

APPLICATION FOR MODIFICATION OF CONSTRUCTION PERMIT

K245BR - POCA TELLO, IDAHO
FACILITY ID: 145783
96.9 MHz / 250 W ERP DA

CARL WATKINS

APRIL, 2016

APPLICATION FOR MODIFICATION OF CONSTRUCTION PERMIT

The following engineering statement and attached exhibits have been prepared for **Carl Watkins** ("Watkins"), permittee of FM translator station K245BR at Pocatello, Idaho, and are in support of their application for construction permit.¹ This application proposes a minor change to the existing authorization for the facility.

K245BR is currently authorized to operate on channel 245 with an effective radiated power of 250 Watts at a center of radiation of 1787 meters above sea level utilizing a directional antenna. A relocation from the authorized tower to an adjacent tower at the site is proposed under this application. The relocation of the facility results in a change in the longitude of one second. The proposed facility would continue to operate on FM channel 245 with a maximum effective radiated power of 250 Watts. The proposed center of radiation is 1785.9 meters AMSL, which although is also 8 meters above the site elevation, is at a slightly lower elevation above mean sea level than the current authorization.

Additionally, a change in the primary station is proposed. The current construction permit for the facility specifies the primary station as KPTO at Pocatello, Idaho.² That facility, although licensed, is silent. Watkins therefore proposes that the primary station for K245BR be changed to KID-FM at Idaho Falls, Idaho.³ The predicted 60 dBu service contour for the proposed K245BR facility would be wholly contained within the 60 dBu service contour of KID-FM. As a result, the translator would continue to function as a fill-in translator. Exhibit E-1 provides a comparison between the 60 dBu service contour of the two facilities in question.

¹ The Facility ID for K245BR at Pocatello, Idaho is 145783.

² The Facility ID for KPTO at Pocatello, Idaho is 129638.

³ The Facility ID for KID-FM at Idaho Falls, Idaho is 22195.

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The proposed facility complies with the provisions of Section 74.1204 of the Commission's Rules. Due to the proposed channel of operation, Section 74.1205 is not applicable. Exhibit E-2 is a tabular interference study for the proposed facility. This study demonstrates that the contour overlap provisions of Section 74.1204 would be met to all relevant authorizations, with the exception of the license and pending application for KLCE at Blackfoot, Idaho.⁴ The situation between the proposed facility and KLCE will be considered under the provisions of Section 74.1204(d). The tabular interference study is graphically depicted in the contour map that comprises Exhibit E-3.

Although normally prohibited contour overlap would exist between the proposed translator facility and both the licensed and proposed facilities for KLCE, the contour overlap would not result in interference to any populated region. Exhibit E-4 illustrates the location of the K245BR site along with the 66.7 dBu service contour from the licensed KLCE facility, and the 63.22 dBu contour from the pending application for KLCE. Since the latter contour has the lesser field strength, it will be utilized for the purposes of calculations.

In Exhibit E-5, the K245BR site location is illustrated along with the KLCE application 63.22 dBu and 63 dBu service contours. Additionally, the K245BR 103.22 dBu F(50,10) contour is also illustrated on the map. From this map, it can be inferred that potential interference to the reception of KLCE would be confined to the 103 dBu contour of K245BR. The following satellite image illustrates the 103 dBu service contour for the proposed translator. As this image demonstrates, the only structures within the predicted interference area are uninhabited transmitter buildings

⁴ The Facility ID for KLCE at Blackfoot, Idaho is 71772.

associated with the communications site. No other structures or populated areas exist within the predicted interference zone.



The proposed facility would not constitute a significant environmental impact, and is exempt from environmental processing. The antenna for the translator would utilize an existing tower. The antenna to be utilized by the translator is currently located at this tower at the height specified. Thus, the operation of the facility would not increase the existing environmental impact already present from the facility.

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The Commission's new *FM Model* utility calculates a maximum power density of 277.9 $\mu\text{W}/\text{cm}^2$ at 2 meters from the tower base. This region, however, is fenced, as is indicated by the following photograph. The data retrieved from the utility is attached to this exhibit.



The proposed facility is therefore not expected to result in RF levels in excess of those permitted under the uncontrolled environment condition of the Commission's safety standard.

Watkins certifies that he will coordinate with all other users of the site to ensure that workers and other persons are not exposed to levels of radiofrequency radiation in excess of the applicable

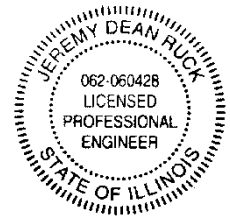
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safety standards. Coordination activities will include, but are not necessarily limited to, a reduction in transmitter power or cessation of operation.

The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.



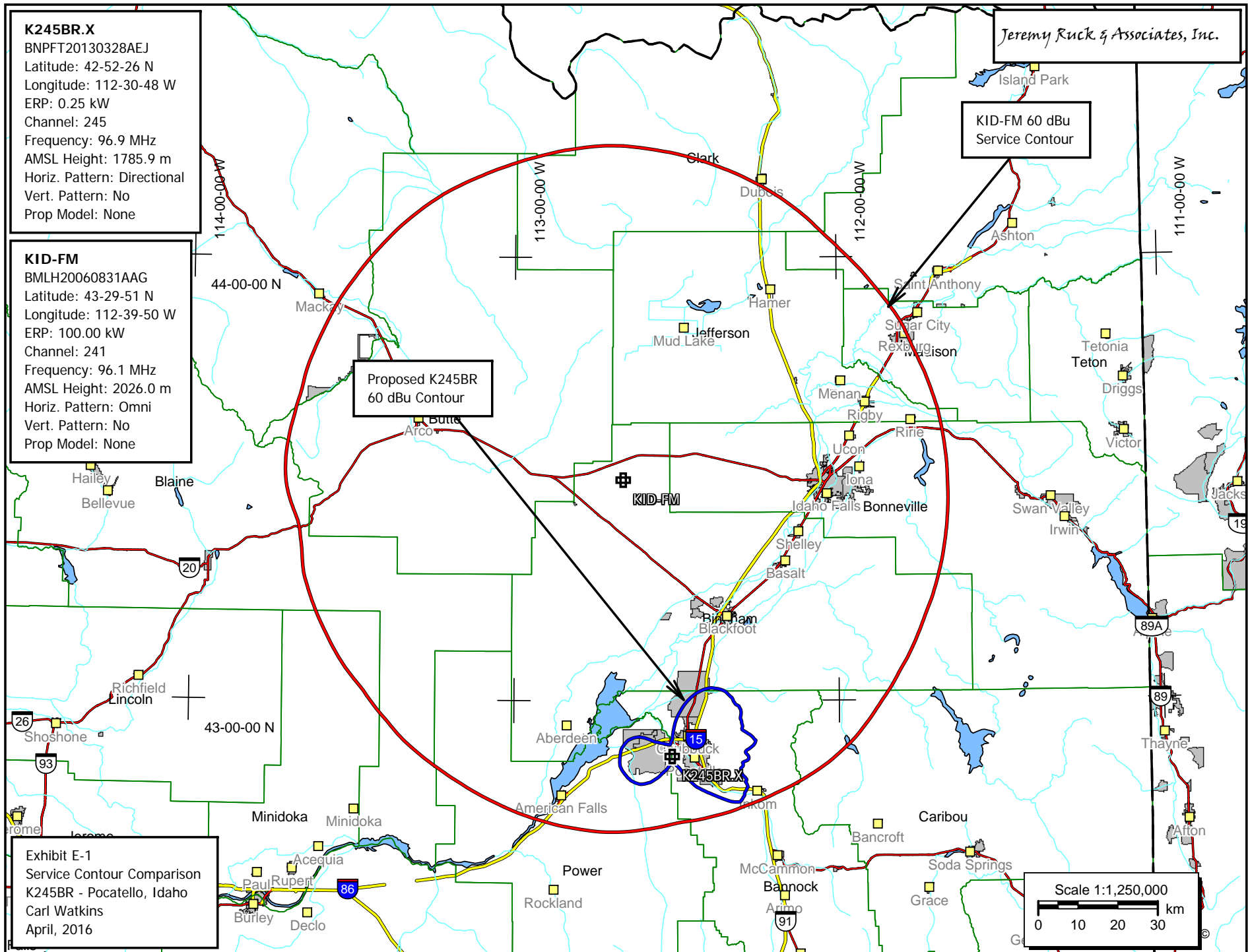
Above signature is digitized copy of actual signature
License Expires November 30, 2017

Jeremy D. Ruck, PE
April 6, 2016

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Consulting Engineers - Canton, Illinois

Exhibit E-2 - Tabular Interference Study
K245BR - Pocatello, Idaho
CH# 245D - 96.9 MHz, Pwr= 0.25 kW DA, HAAT= 282.3 M, COR= 1785.9 M
Average Protected F(50-50)= 21.91 km
Standard Directional

REFERENCE
42 52 26.0 N.
112 30 48.0 W.

DISPLAY DATES
DATA 04-06-16
SEARCH 04-06-16

| CH CITY | CALL | TYPE STATE | ANT STATE | AZI <-- | DIST FILE # | LAT LNG | PWR(kW) HAAT(M) | INT(km) COR(M) | PRO(km) LICENSEE | *IN* (Overlap in km) | *OUT* |
|-------------------------|---------|---------------|--------------|----------------|---------------------------|---------------------------|--------------------|-------------------|-------------------------------------|-------------------------|-------------|
| 245D Pocatello | K245BR | CP ID | DC_ | 90.0 270.0 | 0.02 BNPFT20130328AEJ | 42 52 26.0 112 30 47.0 | 0.250 285 | 45.1 1787 | 13.1 Carl Watkins | -64.2* | -72.6* |
| 245C1 Jackson | KMTN | LIC WY | CN | 64.8 246.0 | 157.00 BLH19850617KC | 43 27 42.0 110 45 10.0 | 50.000 323 | 174.7 2473 | 78.1 Rp Broadcasting Ls, Lic | -38.3* | 13.9 |
| 247C Blackfoot | KLCE | LIC ID | C_ | 350.2 170.1 | 70.73 BMLH20030825ANI | 43 30 03.0 112 39 43.0 | 100.000 461 | 12.6 2030 | 87.0 Ri verbend Communi cations, | 43.9 | -16.3* |
| 247C1 Blackfoot | KLCE | APP ID | DCX | 37.6 217.9 | 67.20 BPH20160212AAI | 43 21 06.0 112 00 22.0 | 100.000 201 | 10.6 1801 | 74.7 Ri verbend Communi cations, | 35.6 | -8.3* |
| 244C1 Preston | KKEX | LIC ID | CX | 152.3 332.8 | 125.56 BMLH20040204ACV | 41 52 18.0 111 48 31.0 | 100.000 66 | 116.0 1750 | 78.3 Sun Valley Radio, Inc. | -7.9 | 29.1 |
| 244L1 American Falls | KDDE-LP | LIC ID | ___ | 249.7 69.5 | 29.58 BLL20141208AAS | 42 46 52.1 112 51 12.1 | 0.100 | 1366 | 8.6 Templ o Emanuel | 5.0 | Asambleas D |
| 244D Idaho Falls | K244BJ | LIC ID | C_ | 34.0 214.4 | 90.25 BLFT20081113AFE | 43 32 43.0 111 53 14.0 | 0.250 152 | 30.7 1692 | 20.7 Radio Fiesta, Lic. | 38.6 | 38.5 |

Terrain database is NED 03 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= West Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding. Call signs with strikeout need not be protected.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
***affixed to 'IN' or 'OUT' values = site inside restricted contour.

K245BR.X

BNPFT20130328AEJ

Latitude: 42-52-26 N

Longitude: 112-30-48 W

ERP: 0.25 kW

Channel: 245

Frequency: 96.9 MHz

AMSL Height: 1785.9 m

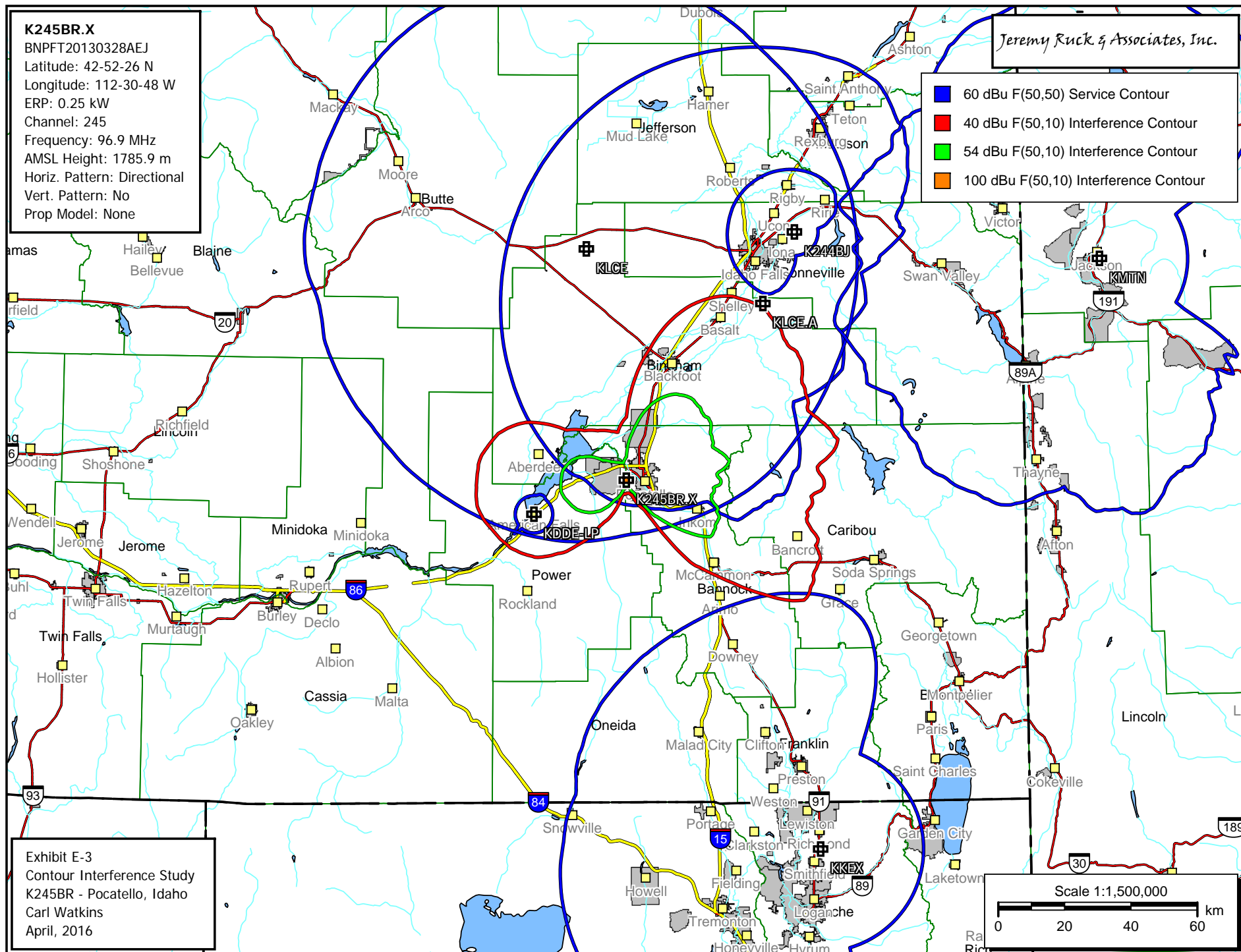
Horiz. Pattern: Directional

Vert. Pattern: No

Prop Model: None

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- 60 dBu F(50,50) Service Contour
- 40 dBu F(50,10) Interference Contour
- 54 dBu F(50,10) Interference Contour
- 100 dBu F(50,10) Interference Contour



K245BR.X

BNPFT20130328AEJ
Latitude: 42-52-26 N
Longitude: 112-30-48 W
ERP: 0.25 kW
Channel: 245
Frequency: 96.9 MHz
AMSL Height: 1785.9 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

KLCE

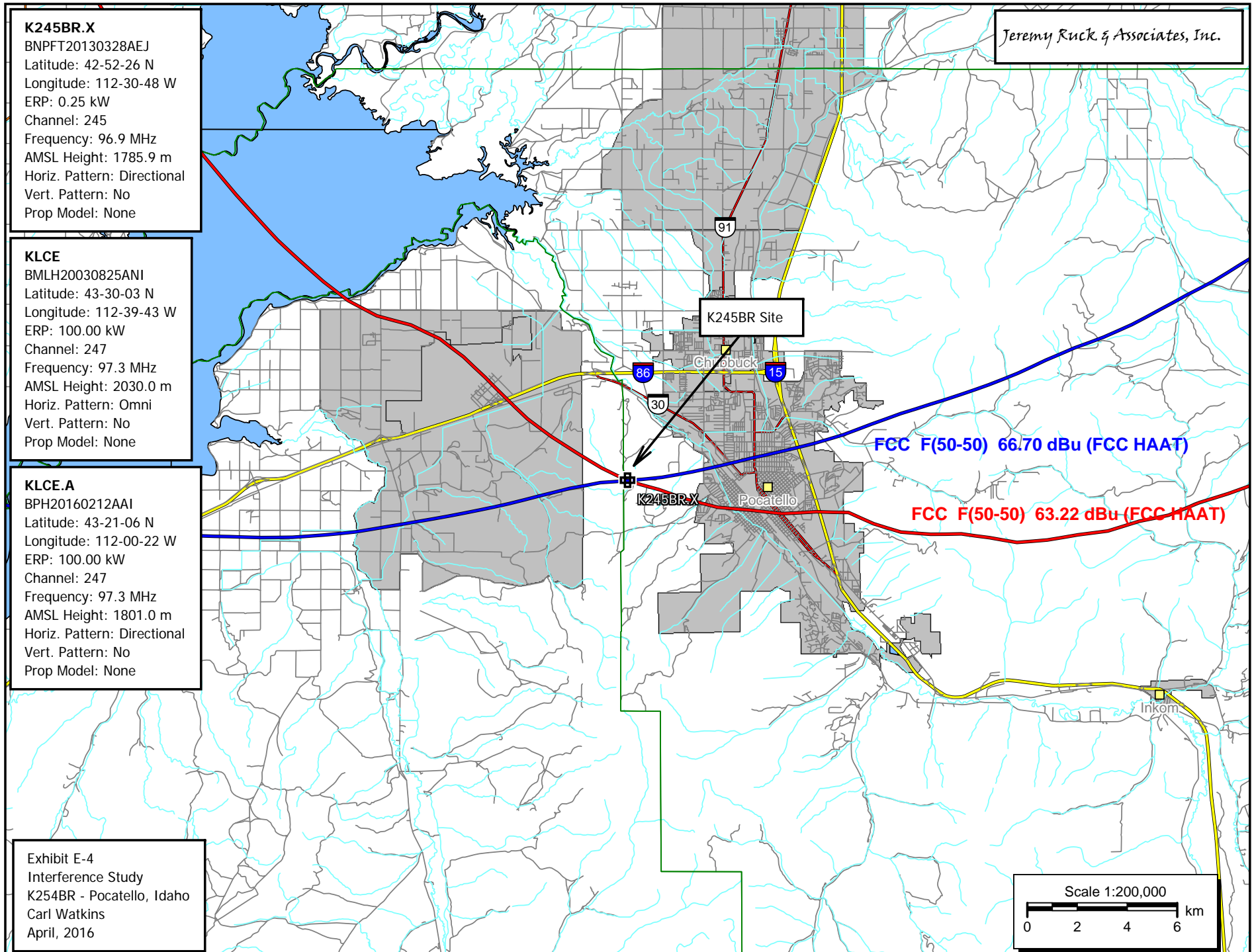
BMLH20030825ANI
Latitude: 43-30-03 N
Longitude: 112-39-43 W
ERP: 100.00 kW
Channel: 247
Frequency: 97.3 MHz
AMSL Height: 2030.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

KLCE.A

BPH20160212AAI
Latitude: 43-21-06 N
Longitude: 112-00-22 W
ERP: 100.00 kW
Channel: 247
Frequency: 97.3 MHz
AMSL Height: 1801.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

Exhibit E-4
Interference Study
K254BR - Pocatello, Idaho
Carl Watkins
April, 2016

Jeremy Ruck & Associates, Inc.



K245BR.X

BNPFT20130328AEJ
Latitude: 42-52-26 N
Longitude: 112-30-48 W
ERP: 0.25 kW
Channel: 245
Frequency: 96.9 MHz
AMSL Height: 1785.9 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

KLCE

BMLH20030825ANI
Latitude: 43-30-03 N
Longitude: 112-39-43 W
ERP: 100.00 kW
Channel: 247
Frequency: 97.3 MHz
AMSL Height: 2030.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

KLCE.A

BPH20160212AAI
Latitude: 43-21-06 N
Longitude: 112-00-22 W
ERP: 100.00 kW
Channel: 247
Frequency: 97.3 MHz
AMSL Height: 1801.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

Exhibit E-5
Interference Study
K254BR - Pocatello, Idaho
Carl Watkins
April, 2016

Jeremy Ruck & Associates, Inc.

KLCE Application
63 dBu Contour

K245BR 103.22 dBu
F(50,10) Contour

KLCE Application
63.22 dBu Contour

K245BR.X

Scale 1:25,000

0 0.33 0.67 1.0 km



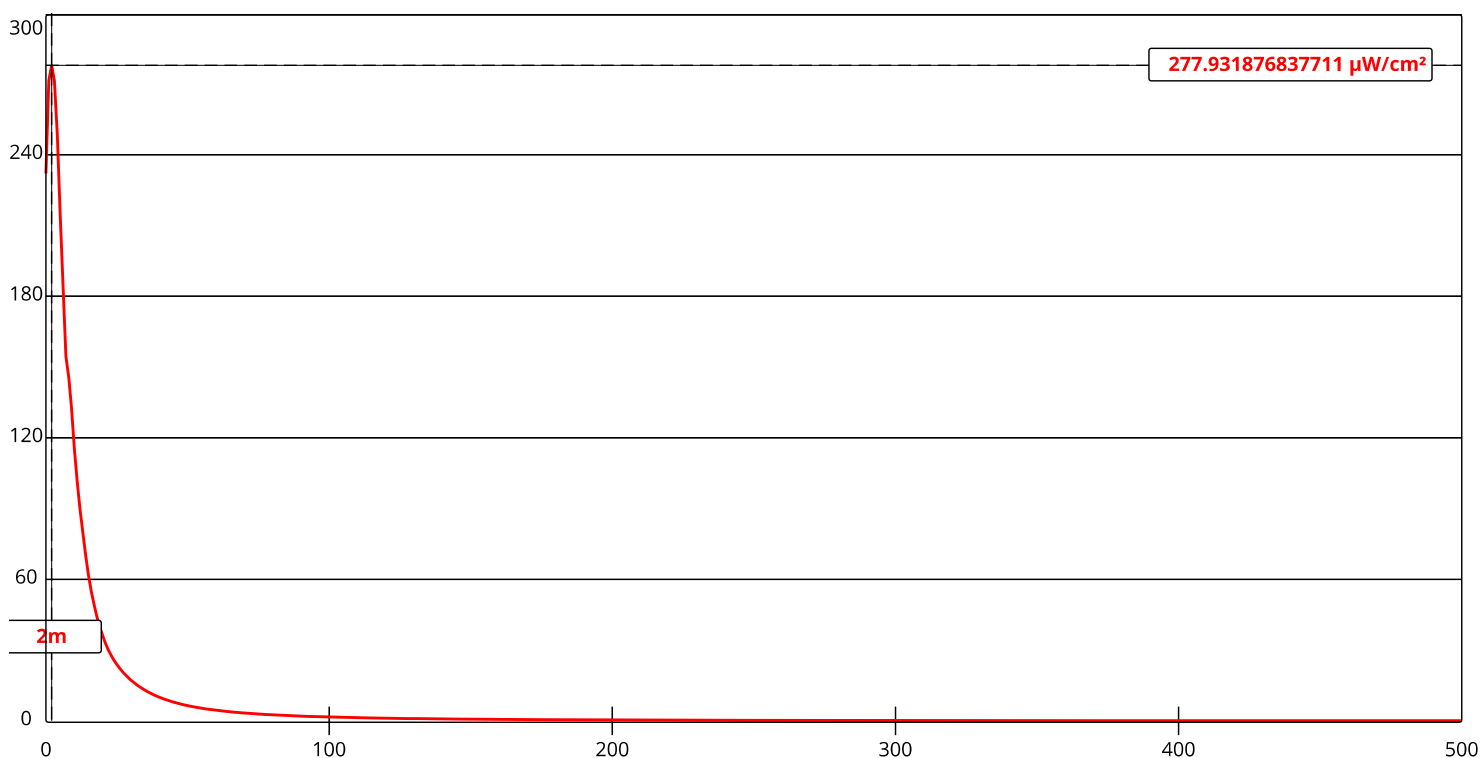
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FM Model

The FM Model calculator determines the potential exposure from radiofrequency (RF) electromagnetic fields produced by FM broadcast station antennas at ground level. The FM Model software was originally developed by the FCC in 1997 as a standalone executable program and this improved version provides more precise predictions and runs via a JavaScript enabled web browser. The FM Model is originally based on measured data [published in 1985 by the EPA](#)

([http://nepis.epa.gov/Exe/ZyNET.exe/2000ED2W.TXT?](http://nepis.epa.gov/Exe/ZyNET.exe/2000ED2W.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1981+Thru+1985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A\zyfiles\Index%20Data\81thru85\Txt\00000003\2000ED2W.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h|-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p|f&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL)

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| | | | |
|-------------------|--|---------------------|----------------------------------|
| Channel Selection | Channel 245 (96.9 MHz) ▼ | | |
| Antenna Type + | EPA Type 1: Ring-and-Stub or "Other" ▼ | | |
| Height (m) | <input type="text" value="8"/> | Distance (m) | <input type="text" value="500"/> |
| ERP-H (W) | <input type="text" value="250"/> | ERP-V (W) | <input type="text" value="250"/> |
| Num of Elements | <input type="text" value="1"/> | Element Spacing (λ) | <input type="text" value="1"/> |
| Num of Points | <input type="text" value="500"/> | Apply | |

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