

[Exhibit 12]

## **Non-Interference Compliance**

Regarding FCC File Number: BNPFT-20030317ENL

Channel: 238

### **Description of Exhibit 12 Contents**

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

Page 2 of this exhibit is an explanation of the tabulated data, which is included as evidence on page 4 of this exhibit.

Page 3 of this exhibit is an explanation of the method used to demonstrate compliance with contour overlap and interference protection provisions based on 47 CFR 74.1204(d), which states:

*"an 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."*

In addition, page 3 includes a tabulation of the second and third adjacent stations which this application is required to protect and the field strengths of those stations in the vicinity of the proposed translator. The field strengths given were based on contours predicted using FCC contour algorithms and 3 arc second terrain data.

**Let it be noted that should any actual real world interference occur, the applicant certifies that it will promptly suspend operation of this translator in accordance with 47 CFR 74.1203.**

Page 4 of this exhibit is the tabulated data from the interference analysis, which shows all stations that this application had to consider for contour protection. These tabulated values were generated using high resolution 3 arc second terrain data for the best possible accuracy.

Page 5 of this exhibit is a portion of a USGS 1:24,000 scale 7.5 min quadrangle at full scale with the calculated area of interference overlayed. 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 a free-space calculation (see FCC 98-117, Appendix A, pg. 41 for reference to the equation used).

## **Explanation of Frequency Finder Results**

The interference analysis for this application was performed using the "Frequency Finder" module in RadioSoft's Comstudy, version 2.2.

Frequency Finder analyzes data taken directly from the FCC's FM database and looks for prohibited overlap with contours of adjacent stations and prohibited proximity to stations 53 or 54 channels from the proposed station (IF) using 3 arc second terrain data and the FCC's contour algorithms. The results tabulated are the stations returned from that analysis. (Note: Because Comstudy was looking at the FCC's FM database, it took into account the proposed translator when doing the analysis and returned it in the tabulated results. For the sake of simplicity, that record has been deleted from all tabulated results.)

The first several columns of the table are self-explanatory. They give various data on the stations in question. The column labeled "Clr" gives the proposed translator's "clearance" with respect to the tabulated station, either in dB or km. The values listed with no units are given in km and are for stations located on an IF to the proposed site's channel.

**A negative value in the "Clr" column does NOT necessarily represent prohibited contour overlap, as explained below.**

A negative value listed in the "Clr" column would indicate either overlap of interference and protected contours or prohibited proximity to an IF station except in the following situations:

- Since the proposed station's Effective Radiated Power (ERP) is 41 watts, a negative value in km (no units listed in the table) does not represent a violation of the CFR, according to 47 CFR 1204(g), which states that "FM translator stations and booster stations operating with less than 100 watts ERP will be treated as class D stations and will not be subject to intermediate frequency separation requirements."

- A second or third adjacent LP100 station cannot represent a violation of the CFR, as 47 CFR 74.1204(a)(4) requires protection of only co-channel and first adjacent LP100 stations.

- 47 CFR 74.1204(a) requires only the protection of "AUTHORIZED commercial or noncommercial educational FM broadcast stations, FM translators, ..." Any entry with a status listed as "RSV," "USE" or "APP" does not represent an authorized station and therefore is not protected under 47 CFR 74.1204. The one exception is the case of LP100 applications. The note to 47 CFR 74.1204(a)(4) states that "LPFM applications and permits that have not yet been licensed must be considered as operating with the maximum permitted facilities." Therefore, any first adjacent or co-channel LP100 station, no matter the status, is protected.

- Entries highlighted in red are those stations where there is overlap of predicted contours and lack of population has been demonstrated within the area of interference.

## Compliance with 47 CFR 74.1204(d)

The proposed translator's Maximum Effective Radiated Power (ERP) is 0.041kW at 18 meters above ground level. According to 47 CFR, 74.1204(a), the desired to undesired ratio between 2nd/3rd adjacent stations is 40dB, making the proposed translator's interfering contour 101.5dBu F(50,10).

Using a free-space calculation (equation referenced in FCC 98-117, Appendix A, pg. 41), this proposed translator's F(50,10) interference contour was calculated and plotted on the pertinent portion of a USGS quadrangle (page 5 of this exhibit). As demonstrated on the quadrangle, there are no populated structures or highways within the calculated area of interference (Note: FCC 02-244, II, A, 6 states that USGS quadrangles are sufficient for demonstrating lack of population). Hence, in accordance with 47 CFR 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 therefore this application is in full compliance with 47 CFR 74.1204.

CORAGL: 18m

Antenna Manufacturer: SWR

Maximum ERP: 0.041kW

Antenna Model: FM1

F(50,10) Interfering Contour: 101.5dBu

F(50,10) Max Distance: 377.9m

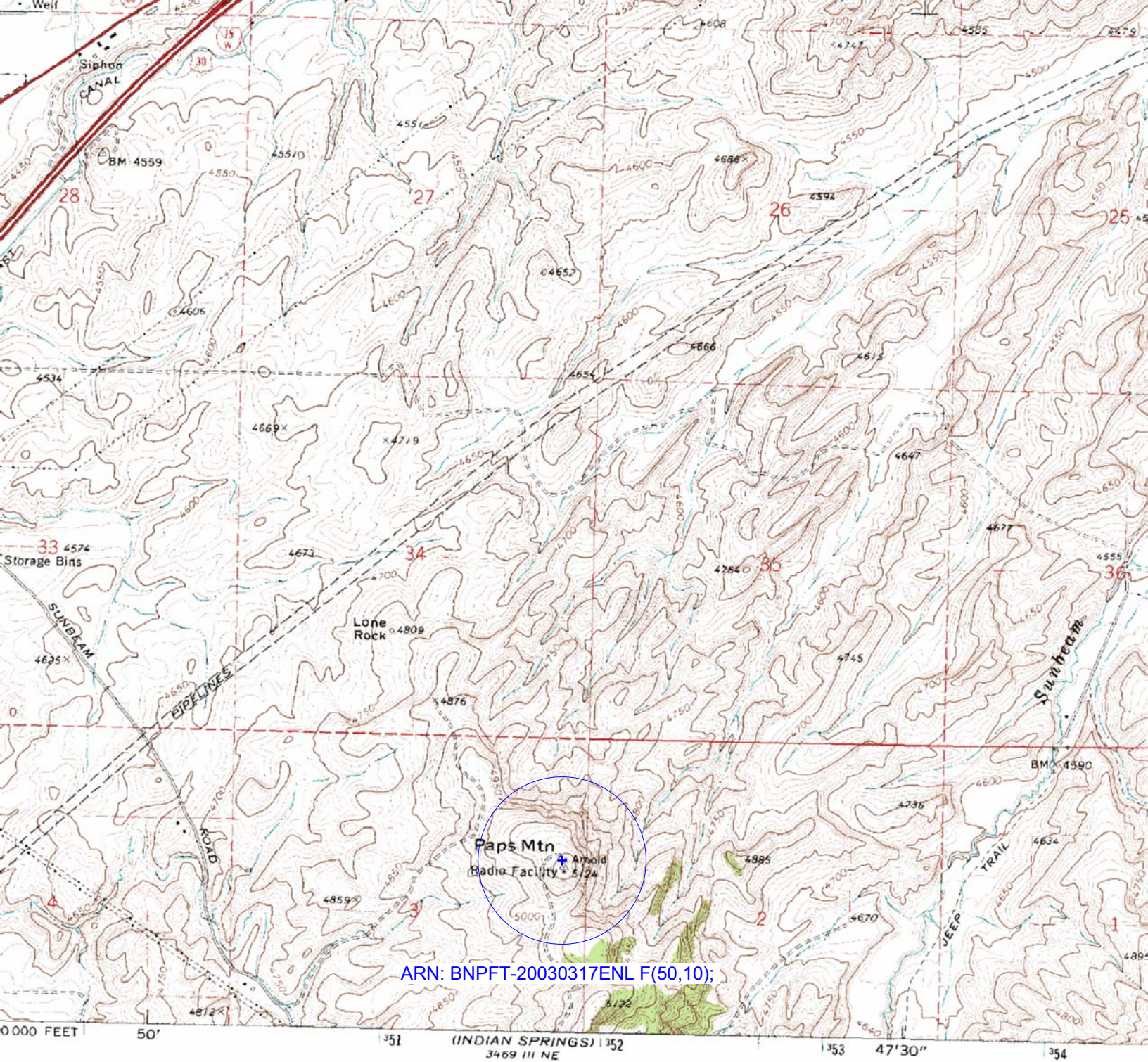
The F(50,50) signal strength of all relevant second and third adjacent stations have been examined, and are tabulated below. Column three shows the station's signal level at the proposed translator's tower site, and column four gives the minimum value within the entire proposed translator's standard F(50,10) contour (100 dBu for most classes, 94 dBu for class B's, 97 dBu for class B1's). For signal levels too great to determine, 999 was entered. The minimum F(50,50) contour within the proposed translator's standard F(50,10) contour was used to calculate the proposed translator's interference contour, thereby assuring a minimum undesired-to-desired ratio of 40dB for all relevant adjacent stations, as required in 47 CFR, 74.1204(a).

FCC File Number	Call Sign	F(50,50) Contour at Tower	Min. F(50,50) Contour
BLH19871117KD	KPKY	84.6dBu	84.1dBu
BLH5305	KID-FM	61.8dBu	61.5dBu

Minimum F(50,50) Protected Contour of Adjacent Station  
Within Proposed Translator's standard F(50,10) Contour: **61.5dBu**

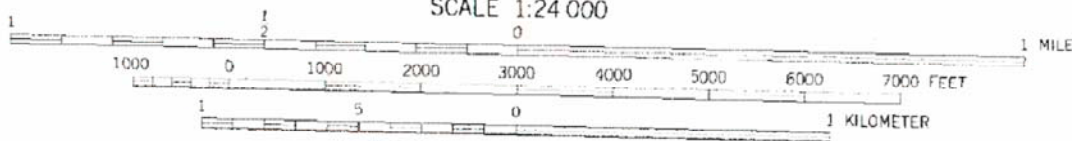
Callsign	State	City	Channel	ERP_w	Licensee	ARN	Facility_id	Class	Status	Distance_km	Clr
KPKY	ID	POCATELLO	235	100000	CITICASTERS LICENSES, L.P.	BLH19871117KD	30246	C	LIC	27.58	-25.16 dB
KID-FM	ID	IDAHO FALLS	241	100000	CITICASTERS LICENSES, L.P.	BLH5305	22195	C	LIC	83.13	-2.02 dB
NEW	ID	POCATELLO	237	45	TAUNA M. BARBIERI	BNPFT20030313BQC	145719	D	APP	27.58	2.94 dB
NEW	ID	POCATELLO	239	250	RADIO ASSIST MINISTRY INC.	BNPFT20030317EQK	152336	D	APP	34.34	4.24 dB
KPKY	ID	POCATELLO	235	0	CITICASTERS LICENSES, L.P.		30246	C	USE	27.58	7.68 dB
NEW	ID	POCATELLO	239	150	CITICASTERS LICENSES, L.P.	BNPFT20030317LXS	157876	D	APP	38.09	10.11 dB
KEZJ-FM	ID	TWIN FALLS	239	100000	CITICASTERS LICENSES, L.P.	BPH20030603AEN	3403	C1	APP	131.28	21.66 dB
KECH-FM	ID	SUN VALLEY	237	16000	ALPINE BROADCASTING LTD PARTNERSHIP	BPH20010417AAE	1163	C1	CP	162.24	23.34 dB
KEZJ-FM	ID	TWIN FALLS	239	50000	CITICASTERS LICENSES, L.P.	BLH20000320ABH	3403	C1	LIC	131.28	24.67 dB
KEZJ-FM	ID	TWIN FALLS	239	50000	CITICASTERS LICENSES, L.P.	BPH20000320AAY	3403	C1	CP	131.28	24.67 dB
KLZX	ID	WESTON	240	25000	SUN VALLEY RADIO INC	BPH20020404AAH	88184	C3	CP	128.43	24.45 dB
	ID	SHELLEY	292	0			96770	C1	USE	47.25	25.3
KZJH	WY	JACKSON	237	100000	CHAPARRAL BROADCASTING COMPANY	BLH19890714KA	65279	C	LIC	184.89	26.60 dB
KYFO-FM	UT	OGDEN	238	100000	BIBLE BROADCASTING NETWORK, INC.	BLED19981125KD	5176	C1	LIC	174.04	27.88 dB
NEW	ID	IDAHO FALLS	239	250	RADIO ASSIST MINISTRY INC.	BNPFT20030317EOS	152313	D	APP	100.96	29.34 dB
KID-FM	ID	IDAHO FALLS	241	0	CITICASTERS LICENSES, L.P.		22195	C	USE	83.13	32.08 dB
NEW	ID	IDAHO FALLS	239	41	CALVARY CHAPEL OF TWIN FALLS, INC.	BNPFT20030310AYW	139297	D	APP	115.37	34.70 dB
NEW	ID	MONTPELIER	239	250	MAX T. NICHOLS	BNPFT20030317EAN	146568	D	APP	132.65	37.98 dB





ARN: BNPFT-20030317ENL F(50,10);

0 000 FEET 50' 1351 (INDIAN SPRINGS) 1352 3469 III NE 1353 47'30" 1354



CONTOUR INTERVAL 10 FEET  
DOTTED LINES REPRESENT 5-FOOT CONTOURS  
DATUM IS MEAN SEA LEVEL

MAGNETIC NORTH  
OF SHEET



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
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