Road
Silver Spring, MD 20904-6011

Office telephone: 301-384-5525
Mobile telephone: 301-351-3795
e-mail: chris@imlaylaw.com