

ENGINEERING STATEMENT

PROPOSED WAMG(AM) **890 kHz, Dedham , Massachusetts** **January 2006**

The attached materials were prepared on behalf of J Sports Boston, LLC, licensee of station WAMG (AM). WMVP is a Class B station licensed to Dedham, Massachusetts. WAMG operates with 25 kW daytime and 3.4 kilowatts nighttime, using different directional patterns (DA-2 operation).

The instant Minor Change application proposes to increase the nighttime power from 3.4 kilowatts to 6 kilowatts and to modify the nighttime Standard Pattern. No tower construction is proposed. The proposed night pattern uses the same legacy five towers which have been on the site for more than three decades. No changes are proposed in the daytime operation by the instant application.

WAMG hereby requests that part of Part 73.182(q) be waived in regard to a proposed enlargement of the grandfathered contour overlap with WCBS(AM) in southern Massachusetts. A separate Waiver Request is attached at Exhibit 14. The contour overlap is the result of an extremely long (approximately 250 kilometer) saltwater path between WCBS and southern Massachusetts. The conditions are appropriate for a "Spann Waiver". The requested waiver is similar in character but smaller in scope than a waiver already granted between WAMG's daytime operation and WCBS is the same area. (See BP-19990111AD)

ALLOCATION ISSUES

Exhibit 16A is a tabulation comparing the proposed Standard Fields to the maximum allowable fields toward other Class B stations. 6% margin is provided in the direction of the vacant Canadian allocation at Edmundston, New Brunswick. The proposed Standard fields toward all other Class B stations are less than 50% of the allowable limit.

Map Exhibit 16B1 shows the placement of the present and proposed WAMG 0.025 mV/m, 10% skywave interference contours in the direction of the 0.5 mV/m, 50% skywave service contour of co-channel Class A station WLS, Chicago, Illinois. The "domestic" skywave contours (MM Docket 88-508) were used to predict both the WLS and WAMG contours in Exhibit 16B1.

Map Exhibit 16C1 shows the placement of the present and proposed WAMG 0.025 mV/m, 10% skywave contours in the direction of Cuba. The "International" skywave curves were use for the prediction of the contours in Exhibit 16C1.

Map Exhibit 16D1 shows the placement of the present and proposed WAMG 0.25 mV/m, 10% skywave interference contours in the direction of the 0.5 mV/m, groundwave service contour of first adjacent-channel Class A station WCBS, New York, New York. The proposed WAMG contour and the WCBS contour overlap over water. However, Note 2 of Part 73.37 of FCC Rules exempts contour overlap when it occurs “over sea water”.

The WAMG towers are unusually tall, 173.6 electrical degrees. This provides a high degree of vertical suppression in the f-of-theta term (See Part 73.160) resulting in little radiation at high vertical angles. Map 16D1 shows that the proposed 0.25 mV/m skywave contour exists south of Long Island but that, as the contour approaches the south side of Long Island:

- 1) the distance from the WAMG tower decreases,
- 2) the theta angle increases,
- 3) f-of-theta decreases and
- 4) the arriving field falls below 0.25 mV/m before reaching shore.

This is confirmed in Exhibit 16D4, the tabulation of the proposed 0.25 mV/m skywave contour. The entry for an azimuth of departure of 210 degrees True shows the contour to pass through the coordinates 40-35-20.1 North, 72-40-50.3 West. This point is south of the Long Island coastline. The entry in Exhibit 16D4 for 213 degrees True shows that the Field never exceeds 0.25 mV/m at any distance.

Map Figure 16D2 shows the placement of the present and proposed WAMG 0.25 mV/m, groundwave contours in the direction of WCBS’s 0.5 mV/m, groundwave service contour. While groundwave-to-groundwave overlap is rare in a nighttime allocation, due to the extremely long saltwater propagation path, the WCBS contour reaches southern Massachusetts. As WCBS is licensed in the state of New York and as the states of Connecticut and Rhode Island lie between New York and Massachusetts, the appearance of the WCBS contour in the WAMG allocation is surprising.

Exhibit 16D1 shows that there is grandfathered contour overlap between the licensed WAMG contour and the WCBS contour. The power increase proposed by the instant application would increase the on-land area of overlap by a small amount. A Waiver Request is attached as Exhibit 14.

RFR PROTECTION

WAMG is aware of its obligation to protect the public from hazardous levels of non-ionizing radiation. Each of the three towers is surrounded by a locked fence which is no closer to the tower than 7 meters at its closest point. This fence spacing is determined by the higher power of the daytime facility. The spacing is more than is required by the lower nighttime power.

Maintenance personnel may enter these fences for brief periods for the purpose of meter readings without exceeding ANSI exposure limits. In the event that more lengthy work within these fences is required, the station power will be reduced to such level that exposure limits are not exceeded.

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