

Non-Interference Compliance

Regarding Facility id 146879

Channel 243

Description of Exhibit 12 Contents

This exhibit demonstrates that the proposed facility complies with contour overlap and interference protection provisions in all of the applicable rule sections and that this application for a construction permit is in full compliance with 47 C.F.R. § 74.1204.

Let it be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 C.F.R. § 74.1203.

Page 2 of this exhibit is an explanation of the method used to demonstrate compliance with contour overlap and interference provisions based on 47 C.F.R. § 74.1204(d), which states:

[A]n application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.

Page 3 of this exhibit contains the tabulated data from the interference analysis, which shows all stations whose protected contours come within 50 km of the 34 dBμ F(50,10) contour of the proposed translator. These tabulated values were calculated using data from the FCC's CDBS files and 30 arc second terrain data. The column labeled "Adj" shows the number of channels difference between the entry and the proposed translator. The column labeled "Dist" shows the distance in km. The column labeled "Overlap" shows the area of contour overlap in square kilometers.

Page 4 of this exhibit is a portion of a USGS 1:24,000 scale 7.5 minute quadrangle at full scale with the calculated area of interference overlaid. The sheet includes the quadrangle name and measurement scale at the bottom-left corner (note: "Mt" refers to meters). The area of interference was calculated using the free space equation and 120 radials.

Page 5 of this exhibit is a high resolution aerial photo of the vicinity surrounding the proposed translator's tower site provided by the U.S. Geological Survey's National Aerial Photography Program. It has been included to provide clarification of the nature of the buildings in the vicinity.

Since the proposed translator is within 320 km of the Canadian border, 47 C.F.R. § 74.1235(d) has been taken into account and this applicant certifies that in no direction does the 34 dBμ F(50,10) extend beyond 60 km, and this application is therefore in full compliance with 47 C.F.R. § 74.1235(d)(3), which states that "the distance to the 34 dBμ interfering contour may not exceed 60 km in any direction," and hence complies with 47 C.F.R. § 74.1204(h).

Compliance with 47 C.F.R. § 74.1204(d)

All authorized second and third adjacent stations with which the proposed translator has contour overlap are tabulated below. Column four show the station's signal level at the proposed translator's tower site, and column five gives the minimum value within the entire standard interfering contour of the proposed translator (100 dBμ for most classes, 94 for class B, 97 for class B1). The minimum second or third adjacent F(50,50) contour within the proposed translator's standard interfering contour was used to calculate the proposed translator's actual "worst-case" interfering contour.

Application_id	File Number	Callsign	Contour at Tower	Min. Contour
231657	BLH19960903KE	WTKK	65	65
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				65

FCC 02-244 at Section II.A.5 states that "when demonstrating that 'no actual interference will occur due to . . . other factors,' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method." The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is **65 dBμ**, this makes the proposed translator's worst-case interfering contour **105 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **124.7 m** from the transmit antenna.

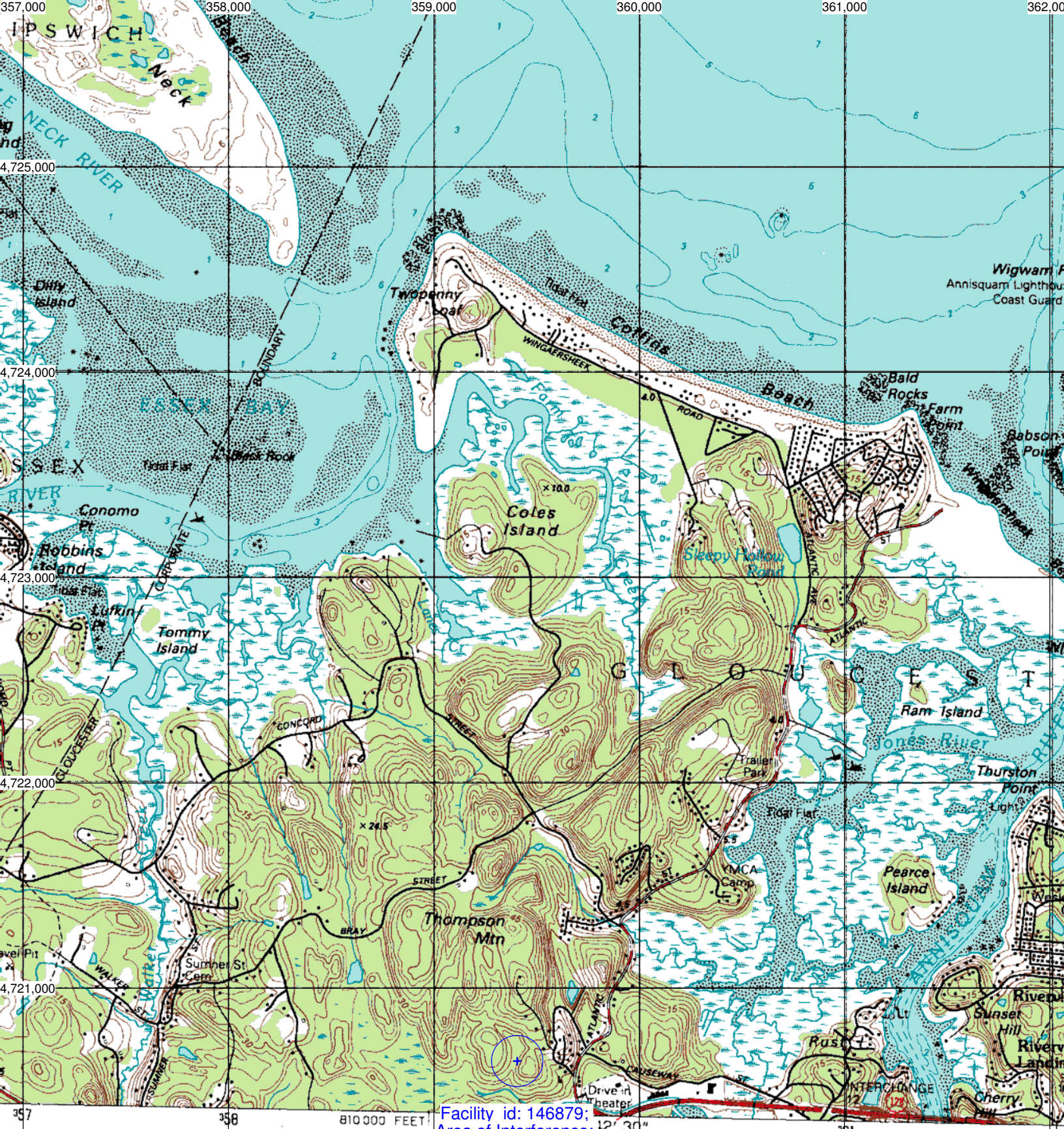
The interfering contour of the proposed translator was calculated for 120 radials and plotted on the pertinent portion of a USGS quadrangle (page 4 of this exhibit). As demonstrated on the quadrangle, there are no populated structures or highways within the area of interference (Note: FCC 02-244 at Section II.A.6 states that USGS quadrangles "have been recognized as acceptable to demonstrate lack of population"). Hence, in accordance with 47 C.F.R. § 74.1204(d) and the clarification provided by the FCC in the decision *Re: Living Way Ministries* (FCC 02-244), a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.

Antenna Manufacturer: WRL
Antenna Model: FMPV1
CORAGL: 4 m
Maximum ERP: 0.01 kW
Interfering Contour: 105 dBμ
Max Int. Contour Distance: 124.7 m

Adjacent Channel Study
For Station W243CD, Facility_id: 146879

Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
231657	25050	BLH	19960903KE	WTKK	GREATER BOSTON RADIO, INC.	B	BOSTON	MA	LIC	22.5	247	245	2	43.4	0.2376
168259	72093	BLFT	19911227TB	W242AA	WGBH EDUCATIONAL FOUNDATION	D	BEACON HILL	MA	LIC	0.005	99	242	1	42.3	0
649945	156653	BNPFT	20030317KMD	NEW	CSN INTERNATIONAL	D	QUINCY	MA	APP	0.01	291	243	0	50.4	0
259638	25050	BMLH	19971223KG	WTKK	GREATER BOSTON RADIO, INC.	B	BOSTON	MA	LIC	1.9	395	245	2	54.9	0
641529	148707	BNPFT	20030317JQI	NEW	NORTHEAST BROADCASTING COMPANY, INC.	D	NEEDHAM	MA	APP	0.01	196	243	0	54.9	0
282516	40468	BLH	19990305KC	WATD-FM	MARSHFIELD BROADCASTING CO., INC.	A	MARSHFIELD	MA	LIC	1.6	166	240	3	57.4	0
105800	53388	BLH	19871006KG	WQSO	CAPSTAR ROYALTY I CORPORATION	A	ROCHESTER	NH	LIC	3	187	244	1	75.7	0
421959	17278	BLH	19991109ABW	WMLL	SAGA COMMUNICATIONS OF NEW ENGLAND, INC	A	BEDFORD	NH	LIC	0.73	424	243	0	81.6	0
1105751	35225	BXPH	20051228ACO	WSRS	CAPSTAR TX LIMITED PARTNERSHIP	B	WORCESTER	MA	CP	20	451	241	2	103.7	0
124190	35225	BMLH	19890214KF	WSRS	CAPSTAR ROYALTY I CORPORATION	B	WORCESTER	MA	LIC	13.5	449	241	2	103.7	0
1105213	35225	BMLH	20051227AFL	WSRS	CAPSTAR TX LIMITED PARTNERSHIP	B	WORCESTER	MA	LIC	16.5	503	241	2	103.7	0



Facility id: 146879;
Area of Interference;

U.S. GEOLOGICAL SURVEY, RESTON, VIRGINIA - 1984

