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Marlene H. Dortch, Secretary Federal Communications Commission 445 12th Street, SW Washington, DC 20554

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Robert Gehman, Jr., PE Jeffrey C. Gehman Ryan C. Wilhour William T. Godfrey, Jr. William J. Kessler, PE, Emeritus

Re: Request for Experimental Authorization

Georgia Public Telecommunications Commission Station WJSP-FM, Warm Springs, Georgia Facility Identifier Number: 23927

Dear Ms. Dortch:

Georgia Public Telecommunications Commission ("GPTC"), licensee of FM broadcast station WJSP-FM, Warm Springs, GA, pursuant to Section 73.1510 of the FCC Rules, hereby requests experimental authority to test IBOC operation with asymmetrical power levels in the digital sideband.

The proposed experimental operation would increase the digital Effective Radiated Power ("ERP") to -10 dBc on the lower sideband ("LSB") and would increase the digital ERP to -14 dBc on the upper sideband ("USB"). The attached Engineering Statement prepared by Kessler and Gehman Associates, Inc. ("KGA") demonstrates that the proposed operation complies with the contour nonoverlap provisions of the Media Bureau's January 29, 2010. Order (Digital Audio Broadcasting Systems and their Impact on the Terrestrial Radio Service. MM Docket No. 99-325, 25 FCC Rcd 1182).

Public Interest would be served by grant of the requested experimental authority, in that the results of the experimental operation would provide information as to the practicality of asymmetrical sideband IBOC operation by FM stations, currently the subject of a Commission Inquiry. Accordingly, pursuant to Section 73.1510 of the Commission's Rules, GPTC respectfully requests experimental authority.

Sincerely,

William T. Godfrey, Jr. **Engineering Associate**

(bill@kesslerandgehman.com)

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ENGINEERING TECHNICAL STATEMENT PREPARED BY WILLIAM T. GODFREY, JR. WITH THE TELECOMMUNICATIONS CONSULTING ENGINEERING FIRM KESSLER AND GEHMAN ASSOCIATES, INC. ("KGA") IN CONNECTION WITH A REQUEST FOR EXPERIMENTAL AUTHORITY TO TEST IBOC OPERATION WITH ASYMMETRICAL POWER LEVELS IN THE DIGITAL SIDEBAND PURSUANT TO SECTION 73.1510 OF THE FCC RULES FOR THE WJSP-FM FULL-SERVICE FM BROADCAST FACILITY (BLED-20080516AAS) LICENSED TO THE GEORGIA PUBLIC TELECOMMUNICATIONS COMMISSION ("GPTC").

The Commission is currently considering a petition to allow increased asymmetrical digital power where possible on a regular basis (DA 11-1832, released November 1, 2011). At this time, stations requesting increased digital power using asymmetrical sidebands must request such operation by filing for an experimental authorization pursuant to 47 C.F.R. Section 73.1510.

Accordingly, Georgia Public Telecommunication Commission (GPTC) respectfully requests authority to test IBOC operation with asymmetrical power levels in the digital sidebands for the WJSP-FM facility. The proposed experimental operation would increase digital power to -10 dBc on the lower sideband (LSB) and up to -14 dBc on the upper sideband (USB). An interference study demonstrated that the WJSP-FM facility's USB is limited to -14 dBc due to surrounding upper first adjacent channel stations. Since WJSP-FM operates on channel 201, there are no lower first adjacent channel issues; therefore, WJSP-FM can operate at -10 dBc on its LSB. The proposed operation complies with the contour nonoverlap provisions of the commission's order (*Digital Audio Broadcasting Systems and Their Impact on the Terrestrial Radio Service, MM Docket No. 99-325, 25 FCC Rcd 1182*).

GPTC is authorized to operate the WJSP-FM full-service broadcast FM facility on Channel 201 (88.1 MHz) with an ERP of 42.0 kW at an antenna height radiation center of 283.5 meters Above Ground Level ("AGL") using a nondirectional, circularly polarized antenna. The WJSP-FM facility currently operates in the hybrid mode using symmetrical sidebands with a digital power of -20 dBc pursuant to its current FCC authorization (BDNED-20081119ATC). GPTC proposes to operate the

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WJSP-FM facility in hybrid mode using asymmetrical sidebands using the following Transmitter Power Outputs (TPO)¹:

Analog	24.10 kW
Digital (LSB) - 10 dBc	1.21 kW
Digital (USB) - 14 dBc	0.48 kW
Combined (analog + digital)	25.79 kW

It will be necessary to reduce digital power or cease IBOC operation if complaints of interference are received. A report detailing the methodology employed and the results obtained will be submitted within ninety days following the conclusion of the experimental operation pursuant to 47 C.F.R. §73.1510(d). The report will describe the test procedures in detail, identify those adjacent channel stations vulnerable to interference and note any additional interference observed during the tests. The report will also characterize the observed changes in digital coverage.

Environmental Impact

The WJSP-FM Channel 201 Class C hybrid facility will have no significant environmental impact as defined in §1.1307 of the FCC Rules. The FM transmitter, transmission line and antenna system will produce a maximum ERP of 42 kW (C-pol) using the TPOs depicted above. It was determined that the maximum lobe of radiation from the base of the tower will occur at approximately 230.4 feet from the base of the tower (952.3-foot radial distance from the antenna center). At approximately 230.4 feet from the base of the tower, the depression angle of the main lobe will be approximately 76.0° below the horizontal. At that point, the relative field is 0.223 and the power density six feet above the ground would be approximately 0.0017 mW/cm². This will only be 0.17% of the Maximum Permissible Exposure (MPE) limits for Occupational/Controlled Exposure and only 0.83% of the MPE limits for General Population/Uncontrolled Exposure authorized by the American National Standards Institute (ANSI).

¹ Note that the actual individual sideband powers are 3 dB lower than the nominal power, because of the effect of summing the two sidebands to obtain the overall digital ERP. For example, if a station operates with symmetric sidebands, each -13 dBc (5% of analog carrier level) the total digital power in the upper and lower sidebands is -10 dBc (10% of analog carrier). In the instant case, the upper sideband TPO and ERP are -17 dBc and the lower sideband TPO and ERP are -13 dBc.

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Since operation of the WJSP-FM Channel 201 hybrid facility will not exceed 5.0% of the MPE limit for Occupational/Controlled Exposure or General Population/Uncontrolled Exposure at any point on the ground, the WJSP-FM hybrid facility is not considered a "significant contributor" to the RF exposure environment pursuant to OET Bulletin 65, Edition 97-01. Therefore, contributions of exposure from other sources were not accounted for in this analysis. It is safe to conclude that the emissions will be insignificant and well within the maximum allowable requirements.

If other antennas are placed on the tower in the future, the applicant will cooperate with those users by reducing or completely terminating the power to the antenna when maintenance workers are in danger from electromagnetic radiation emanating from the antenna.

Certification

This technical statement was prepared by William T. Godfrey, Jr., Engineering Associate with the firm Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida, and has been working with the firm in the field of radio and television broadcast consulting since 1998. Mr. Godfrey was a graduate from the University of North Florida and a Distinguished Military Graduate from the University of Florida. As a Professional in the field of Telecommunications he states under penalty of perjury that the information contained in this report is true and correct to the best of his knowledge and belief.

WILLIAM T. GODFREY.

Engineering Associate

11 June, 2013

