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**Modification of FM Translator K262DD
Channel 262D at Twin Falls, ID
To Rebroadcast KXQZ(AM) 1340 kHz Wendell, ID
March 2019**

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 map demonstrates compliance with the Commission's Rules for protection of FM broadcast stations and FM translators as outlined in §74.1204.

The 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.

KZDX 260C Burley

The proposed translator transmitter site is located within the 60 dBu protected contour of second-adjacent channel station KZDX 260C Burley. The following calculation, performed using the *Living Way* methodology, demonstrates interference protection to that station.

Protected Station	Distance & Bearing to Proposal	Station ERP and HAAT on that azimuth	Station Field Strength at Proposal	Corresponding Translator Interfering Contour	Distance to Translator Interfering Contour
KZDX 260C	79.74 km 303 deg True	27 kW 923 meters	63.6 dBu F(50,50)	103.6 dBu	732.3 meters Free Space

The attached map of the proposed transmitter site depicts the 103.6 dBu contour from the proposed facility, as a circle with a radius of 732.3 meters. There are no populated areas within this contour; this has also been confirmed by checking against aerial photography. Therefore, the proposed facility is believed to satisfy the requirements of §74.1204(d) with respect to KZDX.

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SEARCH PARAMETERS FM Database Date: 190301

Channel: 262A 100.3 MHz Page 1

Latitude: 42 43 44

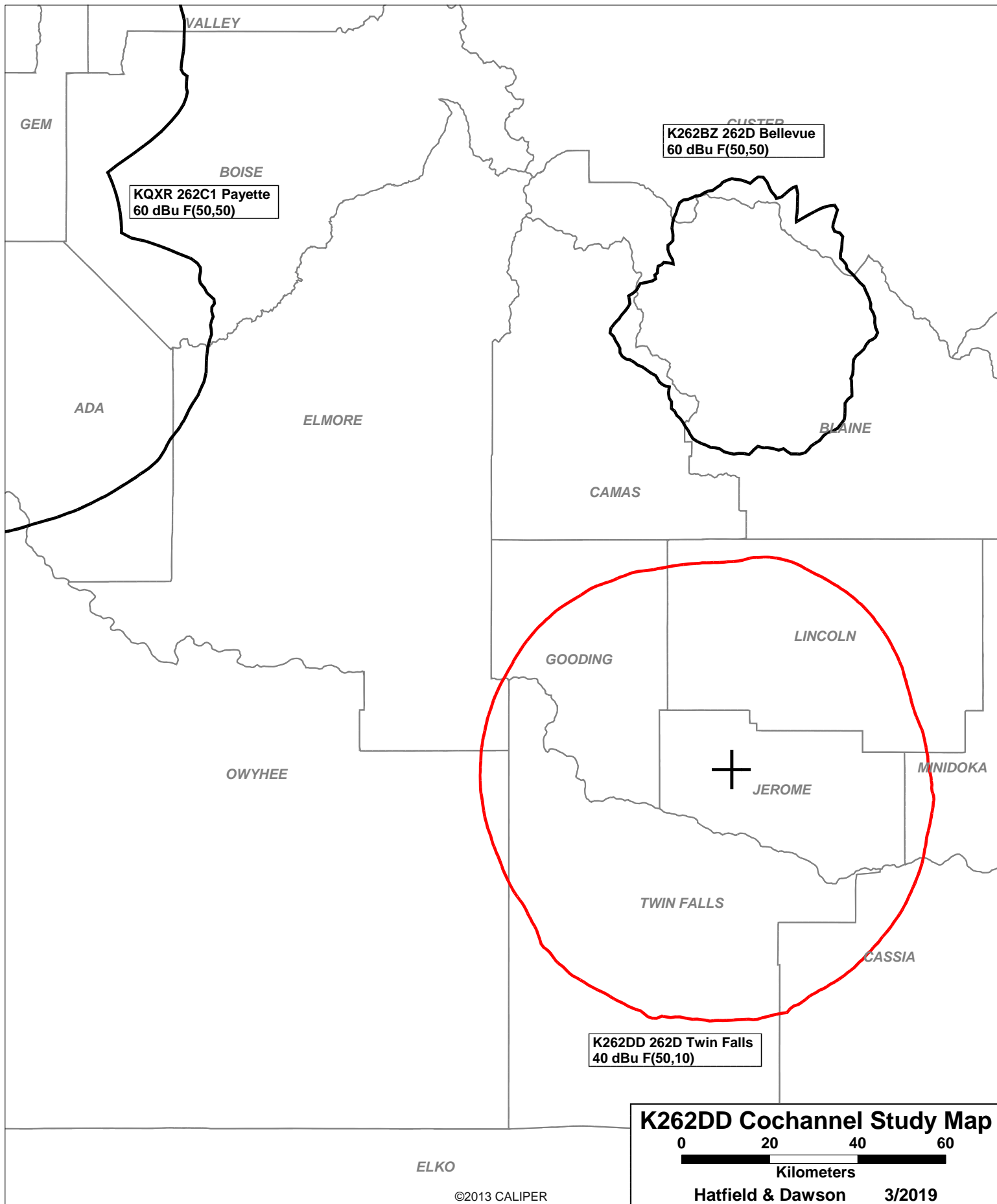
Longitude: 114 24 56

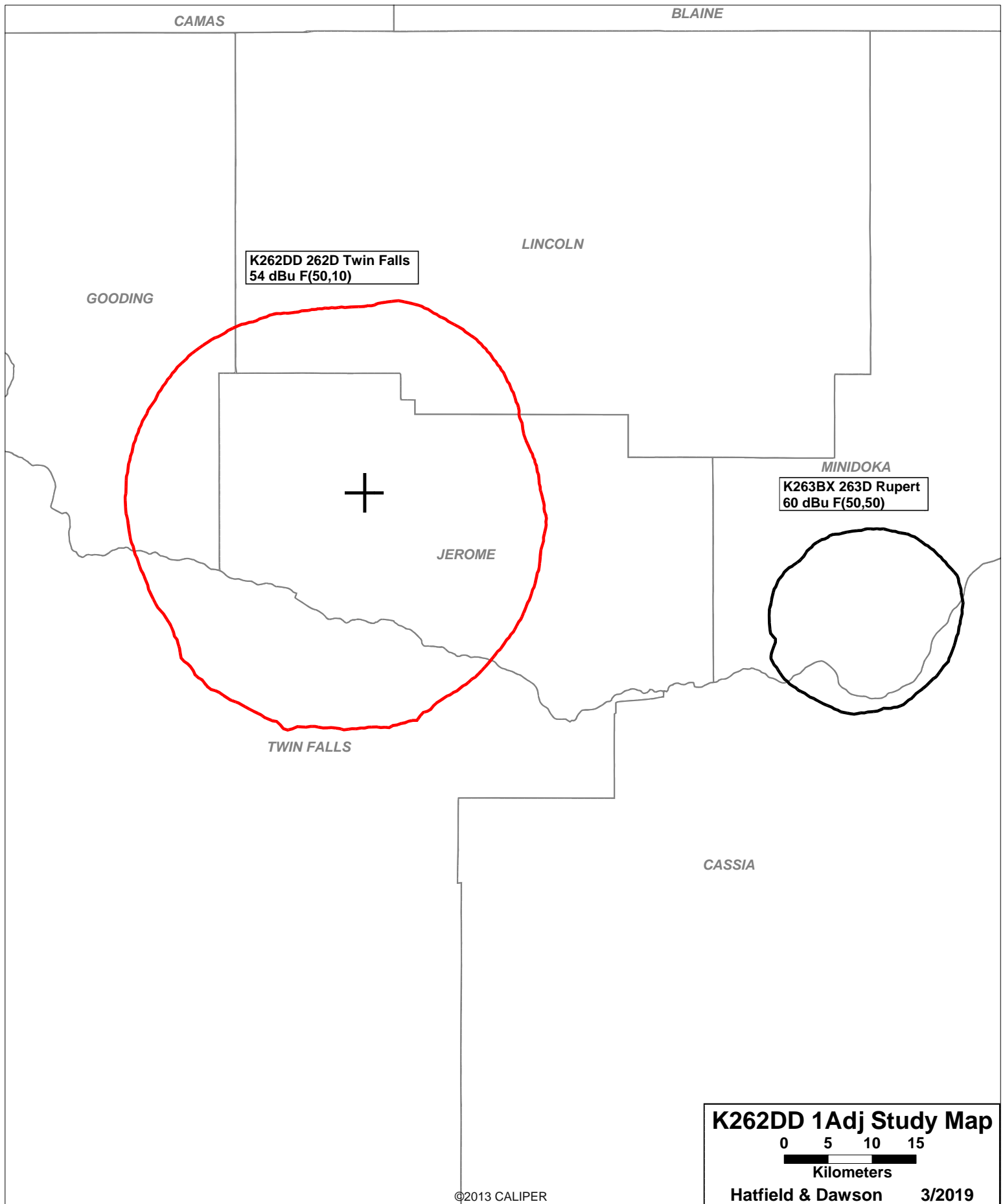
Safety Zone: 50 km

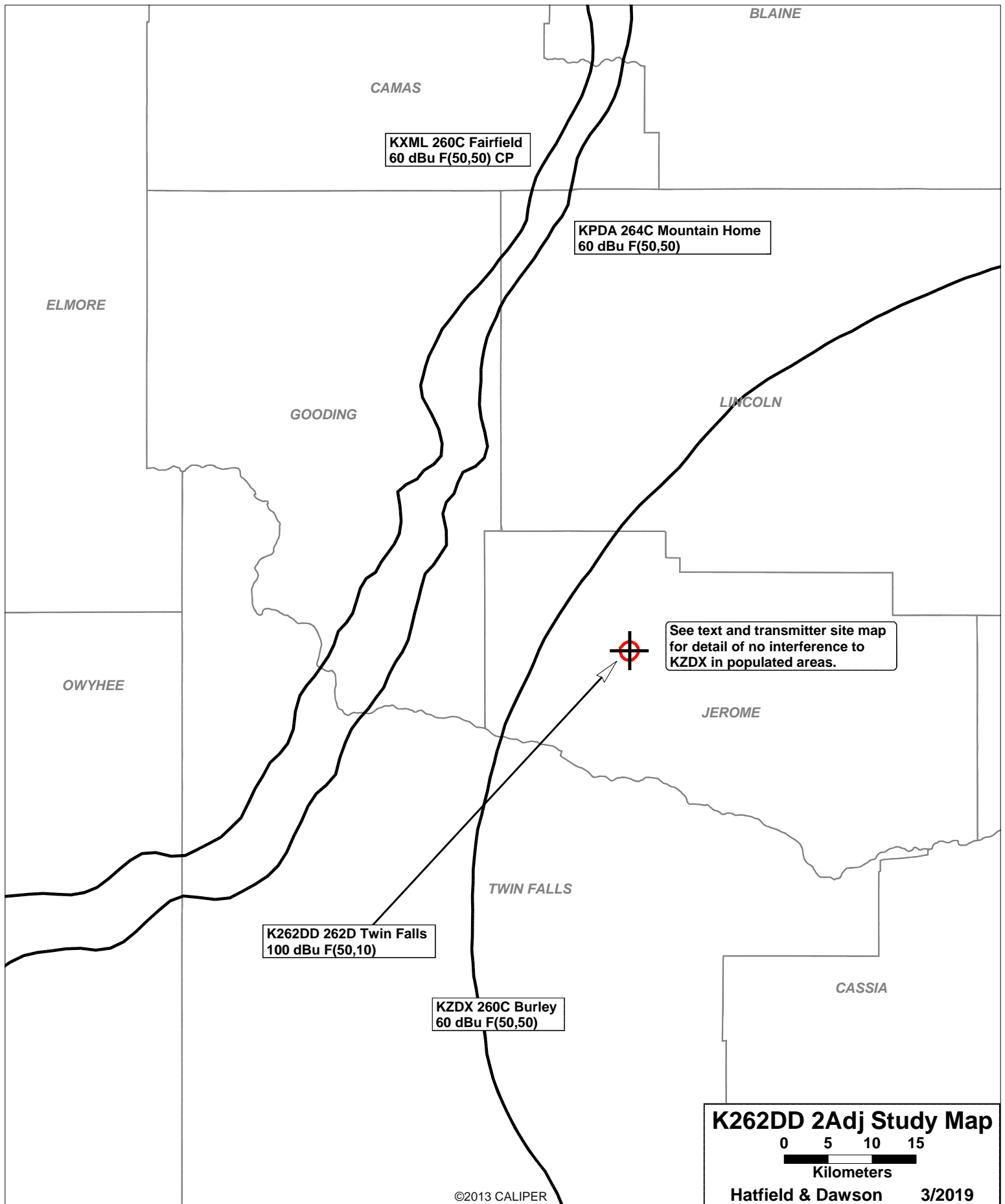
Job Title: K262DD FLAT TOP BUTTE

Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
K208FB LIC	BURLEY ID	BMLFT-81125AVU	208D 89.5	0.140 134.0	42-29-02 113-54-39	123.2	49.56 0.00	0 TRANS
KZDX LIC	BURLEY ID	BLH-40817AAG	260C 99.9	27.000 746.8	42-20-06 113-36-15	123.1	79.74 -15.26	95 SHORT
KXCD CP MOD	FAIRFIELD ID	BMPH-90121ACC	260C 99.9	40.000 708.0	43-14-59 115-25-59	305.3	101.16 6.16	95 CLOSE
K262BZ LIC	BELLEVUE ID	BLFT-40422ABV	262D 100.3	0.125 970.0	43-39-42 114-24-07	0.6	103.63 0.00	0 TRANS
KQXR LIC	PAYETTE ID	BMLH-20715AAX	262C1 100.3	100.000 216.0	43-49-31 116-30-29	306.5	209.02 9.02	200 CLOSE
K262CL LIC	POCATELLO ID	BLFT-61219AAW	262D 100.3	0.250 467.0	42-51-46 112-31-03	83.9	156.00 0.00	0 TRANS
K262DD CP	WENDELL ID	BNPFT-71220ABR	262D 100.3	0.250 143.0	42-43-26 114-40-11	268.6	20.82 0.00	0 TRANS
K263BX CP	RUPERT ID	BNPFT-80418AFF	263D 100.5	0.250 80.0	42-36-08 113-43-21	103.7	58.54 0.00	0 TRANS
KPDA LIC	MOUNTAIN HOME ID	BMLH-40624ACD	264C 100.7	70.000 711.0	43-14-49 115-26-08	305.1	101.16 6.16	95 CLOSE

===== END OF FM SPACING STUDY FOR CHANNEL 262 =====







Facilities Proposed

The proposed operation will be on Channel 262D (100.3 MHz) with an effective radiated power of 0.250 kilowatts. Operation is proposed with a 3-element circularly-polarized omni-directional antenna. The antenna will be mounted on an existing tower on Flat Top Butte, with FCC Antenna Structure Registration Number 1041029.

Combined operation is proposed for K262DD, K269HA and K273DG via a common antenna system.

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.

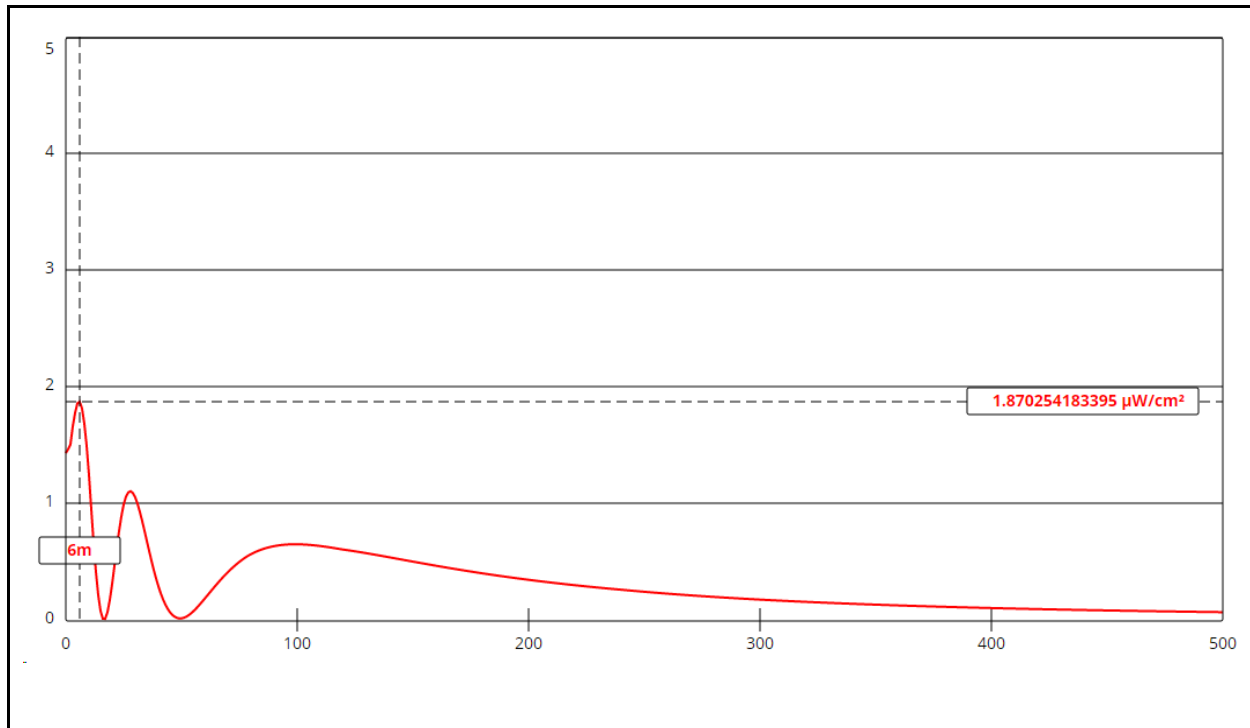
D is the distance in meters from the center of radiation to the calculation point.

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 2 element pattern, which is the element pattern designated in the Commission's FMModel software for the Bext TFC2K-3 antenna proposed for use. The highest calculated ground level power density occurs at a distance of 6 meters from the base of the antenna support structure. At this point the power density is calculated to be 1.9 $\mu W/cm^2$, which is 1% of 200 $\mu W/cm^2$ (the FCC standard for uncontrolled environments).

These calculations show that the maximum calculated power density produced at two meters above ground level by the proposed operation alone is less than 5% of the applicable FCC exposure limit at all locations between 1 and 500 meters from the base of the antenna support structure. Section 1.1307(b)(3) of the Commission's Rules excludes applications for new facilities or modifications to existing facilities from the requirement of preparing an environmental assessment when the calculated emissions from the applicant's proposed facility are predicted to be less than 5% of the applicable FCC exposure limit. Therefore, the proposed facility is in compliance with Section 1.1301 *et seq* and no further analysis of RF exposure at this site is required in this application.

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

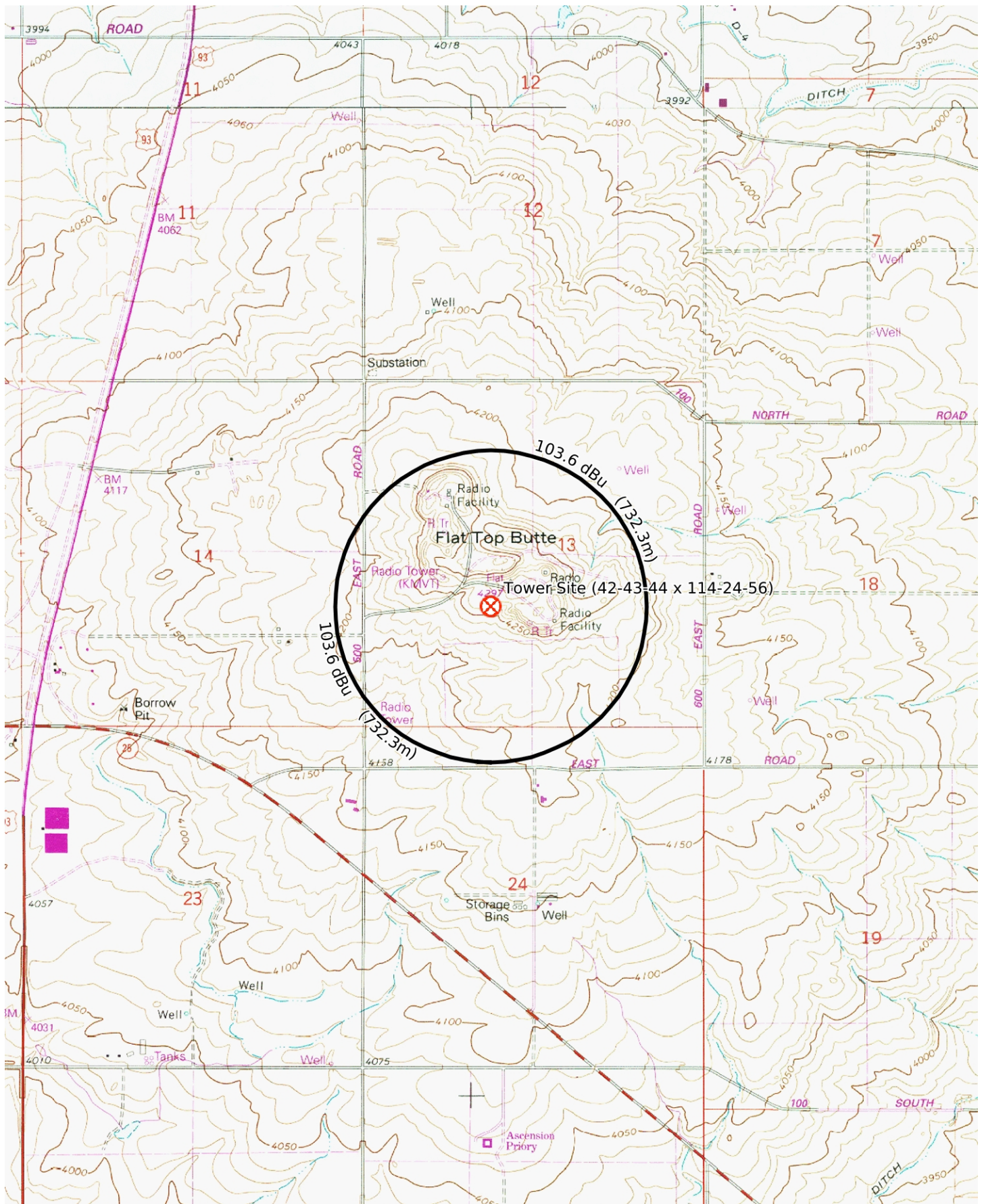
K262DD Twin Falls

Antenna Type: Bext TFC2K-3 (Type 2)
No. of Elements: 3
Element Spacing: 0.85 wavelength

Distance: 500 meters
Horizontal ERP: 250 watts
Vertical ERP: 250 watts

Antenna Height: 23 meters AGL

Maximum Calculated Power Density is 1.9 $\mu\text{W}/\text{cm}^2$ at 6 meters from the antenna structure.



Mercator Projection
NAD27 Conus
USNG Zone 11TQH
CalTopo

