

## **Non-Interference Compliance**

Regarding Facility id 140383

Channel 206

### **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.

**Note: The buildings within the zone of predicted interference are unoccupied communications buildings on the Elden Mountain Communications Center so 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.**

### 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
402057	BLED19991014AAT	KNAU	84.2	84.2
80672	BLFT19850801TB	K208AB	84.3	84
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				<b>84</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 **84 dBμ**, this makes the proposed translator's worst-case interfering contour **124 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **70 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").

**Note: The buildings within the zone of predicted interference are unoccupied communications buildings on the Elden Mountain Communications Center so 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:** SCA  
**Antenna Model:** CL-FM 280°  
**CORAGL:** 10 m  
**Maximum ERP:** 0.25 kW  
**Interfering Contour:** 124 dBμ  
**Max Int. Contour Distance:** 70 m

# **Adjacent Channel Study** **For Station K258BX, Facility\_id: 140383**

**Co-channel through third adjacent:**

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
80672	40092	BLFT	19850801TB	K208AB	MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT	D	FLAGSTAFF	AZ	LIC	0.009	2836	208	2	1.3	0.0597
402057	49490	BLED	19991014AAT	KNAU	NORTHERN ARIZONA UNIVERSITY	C	FLAGSTAFF	AZ	LIC	100	2624	204	2	31.3	0.0597
1292006	92985	BPED	20090128AFO	KJZA	ST. PAUL BIBLE COLLEGE	C2	DRAKE	AZ	CP	1	2845	208	2	55.4	0
1108915	92985	BMLED	20060214ABY	KJZA	ST. PAUL BIBLE COLLEGE	C3	DRAKE	AZ	LIC	0.25	2845	208	2	55.4	0
1407914	88571	BLFT	20101117AJE	K206DH	CALVARY CHAPEL OF TWIN FALLS, INC.	D	WINSLOW	AZ	LIC	0.15	1602	206	0	91.4	0
1453254	144993	BPFT	20111020AHQ	K263AU	ADVANCE MINISTRIES DBA NEW LIFE CHRISTIANITY	D	PRESCOTT	AZ	CP	0.023	1838	209	3	101.8	0
1448565	175859	BMPED	20111004ADV	KJPN	PAYSON SEVENTH-DAY ADVENTIST CHURCH	A	PAYSON	AZ	CP MOD	0.1	1946	207	1	112.2	0
1242103	177108	BNPED	20071022BLP	NEW	ADVANCE MINISTRIES, INC.	A	SELIGMAN	AZ	CP	0.6	1609	205	1	115	0
258980	49511	BLED	19971209KD	KNAQ	NORTHERN ARIZONA UNIVERSITY	A	PRESCOTT	AZ	LIC	0.1	2175	207	1	119.4	0
229851	49512	BLFT	19960726TA	DK207BR	NORTHERN ARIZONA UNIVERSITY	D	PRESCOTT	AZ	LIC	0.011	2175	207	1	119.4	0



ES  
INTERIOR  
RVEY

3,901,000

445,000

446,000

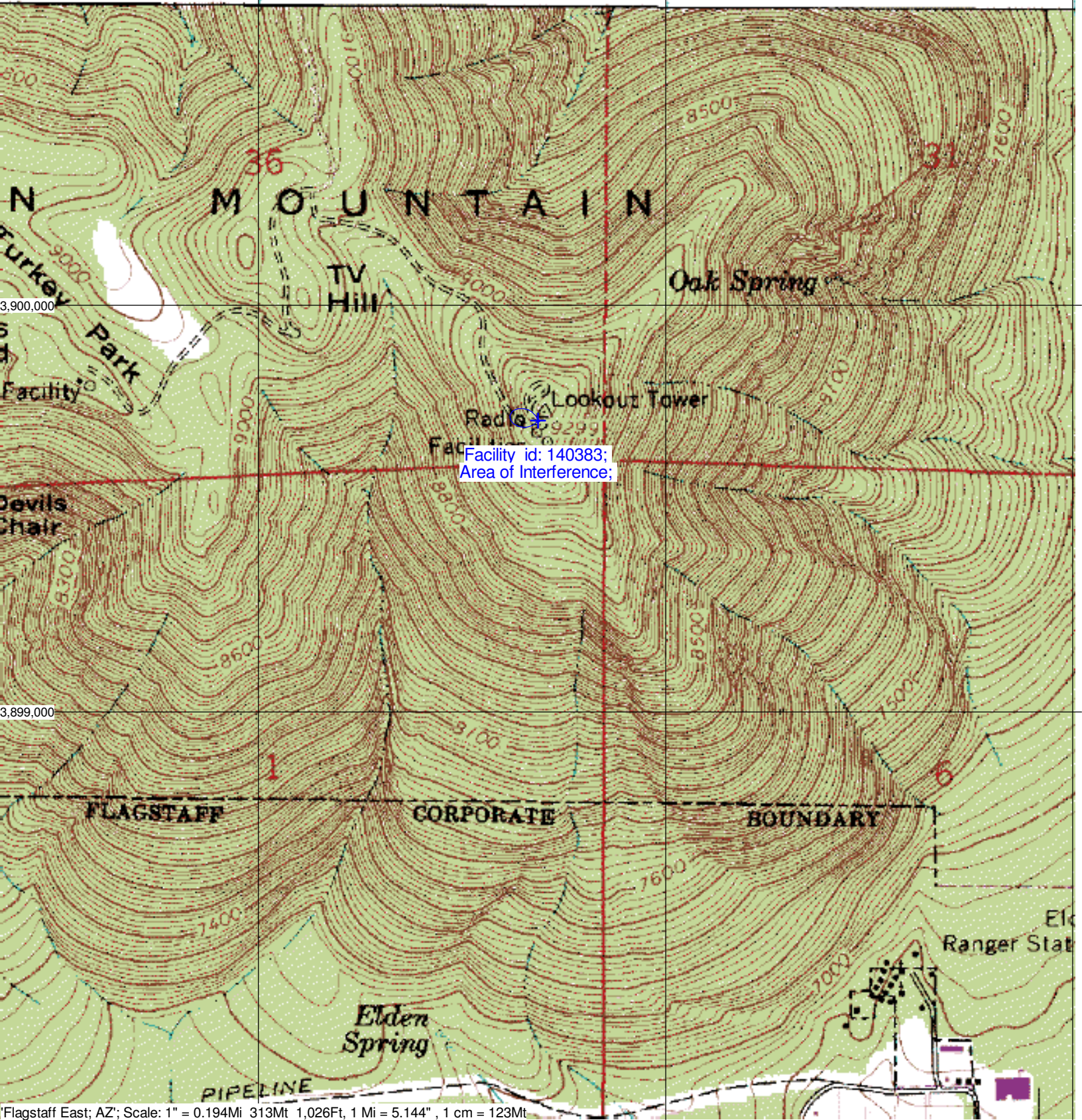
447,000

445

R. 7 E.

R. 8 E.

35'



3,900,000

Facility

Devils  
Chair

3,899,000

FLAGSTAFF

CORPORATE

BOUNDARY

Elden  
Spring

PIPELINE

Elk  
Ranger State



