

ENGINEERING STATEMENT
SUPPORTING REQUEST FOR WAIVER
CLASS A TELEVISION STATION K47GI-D
(FACILITY ID NO. 5011)
GRANTS PASS, OREGON
CHANNEL 36

Background

This statement was prepared on behalf of Better Life Television, licensee of K47GI-D, Grants Pass, Oregon, in support of a request for waiver of the FCC's Phase Assignment, Testing Period, and Phase Completion Date for Class A television station K47GI-D in the Medford-Klamath Falls DMA*. K47GI-D is licensed for operation on RF Channel 47 with a maximum directional effective radiated power (ERP) of 0.329 kW and an antenna height above mean sea level of 1220 m.

As a result of the FCC's Incentive Auction repack process, the K47GI-D facility was reassigned to RF Channel 36. K47GI-D holds a construction permit (C.P.) for its post-transition operation on Channel 36 with a maximum directional ERP of 0.267 kW and an antenna height above mean sea level of 1220 m.† An FCC engineering database summary sheet for the K47GI-D C.P. facility is attached hereto for reference.

In coordination with the wireless carrier T-Mobile, K47GI-D seeks a waiver of the FCC's Phase Assignment, Testing Period, and Phase Completion Date to allow K47GI-D to make the transition to Channel 36 earlier than its given phase transition date. Specifically, the target date for K47GI-D to begin operation on Channel 36 is June 1, 2018. This will facilitate the early deployment of new 600 MHz band wireless broadband services.

This statement demonstrates that K47GI-D can transition to Channel 36 before its assigned phase date without any disruption to the FCC's transition plans.

* Nielsen Designated Market Area abbreviated as DMA.

† See FCC File No. 0000027790.

Assigned Phase

K47GI-D was assigned to transition Phase 1, with a testing begin date of September 14, 2018. This is based on the latest FCC Phase Assignment spreadsheet dated March 7, 2018.

Linked Station Sets and Linked Station Neighbor Stations

An inspection of the latest FCC Linked Station Set (LSS) and Linked Station Neighbor (LSN) spreadsheet databases indicates that the K47GI-D facility is not part of any LSSs or LSNs. These are based on the latest LSS and LSN spreadsheets available from the FCC, both dated March 7, 2018.

Interference Caused Analysis Under Current Allocation Environment

An interference analysis was conducted for the K47GI-D Channel 36 C.P. facility utilizing the latest version[‡] of the FCC's *TVStudy* coverage and interference analysis prediction software. The report of the results is attached hereto entitled 'Interference Caused Analysis for K47GI-D Channel 36 C.P. Facility Under Current Allocation Environment.'

The results of the analysis indicate that there are no cases of outgoing (caused) interference exceeding the normal 0.5% rounding tolerance level to any other protected full-power or Class A television stations now operating.

Interference Received Analysis Under Current Allocation Environment

An interference analysis specifically for the 'received case' of interference was conducted for the K47GI-D Channel 36 C.P. facility utilizing the FCC's aforementioned *TVStudy* prediction software. The report of the results is attached hereto entitled 'Interference Received Analysis for K47GI-D Channel 36 C.P. Facility Under Current Allocation Environment.' The purpose of this study is to evaluate all current environment records in the received interference analysis.

[‡] TVStudy Version 2.2.5

The results of the analysis indicate that there are no cases of incoming (received) interference exceeding the normal 0.5% rounding tolerance level to the K47GI-D Channel 36 C.P. facility.

Effects on Linked Station Sets

The early transition of K47GI-D in advance of its phase transition date will not create any new linked station sets.

Conclusion

It is concluded that the early transition of the K47GI-D C.P. facility on Channel 36, as described herein, will not result in the creation of any linked station sets established in the Incentive Auction repack process.



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March 22, 2018

TV Inquiry

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida



Callsign: K47GI-D **Service:** DC **Status:** CP **App. Status:** GRANT **Border Code:** **Rec. Type:** C
Channel: 36 **Offset:** **Zone:** **Docket Number:** **DTV Type:** POSTTRAN
Fac. ID: 5011 **Assoc. ID:** **Application File No.:** BLANK-0000027790 **DT Emission Mask:** T
City: GRANTS PASS **State:** OR **Country:** US **CP Expiration Date:**
Party Name: BETTER LIFE TELEVISION **Last Change Date:** 8/7/2017

Latitude (NAD 83): 42-22-55.4 **Height AGL (m):** 30 **Polarization:** H
Longitude (NAD 83): 123-16-33.2 **Overall Height AGL (m):** 40 **Electrical Tilt (°):**
ERP (kW): 0.267 **Mechanical Tilt (°):** 2
Maximum ERP (kW): **Mechanical Tilt Azimuth (°):**
Maximum ERP (dBk): -5.7 **Degrees True (°):** 295
RCAMSL (m): 1220 **Antenna Make:**
Site Elevation AMSL (m): 1190 **Antenna Model:**
HAAT (m):
Maximum HAAT (m):

Antenna Type: D **Antenna ID:** 1001702 **Rotation (°):** 295

0° 1.000	90° 0.050	180° 0.110	270° 0.050
10° 0.980	100° 0.042	190° 0.102	280° 0.088
20° 0.916	110° 0.030	200° 0.068	290° 0.175
30° 0.812	120° 0.025	210° 0.035	300° 0.250
40° 0.680	130° 0.020	220° 0.025	310° 0.520
50° 0.520	140° 0.025	230° 0.020	320° 0.680
60° 0.350	150° 0.035	240° 0.025	330° 0.812
70° 0.175	160° 0.068	250° 0.030	340° 0.916
80° 0.088	170° 0.102	260° 0.042	350° 0.980

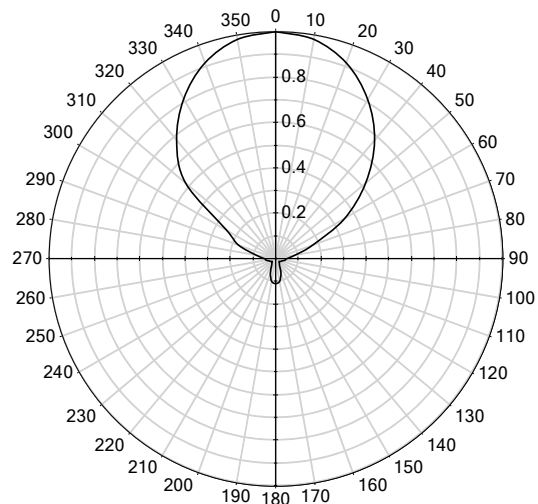
Standard Pattern:

Antenna Make: SCA

Antenna Model: 4DR-4S

Last Change Date:

Note: Rotation or tilt is not applied to the pattern shown



Type:	ASRN:	FAA Study No.:	Structure Height (m):
Latitude (NAD 27):		Date Received:	Structure Height (ft):
Longitude (NAD 27):		Date Entered:	Ground Elevation (m):
Latitude (NAD 83):		Date Issued:	Ground Elevation (ft):
Longitude (NAD 83):		Date Constructed:	Overall Height AGL (m):
Struct. Address:		Date Dismantled:	Overall Height AGL (ft):
			Overall Height AMSL (m):
			Overall Height AMSL (ft):
Entity Name:			

INTERFERENCE CAUSED ANALYSIS FOR K47GI-D CHANNEL 36 C.P. FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: k47gi36e2, Model: Longley-Rice

Study build station data: LMS TV 2018-03-19 #154

Proposal: K47GI36E2 D36 DC CP GRANTS PASS, OR
File number: k47gi36e2
Facility ID: 5011
Station data: User record
Record ID: 2437
Country: U.S.

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

Search options:
All post-transition APP, CP, and baseline records excluded

No protected stations found.

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D36
Mask: Stringent
Latitude: 42 22 55.40 N (NAD83)
Longitude: 123 16 33.20 W
Height AMSL: 1220.0 m
HAAT: 0.0 m
Peak ERP: 0.267 kW
Antenna: SCA-4DR-4S (ID 1001702) 295.0 deg
Elev Pattn: Generic
Mech Tilt: 2.00 @ 295.0 deg

50.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.018 kW	569.6 m	25.9 km
45.0	0.000	750.0	7.8
90.0	0.000	623.2	11.0
135.0	0.001	461.3	11.6
180.0	0.000	760.4	7.4
225.0	0.008	574.6	21.8
270.0	0.199	845.6	44.3
315.0	0.224	900.6	45.9

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 686 m

Distance to Canadian border: 649.7 km

Distance to Mexican border: 1202.3 km

Conditions at FCC monitoring station: Livermore CA
Bearing: 165.5 degrees Distance: 533.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 93.3 degrees Distance: 1522.9 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%

No IX check failures found.

INTERFERENCE RECEIVED ANALYSIS FOR K47GI-D CHANNEL 36
C.P. FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT

tvstudy v2.2.5 (4uoc83)

Database: localhost
Station Data: LMS TV 2018-03-14
Study: LMS180315
Model: Longley-Rice
Scenario: k47gi36e2r

Desired station	Service area		Terrain-limited		Interference-free	
Undesired station	Total interference		Unique interference			
K47GI36E1 D36 DC CP GRANTS PASS, OR	2196.0	72,656	1827.6	70,770	1827.6	70,770

No IX cases found.