Consulting Engineers
CTJC
CARL T. JONES CORPORATION

STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION FOR
POST REPACK CONSTRUCTION PERMIT
KJZZ-TV - SALT LAKE CITY, UTAH
DTV - CH. 19 - 114 kW - 1256 m HAAT

Prepared for: KJZZ 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, License No. 7418, and in the State of New York, License No. 63418.

GENERAL

This office has been authorized by KJZZ LICENSEE, LLC, licensee of KJZZ-TV, channel 46, facility ID number 36607, 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 construction permit, in accordance with the Incentive Auction Closing and Channel Reassignment Public Notice, DA 17-314, and the technical information provided in the confidential reassignment letter from the FCC announcing the substitution for DTV channel 46 with new DTV channel 19 to be used by KJZZ-TV for its post-reassignment broadcasting.

DIRECTIONAL ANTENNA

The applicant proposes to utilize the existing licensed directional antenna azimuth patten, Antenna ID number 30114, with its center of radiation located at a height above

ground of 87.5 meters, and a height above average terrain of 1256 meters. The antenna data are shown in exhibit 2 from the FCC's antenna database.

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 (39.25 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. 2.2.2, 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 B, 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. The study also shows that KJZZ-TV's proposed service

area is within the baseline plus 1%. (See Appendix B)

International DTV Considerations

The KJZZ-TV 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 KJZZ-TV 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, primarily UHF TV stations, is determined, in $\mu W/cm^{2,}$ for an "uncontrolled" environment by dividing the operating frequency in MHZ by 1.500, and is similarly determined for a "controlled" environment by dividing the operating frequency in MHZ by 0.300.

The predicted emissions of KJZZ-TV must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For KJZZ-TV, which will operate on television Channel 19 (500-506 MHZ), with a maximum ERP of 114 kW from a horizontally polarized directional transmitting antenna with a centerline height of 87.5 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 46.89 microwatts per square centimeter at two meters above ground level. This represents only 13.98% of the FCC Guideline value of 335.33 microwatts per square centimeter for uncontrolled RFR environments. However, because the proposed facility is located in close proximity to a number of other television and radio broadcast stations, the cumulative

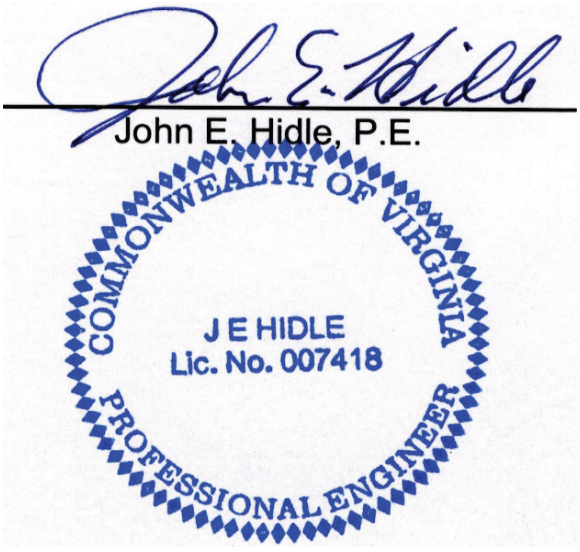
power density of all the stations operating from the shared site must be considered.

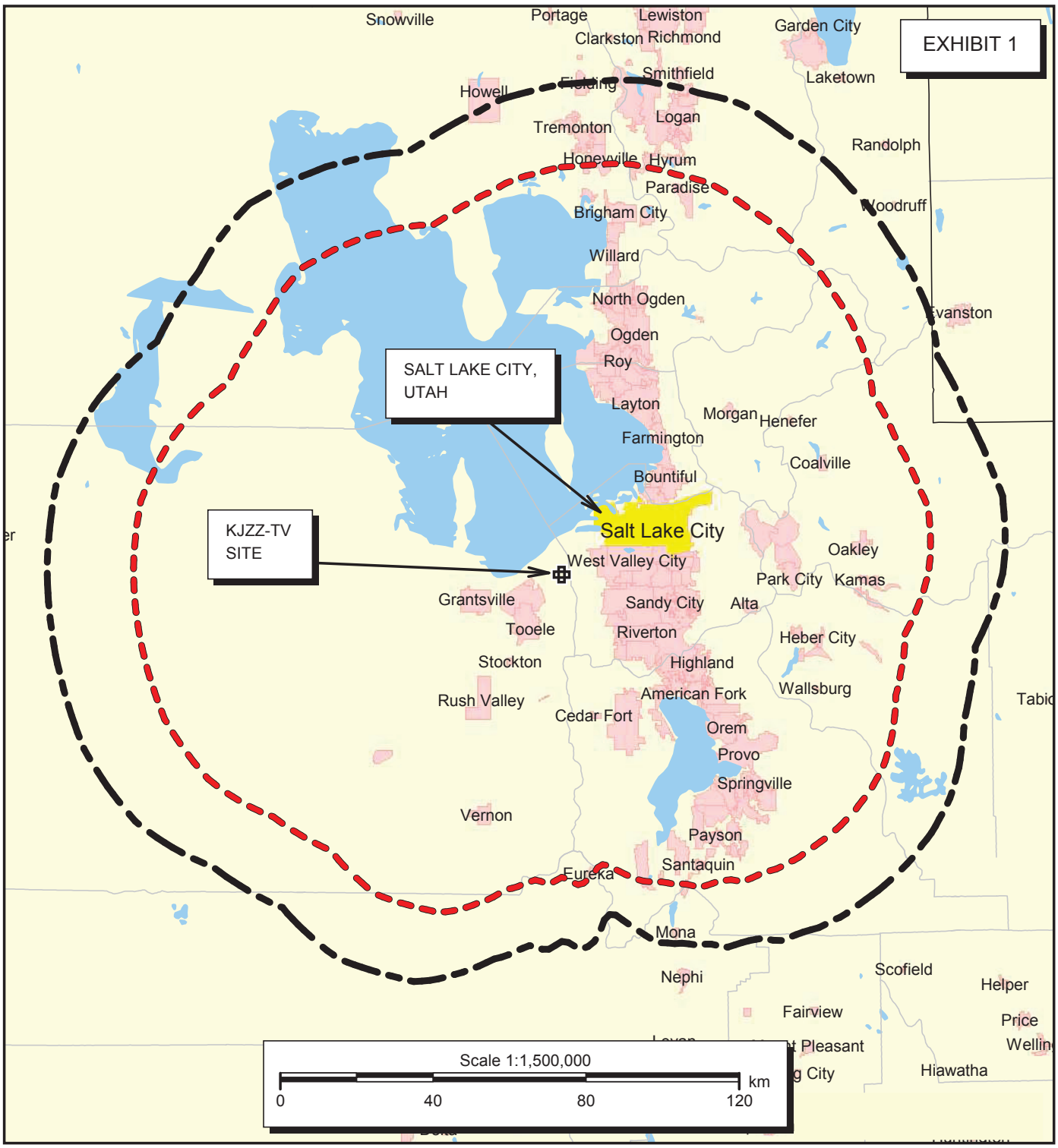
In light of the above, once the proposed facility is authorized and installed, an RFR measurement survey will be undertaken to determine the effect of the proposed facility on the RFR environment. Any changes in necessary to the existing RFR safety plan will be made accordingly. Further, the applicant is committed to reducing power or ceasing operation as necessary to protect persons having access to the site, tower or antenna from RF electromagnetic fields in excess of FCC's occupational guidelines.

SUMMARY

It is submitted that the instant application for construction permit to change KJZZ-TV from channel 46 to channel 19, 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: July 7, 2017





PREDICTED COVERAGE CONTOURS

KJZZ-TV - SALT LAKE CITY, UTAH
DTV Channel 19 - 114 kW ERP - 1256 M HAAT
JULY, 2017

Predicted Noise Limited 39.25 dBu
F(50,90) Coverage Contour

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

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Relative Field Values

Antenna Make	Model	Service	Antenna Id
KAT	773 928	DT	30114

Antenna relative field values:

0°	0.899	10°	0.983	20°	0.976	30°	0.918	40°	0.826	50°	0.66
60°	0.466	70°	0.521	80°	0.651	90°	0.609	100°	0.471	110°	0.573
120°	0.807	130°	0.928	140°	0.971	150°	0.999	160°	0.971	170°	0.796
180°	0.518	190°	0.495	200°	0.676	210°	0.637	220°	0.481	230°	0.575
240°	0.841	250°	0.975	260°	0.988	270°	0.997	280°	0.973	290°	0.797
300°	0.563	310°	0.612	320°	0.767	330°	0.702	340°	0.562	350°	0.685

Additional Azimuths:

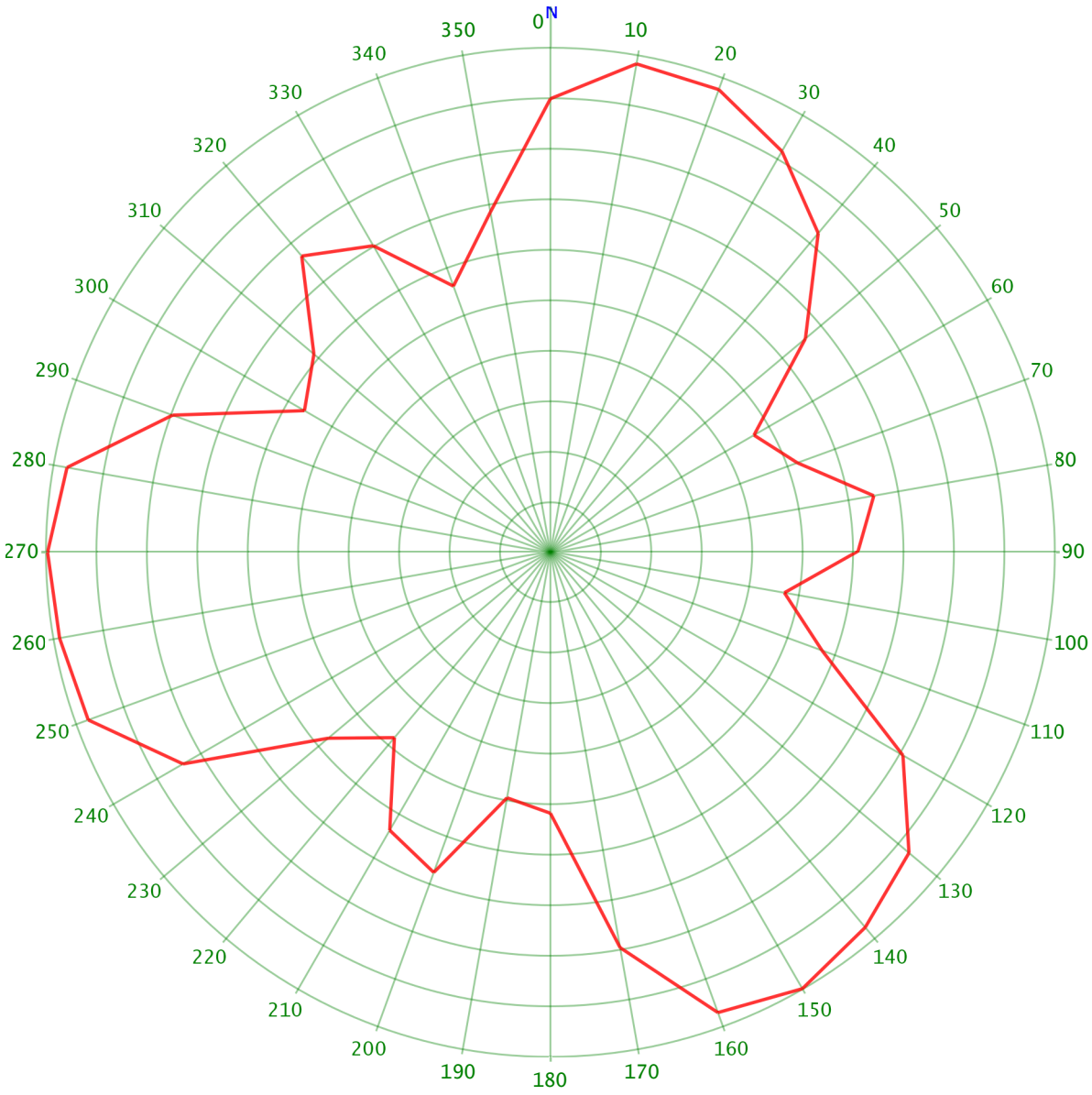
Relative Field Polar Plot

Federal Communications Commission
445 12th Street SW
Washington, DC 20554
More FCC Contact Information...

Phone: 1-888-CALL-FCC (1-888-225-5322)
TTY: 1-888-TELL-FCC (1-888-835-5322)
Fax: 1-866-418-0232
E-mail: fccinfo@fcc.gov

Any directional antenna rotation has already been applied to the plotted pattern and relative field values.

Close Window



FM Query FCC TV Query

Radiofrequency (RFR) Statement of Compliance

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 46.89 microwatts per square centimeter at two meters above ground level. This represents only 13.98% of the FCC Guideline value of 335.33 microwatts per square centimeter for uncontrolled RFR environments. However, because the proposed facility is located in close proximity to a number of other television and radio broadcast stations, the cumulative power density of all the stations operating from the shared site must be considered.

In light of the above, once the proposed facility is authorized and installed, an RFR measurement survey will be undertaken to determine the effect of the proposed facility on the RFR environment. Any changes in necessary to the existing RFR safety plan will be made accordingly. Further, the applicant is committed to reducing power or ceasing operation as necessary to protect persons having access to the site, tower or antenna from RF electromagnetic fields in excess of FCC's occupational guidelines.

KJZZ-TV - SALT LAKE CITY, UTAH
Longley-Rice Interference Analysis

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tvstudy v2.2.2
Database: localhost,  Study: KJZZ_19_1256H_114K_AP,  Model: Longley-Rice
Start: 2017.07.01 14:32:14

Study created: 2017.07.01 14:32:11

Study build station data: LMS TV 2017-06-27 (21)

    Proposal: KJZZ-TV D19 DT APP SALT LAKE CITY, UT
 File number: KJZZ_19_1256H_114K_AP
 Facility ID: 36607
Station data: User record
   Record ID: 879
     Country: U.S.
        Zone: II

Non-U.S. records included

Stations potentially affected:

Call      Chan  Svc Status  City, State              File Number            Distance
KUES      D19   DT  LIC     RICHFIELD, UT            BLEDT20030429AAT       225.4 km
KTMW      D20   DT  LIC     SALT LAKE CITY, UT       BLCDT20140529AJC         0.6

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
   Latitude:  40 39 33.00 N (NAD83)
  Longitude: 112 12 10.00 W
Height AMSL: 2840.4 m
       HAAT: 1256.0 m
   Peak ERP: 114 kW
    Antenna: KAT-773 928 0.0 deg

39.3 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg   92.1 kW  1393.3 m  128.2 km
 45.0       62.9     1347.1    122.4
 90.0       42.3     1234.3    115.1
135.0        103      964.1    116.8
180.0       30.6      677.7     96.3
225.0       31.8     1396.6    116.5
270.0        114     1528.1    134.6
315.0       54.2     1506.3    125.6

ERP exceeds maximum
ERP: 114 kW   ERP maximum: 92.0 kW

Proposal service area is within baseline plus 1.0%
Proposal service area population is more than 95.0% of baseline

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
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Appendix B - Interference Analysis
KJZZ-TV - Salt Lake City, Utah
Channel 19 - 114 kW - Page 2

Proposal is not within the West Virginia quiet zone area

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

No land mobile station failures found

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%

Interference to BLEDT20030429AAT LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KUES	D19	DT	LIC	RICHFIELD, UT	BLEDT20030429AAT	
Undesireds:	KJZZ-TV	D19	DT	BL	SALT LAKE CITY, UT	DTVBL36607	225.4 km
	KJZZ-TV	D19	DT	APP	SALT LAKE CITY, UT	KJZZ_19_1256H_114K_AP	225.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
8285.7	30,925	4690.5	25,978	4662.5	25,962	4662.5	25,962	0.00	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
KJZZ-TV D19 DT BL	28.0	16	28.0	16		
KJZZ-TV D19 DT APP	28.0	16			28.0	16

Interference to BLCDT20140529AJC LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KTMW	D20	DT	LIC	SALT LAKE CITY, UT	BLCDT20140529AJC	
Undesireds:	KJZZ-TV	D19	DT	BL	SALT LAKE CITY, UT	DTVBL36607	0.6 km
	KJZZ-TV	D19	DT	APP	SALT LAKE CITY, UT	KJZZ_19_1256H_114K_AP	0.6
	KEJT-CD	D21	DC	BL	SALT LAKE CITY, UT	DTVBL64974	0.8

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
32317.5	2,261,671	20957.5	2,144,791	20507.3	2,142,522	20515.3	2,142,515	-0.04	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
KJZZ-TV D19 DT BL	450.2	2,269	381.8	1,989		
KJZZ-TV D19 DT APP	442.2	2,276			373.8	1,996
KEJT-CD D21 DC BL	68.4	280	0.0	0	0.0	0

Interference to proposal, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KJZZ-TV	D19	DT	APP	SALT LAKE CITY, UT	KJZZ_19_1256H_114K_AP	
Undesireds:	KUES	D19	DT	LIC	RICHFIELD, UT	BLEDT20030429AAT	225.4 km
	KTMW	D20	DT	LIC	SALT LAKE CITY, UT	BLCDT20140529AJC	0.6

Service area		Terrain-limited		IX-free		Percent IX	
45212.0	2,354,970	30718.9	2,189,913	30682.9	2,189,913	0.12	0.00

Undesired	Total IX		Unique IX		Prcnt Unique IX	
KTMW D20 DT LIC	36.0	0	36.0	0	0.12	0.00