

**MINOR CHANGE APPLICATION**  
**WQUN AM RADIO STATION**  
**QUINNIPIAC UNIVERSITY**  
**1220 kHz - 0.305/1.0 kW - DA2**  
**HAMDEN, CONNECTICUT**  
**December 2002**

**TECHNICAL STATEMENT**

This Technical Exhibit supports the application by Quinnipiac University, licensee of AM Radio Station WQUN, Hamden, Connecticut., proposing to make minor changes in the operating facilities of WQUN. WQUN operates on 1220 kHz at Hamden, Connecticut with 1.0 kilowatt power daytime and 0.305 kilowatt nighttime with different directional patterns for day and night operation. This application will correct the station's center of array coordinates and inconsistencies between the tower heights as they actually exist and those listed in the FCC's Antenna Structure Registration database.

During a review of the tower registration database, it was discovered that the WQUN coordinates, both as licensed and as listed in the ASR database, were incorrect. Correction of the tower heights, as listed in the FCC tower registration database, is also necessary. The FAA has been notified of the proposed corrections and, upon receipt of the expected FAA Determinations of No Hazard, the tower registrations will be modified to reflect the corrected data.

Since there will be no actual construction and no changes are proposed to the operation of WQUN, site plats, photographs and allocation studies (both daytime and nighttime) are not included with this application. Only a correction of the site coordinates and tower registrations

are proposed in this filing. However, since the existing WQUN pattern is augmented, a tabulation of the daytime and nighttime theoretical parameters with augmentations are included as Exhibit #1. This minor change application will correct both the coordinates and tower heights. There is no actual relocation or construction proposed.

Quinnipiac University will also file FCC Form 302-AM, an application for direct measurement of power for WQUN, supported by a partial proof of performance for the directional operation.

\_\_\_\_\_ We have tried to be as accurate as possible in the preparation of this application. All information contained in this application was extracted from the CDBS database. We assume no liability for omissions or errors in this source. Should there be any questions concerning the information contained herein, we welcome the opportunity to discuss the matter by phone at 912-638-8028 or by email at [stu@grahambrock.com](mailto:stu@grahambrock.com).

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**EXHIBIT #1**

WQUN - Daytime  
 Freq: 1220 kHz                    HAMDEN, CT, US  
 Lat: 41-22-32 N                    Lng: 072-55-54 W  
 Power: 1.0 kW  
 Theoretical RMS: 295.80 mV/m@1km    Erss = 328.63 mV/m@1km  
 Standard RMS: 310.77 mV/m@1km      Q = 10.00 mV/m@1km  
 Augmented RMS: 311.78 mV/m@1km

# of Augmentations: 9

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	90.0	0	0	0.0	0.0	0.0	0.0
2	0.600	45.0	180.0	258.0	90.0	0	0	0.0	0.0	0.0	0.0

Azimuth (deg)	Radiation (mV/m@1km)	Span (deg)	Azimuth (deg)	Radiation (mV/m@1km)	Span (deg)
65.00	231.95	26.0	279.00	189.90	14.0
78.00	219.76	12.0	286.00	156.69	12.0
84.00	223.86	12.0	300.00	130.61	12.0
252.00	223.65	12.0	306.00	144.84	12.0
258.00	222.91	12.0			

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WQUN - Nighttime  
 Freq: 1220 kHz                    HAMDEN, CT, US  
 Lat: 41-22-32 N                    Lng: 072-55-54 W  
 Power: 0.305 kW  
 Theoretical RMS: 163.45 mV/m@1km    Erss = 181.59 mV/m@1km  
 Standard RMS: 171.72 mV/m@1km      Q = 5.53 mV/m@1km  
 Augmented RMS: 172.28 mV/m@1km

# of Augmentations: 9

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	90.0	0	0	0.0	0.0	0.0	0.0
2	0.600	45.0	180.0	258.0	90.0	0	0	0.0	0.0	0.0	0.0

Azimuth (deg)	Radiation (mV/m@1km)	Span (deg)	Azimuth (deg)	Radiation (mV/m@1km)	Span (deg)
65.00	128.20	26.0	279.00	104.90	14.0
78.00	121.40	12.0	286.00	86.60	12.0
84.00	123.70	12.0	300.00	72.20	12.0
252.00	123.60	12.0	306.00	80.00	12.0
258.00	123.20	12.0			

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