

**Section 74.1204 Analysis**  
**W242CJ, Brunswick, GA**  
**Channel 242D, 250 watts (ND), 87 m HAAT**  
**February, 2014**

Section 74.1204(a) Contour Overlap Protection Criteria

Attached are a series of maps which demonstrate that proposed technical facility complies with the contour overlap provisions of Section 74.1204(a) of the FCC Rules with respect to all pertinent first-adjacent channel (See Exhibit 1) and second-adjacent channel (See Exhibit 2) assignments, authorizations and applications. Except as noted below, the instant proposal is well clear of all other relevant protection considerations not represented herein.

Section 74.1204(d) Second-Adjacent Channel Protection

As demonstrated herein, the proposed FM translator station also complies with the protection criteria set forth in Section 74.1204(d) of the FCC Rules with respect to second-adjacent channel FM translator station W240CW, Brunswick, GA.

The proposed W242CJ transmitter site is within the protected contour of second-adjacent channel, FM translator station W240CW. Consequently, the translator's interfering contour is located within the W240CW protected contour resulting in contour overlap as defined in Section 74.1204 of the FCC Rules.

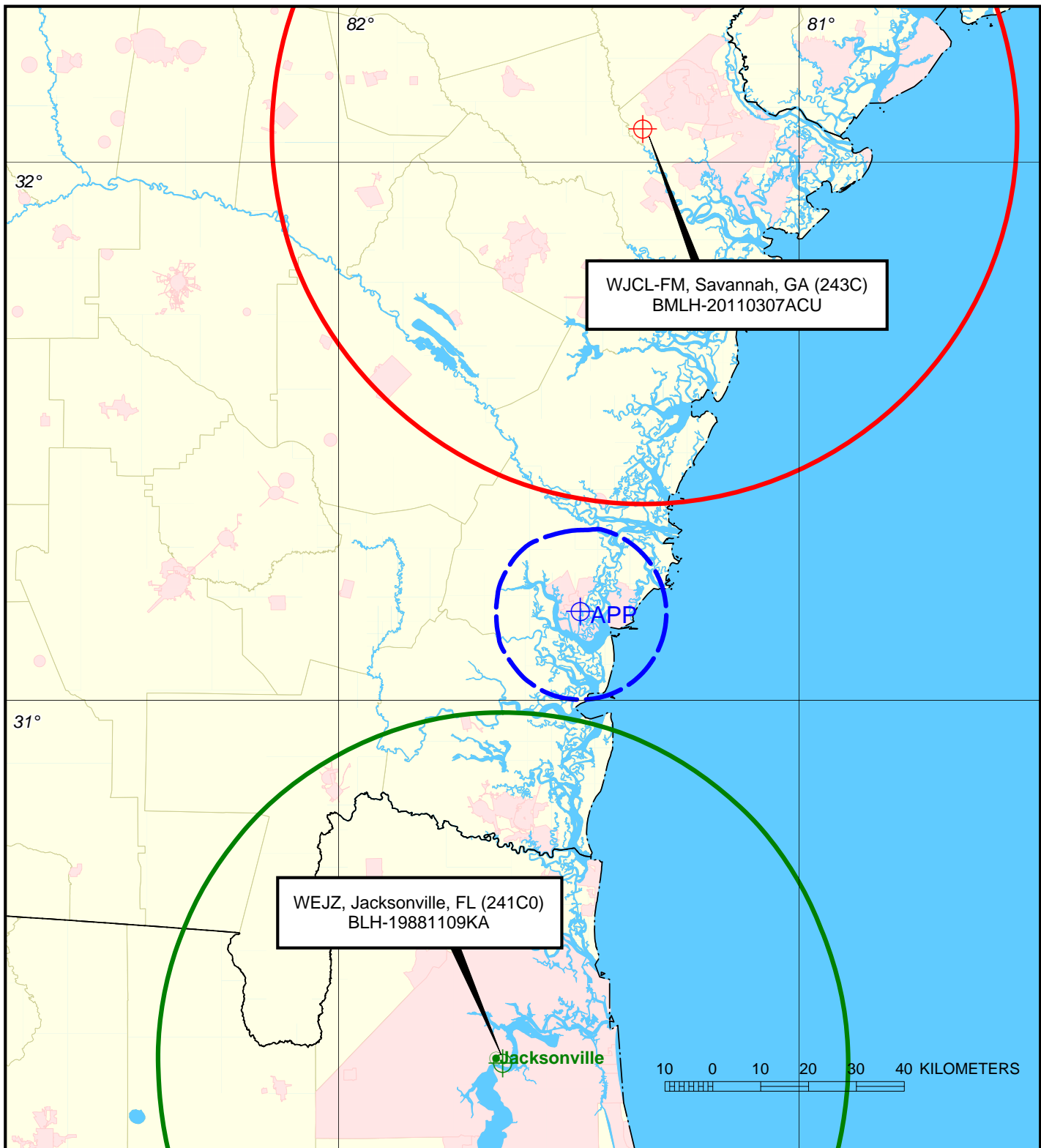
At the proposed W242CJ FM transmitter site, W240CW is predicted to produce an F(50,50) signal strength of 67 dBu. Therefore, in the vicinity of W242CJ, the instant proposal's relevant interfering contour is the 107 dBu contour. According to free space calculations, the proposed W242CJ worst-case predicted 107 dBu contour will extend only 467.8 meters and in no instance will the predicted interference reach to within 30 feet of ground level. As demonstrated in the attached exhibit, the translator's worst-case interfering contour relative to W240CW not only remains well above ground level, but also does not impinge upon any buildings or major roads where there may be an affected population.<sup>1</sup> Therefore, the instant proposal will cause no interference to any population presently served by W240CW.

Accordingly, the proposed facility satisfies Section 74.1204(d) of the FCC Rules with respect to W240CW because it has been "demonstrated that no actual interference will occur due to lack of population or such other factors as may be applicable".

---

<sup>1</sup> As shown on the attached aerial view map, there are no buildings of sufficient height which have inhabitable space in the predicted interference area which consists largely of swampland.

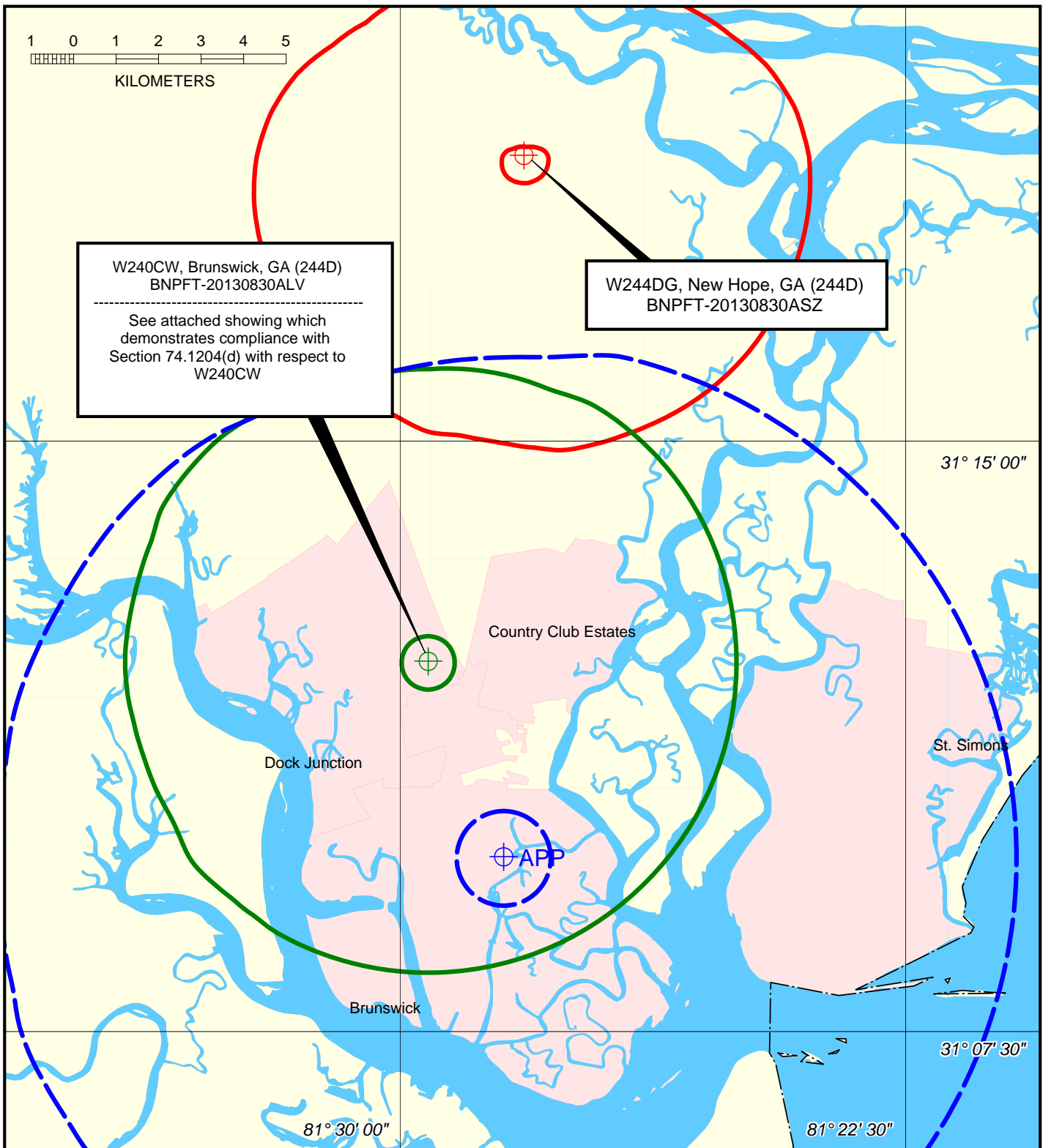
Full Service Protected Contours: 60 dBu F(50,50) - Solid Contours  
 Proposed Translator Interfering Contour: 54 dBu F(50,10) - Dashed Contour



FIRST-ADJACENT CHANNEL SECTION 74.1204  
 FM TRANSLATOR VS. FULL SERVICE FM  
 CONTOUR OVERLAP STUDY  
 W242CJ, BRUNSWICK, MI  
 CH. 242D, 250 watts (ND), 87 m HAAT  
 FEBRUARY, 2014

Protected Contours: 60 dBu F(50,50) - Outside Contours  
Interfering Contours: 100 dBu F(50,10) - Inside Contours  
Instant Proposal - DASHED

EXHIBIT 2



SECOND-ADJACENT CHANNEL SECTION 74.1204  
FM TRANSLATOR VS. FM TRANSLATOR  
CONTOUR OVERLAP STUDY  
W242CJ, BRUNSWICK, MI  
CH. 242D, 250 watts (ND), 87 m HAAT  
FEBRUARY, 2014

**W242CJ**  
**Brunswick, Georgia**

**ERP**      **250.00**      WATTS

**Maximum ERP**      *Interfering contour value ----->*      **107**      dBu  
0.25      kW      *RCAGL (m)----->*      **88**      meters  
*Antenna Type ----->*      **5**

Antenna Type      5      =      **4-bay, half-wave spaced**

Angle Below Horizontal (degrees)	Vertical Pattern (REL. FIELD)	W242CJ ERP (kW)	W242CJ ERP (dBk)	W242CJ Free-Space Distance to interfering contour (meters)	Slant Distance (meters) *	Height of interfering contour above ground (feet)**	Proposed Interference within 30 ' of ground level?	Horizontal Distance (meters) ***	Horizontal Distance (feet) ***
0	1.000	0.2500	-6.021	494.3	N/A	288.7			1621.6
5	0.950	0.2256	-6.466	469.6	905.3	154.4	No	467.8	1534.7
10	0.815	0.1661	-7.797	402.8	454.4	59.2	No	396.7	1301.6
15	0.615	0.0946	-10.243	304.0	304.8	30.6	No	293.6	963.3
20	0.392	0.0384	-14.155	193.8	230.7	71.3	No	182.1	597.3
25	0.180	0.0081	-20.915	89.0	186.7	165.4	No	80.6	264.5
30	0.000	0.0000	-86.021	0.0	157.8	288.6	No	0.0	0.1
35	0.117	0.0034	-24.657	57.8	137.6	179.9	No	47.4	155.4
40	0.183	0.0084	-20.772	90.5	122.7	98.0	No	69.3	227.3
45	0.200	0.0100	-20.000	98.9	111.6	59.4	No	69.9	229.3
50	0.188	0.0088	-20.537	92.9	103.0	55.2	No	59.7	196.0
55	0.151	0.0057	-22.441	74.6	96.3	88.1	No	42.8	140.5
60	0.113	0.0032	-24.959	55.9	91.1	130.0	No	27.9	91.6
65	0.075	0.0014	-28.519	37.1	87.1	178.5	No	15.7	51.4
70	0.045	0.0005	-32.956	22.2	84.0	220.1	No	7.6	25.0
75	0.025	0.0002	-38.062	12.4	81.7	249.6	No	3.2	10.5
80	0.011	0.0000	-45.193	5.4	80.1	271.1	No	0.9	3.1
85	0.009	0.0000	-46.936	4.4	79.2	274.2	No	0.4	1.3
90	0.000	0.0000	-86.021	0.0	78.9	288.6	No	0.0	0.0

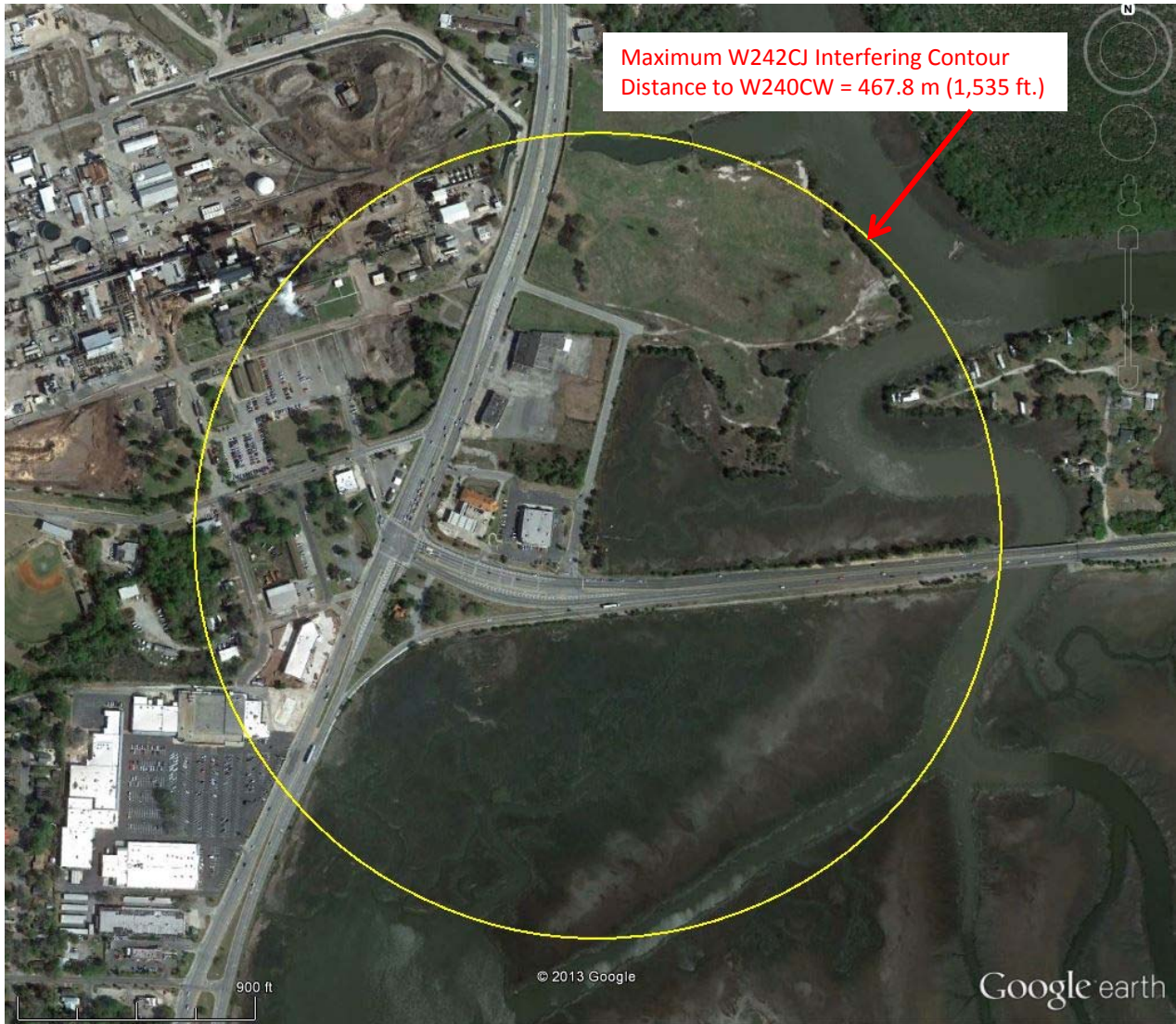
\* Slant distance from antenna center of radiation to location 30 feet (9.1 meters) above ground level at angle below horizontal.

\*\* A negative number indicates that the interfering contour is predicted to reach ground level. If a negative number is present, the interfering contour reaches ground level at the "Horizontal Distance" described below.

\*\*\* Horizontal distance from tower base to interfering contour at the indicated height above ground level. If a negative height above ground level is indicated, this horizontal distance is the distance from the tower base to the interfering contour. This horizontal distance is only relevant if the proposed interference is predicted to occur within 30 feet of ground level.



Any interference within the circle depicted below is predicted to occur at a height of 30 feet above ground level or higher (See associated Table). As demonstrated below, there are no buildings of sufficient height to have inhabitable space in this area.



W240CW, Brunswick, GA  
Ch. 240D, 80 w ERP, 54 m HAAT  
FCC File No. BNPFT-20130830ALV



Worst-Case W242CJ Interfering Contour  
to Second-Adjacent Channel Station W240CW  
W242CJ, Brunswick, GA  
Ch. 242D, 250 watts ERP, 87 m HAAT  
February, 2014