

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of Northern California Educational Television Association, Inc., licensee of noncommercial educational television Station KIXE-TV, Channel 9 in Redding, California, in support of this request for a new digital translator station on Channel 18 in Chico, California. This facility is currently operating pursuant to Special Temporary Authority (STA), File No. BSTA-20090608ADO.

Analog KIXE-TV operated on Channel 9 and digital KIXE-DT operated on Channel 18 under STA until recently. In early September 2008, the station ceased operating these stations and began post-transition digital-only operation on Channel 9 with KIXE-DT. During the ensuing months, the station began receiving reports that its reception in the Chico/Paradise area was "spotty" at best and significantly worse than that enjoyed by viewers of the analog Channel 9 signal. This phenomenon is probably due to the digital coverage "cliff effect" as well as the nearly 10 dB disparity between the former analog power level (115 kw) and the new digital power level (15 kw). Therefore, the purpose of this translator proposal is to provide an adequate digital signal to those that live in the new "loss area".

It is proposed to mount a portion of the Channel 18 directional antenna at the 101-meter level of an existing 152-meter communications tower near Chico.

Attached is a map upon which the translator's predicted service contour is plotted in relation to the licensed KIXE-DT contour on Channel 9.

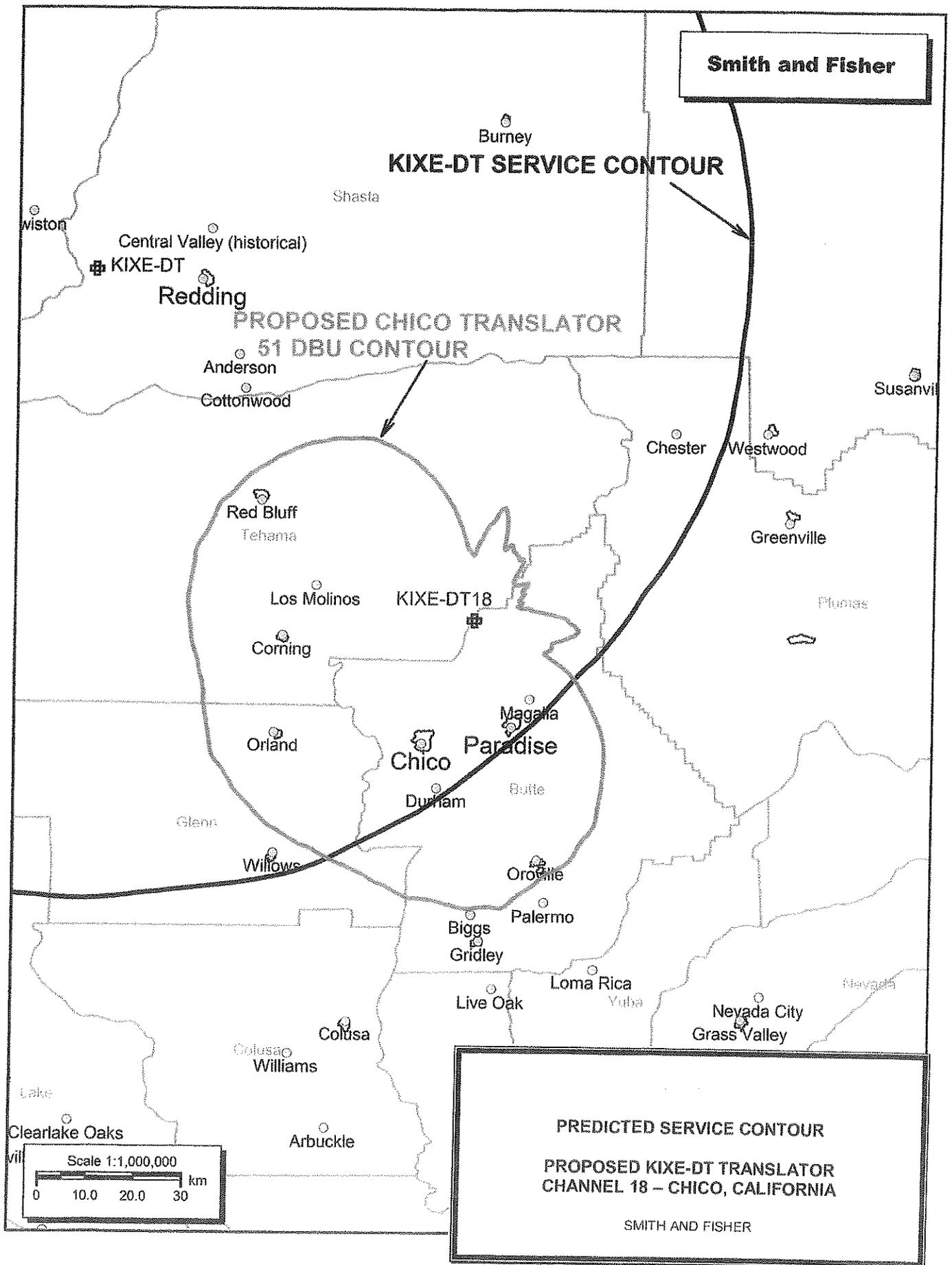
Operating parameters for the proposed facility are tabulated in the attachment. An interference study, run with a cell size of 1.0 kilometer and increment spacing of 0.1 kilometer, and power density calculation are also provided herein.

Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration No. 1258123 to this tower.

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

Kevin T. Fisher

August 25, 2009



PROPOSED OPERATING PARAMETERS

PROPOSED KIXE-DT TRANSLATOR
CHANNEL 18 – CHICO, CALIFORNIA

Transmitter Power Output:	0.5 kw
Transmission Line Efficiency:	66.0%
Antenna Power Gain – Toward Horizon:	12.16
Antenna Power Gain – Main Lobe:	12.16
Effective Radiated Power – Toward Horizon:	4.0 kw
Effective Radiated Power – Main Lobe:	4.0 kw
Transmitter Make and Model:	Type-accepted
Transmission Line Make and Model:	Andrew HJ7-50A
Size and Type:	1-5/8" air heliax
Length:	380 feet
Antenna Make and Model:	Scala K723147
Orientation	235° T*
Beam Tilt	none
Radiation Center Above Ground:	101 meters
Radiation Center Above Mean Sea Level:	1166 meters

*line of symmetry

LONGLEY-RICE INTERFERENCE STUDY
PROPOSED KIXE-DT TRANSLATOR
CHANNEL 18 – CHICO, CALIFORNIA

We conducted a detailed interference study using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to all facilities of concern. The software utilizes a 1-square kilometer cell size, calculates signal strength at 0.1 kilometer increments along each radial studied, and employs the 1990 U.S. Census to count population within cells. In addition, the program does not attribute interference to the proposed facility in cells within the protected contour of the station under study where interference from another source (other than the proposed translator) already is predicted to exist (also known as "masking"). The results of this study are attached. It concludes that the facility proposed herein causes no significant new interference to any of the potentially affected stations.

As a result, it is believed that the proposed Chico translator facility complies with the requirements of Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030 of the Commission's Rules.

Summary Study

1990 Census data selected
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 05-06-2009 Time: 13:22:51

Record Selected for Analysis

KIXE-DT1 USERRECORD-01 CHICO CA US
Channel 18 ERP 4. kW HAAT 424. m RCAMSL 01166 m STRINGENT MASK
Latitude 039-57-29 Longitude 0121-42-49
Status APP Zone 2 Border
Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth
145.
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 1.0 km/side

Distance Increments for Longley-Rice Analysis 0.10 km

Not full service station

Facility meets maximum power limit

Azimuth (Deg)	ERP (kW)	HAAT (m)	51.0 dBu F(50,90) (km)
0.0	0.015	165.7	13.5
45.0	0.013	115.3	11.0
90.0	0.078	145.4	19.5
135.0	0.382	375.4	38.3
180.0	3.787	641.8	59.4
225.0	2.972	744.8	59.9
270.0	2.972	699.3	59.0
315.0	1.553	506.3	50.9

Contour Overlap to Proposed Station

Station
KXVU-LP 17 CHICO CA BLTTL20060303AAJ

Station inside contour of Digital LPTV station
KIXE-DT1 18 CHICO CA USERRECORD01

Station
K19FY 19 CHICO CA BLTT20060109ABD

Station inside contour of Digital LPTV station
KIXE-DT1 18 CHICO CA USERRECORD01

Contour Overlap Evaluation to Proposed Station Complete

LANDMOBILE SPACING VIOLATIONS FOUND

NONE

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountian

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Channel	Proposed Station	ARN
18	Call City/State KIXE-DT1 CHICO CA	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan No.	Call	City/State	Dist(km)	Status	Application	Ref.
15	K15HV-D	CHICO CA	28.9	CP	BDISTTL	-
20061208AAE						
15	K15FJ	LAKEPORT CA	140.6	LIC	BLTTL	-
20011115ACR						
15	K15CX	OROVILLE CA	56.2	LIC	BLTTL	-
20020613AAH						
15	KMUM-CA	SACRAMENTO CA	140.4	LIC	BLTTL	-
19981016JH						
16	K16CX	GRASS VALLEY CA	105.6	LIC	BLTTL	-
19960403IB						
17	KXVU-LP	CHICO CA	0.7	LIC	BLTTL	-
20060303AAJ						
17	KXVU-LP	CHICO CA	0.7	CP	BDFCDTL	-
20060329AEC						
17	KSTV-LP	SACRAMENTO CA	154.9	APP	BDISTTL	-
20070103AAV						
17	K17HE	SUSANVILLE, ETC. CA	127.3	LIC	BLTTL	-
20080325ADU						
17	K17CG	UKIAH CA	150.7	LIC	BLTT	-
19900129IH						
17	K17BA	YREKA CA	199.1	APP	BDFCDTT	-
20090325AEK						
17	K17BA	YREKA, ETC. CA	199.1	LIC	BLTT	-
19910911JG						
17	K17CA-D	CARSON CITY NV	189.0	LIC	BLDTT	-
20090108AAO						
18	KUVS-TV	MODESTO CA	221.6	LIC	BLCDT	-
20020906ABH						
18	K18IJ-D	SALINAS CA	380.2	CP	BDCCDTL	-
20070413AGS						

18	K18IF-D	SEIAD VALLEY CA	245.2	CP	BDCDDTT	-
20061030AIU						
18	K18DP	LOVELOCK NV	254.7	LIC	BLTTL	-
19931015IA						
18	K18DP	LOVELOCK NV	254.7	CP	BDFCDTT	-
20090223AAA						
18	K18GG	MINA--LUNING NV	360.3	LIC	BLTT	-
20031008AAJ						
18	K18BW	YERINGTON NV	237.8	LIC	BLTTV	-
19880217IB						
18	K18EP	BROOKINGS, ETC. OR	323.8	LIC	BLTT	-
19960829JA						
18	K18AN	GRANTS PASS OR	302.5	LIC	BLTT	-
19850621IA						
18	K18AN	GRANTS PASS OR	311.2	CP	BPTT	-
20080125ADF						
18	K18GB	MEDFORD OR	273.9	LIC	BLTTL	-
20040916ABD						
18	K18IE-D	PROSPECT OR	316.6	CP MOD	BMPDTL	-
20080528ACS						
18	KTVC	ROSEBURG OR	388.0	LIC	BLCDT	-
20060721AAR						
18	KTVC	ROSEBURG OR	388.0	CP	BPCDT	-
20061013ADM						
19	K19FY	CHICO CA	0.5	LIC	BLTT	-
20060109ABD						
19	K19FY	Chico CA	0.5	CP	BDFCDTT	-
20060306BQY						
19	K19GA	SUSANVILLE-HERLONG CA	127.3	LIC	BLTTL	-
20080325ADV						
19	KDSL-CA	UKIAH CA	148.6	APP	BSTA	-
20061116AEQ						
19	KDSL-CA	UKIAH CA	148.6	LIC	BLTTA	-
20030616ABE						
19	K19GL-D	YREKA CA	199.0	LIC	BLDTT	-
20080826AAQ						
19	K19CU	CARSON CITY NV	188.6	LIC	BLTT	-
19930719IG						
21	KRVU-LP	REDDING CA	103.3	LIC	BLTTL	-
19991201ABH						
22	KZVU-LP	CHICO CA	0.5	LIC	BLTTL	-
20000531AEC						
26	NEW	CHICO CA	25.8	APP	BNPTTL	-
20000830BQI						
26	NEW	CHIO CA	80.8	APP	BNPTTL	-
20000830BLN						
26	K26GK	LAKEPORT CA	140.6	LIC	BLTTL	-
20030130AHS						
26	KGEC-LP	REDDING CA	103.3	APP	BMJPTTL	-
20000831CHI						
26	KGEC-LP	REDDING CA	103.3	LIC	BLTTL	-
19971023JG						
26	K27FX	SACRAMENTO CA	129.6	APP	BPTTL	-
20020816AAS						

Study of this proposal found the following interference problem(s):

NONE.