FI 131138 K45KS-D Ch 19

Billings

Minor modification: change only antenna make and model and add vertical component.

Study created: 2022.08.11 13:21:32

Study build station data: LMS TV 2022-08-09

Proposal: K45KS-D D19 LD CP BILLINGS, MT

File number: DIe TUL antenna

Facility ID: 131138

Station data: User record

Record ID: 392

Country: U.S.

Build options:

Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX Call Chan Svc Status City, State File Number Distance

No KSVI D18 DT LIC BILLINGS, MT BLCDT20090205ABS 10.1 km

No K18MZ-D D18 LD LIC FORSYTH, MT BLANK0000124963 148.3

No K19JQ-D D19 LD LIC BIG SANDY, MT BLDTT20120530APG 292.0

No KWYB D19 DT LIC BUTTE, MT BLCDT20080424ABB 309.6

No K19JM-D D19 LD LIC EMIGRANT, MT BLDTT20120619ACG 180.3

No KTGF-LD D19 LD LIC GREAT FALLS, MT BLANK0000029293 292.1

Yes K19JO-D D19 LD LIC HARLOWTON, ETC, MT BLDTT20120611ACE 145.6

No K19FF-D D19- LD LIC MILES CITY, MT BLANK0000152876 214.3

No K19FF-D N19- TX LIC MILES CITY, MT BLTT20030121ACC 214.3

No K19JR-D D19 LD CP WOLF POINT, MT BLANK0000013205 336.7

No K19JR-D D19 LD LIC WOLF POINT, MT BLDTT20120614ACJ 334.6

No KXMA-TV D19 DT LIC DICKINSON, ND BLCDT20090715AHZ 438.9

No K19GX-D D19 LD LIC BUFFALO, WY BLDTT20110420ABL 218.7

Yes K19LM-D D19z LD LIC CODY, POWELL, WY BLANK0000074850 134.5

No K19KW-D D19 LD LIC GREYBULL, WY BLANK0000064170 154.4

No K19FG-D D19 LD LIC JACKSON, WY BLANK0000163880 313.9

No K19HJ-D D19 LD LIC PINEDALE, ETC., WY BLDTT20080305AEZ 339.6

No K20HB-D D20+ LD LIC BILLINGS, MT BLANK0000177264 0.3

No KTVQ D20 DT CP BILLINGS, MT BLANK0000190318 0.3

No K20HB-D N20+ TX LIC BILLINGS, MT BLTT20041123AKE 0.3

No K20LK-D D20 LD LIC COLSTRIP, ETC., MT BLDTT20120608AAV 120.4

No K20KQ-D D20 LD LIC LIVINGSTON, ETC., MT BLDTT20130906AAU 163.4

No K20LT-D D20 LD LIC DIAMOND BASIN, ETC., WY BLDTT20130807AAN 151.9

No DDK23HI N23z TX APP BILLINGS, MT BLTTL20070809ABT 7.7

No K27IM-D N27z TX LIC BILLINGS, MT BLTT20060711ABH 0.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D19

Mask: Full Service

Latitude: 45 45 51.30 N (NAD83)

Longitude: 108 27 21.00 W

Height AMSL: 1140.8 m

HAAT: 0.0 m

Peak ERP: 5.00 kW

Antenna: DIE-TUL-C2-2/4M-1-K 260.0 deg

Elev Pattrn: Generic

49.3 dBu contour:

Azimuth ERP HAAT Distance

0.0 deg 0.623 kW 155.1 m 32.8 km

45.0 0.008 118.0 11.0

90.0 0.148 65.3 16.8

135.0 0.066 38.1 10.5

180.0 2.58 11.4 23.1

225.0 3.97 68.9 33.9

270.0 3.35 163.0 42.0

315.0 4.85 105.5 39.7

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 91 m

Distance to Canadian border: 359.6 km

Distance to Mexican border: 1545.8 km

Conditions at FCC monitoring station: Grand Island NE

Bearing: 120.1 degrees Distance: 971.8 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 156.2 degrees Distance: 675.8 km

No land mobile station failures found

Study cell size: 1.00 km

Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%

Maximum new IX to LPTV: 2.00%

---- Below is IX received by proposal DIe TUL antenna ----

Proposal receives 22.06% interference from scenario 1

Proposal receives 22.06% interference from scenario 2

No IX check failures found.