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Please reply to BRAD C. DEUTSCH  
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August 31, 2015

Our File No. 21110-00100

**VIA EMAIL**

Ms. Susan Crawford  
susan.crawford@fcc.gov  
Media Bureau, Audio Division  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

Re: ***Request for Special Field Test Authorization***  
FCC File No. 20150826ACA  
WGFP(AM), Webster, MA  
Facility ID No. 50232  
**Just Because, Inc.**

Dear Ms. Crawford:

On behalf of Just Because, Inc., licensee of Station WGFP(AM), Webster, Massachusetts, we hereby supplement the above-referenced Request for Special Field Test Authorization ("SFTA") to provide additional technical details in the attached Supplemental Engineering Report and to request that the Commission grant the SFTA for an initial 180-day period in order to allow sufficient time to complete construction and conduct testing of the proposed antenna system.

Should you have any questions regarding this matter, kindly communicate directly with this office.

Very truly yours,

Brad Deutsch

Attachment

cc: Son Nguyen, Audio Division, MB (via email son.nguyen@fcc.gov)

SUPPLEMENT TO ENGINEERING REPORT COVERING  
REQUEST FOR SPECIAL FIELD TEST AUTHORITY  
ON BEHALF OF JUST BECAUSE, INC.  
FOR 940 KILOHERTZ  
WEBSTER, MASSACHUSETTS

AUGUST 2015

SUPPLEMENT TO ENGINEERING REPORT COVERING  
REQUEST FOR SPECIAL FIELD TEST AUTHORITY  
ON BEHALF OF JUST BECAUSE, INC.  
FOR 940 KILOHERTZ  
WEBSTER, MASSACHUSETTS

STATEMENT

This engineering statement is submitted on behalf of Just Because, Inc. (hereinafter referred to as “Just Because”) to supplement a request for Special Field Test Authority (SFTA) pursuant to Section 73.1515 of the Commission’s rules. Just Because is the licensee of AM station WGFP Webster, Massachusetts. Just Because seeks permission to construct a high efficiency broadband antenna (“HEBA”) at the WGFP site. WGFP is licensed to operate with a non-directional antenna on a frequency of 940 kilohertz with power of 1 kilowatt daytime and .004 kilowatts nighttime.

The purpose of the supplement is to provide additional technical data for the proposed antenna, including the coordinates of the proposed operation, a description of the HEBA and the estimated efficiency of the antenna.

TECHNICAL DATA

The coordinates of the proposed antenna site are: 42° 03' 17" N; 71° 49' 59" W (NAD 27). A description of the HEBA is attached. Since the goal of this project is to construct an antenna that meets FCC minimum efficiency standards, the estimated HEBA efficiency is 282 mV/m/km.

DECLARATION

The foregoing was prepared by or under the immediate supervision of Charles A. Hecht of Charles A. Hecht & Associates, Inc., Freehold, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. All statements herein are true and correct of his knowledge except such statements made on information and belief, and as to those statements, he believes them to be true and correct under the penalty of perjury.

Respectfully submitted,

/s/

Charles A. Hecht  
Charles A. Hecht & Associates, Inc.  
19 Mackenzie Court  
Freehold, New Jersey 07728  
(732) 577-0711  
August 31, 2015

# **HEBA ANTENNA**

**BY KURT GORMAN**

## **ABSTRACT**

Construction and tuning will be performed to permit use of a High Efficiency Broadband Antenna (HEBA) in the medium wave broadcast band. These antennas utilize (2) two elements to produce electric and magnetic fields individually. The overall vertical heights are typically less than 5% of the operating electrical wavelength.

## **CONSTRUCTION**

The HEBA is constructed with (2) two elements. A tapered cylinder (E Cylinder) generates the electric field and a metallic disc (D Plane) generates the magnetic field. These elements are spaced above a conductive ground plane. The ground plane is also attached to Earth ground via copper strapping.

## **ANTENNA FEED ARRANGEMENT**

The HEBA elements are electrically excited separately by means of a power dividing / phasing RF circuit. This circuitry consists of impedance matching of each element's coupled impedance to provide equal transmitted power in each element while maintaining proper element electrical phase relationship. Additional input circuitry matches the parallel input impedance feeding each element to the characteristic impedance of the main transmitter feed line (typically 50 Ohms).

## **TUNING**

Proper excitation of the HEBA elements will generate an outward poynting vector

$S = E \times H$ . E represents the time varying electric field and H represents the time varying magnetic field. The time phase relationship of these fields in the interaction zone near the antenna provide the ratio of  $E / H = Z$  (free space). The time phasing of both fields is adjusted to provide maximum radiated field at angles close to the ground.

## **PERFORMANCE**

Proper adjustments of the HEBA at medium wave broadcasting frequencies (500-1700kHz) yields radiated fields considerably higher than that of a monopole antenna of a similar height.

Also, the input impedance and bandwidth are a function of the antenna tuning; this can be optimized for various frequencies. This is not possible with a conventional monopole antenna.