January 2020
FM Translator K232EB
Riggins, Idaho Channel 222D
White Area Translator Waiver Request

Waiver Request

The instant application requests waiver of:

a) The major change rule for FM translators as set forth in §74.1233(a) of the Commission's Rules. Normally, §74.1233(a) would require that the proposed facility operate on cochannel, first- second- or third-adjacent channel, or IF channel to the licensed facility, and that there exist some overlap of the licensed and proposed 60 dBu contours, in order to qualify as a minor change. The proposed facility will be located 1047 kilometers from the licensed facility, and will operate 10 channels away from the licensed facility.

b) The eligibility and licensing requirement for FM translators as set forth in §74.1232(d) of the Commission's Rules. Normally, §74.1232(d) would not permit a non-fill-in translator to be licensed to and operated by the licensee of the primary commercial station. The 60 dBu contour of the proposed facility is located wholly outside the 60 dBu contour of the primary station.

c) The program delivery requirement for FM translators as set forth in §74.1231(b) of the Commission's Rules, which limits non-fill-in translators operating in the commercial band to direct reception of the programming feed from an over-the-air source. The applicant proposes to feed this translator via internet.

This translator, however, will serve a white area, and grant of the instant application would therefore provide a very significant public interest benefit in that it would bring the first commercial radio reception service to 552 persons who are currently not served by any full-power commercial radio station.

The City of Riggins (population 419) is located in rural Idaho County, Idaho. Idaho County itself encompasses a land area of 21,970 square km (about the same size as the state of New Jersey),

but contains only 16,267 persons per the 2010 Census. The population density of Lake County is quite low, at just 0.7 persons per square kilometer. The only full-power radio stations licensed to communities in Idaho County are licensed to Grangeville and Cottonwood, but these stations are very distant and do not provide service to Riggins; the nearest 60 dBu contour from a commercial Grangeville station falls 5 km short of Riggins.

Due to the very low population in the area (both in terms of absolute numbers and in terms of population density) there is no full-power commercial radio service provided to the Riggins area. Nor is there likely to be a full-power station in this area at any point in the foreseeable future. The best option, therefore, to bring commercial radio service to Riggins in the foreseeable future, is authorization of this proposal by the licensee of KORT-FM Grangeville, to operate a white-area translator.

From the proposed transmitter site, the translator will be able to cover Riggins, and will provide a 60 dBu contour to a population to 651 persons.

Notably, all off this area is commercial white area, as is demonstrated on the attached service study map, on which the coverage contours of all full-power stations in the area have been plotted. Furthermore, much of this area is also true white area (i.e. both commercial and non-commercial), in that the only full-power radio station contour which overlaps this area is that of non-commercial KKRH 215C1 Grangeville.[1] There are also no existing FM translator stations which provide service to Riggins.

In *Turquoise Broadcasting Company* (2018)[2] the Commission granted waiver of the FM translator major change rule, §74.1233(a) to FM translators K271BF (see BPFT-20170206AAL) and K282AU (see BPFT-20170206AAM). The waiver allowed those translators to relocate from Unalaska, Alaska to Kodiak, Alaska, a distance of some 985 kilometers, in order to serve a commercial white area. In its decision letter granting Turquoise's requests, the Commission cited to the 1990

[1] The Commission has long recognized that NCE and commercial licensees participate in fundamentally different broadcast services. See *Amendment of Part 74 of the Rules Concerning FM Translator Stations*, Memorandum Opinion and Order, 8 FCC Rcd 5093, 5098, para. 31 (1993).

[2] DA 18-713, Released July 9, 2018

Translator Order,[3] in which the Commission stated that it would be "favorably disposed" toward various waiver requests that would enable translator service to white areas. The *Translator Order* set out "white area" guidance for waiver of rules relating to translator/primary station co-ownership, financial support from primary stations, translator power restrictions, and signal delivery.

Specifically, regarding the rule in §74.1232(d) which restricted the ability of a non-fill-in translator to be licensed to and operated by the licensee of the primary commercial station the Commission stated :

> However, in situations where a licensee establishes that service is indeed unavailable, we will be favorably disposed towards requests for waivers of this rule to address these unique circumstances. (Para 23)

Clearly this is a case which meets the standards for waiver as established in 1990 and as confirmed in *Turquoise Broadcasting Company*.[4] The requested waivers would serve the public interest because grant of this application will allow FM translator K232EB to provide service to a commercial white area, and will bring the first commercial reception service to 552 persons, including the entire City of Riggins.

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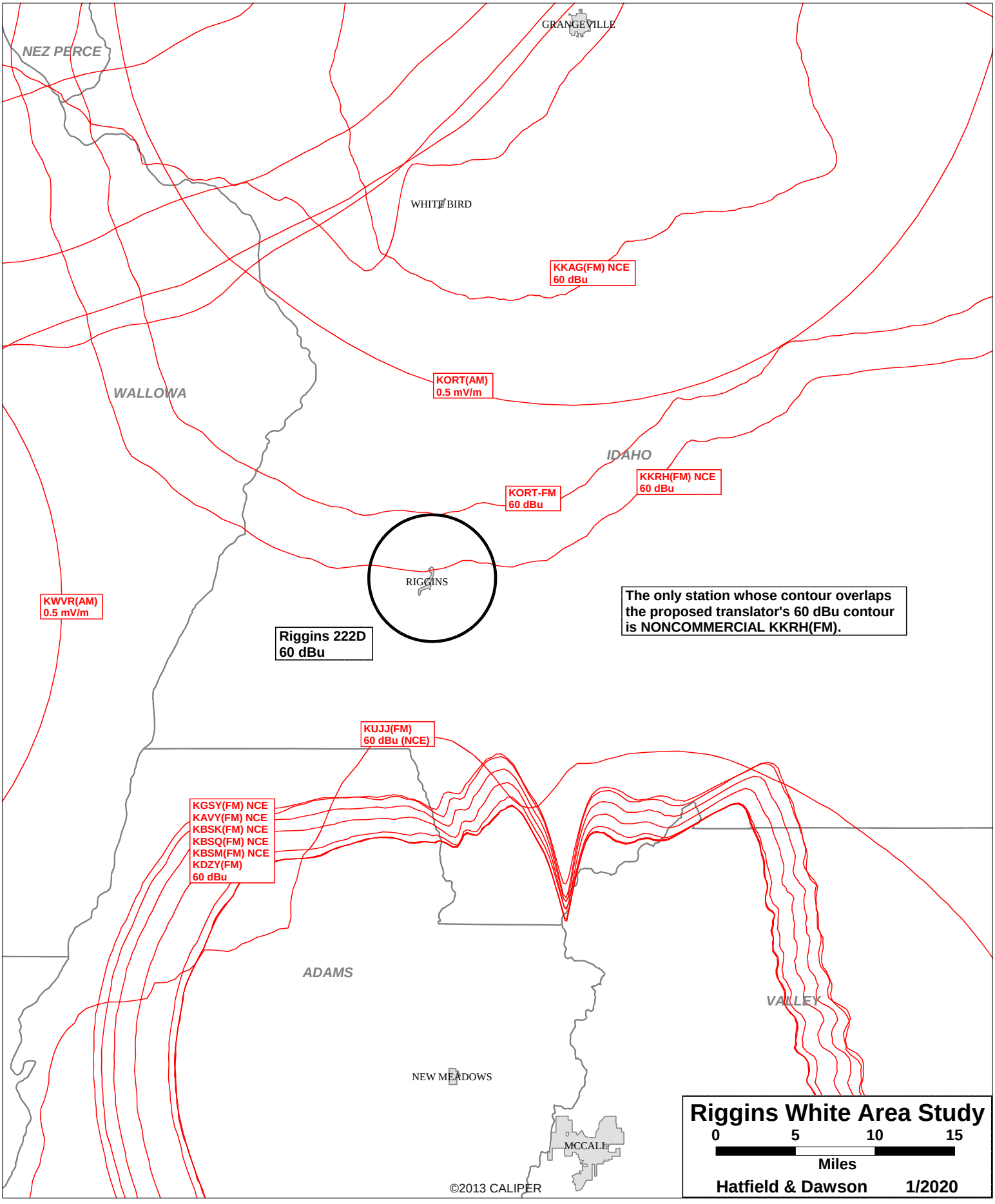
[3] *Amendment of Part 74 of the Commission's Rules Concerning FM Translator Stations, Report and Order*, 5 FCC Rcd 7212 (1990) (*Translator Order*).

[4] See also the recent grant of these same three waivers to K257CN, to operate on Channel 278D at Kake, Alaska, FCC File No. 0000086818


GRANGEVILLE
NEZ PERCE
WHITE BIRD
KKAG(FM) NCE
60 dBu
KORT(AM)
0.5 mV/m
WALLOWA
IDAHO
KKRH(FM) NCE
60 dBu
KORT-FM
60 dBu
RIGGINS
KWVR(AM)
0.5 mV/m
Riggins 222D
60 dBu
The only station whose contour overlaps the proposed translator's 60 dBu contour is NONCOMMERCIAL KKRH(FM).
KUJJ(FM)
60 dBu (NCE)
KGSY(FM) NCE
KAVY(FM) NCE
KBSK(FM) NCE
KBSQ(FM) NCE
KBSM(FM) NCE
KDZY(FM)
60 dBu
ADAMS
VALLEY
NEW MEADOWS
MCCALL
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Riggins White Area Study
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Riggins, Idaho Channel 222D
Allocation Study

Allocation Study

The attached spacing study shows the spacing between the proposed translator site and the location of cochannel and adjacent channel stations and proposals. This study was made with the Commission's Class A spacing requirements, and individual situations were examined to determine the lack of prohibited contour overlap per the requirements of §74.1204 of the Rules. The attached allocation study maps demonstrates compliance with the Commission's Rules for protection of FM broadcast stations and FM translators as outlined in §74.1204.

The attached spacing study demonstrates compliance with §73.207 of the Commission's Rules regarding spacing restrictions to stations which are 53 or 54 channels removed from the proposed operation.

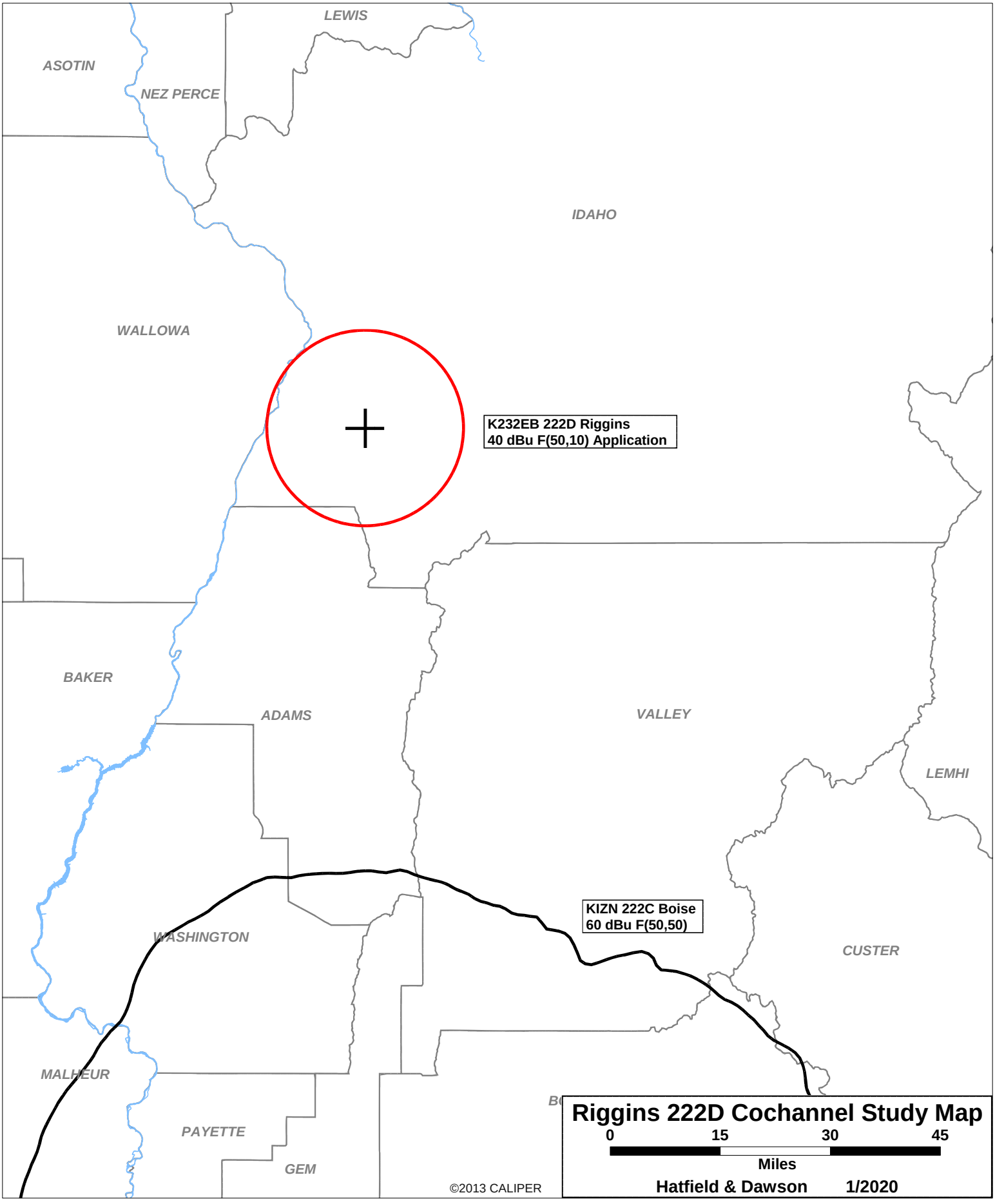
FMSTUDY.EXE Copyright 2016, Hatfield & Dawson, LLC Version 4.01

SEARCH PARAMETERS

Channel: 222A 92.3 MHz
Latitude: 45 25 21.6 (NAD27)
Longitude: 116 18 47.0
Safety Zone: 50 km
Job Title: RIGGINS 222D

Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)		Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
KBSM	MCCALL		219C3	0.220		45-00-38	162.7	47.97	42
LIC	ID	BLED-910326KF	91.7	583.0		116-07-53		5.97	CLOSE
KBSM	MCCALL		219C3	0.220		45-00-30	162.9	48.16	42
CP	ID	BPED-80112AAV	91.7	602.0		116-08-00		6.16	CLOSE
K221BA	KAMIAH		221D	0.020	DA	46-11-30	14.1	88.19	0
LIC	ID	BLFT-811123IK	92.1	148.0		116-02-00		0.00	TRANS
KWVR-FM	ENTERPRISE		221A	0.032		45-23-56	268.6	84.20	72
LIC	OR	BLH-61123AAV	92.1	534.0		117-23-17	SS	12.20	CLEAR
KIZN	BOISE		222C	48.000		43-45-21	174.7	186.01	226
LIC	ID	BLH-10831AAH	92.3	828.0		116-05-54		-39.99	SHORT
KZHR	DAYTON		223C1	54.000		45-59-19	294.2	158.02	133
LIC	WA	BLH-920731KC	92.5	379.0		118-10-28		25.02	CLEAR
KORT-FM	GRANGEVILLE		224C2	1.000		45-51-48	16.7	51.16	55
LIC	ID	BMLH-90731AAT	92.7	717.0		116-07-24		-3.84	SHORT
	MCCALL		276C3	0.000		44-54-30	163.6	59.56	12
VAC	ID	RM-11340	103.1	0.0		116-06-00		47.56	CLEAR

═══ END OF FM SPACING STUDY FOR CHANNEL 222 ═══


LEWIS
ASOTIN
NEZ PERCE
IDAHO
WALLOWA
K232EB 222D Riggins
40 dBu F(50,10) Application
BAKER
ADAMS
VALLEY
LEMHI
KIZN 222C Boise
60 dBu F(50,50)
WASHINGTON
CUSTER
MALHEUR
PAYETTE
GEM
©2013 CALIPER
Riggins 222D Cochannel Study Map
0
15
30
45
Miles
Hatfield & Dawson
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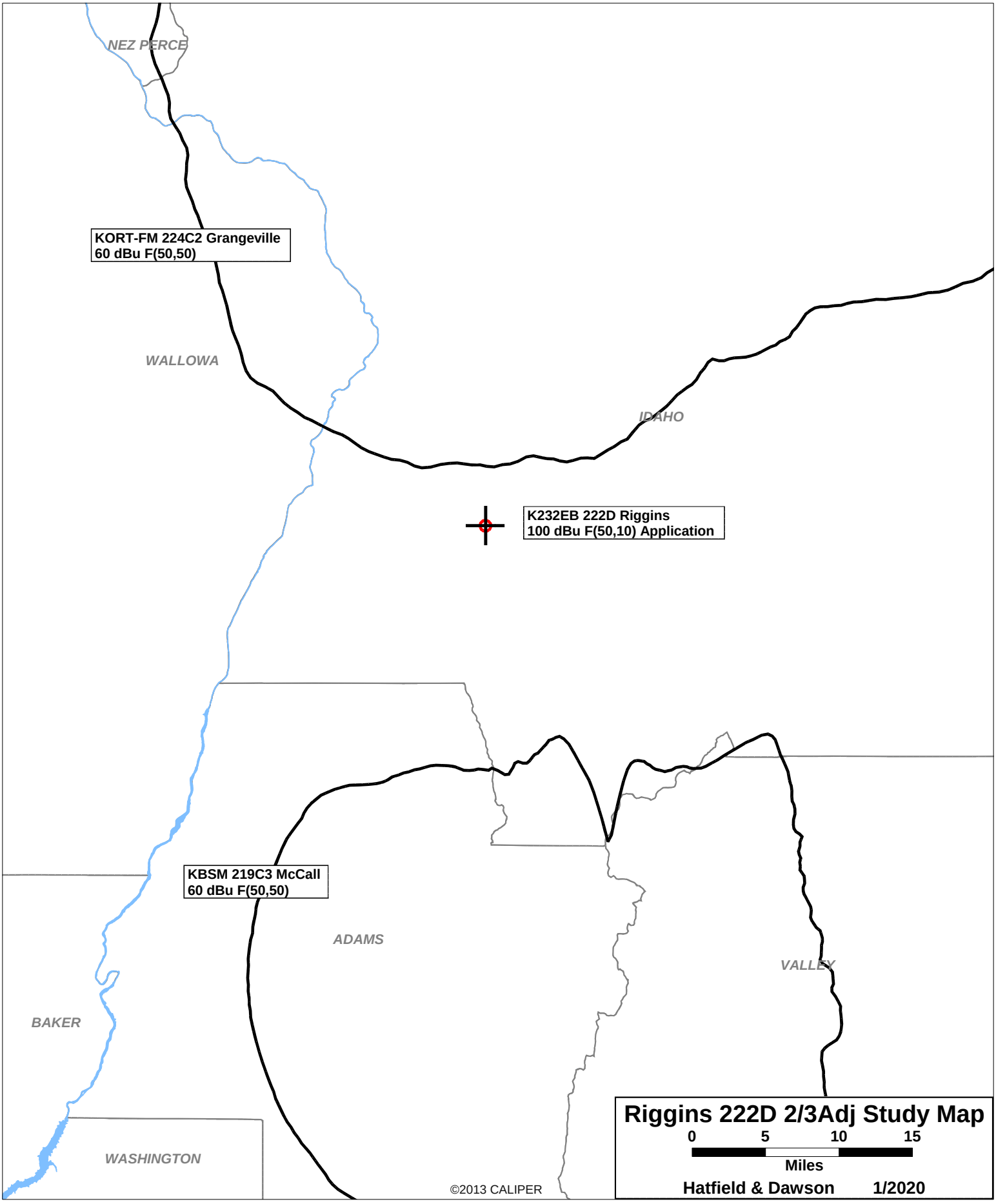
NEZ PERCE
KORT-FM 224C2 Grangeville
60 dBu F(50,50)
WALLOWA
IDAHO
K232EB 222D Riggins
100 dBu F(50,10) Application
KBSM 219C3 McCall
60 dBu F(50,50)
ADAMS
VALLEY
BAKER
WASHINGTON
©2013 CALIPER
Riggins 222D 2/3Adj Study Map
0 5 10 15
Miles
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RF Exposure Study

Facilities Proposed

The proposed operation will be on Channel 222D (92.3 MHz) with an effective radiated power of 165 watts. Operation is proposed with an antenna to be mounted on a tower in Riggins. There are no other broadcast users of this site.

The proposed antenna support structure does not exceed 60.96 meters (200 feet) above ground and does not require notification to the Federal Aviation Administration. Therefore, this structure does not require an Antenna Structure Registration Number.

RF Exposure Calculations

The power density calculations shown below were made using the techniques outlined in OET Bulletin No. 65. "Ground level" calculations in this report have been made at a reference height of 2 meters above ground to provide a worst-case estimate of exposure for persons standing on the ground in the vicinity of the tower. The equation shown below was used to calculate the ground level power density figures from each antenna.

$$S(\mu W / cm^2) = \frac{33.40981 \times AdjERP(Watts)}{D^2}$$

Where: *AdjERP(Watts)* is the maximum lobe effective radiated power times the element pattern factor times the array pattern factor.

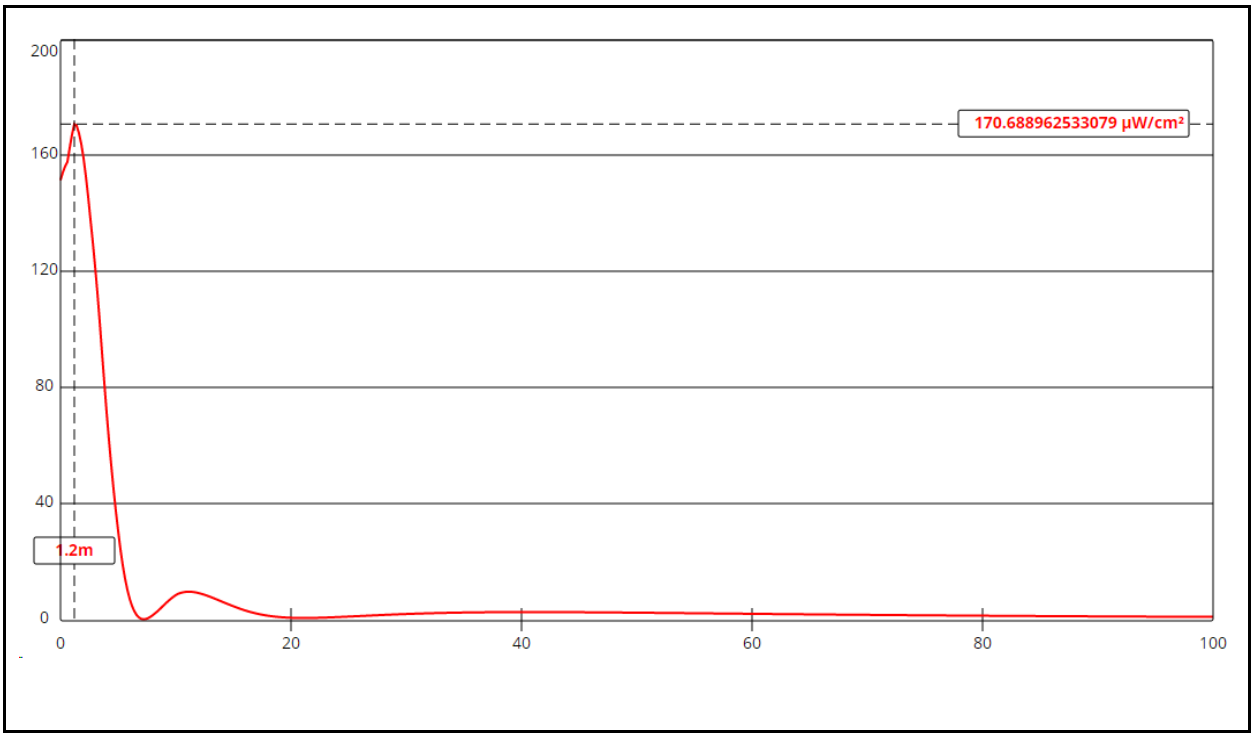
D is the distance in meters from the center of radiation to the calculation point.

Ground level power densities have been calculated for locations extending from the base of the tower to a distance of 500 meters. Values past this point are increasingly negligible.

Calculations of the power density produced by the proposed antenna system assume a Type 1 element pattern, which is the “worst case” element pattern, and used for the Phelps-Dodge ECFM-3 antenna to be used. The highest calculated ground level power density occurs at a distance of

1.2 meters from the base of the antenna support structure. At this point the power density is calculated to be 170.7 μW/cm², which is 85.4% of the FCC MPE for uncontrolled environments.

The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency exposure in excess of FCC guidelines.

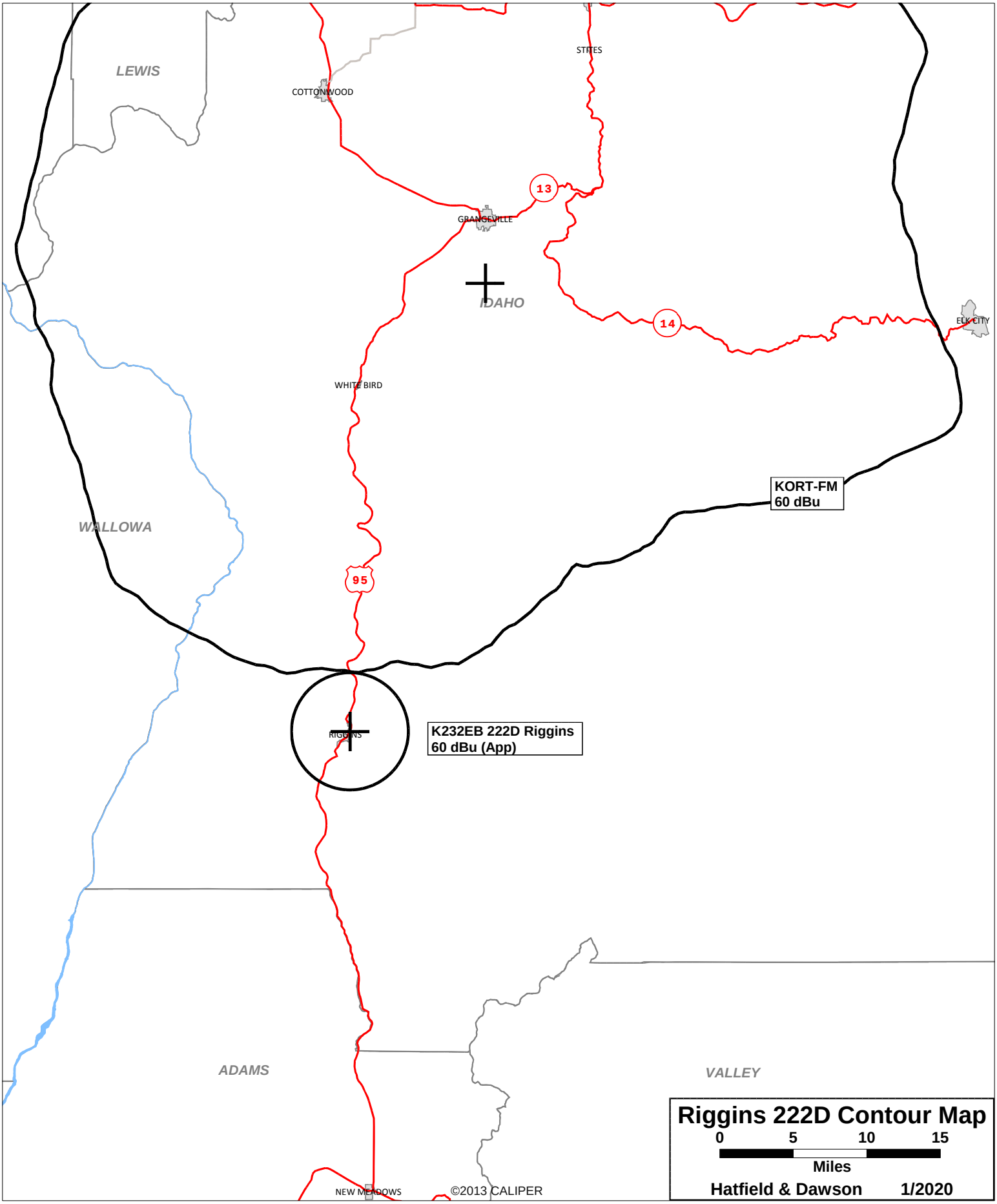


Ground-Level RF Exposure **OET FMModel**

Riggins 222D

Antenna Type:	Phelps-Dodge ECFM-3 (Type 1)
No. of Elements:	3
Element Spacing:	1 wavelength
Distance:	100 meters
Horizontal ERP:	165 W
Vertical ERP:	165 W
Antenna Height:	9.1 meters AGL

Maximum Calculated Power Density is 170.7 µW/cm^2 at 1.2 meters from the antenna structure.


LEWIS
COTTONWOOD
STITES
13
GRANGEVILLE
IDAHO
14
ELK CITY
WHITE BIRD
KORT-FM
60 dBu
WALLOWA
95
RIGGINS
K232EB 222D Riggins
60 dBu (App)
ADAMS
VALLEY
NEW MEADOWS
©2013 CALIPER
Riggins 222D Contour Map
0 5 10 15
Miles
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Mercator Projection
WGS84
USNG Zone 11TNL

CalTopo

0.5 1.0 1.5 2.0 2.5 km

0.5 1.0 1.5 mi

Scale **1:24000** 1 inch = 2000 feet

N MN 13°