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August 23, 2012

FILED/ACCEPTED

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Federal Communications Commission
Office of the Secretary

VIA HAND DELIVERY

Marlene H. Dortch, Secretary Federal Communications Commission 445 12th Street, S.W., TW-A325 Washington, D.C. 20554

Re: Request for Experimental Authorization

KCAQ(FM), Oxnard, California (FIN-25092)

Dear Ms. Dortch:

Submitted herewith on behalf of Point Four LLC, licensee of KCAQ(FM), Oxnard, California, is a request for experimental authorization pursuant to Section 73.1510 of the Commission's Rules, to permit KCAQ(FM) to operate at variance with its licensed parameters for experimental purposes as described in the attached Exhibit 1. KCAQ(FM) previously had such an authorization but, as the Commission has been informally informed, that authority was not implemented based on the licensee's pending change of transmitter sites. The authority sought herein as at the new transmitted site for KCAQ. For ease of reference the FCC letter granting the prior authority is attached as Exhibit 2 hereto.

Should there be any questions regarding this matter, please contact the undersigned.

Respectfully submitted,

David Oxenford

cc:

Charles N. Miller

Enclosures



Point Four LLC

715 Broadway, Suite 320 Santa Monica, CA 90401

August 22, 2012

Marlene H. Dortch, Secretary Federal Communications Commission 445 12th Street. S.W., TW-A325 Washington, DC 20554

ATTN: Audio Division, Media Bureau

Re: Request for Experimental Authorization

Point Four LLC

KCAQ(FM), Oxnard, California (FIN-25092)

Dear Ms. Dortch:

Pursuant to Section 73.1510 of the Commission's Rules, Point Four LLC ("Point Four"), licensee of KCAQ(FM), Oxnard, California (the "Station"), hereby requests an experimental authorization to permit the Station to operate as described below.

KCAQ currently has a construction permit to operate at a new location with an omnidirectional circularly polarized antenna at an authorized effective radiated power of 18.0 kW in each of the horizontal and vertical planes (FCC File No: BPH-20110415ABA). Under Section 73.316 of the Rules, the Station's vertically polarized power can be less than its horizontally polarized power, but its horizontally polarized power is expected to be maintained at the authorized 18.0 kW level on a sustained basis, and is not permitted to be less than its vertically polarized power.

In the extremely rugged and unusual terrain of KCAQ's service area -- which consists of very steep canyons, valleys and mountains — Point Four believes that horizontally and vertically polarized signals can reflect and refract at vastly different levels and angles from one another, resulting in rapid variations in signal strength over short distances, which can give rise to a highly annoying "picket fence" effect in the Station's audio as a vehicular or portable receiver is moving. Point Four believes that this is particularly true when circularly polarized antennas are used to achieve authorized

power in the vertical and horizontal planes by rapidly spinning the polarization of the radio wave as it is transmitted. Point Four believes that this picket fence effect can be eliminated in KCAQ's unusual service area by using vertically polarized power alone.

When the rules for FM broadcast stations were originally enacted, receive antennas were predominantly horizontally polarized yagi or log periodic outdoor designs. But now, there are very few outdoor FM antennas in use, and the vast majority of FM receive antennas are vertically polarized in design, such as vertical masts in vehicles, vertical embedded wiring in vehicle windows, headphone wires in portable receivers, and single wires that typically hang from the backs of desktop radios. Point Four believes that emphasizing vertically polarized signals versus horizontally or circularly polarized signals might possibly provide far better signal quality to Station listeners in the unusual terrain conditions in KCAQ's service area. This has been the case with many mobile wireless technologies, which often rely on vertically polarized transmit and receive antennas. Point Four believes that the same benefits will be achieved for FM broadcast stations in the unusual terrain of KCAQ's service area.

Furthermore, Point Four believes that eliminating power in the horizontal plane might possibly have the additional benefit of providing major energy savings, thereby reducing the Station's carbon footprint at a time when energy conservation and climate change are national and international priorities. Operating the Station with vertical-only polarization could cut energy requirements for the Station's transmitter site nearly in half.

Therefore, subject to the conditions of Section 73.1510(c) of the Rules, Point Four hereby requests authority to experiment with operating KCAQ with a vertically polarized omnidirectional antenna, at the antenna height and location authorized in File No: BPH-20110415ABA, and emitting an effective radiated power of 18.0 kW in the vertical plane alone, without any horizontal component at all. This authority is sought for use during all hours of Station operation and for a minimum period of twelve months. Further details about the parameters, testing, and goals of the proposed experimental operation by KCAQ are contained in the attached engineering statement prepared by consulting engineer Joel Saxberg of Broadcast Engineering and Equipment Maintenance Co. who has been retained to assist the Point Four with this project.

On or before the conclusion of the experimental period, Point Four will prepare a report of its findings for submission to the FCC. Point Four believes that this report will provide highly valuable information that could dramatically improve signal quality and energy-savings for FM broadcasting.

Accordingly, Point Four believes that this experimental operation is entirely consistent with Section 73.1510 of the Commission's Rules and that grant of this authority would be in the public interest. In the event that the Commission has any questions or correspondence regarding this matter, kindly refer them directly to the undersigned.

Point Four certifies that neither it, nor any party to this request for authorization is subject to a denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862.

Respectfully submitted,

Point Four LLC

Alvin R. Souder

Vice President of Member

Attachment

ENGINEERING STATEMENT

APPLICATION BY

POINT FOUR, LLC

FOR EXPERIMENTAL AUTHORIZATION TO OPERATE FM BROADCAST STATION KCAQ

WITH VERTICAL ONLY POLARIZATION

AUGUST 2012

BY: BEEM CO, ARCADIA, CA 626 446 3468

ENGINEERING STATEMENT OF JOEL T. SAXBERG

This report was prepared for Point Four LLC, licensee of FM station KCAQ, CH 284B, Oxnard, California in support of their application for Experimental Authorization to operate the station without any horizontal field component while maintaining the vertical polarization at the maximum ERP authorized for the station.

Need For Experimental Authorization

The proposed experimental authorization will yield valuable data to verify whether vertical only polarization should be generally permitted for FM broadcast stations by the Commission to significantly reduce power consumption and to increase the quality of the received signal in unusual terrain conditions.

My calculations indicate that the power consumption by the FM transmitter would be nearly cut in half by using vertical only polarization instead of the circular polarization it presently uses. The experimental authorization will provide field data to verify this. Energy savings of this order would clearly be in the public interest.

The experimental authorization will also be a tool to verify whether service to the public would or would not be improved by operating the station with vertical polarization only. In my opinion, based on extensive field experience, vertical polarization is the more important mode for satisfactory FM reception on typical receivers, mobile or fixed. I believe experimental operation will demonstrate that, in certain types of terrain, it may be that vertically polarized operation will improve the station's coverage and hence service to the community.

I am personally familiar with a number of non-commercial educational FM facilities near Channel 6 TV stations that operate using reduced or no horizontally polarized component. These modified facilities effectively provide noise free reception over their entire licensed coverage areas.

A number of years ago, I was involved in relocating a circularly polarized antenna on a large cross-section tower. The antenna was mounted on the backside of the tower away from the city. Listener complaints started immediately after the move. The horizontal field was virtually unchanged over the city, however, the vertical field was greatly reduced by the tower mounting structure. After the vertical field was restored by adding vertical parasites, listener complaints ceased. This experience suggested to me that vertical polarization is more important to listeners than horizontal polarization. This experimental authorization would permit the station licensee to collect field data to verify this possibility.

Description Of Experimental Operation

An ERI vertically polarized FM transmit antenna will be installed at the KCAQ main antenna location on Orcutt Ridge authorized in the construction permit in file No. BPH-20110415ABA. The ERP and HAAT will remain as authorized in this construction permit.

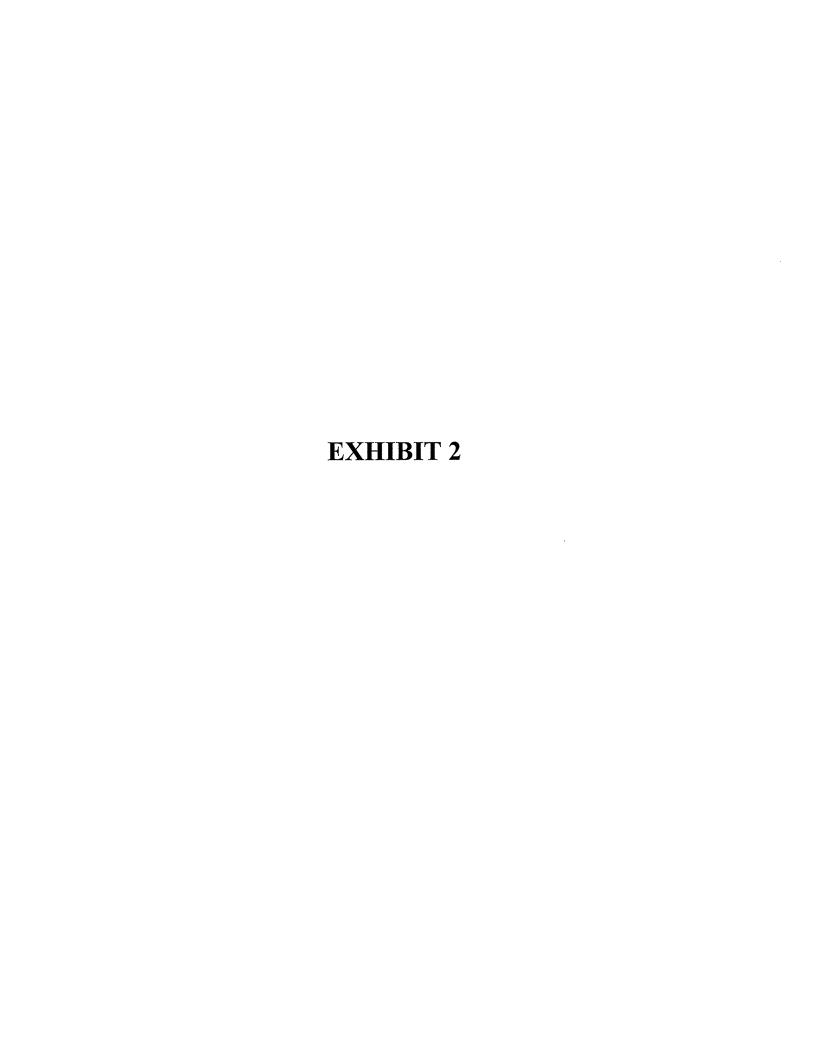
Signal quality will be evaluated by (1) Field Strength measurements with calibrated receivers and receive antennas, and (2) subjective judgments about the quality of the signal using conventional receivers. The company's engineers will evaluate the data to determine whether or not there has been a net improvement in service quality. A report will be provided that will include the key data examined, engineering conclusions, and the reasons for these conclusions.

ENGINEERING CERTIFICATION

JOEL T. SAXBERG deposes and says:

- 1. That he is President of Broadcast Engineering and Equipment Maintenance Company, "**BEEM CO.**", radio engineering consultants. **BEEM CO.** maintains offices at: 2322 S. Second Avenue, Arcadia, CA 91006. Telephone (626) 446-3468
- 2. That he was graduated from California State University at Los Angeles, February 1966, with a Bachelor of Science degree in Electronic Engineering.
- 3. That he has submitted many applications to the Federal Communications Commission for broadcast and auxiliary broadcast construction permits and licenses.
- 4. That his experience in broadcast engineering is a matter of record and he has spent over forty years working in the field of radio engineering.
- 5. That the attached report was prepared by him or under his direction and supervision. That he believes the facts stated therein to be both true and accurate. Statements that are based on information supplied by others are also believed to be true and accurate.
- 6. That he has performed field work on AM and FM broadcast transmitting systems throughout this country and continues to provide technical consulting services on a daily basis to broadcasters.
- 7. That he declares under penalty of perjury the foregoing is true and correct.

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		Joel T. Saxberg



FEDERAL COMMUNICATIONS COMMISSION 445 TWELFTH STREET SW WASHINGTON DC 20554

MEDIA BUREAU AUDIO DIVISION

APPLICATION STATUS: (202) 418-2730 HOME PAGE: www.fcc.gov/mb/audio/

ENGINEER: CHARLES N. (NORM) MILLER TELEPHONE: (202) 418-2767

FACSIMILE: (202) 418-1410 E-MAIL: charles.miller@fcc.gov

March 10, 2010

Brendan Holland, Esq. Davis Wright Tremaine LLP 1919 Pennsylvania Avenue NW, Suite 200 Washington, DC 20006-3402

In re: Gold Coast Broadcasting, LLC

KCAQ (FM), Oxnard, California Facility Identification Number: 25092 Application for Experimental Authorization

Dear Counsel:

The staff has before it a request for an Experimental Authorization, filed November 17, 2009, on behalf of Gold Coast Broadcasting, LLC ("GCB"), licensee of Station KCAQ(FM), Oxnard, California. GCB proposes to conduct experimental operations at the site of Station KCAQ, in to determine the benefits of operation with a vertically polarized signal.¹

GCB proposes to install a vertically polarized antenna on the licensed KCAQ tower at the authorized antenna location, and to operate the station with its licensed effective radiated power, but with no horizontally polarized component. GCB proposes to test the effectiveness of the vertically polarized signal in the "extremely rugged and unusual terrain of KCAQ's service area". GCB states that it believes the problem of "picket fencing" in vehicular receivers can be eliminated through the use of a vertically polarized signal. GCB further states that the FM reception environment has changed. When the rules for FM broadcast stations were originally enacted, horizontally polarized outdoor antennas predominated; however, now there are very few outdoor FM antennas in use, and the vast majority of FM receive antennas are vertically polarized in design, such as vertical masts in vehicles and vertical wires in portable or desktop receivers. GCB further notes that the use of vertical-only polarization could cut energy requirements for the station nearly in half.

Our review indicates that the proposed experimental operation meets the requirements of Section 73.1510 of the Commission's rules and that the proposed experimental operation is not likely to result in interference to any other station. We agree with GCB's assessment that the FM reception environment has evolved over the past 50 years from horizontally polarized to predominately vertical, and that substantial energy saving would result from elimination of the horizontal component of the FM Broadcast signal. Thus, the Public Interest would be served through the collection of data on vertically polarized FM Broadcast signals which could be used

¹ KCAQ is licensed for operation on Channel 284B (104.7 MHz), with effective radiated power of 4.5 kilowatts (H&V) and antenna height above average terrain of 464 meters.

in support of a Petition for Rule Making to modify Section 73.316 of the Commission's Rules to permit the use of vertical-only or predominately vertical polarization by FM stations.

Accordingly, the request for Experimental Authorization IS HEREBY GRANTED. Station KCAQ may operate with a vertically polarized antenna as described above. Effective radiated power shall not exceed 4.5 kilowatts. GCB shall employ whatever means are necessary to prevent excessive exposure of workers or the public to radio frequency radiation, pursuant to Section 1.1310. Within 60 days following completion of the experimental operation authorized herein, GCB shall file a full report of the research, experimentation and results with the Commission, pursuant to Section 73.1510(d). The authority granted herein does not convey or imply any authority for continued operation beyond the expiration date below. Any construction undertaken pursuant to this authority is entirely at GCB's own risk. This authority may be modified or cancelled by the FCC at any time without prior notice or right to hearing.

This authorization expires on March 10, 2011.

Sincerely,

Charles N. Miller, Engineer

Audio Division Media Bureau

cc: Gold Coast Broadcasting, LLC