

TECHNICAL EXHIBIT
APPLICATION FOR MODIFICATION OF
DIGITAL CONSTRUCTION PERMIT
CLASS A STATION KEEN-CA
FACILITY ID 10498
LAS VEGAS, NEVADA
CH 17 4.1 KW (MAX-DA) 1015.3 M (RCAMSL)

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an Application for Modification of Construction Permit for Class A station KEEN-CA at Las Vegas, Nevada (Facility ID:10498).

Specifically, KEEN-CA proposes to reduce its antenna radiation center height above ground level (RCAGL) by 16.3 meters. No other changes are proposed. KEEN-CA will employ an ERI AL80-17 non-directional antenna and operate with a maximum ERP of 4.1 kilowatts and an antenna radiation center height above mean sea level (RCAMSL) of 1015.3 meters. The proposed site location is described by the following coordinates (N36-00-36, W 115-00-20).

Figure 1 depicts the licensed 74 dBu contour and herein proposed digital 51 dBu contour for KEEN-CA. As indicated, the proposed 51 dBu contour fully encompasses the licensed 74 dBu contour.

Antenna Structure Registration

The FCC Tower Registration Number for the existing 72.2 meter (237 foot) structure is 1009985.

Response to Paragraph 11 (Interference)

The proposed facility complies with all the following applicable rule Sections: Sections 73.6016, 73.6017, 73.6018, 73.6019, 73.6020, 73.6027, and 74.794(b). It is noted that the results of our OET-69 interference study show the proposal causes 2.74% new interference to the licensed digital operation (BLDTL-20090904ADF) of LPTV station KHMP-LD on channel 18 at Las Vegas, Nevada (see Figure 2). However, as shown on Figure 3, KEEN-CA's currently authorized digital CP facility is predicted to cause 2.75% to KHMP-LD. Therefore, the proposal will reduce the amount

of interference that KMPH-LD is predicted to receive from KEEN-CA. Thus, it is believed the proposed facility complies with the FCC's interference criteria. If necessary, a waiver of Section 73.6019 is respectfully requested with respect to KMPH-LD.

Environmental Considerations

The KEEN-CA facilities were evaluated in terms of potential radiofrequency radiation exposure at 2 meters above ground level in accordance with OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation". This Bulletin provides assistance in determining whether FCC-regulated transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) electromagnetic fields adopted by the Commission in 1996.¹

The calculated power density at 2 meters above ground level at the base of the tower was calculated using the appropriate equation contained in the Bulletin. As shown on Figure 4 (antenna vertical relative pattern), the maximum vertical relative field for depression angles towards the tower base (-60° to -90°) is less than 0.15. Therefore, using a vertical relative field value 0.15, a maximum ERP of 4.1 kilowatts, and an antenna center of radiation height above ground level of 31.4 meters, the calculated power density at two meters above ground level at the base of the tower is 0.013 milliwatt per square centimeter (mW/cm^2), 3.98 percent of the Commission's recommended limit applicable to general population/uncontrolled exposure areas ($0.327 \text{ mw}/\text{cm}^2$ for TV channel 17). Therefore, the facility complies with the FCC's RF emission rules.

Access to the transmitting site will be restricted and appropriately marked with warning signs. Furthermore, as this is a multi-user site, an agreement will be in effect to control access to the site. In the event that workers or other authorized personnel enter the restricted area appropriate measures shall be taken to limit RF energy exposure. Such measures include limiting the exposure time, wearing protective

¹ See Report and Order in ET Docket 93-62, FCC 96-326, adopted August 1, 1996, 11 FCC Rcd 15123 (1997). See also First Memorandum Opinion and Order, ET Docket 93-62, FCC 96-487, adopted December 23, 1996, 11 FCC Rcd 17512 (1997), and Second Memorandum Opinion and Order and Notice of Proposed Rulemaking, ET Docket 93-62, FCC 97-303, adopted August 25, 1997.

clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been addressed by the tower owner as part of the tower registration process.

If there are questions concerning the technical portion of this application, please contact the office of the undersigned.

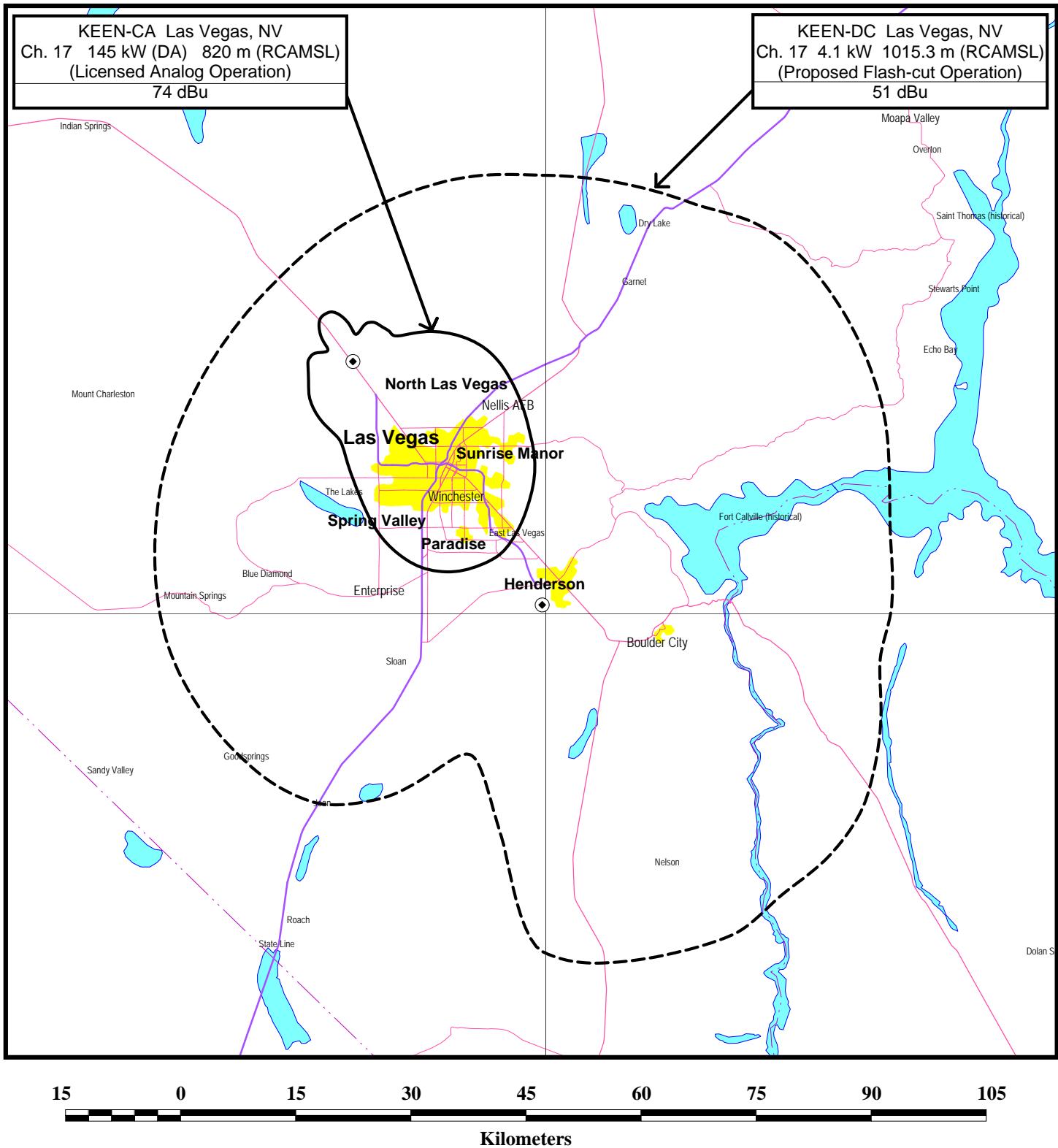


Jerome J. Manarchuck

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May 11, 2010

Figure 1



FCC PREDICTED COVERAGE CONTOURS

DIGITAL CLASS A STATION KEEN-DC
LAS VEGAS, NEVADA
CH 17 4.1 KW 1015.3 M (RCAMSL)

du Treil, Lundin & Rackley, Inc. Sarasota, FL 34237

OET-69 INTERFERENCE STUDY FROM THE PROPOSED KEEN-CA FACILITY TOWARD KHMP-LD

Census data selected: 2000

Post DTV Transition Database Selected

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 04-27-2010 Time: 15:53:48

Record Selected for Analysis

KEEN-CA	USERRECORD-01	LAS VEGAS	NV US
Channel 17	ERP 4.1 kW	HAAT 327. m	RCAMSL 01015 m STRINGENT MASK
Latitude 036-00-36	Longitude 0115-00-20		
Status APP	Zone 2 Border		
Last update	Cutoff date	Docket	
Comments			
Applicant			

Cell Size for Service Analysis 1.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Not full service station

Facility meets maximum power limit

Azimuth (Deg)	ERP (kW)	HAAT (m)	51.0 dBu F(50,90) (km)
0.0	4.100	481.9	55.9
45.0	4.100	464.2	55.3
90.0	4.100	245.2	45.6
135.0	4.100	328.8	50.0
180.0	4.100	224.3	44.5
225.0	4.100	113.3	37.5
270.0	4.100	327.6	49.9
315.0	4.100	430.2	54.2

Contour Overlap to Proposed Station

KINC	Station 16 LAS VEGAS	NV BLCDT20060630ACH
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Station inside contour of Digital LPTV station
KEEN-CA 17 LAS VEGAS NV USERRECORD01

Station

OET-69 INTERFERENCE STUDY FROM THE PROPOSED KEEN-CA FACILITY TOWARD KHMP-LD

KEEN-CA 17 LAS VEGAS NV BLTTL19971009JA

Station inside contour of Digital LPTV station
KEEN-CA 17 LAS VEGAS NV USERRECORD01

Contour Overlap Evaluation to Proposed Station Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is 2.42km from AM station

HENDERSON NV NEW Status: Antenna: DA2

Start of Interference Analysis

Proposed Station			
Channel	Call	City/State	ARN
17	KEEN-CA	LAS VEGAS NV	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
16	K16EV	BULLHEAD CITY AZ	122.6	CP	BDFCDTT -20090824AEZ
16	K16EV	BULLHEAD CITY, ETC. AZ	122.6	LIC	BLTT -20040521AAJ
16	K16GB	KINGMAN AZ	125.4	LIC	BLTTL -20070315ABM
16	KINC	LAS VEGAS NV	7.9	LIC	BLCDT -20060630ACH
16	KINC	LAS VEGAS NV	7.9	PLN	DTVPLN -DTVP0559
16	NEW	HILLDALE UT	202.1	APP	BNPDTT -20090825BDD
16	K16DS	ST. GEORGE UT	173.5	LIC	BLTT -19960930JG
17	K54GI	FLAGSTAFF AZ	319.6	CP	BDISTT -20080117ACR
17	K17DA	LAKE HAVASU CITY AZ	166.7	LIC	BLTT -19951106IH
17	KPHO-TV	PHOENIX AZ	401.1	PLN	DTVPLN -DTVP0575
17	KPHO-TV	PHOENIX AZ	401.1	CP	BPCDT -20080619AFZ
17	KPHO-TV	PHOENIX AZ	401.1	LIC	BLCDT -20051205ADF
17	NEW	YUMA AZ	328.9	APP	BNPTTL -20000831AJN
17	K24GS	BAKERSFIELD CA	342.9	APP	BDISDTL -20090729AFD
17	K17DF	CROWLEY LAKE-LONG VA CA	381.7	LIC	BLTTL -19940405JG
17	K17DF	CROWLEY LK CA	381.7	CP	BDFCDTT -20090515ACX
17	KTSK-LP	DAGGETT, ETC. CA	211.9	LIC	BLTTL -19910411IA
17	K17GJ	JOSHUA TREE CA	229.5	APP	BSTA -20070808ABA
17	K17GJ	JOSHUA TREE CA	239.7	LIC	BLTT -20080902AED
17	K17BN	NEEDLES CA	122.6	CP	BDFCDTT -20090824AGL
17	K17BN	NEEDLES, ETC. CA	122.6	LIC	BLTT -19881104IA

OET-69 INTERFERENCE STUDY FROM THE PROPOSED KEEN-CA FACILTY TOWARD KHMP-LD

17	KODG-LP	PALM SPRINGS CA	269.4	LIC	BLTTL	-20001219ABP
17	KODG-LP	PALM SPRINGS CA	262.6	APP	BDFCDTL	-20090716ABY
17	K17HY-D	RIDGECREST, ETC. CA	248.5	LIC	BLDTT	-20090622AAJ
17	K17IW-D	TWENTYNINE PALMS, ETC CA	231.7	CP	BDCCDTT	-20061027AGQ
17	K17FY	EUREKA NV	394.8	LIC	BLTT	-20021112ABC
17	KEEN-CA	LAS VEGAS NV	40.2	LIC	BLTTL	-19971009JA
17	K17CL	PAHRUMP NV	88.7	LIC	BLTT	-19910611IU
17	NEW	BOULDER UT	381.4	APP	BNPDTT	-20090908ADL
17	K17JK-D	CANE BEDS, AZ/HILDALE UT	202.1	LIC	BLDTT	-20091218ABP
17	K17HD	CIRCLEVILLE, ETC. UT	346.5	LIC	BLTT	-20050420ABK
17	K17IA-D	ESCALANTE UT	361.5	LIC	BLDTT	-20090717ABN
17	NEW	FISHLAKE RESORT UT	400.9	APP	BNPDTT	-20090825BKC
17	K17FQ-D	FREMONT UT	402.0	LIC	BLDTT	-20090505ABM
17	K17HQ-D	HATCH UT	298.6	LIC	BLDTT	-20081223AAB
17	K16BO-D	MILFORD UT	317.6	APP	BSTA	-20060125AAD
17	K17HX-D	MINERSVILLE UT	317.8	LIC	BLDTT	-20070319AAZ
17	K17FF	MODENA, ETC. UT	219.3	LIC	BLTT	-20020916AAD
17	K17IE-D	NAVAJO MOUNTAIN SCHO UT	395.0	LIC	BLDTT	-20091222AKE
17	K17JC-D	ORDERVILLE UT	254.5	LIC	BLDTT	-20091228AAF
17	NEW	ST. GEORGE UT	173.8	CP	BNPTTL	-20000831EDT
17	K17HV-D	TROPIC/CANNONVILLE UT	321.8	LIC	BLDTT	-20090527AGB
18	K18CB	BULLHEAD CITY AZ	88.0	LIC	BLTT	-19910726JF
18	KHMP-LD	LAS VEGAS NV	0.2	CP	BPDTL	-20091007ACG
18	KHMP-LD	LAS VEGAS NV	44.4	LIC	BLDTL	-20090904ADF
18	K09IT	OVERTON NV	86.8	CP	BDISDTT	-20081121ANB
18	KUEW	ST. GEORGE UT	173.5	LIC	BLEDT	-20020826ABB
18	KUEW	ST. GEORGE UT	173.5	PLN	DTVPLN	-DTVP0642
19	KHDF-CA	LAS VEGAS NV	0.2	LIC	BLTTA	-20030121AAH
19	KHDF-CA	LAS VEGAS NV	0.2	CP	BPTTA	-20080804ADK
19	K19BU	PAHRUMP NV	88.7	LIC	BLTT	-19910611IV
21	K21EG	GOLDEN VALLEY AZ	112.5	LIC	BLTT	-19940706IC
21	K21FU	TOPOCK, ETC. AZ	122.6	LIC	BLTT	-20040521AAQ
24	K24DK	BULLHEAD CITY, ETC. AZ	122.6	LIC	BLTT	-19940930JA
24	K24BY	PAHRUMP NV	88.7	LIC	BLTT	-19910611IW
25	K25HD	BULLHEAD CITY AZ	88.1	LIC	BLTTA	-20040521ADG
25	K25DH	MEADVIEW AZ	83.5	LIC	BLTT	-19891221IB
25	KTUD-CA	LAS VEGAS NV	7.9	LIC	BLTTA	-20030124AGI

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Analysis of Interference to Affected Station 45

Analysis of current record

Channel	Call	City/State	Application Ref. No.
18	KHMP-LD	LAS VEGAS NV	BLDTL -20090904ADF

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
17	K17BN	NEEDLES CA	144.3	CP	BDFCDTT -20090824AGL
17	K17HY-D	RIDGECREST, ETC. CA	204.3	LIC	BLDTT -20090622AAJ
17	K17IW-D	TWENTYNINE PALMS, ETC CA	213.1	CP	BDCCDTT -20061027AGQ

Figure 2
Sheet 4 of 5

OET-69 INTERFERENCE STUDY FROM THE PROPOSED KEEN-CA FACILTY TOWARD KHMP-LD

17	KEEN-CA	LAS VEGAS NV	42.4	LIC	BLTTL	-19971009JA
17	K17CL	PAHRUMP NV	50.4	LIC	BLTT	-19910611IU
18	K18CB	BULLHEAD CITY AZ	104.0	LIC	BLTT	-19910726JF
18	DKTFL	FLAGSTAFF AZ	377.2	PLN	DTVPLN	-DTVP0615
18	K25DM	PHOENIX AZ	428.1	APP	BDISDTL	-20090609ABU
18	K18HD-D	BAKERSFIELD CA	298.3	LIC	BLDTT	-20080418AAS
18	K18IM-D	DAGGETT, ETC. CA	173.9	CP	BDCCDTT	-20061027AGW
18	KSCI	LONG BEACH CA	303.3	CP MOD	BMPCDT	-20080619ACW
18	KSCI	LONG BEACH CA	303.2	PLN	DTVPLN	-DTVP0616
18	KUSI-TV	SAN DIEGO CA	385.5	LIC	BLCDT	-20060515ADM
18	KUSI-TV	SAN DIEGO CA	385.5	PLN	DTVPLN	-DTVP0618
18	KZDF-LP	SANTA BARBARA CA	414.3	CP	BDCCDTL	-20061027ADP
18	KFAZ-CA	VISALIA CA	350.2	APP	BDISDTA	-20091230ACA
18	K08IY	ELY NV	364.6	APP	BMJPDTT	-20100111ABE
18	K18GG	MINA / LUNING NV	353.1	CP	BDFCDTT	-20090520ACN
18	K09IT	OVERTON NV	119.2	CP	BDISDTT	-20081121ANB
18	K18DN	KANAB UT	292.7	APP	BDFCDTT	-20090611ACF
18	K18ET-D	ORDERVILLE UT	294.9	LIC	BLDTT	-20090727AAI
18	K18FU-D	RURAL BEAVER COUNTY UT	345.6	LIC	BLDTT	-20061115ABB
18	K18FT-D	RURAL GARFIELD COUNT UT	417.5	LIC	BLDTT	-20071113ACF
18	KUEW	ST. GEORGE UT	211.4	LIC	BLEDT	-20020826ABB
18	KUEW	ST. GEORGE UT	211.4	PLN	DTVPLN	-DTVP0642
19	K41GO	INYOKERN CA	204.3	APP	BDISDTT	-20090416AHW
19	KHDF-CA	LAS VEGAS NV	44.4	LIC	BLTTA	-20030121AAH
19	KHDF-CA	LAS VEGAS NV	44.4	CP	BPTTA	-20080804ADK
19	NEW	MESQUITE NV	161.3	APP	BNPDTL	-20090825ADH
19	K19BU	PAHRUMP NV	50.4	LIC	BLTT	-19910611IV
17	KEEN-CA	LAS VEGAS NV	44.4	APP	USERRECORD-01	

Total scenarios = 1

Result key: 1
 Scenario 1 Affected station 45 KHMP-LD
 Before Analysis

Results for: 18A NV LAS VEGAS	BLDTL	20090904ADF	LIC
HAAT 1313.0 m, ATV ERP 7.5 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	1365646	8828.4	
not affected by terrain losses	1339137	7325.9	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	0	0.0	
lost to ATV IX only	0	0.0	
lost to all IX	0	0.0	

Potential Interfering Stations Included in above Scenario 1

After Analysis

Results for: 18A NV LAS VEGAS	BLDTL	20090904ADF	LIC
HAAT 1313.0 m, ATV ERP 7.5 kW			
	POPULATION	AREA (sq km)	

OET-69 INTERFERENCE STUDY FROM THE PROPOSED KEEN-CA FACILITY TOWARD KHMP-LD

within Noise Limited Contour	1365646	8828.4
not affected by terrain losses	1339137	7325.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	36643	247.6
lost to ATV IX only	36643	247.6
lost to all IX	36643	247.6

Potential Interfering Stations Included in above Scenario 1

17A NV LAS VEGAS USERRECORD01 APP

The following station failed the de minimis interference criteria.

17D NV LAS VEGAS USERRECORD01
ERP 4.10 kW HAAT 327.0 m RCAMSL 1015.0 m
Antenna none

Due to interference to the following station and scenario: 1

18D NV LAS VEGAS BLDTL 20090904ADF
ERP 7.50 kW HAAT 1313.0 m RCAMSL 2526.0 m
Antenna CDB 0000000089121

Percent Service lost without proposal: 0.0 to BLDTL 20090904ADF
Percent Service lost with proposal: 2.7 to BLDTL 20090904ADF

Worst case new IX 2.7363% Scenario 1

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FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

OET-69 INTERFERENCE STUDY FROM THE AUTHORIZED KEEN-CA FACILITY TOWARD KHMP-LD

Census data selected: 2000

Post DTV Transition Database Selected

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 04-30-2010 Time: 10:55:33

Record Selected for Analysis

KEEN-CA BDFCDTA -20090211AAW LAS VEGAS NV US
Channel 17 ERP 4.1 kW HAAT 498. m RCAMSL 01031 m STRINGENT MASK
Latitude 036-00-36 Longitude 0115-00-20
Status CP Zone Border
Last update 00000000 Cutoff date 20090211 Docket
Comments
Applicant CHRISTIAN COMMUNICATIONS OF CHICAGO

Cell Size for Service Analysis 1.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Not full service station

Facility meets maximum power limit

Azimuth (Deg)	ERP (kW)	HAAT (m)	51.0 dBu F(50,90) (km)
0.0	4.100	497.9	56.4
45.0	4.100	480.2	55.9
90.0	4.100	261.2	46.4
135.0	4.100	344.8	50.8
180.0	4.100	240.3	45.4
225.0	4.100	129.3	38.7
270.0	4.100	343.6	50.7
315.0	4.100	446.2	54.7

Contour Overlap to Proposed Station

Station
KINC 16 LAS VEGAS NV BLCDT20060630ACH

Station inside contour of Digital LPTV station
KEEN-CA 17 LAS VEGAS NV BDFCDTA 20090211AAW

OET-69 INTERFERENCE STUDY FROM THE AUTHORIZED KEEN-CA FACILITY TOWARD KHMP-LD

Station
KEEN-CA 17 LAS VEGAS NV BLTTL19971009JA

Station inside contour of Digital LPTV station
KEEN-CA 17 LAS VEGAS NV BDFCDTA 20090211AAW

Contour Overlap Evaluation to Proposed Station Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is 2.42km from AM station

HENDERSON NV NEW Status: Antenna: DA2

Start of Interference Analysis

Proposed Station				
Channel	Call	City/State	ARN	
17	KEEN-CA	LAS VEGAS NV	BDFCDTA	20090211AAW

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
16	K16EV	BULLHEAD CITY AZ	122.6	CP	BDFCDTT -20090824AEZ
16	K16EV	BULLHEAD CITY, ETC. AZ	122.6	LIC	BLTT -20040521AAJ
16	K16GB	KINGMAN AZ	125.4	LIC	BLTTL -20070315ABM
16	KINC	LAS VEGAS NV	7.9	LIC	BLCDT -20060630ACH
16	KINC	LAS VEGAS NV	7.9	PLN	DTVPLN -DTVP0559
16	K16DS	ST. GEORGE UT	173.5	LIC	BLTT -19960930JG
17	K54GI	FLAGSTAFF AZ	319.6	CP	BDISTT -20080117ACR
17	K17DA	LAKE HAVASU CITY AZ	166.7	LIC	BLTT -19951106IH
17	KPHO-TV	PHOENIX AZ	401.1	CP	BPCDT -20080619AFZ
17	KPHO-TV	PHOENIX AZ	401.1	PLN	DTVPLN -DTVP0575
17	KPHO-TV	PHOENIX AZ	401.1	LIC	BLCDT -20051205ADF
17	NEW	YUMA AZ	328.9	APP	BNPTTL -20000831AJN
17	K24GS	BAKERSFIELD CA	342.9	APP	BDISDTL -20090729AFD
17	K17DF	CROWLEY LAKE-LONG VA CA	381.7	LIC	BLTTL -19940405JG
17	K17DF	CROWLEY LK CA	381.7	CP	BDFCDTT -20090515ACX
17	KTSK-LP	DAGGETT, ETC. CA	211.9	LIC	BLTTL -19910411IA
17	K17GJ	JOSHUA TREE CA	239.7	LIC	BLTT -20080902AED
17	K17GJ	JOSHUA TREE CA	229.5	APP	BSTA -20070808ABA
17	K17BN	NEEDLES CA	122.6	CP	BDFCDTT -20090824AGL
17	K17BN	NEEDLES, ETC. CA	122.6	LIC	BLTT -19881104IA

Figure 3
Sheet 3 of 5

OET-69 INTERFERENCE STUDY FROM THE AUTHORIZED KEEN-CA FACILITY TOWARD KHMP-LD

17	KODG-LP	PALM SPRINGS CA	269.4	LIC	BLTTL	-20001219ABP
17	K17HY-D	RIDGECREST, ETC. CA	248.5	LIC	BLDTT	-20090622AAJ
17	K17IW-D	TWENTYNINE PALMS, ETC CA	231.7	CP	BDCCDTT	-20061027AGQ
17	K17FY	EUREKA NV	394.8	LIC	BLTT	-20021112ABC
17	K17CL	PAHRUMP NV	88.7	LIC	BLTT	-19910611IU
17	K17JK-D	CANE BEDS, AZ/HILDALE UT	202.1	LIC	BLDTT	-20091218ABP
17	K17HD	CIRCLEVILLE, ETC. UT	346.5	LIC	BLTT	-20050420ABK
17	K17IA-D	ESCALANTE UT	361.5	LIC	BLDTT	-20090717ABN
17	K17FQ-D	FREMONT UT	402.0	LIC	BLDTT	-20090505ABM
17	K17HQ-D	HATCH UT	298.6	LIC	BLDTT	-20081223AAB
17	K16BO-D	MILFORD UT	317.6	APP	BSTA	-20060125AAD
17	K17HX-D	MINERSVILLE UT	317.8	LIC	BLDTT	-20070319AAZ
17	K17FF	MODENA, ETC. UT	219.3	LIC	BLTT	-20020916AAD
17	K17IE-D	NAVAJO MOUNTAIN SCHO UT	395.0	LIC	BLDTT	-20091222AKE
17	K17JC-D	ORDERVILLE UT	254.5	LIC	BLDTT	-20091228AAF
17	NEW	ST. GEORGE UT	173.8	CP	BNPTTL	-20000831EDT
17	K17HV-D	TROPIC/CANNONVILLE UT	321.8	LIC	BLDTT	-20090527AGB
18	K18CB	BULLHEAD CITY AZ	88.0	LIC	BLTT	-19910726JF
18	KHMP-LD	LAS VEGAS NV	0.2	CP	BPDTL	-20091007ACG
18	KHMP-LD	LAS VEGAS NV	44.4	LIC	BLDTL	-20090904ADF
18	K09IT	OVERTON NV	86.8	CP	BDISDTT	-20081121ANB
18	KUEW	ST. GEORGE UT	173.5	LIC	BLEDT	-20020826ABB
18	KUEW	ST. GEORGE UT	173.5	PLN	DTVPLN	-DTVP0642
19	KHDF-CA	LAS VEGAS NV	0.2	CP	BPTTA	-20080804ADK
19	KHDF-CA	LAS VEGAS NV	0.2	LIC	BLTTA	-20030121AAH
19	K19BU	PAHRUMP NV	88.7	LIC	BLTT	-19910611IV
21	K21EG	GOLDEN VALLEY AZ	112.5	LIC	BLTT	-19940706IC
21	K21FU	TOPOCK, ETC. AZ	122.6	LIC	BLTT	-20040521AAQ
24	K24DK	BULLHEAD CITY, ETC. AZ	122.6	LIC	BLTT	-19940930JA
24	K24BY	PAHRUMP NV	88.7	LIC	BLTT	-19910611IW
25	K25HD	BULLHEAD CITY AZ	88.1	LIC	BLTTA	-20040521ADG
25	K25DH	MEADVIEW AZ	83.5	LIC	BLTT	-19891221IB
25	KTUD-CA	LAS VEGAS NV	7.9	LIC	BLTTA	-20030124AGI

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Analysis of Interference to Affected Station 40

Analysis of current record

Channel	Call	City/State	Application Ref. No.
18	KHMP-LD	LAS VEGAS NV	BLDTL -20090904ADF

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
17	K17BN	NEEDLES CA	144.3	CP	BDFCDTT -20090824AGL
17	K17HY-D	RIDGECREST, ETC. CA	204.3	LIC	BLDTT -20090622AAJ
17	K17IW-D	TWENTYNINE PALMS, ETC CA	213.1	CP	BDCCDTT -20061027AGQ
17	KEEN-CA	LAS VEGAS NV	44.4	CP	BDFCDTA -20090211AAW
17	KEEN-CA	LAS VEGAS NV	42.4	LIC	BLTTL -19971009JA
17	K17CL	PAHRUMP NV	50.4	LIC	BLTT -19910611IU
18	K18CB	BULLHEAD CITY AZ	104.0	LIC	BLTT -19910726JF

Figure 3
Sheet 4 of 5

OET-69 INTERFERENCE STUDY FROM THE AUTHORIZED KEEN-CA FACILITY TOWARD KHMP-LD

18	DKTFL	FLAGSTAFF AZ	377.2	PLN	DTVPLN	-DTVP0615
18	K25DM	PHOENIX AZ	428.1	APP	BDISDTL	-20090609ABU
18	K18HD-D	BAKERSFIELD CA	298.3	LIC	BLDTT	-20080418AAS
18	K18IM-D	DAGGETT, ETC. CA	173.9	CP	BDCCDTT	-20061027AGW
18	KSCI	LONG BEACH CA	303.2	PLN	DTVPLN	-DTVP0616
18	KSCI	LONG BEACH CA	303.3	CP MOD	BMPCDT	-20080619ACW
18	KUSI-TV	SAN DIEGO CA	385.5	PLN	DTVPLN	-DTVP0618
18	KUSI-TV	SAN DIEGO CA	385.5	LIC	BLCDT	-20060515ADM
18	KZDF-LP	SANTA BARBARA CA	414.3	CP	BDCCDTL	-20061027ADP
18	KFAZ-CA	VISALIA CA	350.2	APP	BDISDTA	-20091230ACA
18	K18GG	MINA / LUNING NV	353.1	CP	BDFCDTT	-20090520ACN
18	K09IT	OVERTON NV	119.2	CP	BDISDTT	-20081121ANB
18	K18ET-D	ORDERVILLE UT	294.9	LIC	BLDTT	-20090727AAI
18	K18FU-D	RURAL BEAVER COUNTY UT	345.6	LIC	BLDTT	-20061115ABB
18	K18FT-D	RURAL GARFIELD COUNT UT	417.5	LIC	BLDTT	-20071113ACF
18	KUEW	ST. GEORGE UT	211.4	LIC	BLEDT	-20020826ABB
18	KUEW	ST. GEORGE UT	211.4	PLN	DTVPLN	-DTVP0642
19	K41GO	INYOKERN CA	204.3	APP	BDISDTT	-20090416AHW
19	KHDF-CA	LAS VEGAS NV	44.4	CP	BPTTA	-20080804ADK
19	KHDF-CA	LAS VEGAS NV	44.4	LIC	BLTTA	-20030121AAH
19	K19BU	PAHRUMP NV	50.4	LIC	BLTT	-19910611IV

Total scenarios = 1

Result key: 1
 Scenario 1 Affected station 40 KHMP-LD
 Before Analysis

Results for: 18A NV LAS VEGAS	BLDTL	20090904ADF	LIC
HAAT 1313.0 m, ATV ERP 7.5 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	1365646	8828.4	
not affected by terrain losses	1339137	7325.9	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	0	0.0	
lost to ATV IX only	0	0.0	
lost to all IX	0	0.0	

Potential Interfering Stations Included in above Scenario 1

After Analysis

Results for: 18A NV LAS VEGAS	BLDTL	20090904ADF	LIC
HAAT 1313.0 m, ATV ERP 7.5 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	1365646	8828.4	
not affected by terrain losses	1339137	7325.9	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	36828	250.6	
lost to ATV IX only	36828	250.6	
lost to all IX	36828	250.6	

OET-69 INTERFERENCE STUDY FROM THE AUTHORIZED KEEN-CA FACILITY TOWARD KHMP-LD

Potential Interfering Stations Included in above Scenario 1

17A NV LAS VEGAS BDFCDTA 20090211AAW CP

The following station failed the de minimis interference criteria.

17D NV LAS VEGAS BDFCDTA 20090211AAW

ERP 4.10 kW HAAT 498.0 m RCAMSL 1031.0 m

Antenna CDB 99999999999999

Due to interference to the following station and scenario: 1

18D NV LAS VEGAS BLDTL 20090904ADF

ERP 7.50 kW HAAT 1313.0 m RCAMSL 2526.0 m

Antenna CDB 0000000089121

Percent Service lost without proposal: 0.0 to BLDTL 20090904ADF

Percent Service lost with proposal: 2.8 to BLDTL 20090904ADF

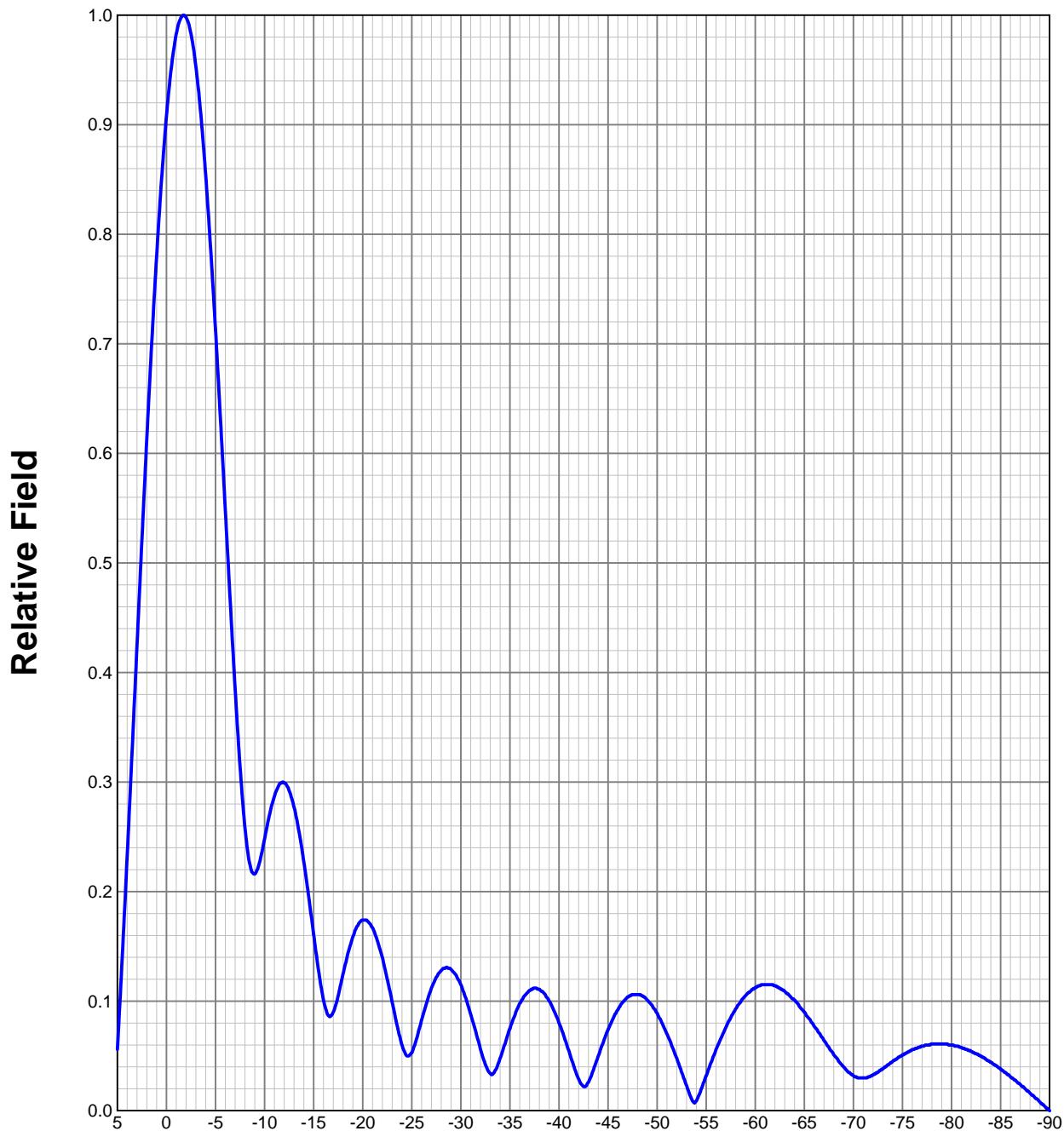
Worst case new IX 2.7501% Scenario 1

#####

FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

ELEVATION PATTERN

Type:	AL8		Channel:	17
Directivity:	Numeric	dBd	Location:	
Main Lobe:	8.50	9.29	Beam Tilt:	-1.75
Horizontal:	7.01	8.46	Polarization:	Horizontal



Preliminary, subject to final design and review.

TABULATED DATA FOR ELEVATION PATTERN

Type: AL8
PolarizationHorizontal

ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB
5.00	0.056	-25.04	-6.75	0.424	-7.45	-27.00	0.112	-19.02	-50.50	0.080	-21.94
4.75	0.098	-20.22	-7.00	0.385	-8.29	-27.50	0.122	-18.27	-51.00	0.070	-23.10
4.50	0.141	-17.02	-7.25	0.348	-9.17	-28.00	0.128	-17.86	-51.50	0.059	-24.58
4.25	0.186	-14.61	-7.50	0.314	-10.06	-28.50	0.131	-17.65	-52.00	0.048	-26.38
4.00	0.233	-12.65	-7.75	0.284	-10.93	-29.00	0.129	-17.79	-52.50	0.035	-29.12
3.75	0.280	-11.06	-8.00	0.258	-11.77	-29.50	0.124	-18.13	-53.00	0.023	-32.77
3.50	0.328	-9.68	-8.25	0.239	-12.45	-30.00	0.115	-18.79	-53.50	0.011	-39.17
3.25	0.377	-8.48	-8.50	0.225	-12.96	-30.50	0.103	-19.74	-54.00	0.009	-40.92
3.00	0.425	-7.43	-8.75	0.218	-13.25	-31.00	0.088	-21.11	-54.50	0.020	-33.98
2.75	0.473	-6.50	-9.00	0.216	-13.31	-31.50	0.073	-22.73	-55.00	0.032	-29.90
2.50	0.521	-5.66	-9.25	0.220	-13.15	-32.00	0.056	-25.04	-55.50	0.044	-27.13
2.25	0.568	-4.92	-9.50	0.227	-12.88	-32.50	0.042	-27.54	-56.00	0.056	-25.04
2.00	0.614	-4.24	-9.75	0.237	-12.51	-33.00	0.034	-29.37	-56.50	0.066	-23.61
1.75	0.658	-3.64	-10.00	0.248	-12.11	-33.50	0.037	-28.64	-57.00	0.076	-22.38
1.50	0.701	-3.09	-10.50	0.270	-11.37	-34.00	0.048	-26.38	-57.50	0.085	-21.41
1.25	0.742	-2.59	-11.00	0.287	-10.84	-34.50	0.061	-24.29	-58.00	0.093	-20.63
1.00	0.780	-2.16	-11.50	0.298	-10.52	-35.00	0.075	-22.50	-58.50	0.099	-20.09
0.75	0.816	-1.77	-12.00	0.299	-10.49	-35.50	0.087	-21.21	-59.00	0.105	-19.58
0.50	0.850	-1.41	-12.50	0.292	-10.69	-36.00	0.098	-20.18	-59.50	0.109	-19.25
0.25	0.880	-1.11	-13.00	0.277	-11.15	-36.50	0.105	-19.58	-60.00	0.112	-19.02
0.00	0.908	-0.84	-13.50	0.255	-11.87	-37.00	0.110	-19.17	-60.50	0.114	-18.86
-0.25	0.932	-0.62	-14.00	0.227	-12.88	-37.50	0.112	-19.02	-61.00	0.115	-18.79
-0.50	0.952	-0.43	-14.50	0.195	-14.20	-38.00	0.111	-19.09	-61.50	0.115	-18.79
-0.75	0.969	-0.27	-15.00	0.161	-15.86	-38.50	0.107	-19.41	-62.00	0.114	-18.86
-1.00	0.983	-0.15	-15.50	0.128	-17.86	-39.00	0.100	-20.00	-62.50	0.112	-19.02
-1.25	0.993	-0.07	-16.00	0.101	-19.91	-39.50	0.091	-20.82	-63.00	0.109	-19.25
-1.50	0.998	-0.02	-16.50	0.087	-21.21	-40.00	0.080	-21.94	-63.50	0.105	-19.58
-1.75	1.000	0.00	-17.00	0.090	-20.92	-40.50	0.068	-23.35	-64.00	0.101	-19.91
-2.00	0.998	-0.02	-17.50	0.105	-19.58	-41.00	0.055	-25.19	-64.50	0.095	-20.45
-2.25	0.993	-0.07	-18.00	0.125	-18.06	-41.50	0.041	-27.74	-65.00	0.090	-20.92
-2.50	0.983	-0.15	-18.50	0.144	-16.83	-42.00	0.029	-30.75	-65.50	0.084	-21.51
-2.75	0.970	-0.26	-19.00	0.159	-15.97	-42.50	0.022	-33.15	-66.00	0.077	-22.27
-3.00	0.953	-0.42	-19.50	0.169	-15.44	-43.00	0.026	-31.70	-66.50	0.071	-22.97
-3.25	0.933	-0.60	-20.00	0.174	-15.19	-43.50	0.037	-28.64	-67.00	0.064	-23.88
-3.50	0.910	-0.82	-20.50	0.173	-15.24	-44.00	0.050	-26.02	-67.50	0.058	-24.73
-3.75	0.883	-1.08	-21.00	0.167	-15.55	-44.50	0.062	-24.15	-68.00	0.051	-25.85
-4.00	0.854	-1.37	-21.50	0.155	-16.19	-45.00	0.074	-22.62	-68.50	0.045	-26.94
-4.25	0.821	-1.71	-22.00	0.140	-17.08	-45.50	0.084	-21.51	-69.00	0.040	-27.96
-4.50	0.787	-2.08	-22.50	0.120	-18.42	-46.00	0.092	-20.72	-69.50	0.035	-29.12
-4.75	0.751	-2.49	-23.00	0.099	-20.09	-46.50	0.099	-20.09	-70.00	0.032	-29.90
-5.00	0.713	-2.94	-23.50	0.078	-22.16	-47.00	0.104	-19.66	-70.50	0.030	-30.46
-5.25	0.673	-3.44	-24.00	0.060	-24.44	-47.50	0.106	-19.49	-71.00	0.030	-30.46
-5.50	0.632	-3.99	-24.50	0.050	-26.02	-48.00	0.106	-19.49	-71.50	0.031	-30.17
-5.75	0.591	-4.58	-25.00	0.053	-25.51	-48.50	0.105	-19.58	-72.00	0.033	-29.63
-6.00	0.548	-5.22	-25.50	0.066	-23.61	-49.00	0.101	-19.91	-72.50	0.035	-29.12
-6.25	0.506	-5.91	-26.00	0.083	-21.62	-49.50	0.096	-20.35	-73.00	0.038	-28.40
-6.50	0.465	-6.65	-26.50	0.098	-20.18	-50.00	0.089	-21.01	-73.50	0.042	-27.54

Preliminary, subject to final design and review.