

## **Non-Interference Compliance**

Regarding Facility id 153977

Channel 280

### **Description of Exhibit 13 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 an aerial photo of the vicinity surrounding the proposed translator's tower site.

### 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
1202155	BLH20070927AIC	KRFX	94	93.8
428877	BLH19991214ABH	KKFN	89	89
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				<b>89</b>

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 **89 dBμ**, this makes the proposed translator's worst-case interfering contour **129 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **24.8 m** from the transmit antenna.

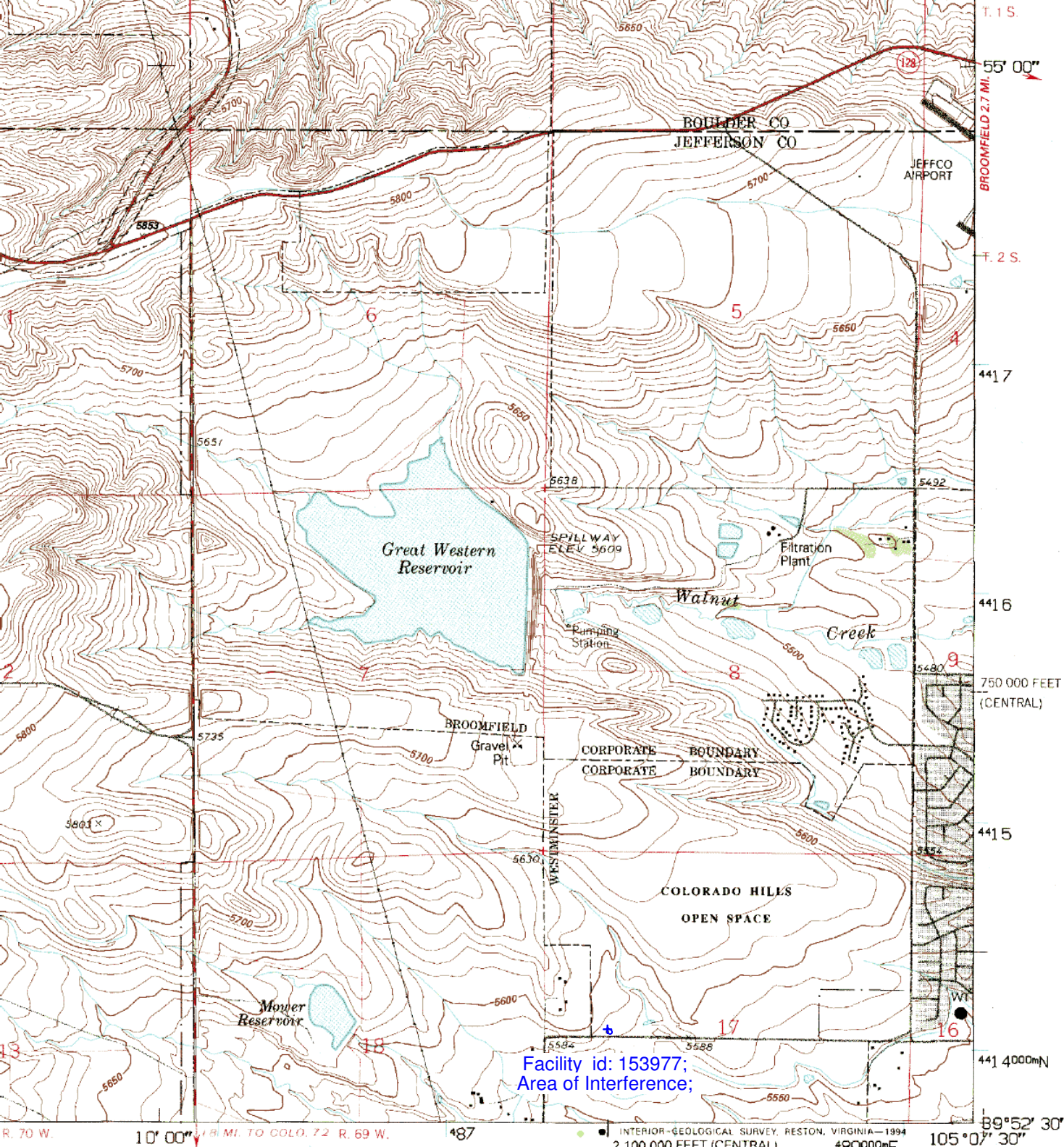
The maximum horizontal plane of the interfering contour was calculated for 120 radials and plotted on the pertinent portion of a USGS quadrangle (page 4 of this exhibit). However, since the area of interference extends a maximum of **24.8 m** from the transmit antenna and the transmit antenna is **32 m** above tower ground level (TGL), the area of interference will be at least **7.2 m** above TGL at the lowest point. The applicant has taken into account USGS quadrangles and relevant aerial photography in stating that no structures, except possibly tower support structures, puncture the area of interference. 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.

<b>Antenna Manufacturer:</b>	<b>SCA</b>
<b>Antenna Model:</b>	<b>CA5-FM/CP/RM</b>
<b>CORAGL:</b>	<b>32 m</b>
<b>Maximum ERP:</b>	<b>0.099 kW</b>
<b>Interfering Contour:</b>	<b>129 dBμ</b>
<b>Max Int. Contour Distance:</b>	<b>24.8 m</b>
<b>Min Ground Clearance:</b>	<b>7.2 m</b>

# **Adjacent Channel Study** **For Station NEW, Facility\_id: 153977**

**Co-channel through third adjacent:**

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Chan	Adj	Dist	Overlap
1202155	29731	BLH-20070927AIC	KRFX	CITICASTERS LICENSES, INC.	C0	DENVER	CO	LIC	100	2256	278	2	18	0.2853
428877	71767	BLH-19991214ABH	KKFN	LINCOLN FINANCIAL MEDIA COMPANY OF COLOR	C1	LONGMONT	CO	LIC	91	2081	282	2	20.4	0.2853
1564808	154318	BNPFT-20030317HJN	NEW	KEVIN NELSON	D	BLACK HAWK	CO	APP	0.024	2960	280	0	36.5	0
1237506	164151	BLH-20080311AAU	KYEN	COCHISE MEDIA LICENSES LLC	C1	SEVERANCE	CO	LIC	16.5	2560	280	0	83.6	0
1177012	53845	BLH-20070326AGF	KRXP	COLORADO SPRINGS RADIO BROADCASTERS, INC	C2	PUEBLO WEST	CO	LIC	1.75	2912	280	0	128.3	0



Facility id: 153977;  
Area of Interference;

INTERIOR-GEOLOGICAL SURVEY, RESTON, VIRGINIA-1994  
2 100 000 FEET (CENTRAL) 489000mE

ROAD CLASSIFICATION

- Primary highway, hard surface
- Secondary highway, hard surface
- Light-duty road, hard or improved surface
- Unimproved road
- Interstate Route
- U. S. Route
- State Route



QUADRANGLE LOCATION

LOUISVILLE, CO  
39105-H2-TF-024

1965  
REVISED 1994  
DMA 4963 I NW-SERIES V877

N, VIRGINIA 22092  
REQUEST





30 yds

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