STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION FOR
MODIFICATION OF LICENSE
FILE No. BLCDT-20020211AAD
KUTV - SALT LAKE CITY, UTAH
DTV - CH. 34 - 423 kW - 1268.9 m HAAT

Prepared for: KUTV LICENSEE, LLC

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Licensed Professional Engineer in the Commonwealth of Virginia, No. 7418, and in New York State, No. 63418.

GENERAL

This office has been authorized by KUTV LICENSEE, LLC, licensee of KUTV, channel 34, facility ID number 35823, licensed to Salt Lake City, Utah, to prepare this statement, FCC Form 2100, Schedule A, its technical sections, and the associated exhibits in support of an application for modification of license, No. BLCDT-20020211AAD, based on the parameters provided by KATHREIN, the antenna manufacturer that provided the replacement master antenna for KUTV and the seven other stations that share the antenna. Six of the other stations were allotted different channels during the Incentive Auction. KUTV remains on its original channel 34. KUTV learned that KATHREIN had amended the design and made modifications to the master antenna that were required apparently to accommodate the six other stations that had been reassigned to different

channels. These modifications resulted in some horizontal azimuth pattern changes for all eight stations. The instant application for license modification of KUTV's license is intended provide the correct pattern data as certified by the antenna manufacturer.

DIRECTIONAL ANTENNA

The applicant is one of eight stations that utilizes the master antenna as provided by KATHREIN and installed on the tower bearing ASR No. 1062408. The resultant antenna pattern for KUTV, on channel 34, is different from the pattern authorized in License file No. BLCDT-20020211AAD. The master antenna is installed as modified and KUTV requests modification of its license to reflect those changes. The antenna center of radiation for KUTV is now located at a height above ground (AGL) of 89.9 meters, a height above mean sea level (AMSL) of 2843.9 meters and a height above average terrain (HAAT) of 1268.9 meters. The antenna data are shown in exhibits 2 and 3 and tabulated in separate Excel files attached to this application.

PREDICTED COVERAGE CONTOURS

The predicted coverage contours were calculated in accordance with the method described in Section 73.625(b) of the Rules, utilizing the appropriate F(50,90) propagation curves (47 CFR Section 73.699, Figure 9), proposed Effective Radiated Power, and antenna height above average terrain as determined for each profile radial. The average terrain on the eight cardinal radials from 3 kilometers to 16 kilometers from the site, was determined using the NED Three Second US Terrain Database as permitted in the FCC Rules. The antenna site elevation and coordinates were determined from FCC antenna registration data. Exhibit 1 shows the predicted Noise Limited (40.68 dBu) contour, and

the principal community (48 dBu) contour which completely encompasses the principal community of license, Salt Lake City, Utah.

ALLOCATION CONSIDERATIONS

Post-Transition DTV Considerations

A study was performed, using the FCC's software, tv_study, v. 2.2.5, to determine if the instant application for construction permit is predicted to cause new prohibited interference to post reassignment DTV stations, construction permits, DTV allotments or Class A DTV stations. The study results, shown in Appendix A, indicate that the instant application for construction permit is predicted to cause no new interference exceeding 0.5% to the populations served by any post reassignment DTV station, construction permit, allotment or Class A DTV stations. (See Appendix A)

International DTV Considerations

The KUTV site is located more than 900 kilometers from the nearest points on both the US-Canadian border and the US-Mexican border. No international coordination is therefore required.

BLANKETING AND INTERMODULATION INTERFERENCE

Other broadcast and non-broadcast facilities are either co-located with, or located within 10 km of the proposed KUTV site. The applicant does recognize its responsibility to remedy complaints of interference that might result from this proposal in accordance with applicable Rules.

RADIO FREQUENCY IMPACT

The FCC's guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions are generally based on recommendations by the National Council on Radiation Protection and Measurements (NCRP) in NCRP Report No. 86 (1986) and by the American National Standards Institute and the Institute of Electrical and Electronic Engineers, LLC (IEEE) in ANSI/IEEE C95.1-1992 (IEEE C95.1-1991). The guidelines define a maximum permissible exposure (MPE) level for occupational or "controlled" situations, and for "uncontrolled" environments that apply in all other cases that might affect the general public. The FCC Office of Engineering and Technology's technical bulletin No. 65 entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields" (Edition 97-01, August 1997), provides assistance to determine whether FCC-regulated transmitting facilities, operations or devices comply with guidelines for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. OET Bulletin No. 65 contains the technical information necessary to evaluate compliance with the FCC's policies and guidelines.

The Maximum Permitted Exposure (MPE) level for broadcast facilities that operate on a frequency between 30 MHZ and 300 MHZ is 200 microwatts per centimeter squared ($\mu W/cm^2$) for an "uncontrolled" environment, and is 1000 microwatts per centimeter squared ($\mu W/cm^2$) for a "controlled" environment. The MPE level for broadcast facilities that operate on a frequency between 300 MHZ and 1500 MHZ, is determined, in $\mu W/cm^{2,}$ for an "uncontrolled" environment by dividing the operating frequency in MHZ by 1.500, and is determined for a "controlled" environment by dividing the frequency in MHZ by 0.300.

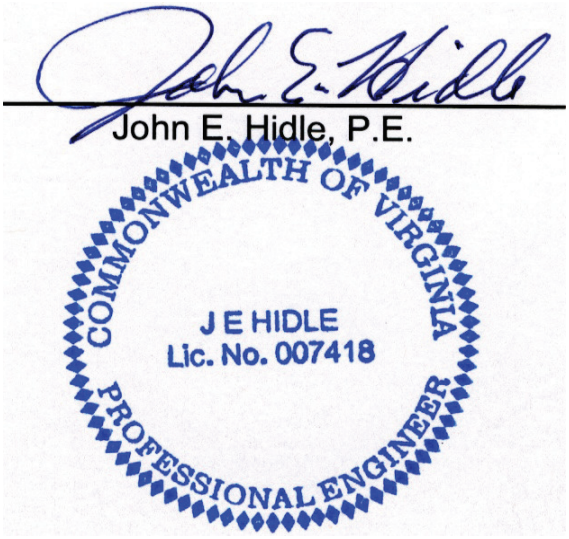
The predicted emissions of KUTV must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For KUTV, which operates on television Channel 34 (590-596 MHZ), with a maximum ERP of 423 kW from a horizontally polarized directional transmitting antenna with a centerline height of 89.9 meters above ground level (AGL), based on worst-case calculations and considering a very conservative vertical relative field factor of 0.3 pursuant to OET Bulletin 65, the proposed television facility is predicted to produce a maximum power density of only 172.37 microwatts per square centimeter at two meters above ground level. This represents only 43.60% of the FCC Guideline value of 395.33 microwatts per square centimeter for uncontrolled RFR environments, therefore KUTV is within the Guidelines. However, the station shares its site with seven other stations. As a multi-user site the firm of Hammett and Edison has been contracted to perform a site measurement survey to confirm the site will remain in compliance. Should the measurement survey show the sire to not be in compliance, immediate remedial measures will be performed to insure compliance. The existing safety policies regarding work at the site will remain in place and be followed. These policies include power reduction or cessation, as necessary to insure a safe work environment.

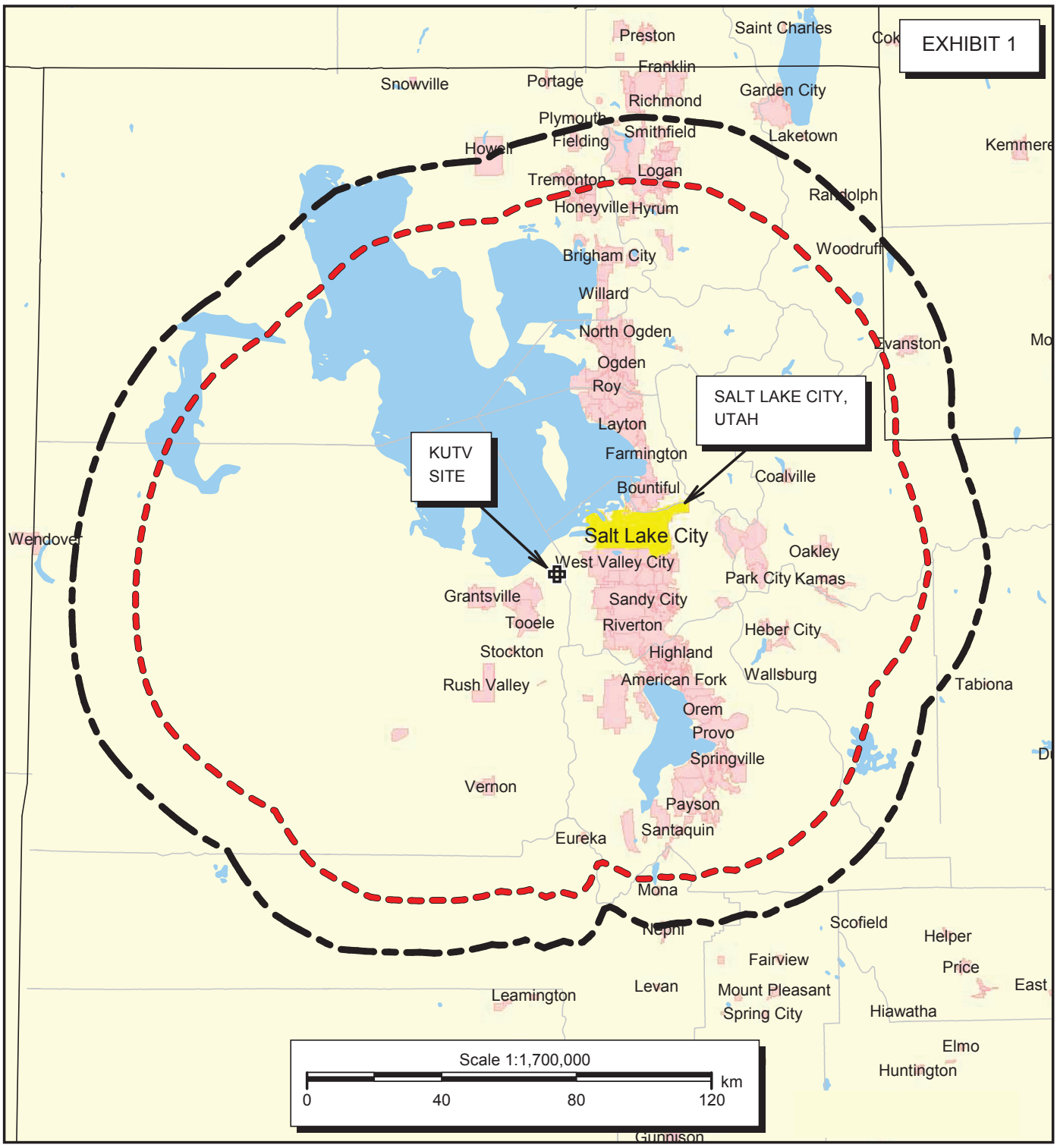
SUMMARY

The instant application for modification of KUTV's license is submitted only to incorporate as-built antenna pattern data that was provided by KATHREIN and that is different from the pattern data contained in KUTV's channel 34 license. As explained herein, KATHREIN, the manufacturer revised the antenna design, constructed the antenna

with altered horizontal azimuth patterns and submitted the results which change the KUTV licensed antenna pattern. It is therefore submitted that the instant request to modify KUTV's license to incorporate these antenna changes, as described herein, complies with the Rules, Regulations and relevant Policies of the Federal Communications Commission. This statement, FCC Form 2100, its technical sections, and the attached exhibits were prepared by me or under my direct supervision and are believed to be true and correct to the best of my knowledge and belief.

DATED: December 12, 2018





PREDICTED COVERAGE CONTOURS

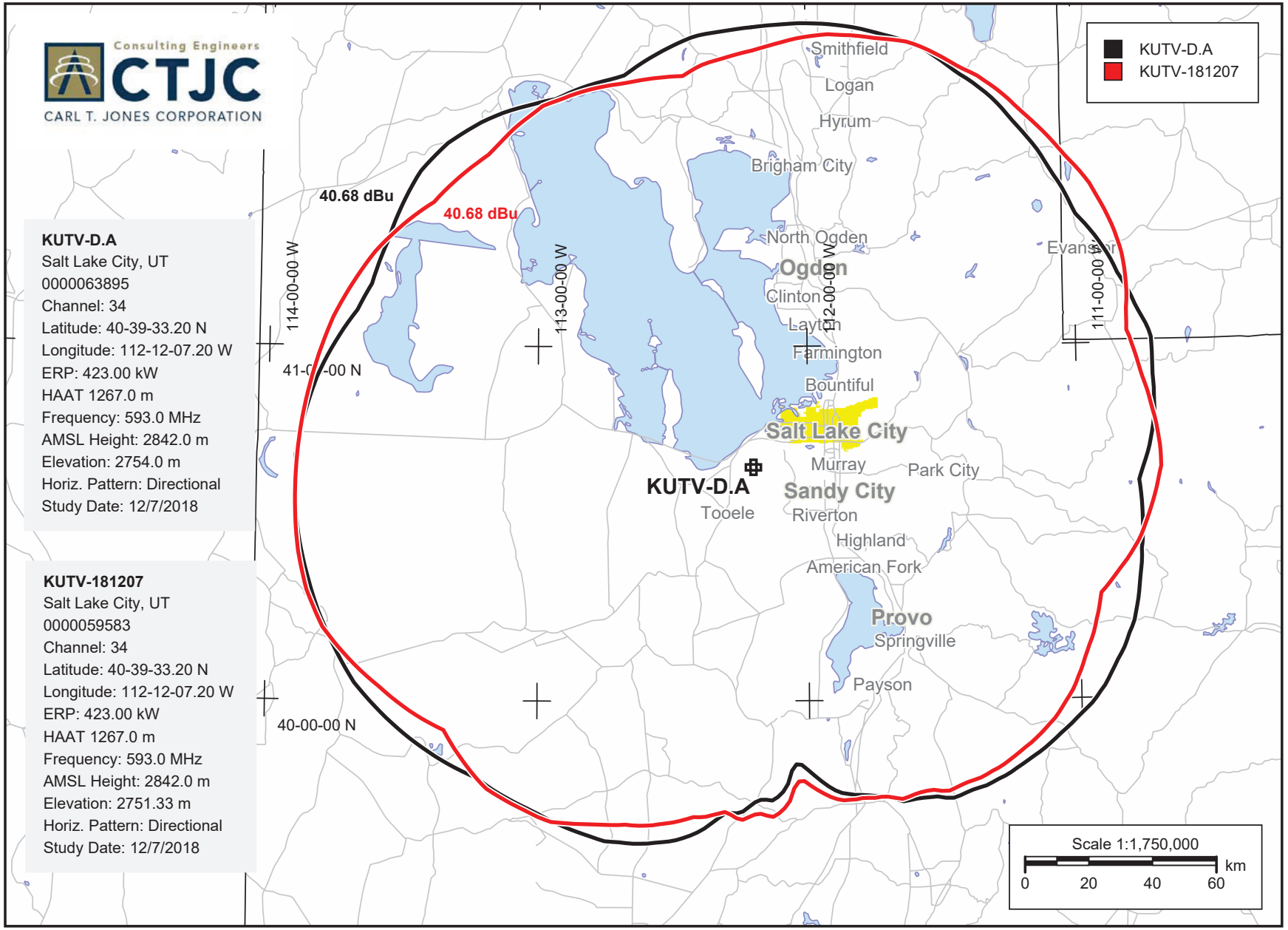
KUTV - SALT LAKE CITY, UTAH
DTV Channel 34 - 423 kW ERP - 1268.9 M HAAT
DECEMBER, 2018

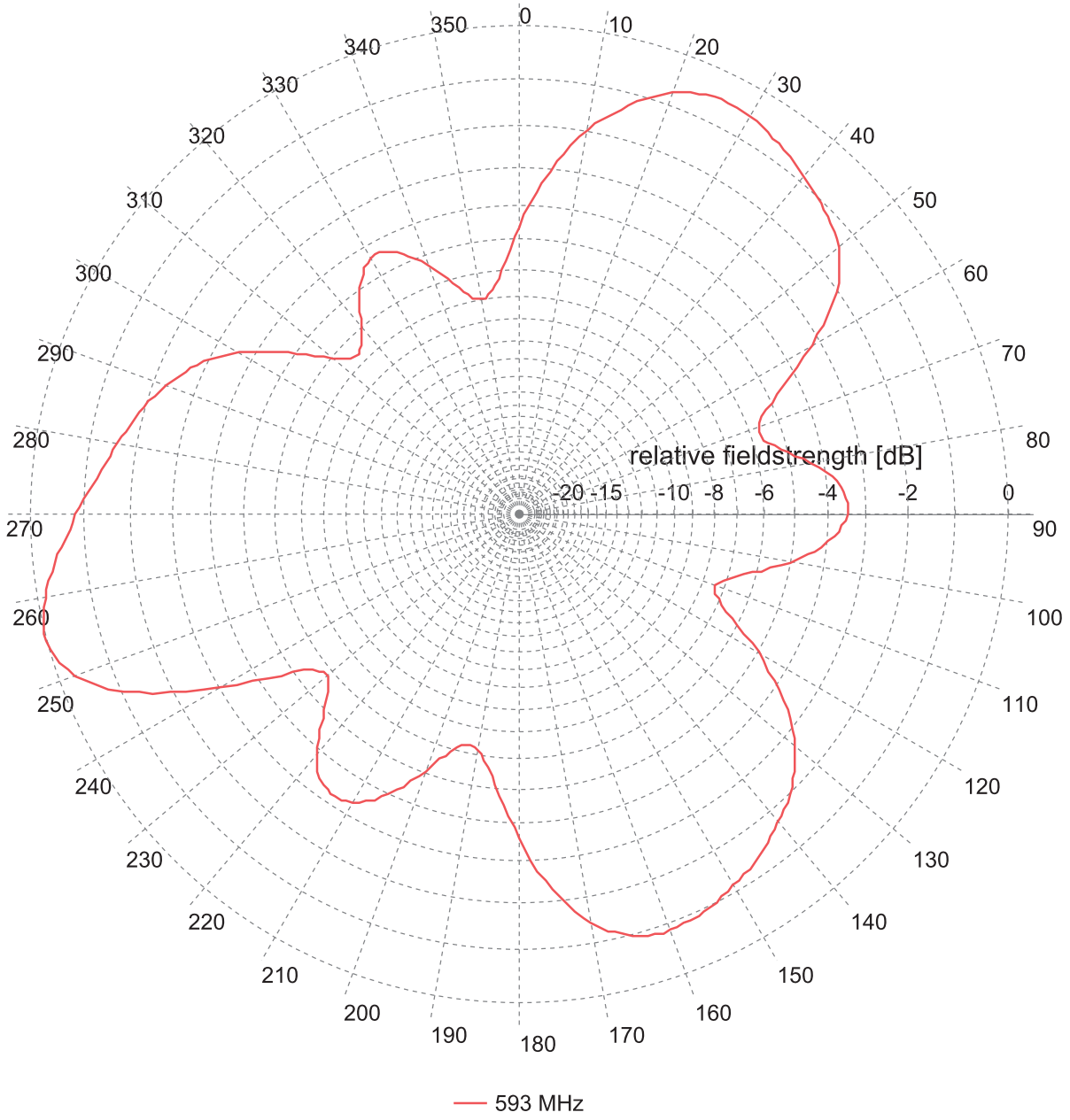
Predicted Noise Limited 40.68 dBu
F(50,90) Coverage Contour

Consulting Engineers
CTJC
CARL T. JONES CORPORATION

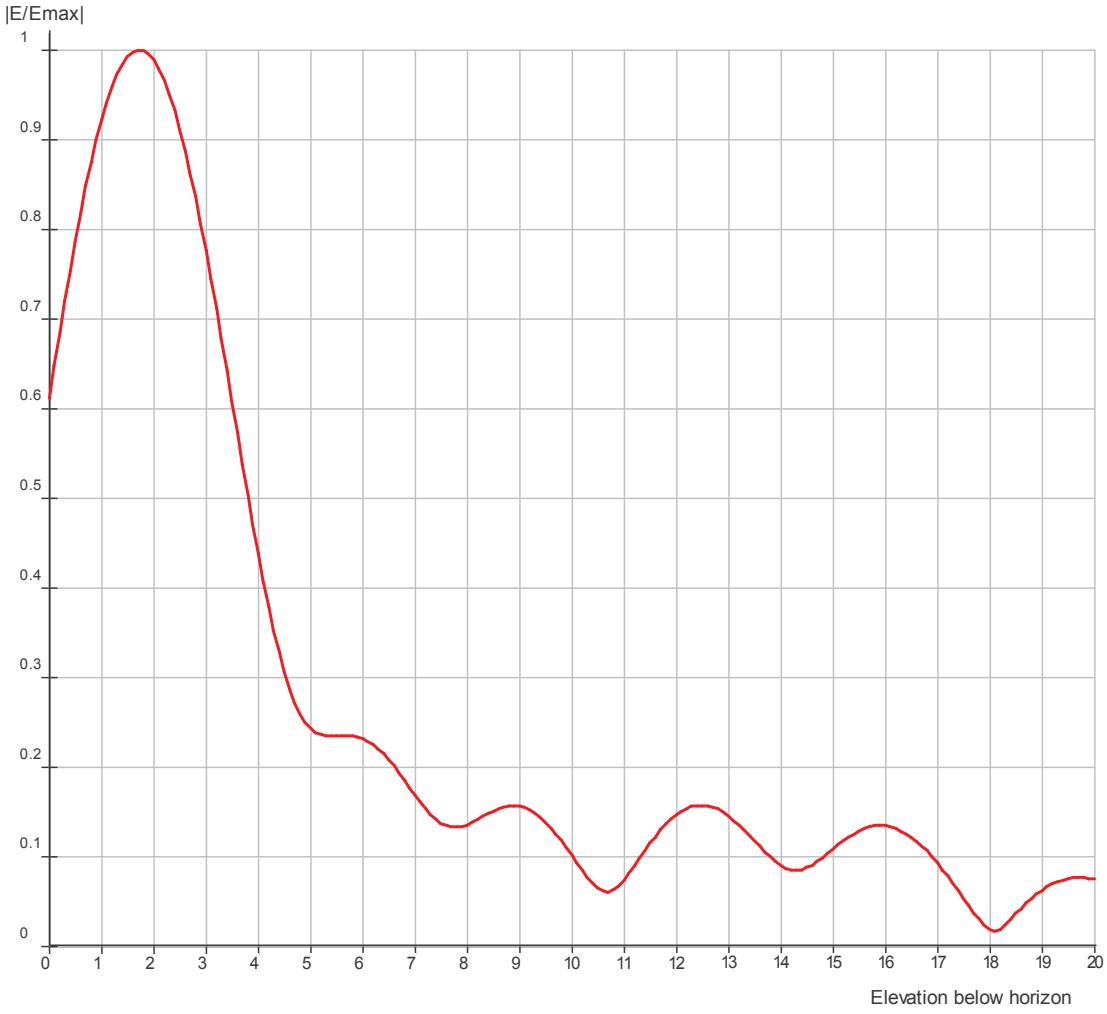
Predicted Principal Community 48 dBu
F(50,90) Coverage Contour

KUTV-TV-D 34 Salt Lake City, UT





Antenna type	Azimuth [deg]	Dist [mm]	Offset [mm]	Fix-Ph [deg]	Cab-Ph [deg]	Power [%]
HHZ122	0.0	0.0	0.0	0.0	0.0	100.0



Frequency (MHz): 593

Azimuth: 270°

KUTV - SALT LAKE CITY, UTAH
Longley-Rice Interference Analysis
Appendix A
December 2018

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tvstudy v2.2.5 (4uoc83)
Database: localhost,  Study: KUTV 34 AP KAT 181210 BT,  Model: Longley-Rice
Start: 2018.12.10 13:31:47

Study created: 2018.12.10 13:31:47

Study build station data: LMS TV 2018-12-09

    Proposal: KUTV D34 DT APP SALT LAKE CITY, UT
 File number: KUTV 34 AP KAT 181210 BT
 Facility ID: 35823
Station data: User record
   Record ID: 575
     Country: U.S.
        Zone: II

Build options:
Protect pre-transition records not on baseline channel

Search options:
Non-U.S. records included
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX   Call      Chan       Svc Status  City, State              File Number            Distance
Yes  K49ND-D   D34        DC  CP      FISH CREEK, ETC., ID     BLANK0000054295        247.5 km
Yes  KXTF      D34        DT  LIC     TWIN FALLS, ID           BLCDT20110201ACB       294.1
No   KUCW      D35        DT  CP      OGDEN, UT                BLANK0000029841          0.0
No   KUCW      D35        DT  LIC     OGDEN, UT                BLANK0000063632          0.0

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D34
   Latitude:  40 39 33.00 N (NAD83)
  Longitude: 112 12 10.00 W
Height AMSL: 2843.9 m
       HAAT: 1268.8 m
   Peak ERP: 423 kW
    Antenna: KUTV KAT 181207 Pattern 0.0 deg
Elev Pattrn: Generic
  Elec Tilt: 1.70

40.7 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg    155 kW  1396.8 m  130.6 km
 45.0        325     1350.6    138.1
 90.0        190     1237.8    127.7
135.0        257      967.6    122.6
180.0        186      681.2    109.5
225.0        141     1400.1    129.5
270.0        347     1531.6    143.5
315.0        106     1509.8    129.6
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Appendix A - Interference Analysis
KUTV - Salt Lake City, Utah
Channel 34 - 423 kW - Page 2

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Database HAAT does not agree with computed HAAT
Database HAAT: 1269 m   Computed HAAT: 1259 m

ERP exceeds maximum
ERP: 423 kW   ERP maximum: 91.6 kW

Distance to Canadian border: 926.9 km

Distance to Mexican border: 910.5 km

Conditions at FCC monitoring station: Livermore CA
Bearing: 251.4 degrees   Distance: 884.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 93.2 degrees   Distance: 590.7 km

Study cell size: 2.00 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%

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Interference to BLANK0000054295 CP scenario 1

             Call      Chan  Svc Status  City, State               File Number             Distance
Desired:     K49ND-D   D34   DC  CP      FISH CREEK, ETC., ID      BLANK0000054295

Undesireds:  KUTV      D34   DT  BL      SALT LAKE CITY, UT        DTVBL35823              247.5 km
             KUTV      D34   DT  APP     SALT LAKE CITY, UT        KUTV 34 AP KAT 181210   247.5

        Service area       Terrain-limited       IX-free, before        IX-free, after    Percent New IX
  5833.4     121,015    4402.4     114,768    4398.4     114,753    4398.4     114,753     0.00     0.00

Undesired                         Total IX     Unique IX, before      Unique IX, after
KUTV D34 DT BL              4.0          15       4.0          15
KUTV D34 DT APP             4.0          15                             4.0          15

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Interference to BLCDT20110201ACB LIC scenario 1

             Call      Chan  Svc Status  City, State               File Number             Distance
Desired:     KXTF      D34   DT  LIC     TWIN FALLS, ID            BLCDT20110201ACB

Undesireds:  KUTV      D34   DT  BL      SALT LAKE CITY, UT        DTVBL35823              294.1 km
             KUTV      D34   DT  APP     SALT LAKE CITY, UT        KUTV 34 AP KAT 181210   294.1
             K49ND-D   D34   DC  CP      FISH CREEK, ETC., ID      BLANK0000054295         155.7

        Service area       Terrain-limited       IX-free, before        IX-free, after    Percent New IX
  8767.9     121,558    8580.1     121,383    8556.0     121,367    8560.0     121,367    -0.05     0.00

Undesired                         Total IX     Unique IX, before      Unique IX, after
KUTV D34 DT BL              8.0           0       8.0           0
KUTV D34 DT APP             4.0           0                             4.0           0
K49ND-D D34 DC CP          16.0          16      16.0          16      16.0          16

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Interference to proposal scenario 1

             Call      Chan  Svc Status  City, State               File Number             Distance
Desired:     KUTV      D34   DT  APP     SALT LAKE CITY, UT        KUTV 34 AP KAT 181210

Undesireds:  KUCW      D35   DT  CP      OGDEN, UT                 BLANK0000029841           0.0 km

        Service area       Terrain-limited              IX-free        Percent IX
 52572.0   2,388,625   35084.4   2,199,731   35084.4   2,199,731     0.00     0.00
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Consulting Engineers
CTJC
CARL T. JONES CORPORATION

ENVIRONMENTAL AND RADIO FREQUENCY SAFETY

The licensee of KUTV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the KUTV antenna, and is committed to reducing power or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure protection to personnel.

The predicted emissions of KUTV must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For KUTV, which operates on television Channel 34 (590-596 MHZ), with a maximum ERP of 423 kW from a horizontally polarized directional transmitting antenna with a centerline height of 89.9 meters above ground level (AGL), based on worst-case calculations and considering a very conservative vertical relative field factor of 0.3 pursuant to OET Bulletin 65, the proposed television facility is predicted to produce a maximum power density of only 172.37 microwatts per square centimeter at two meters above ground level. This represents only 43.60% of the FCC Guideline value of 395.33 microwatts per square centimeter for uncontrolled RFR environments, therefore KUTV is within the Guidelines. However, the station shares its site with seven other stations. As a multi-user site the firm of Hammett and Edison has been contracted to perform a site measurement survey to confirm the site will remain in compliance. Should the measurement survey show the sire to not be in compliance, immediate remedial measures will be performed to insure compliance. The existing safety policies regarding work at the site will remain in place and be followed. These policies include power reduction or cessation, as necessary for a safe environment.