

TECHNICAL SUMMARY
AMENDMENT TO
SPECIAL DISPLACEMENT WINDOW
APPLICATION FOR CONSTRUCTION PERMIT
LMS FILE NO. 0000054276
LOW POWER DIGITAL STATION KVHF-LD
FRESNO, CALIFORNIA
CHANNEL 5 1.6 KW (DA)

1. Application Purpose: Amendment to the pending special displacement window application for KVHF-LD which currently specifies operation on UHF channel 31 at Fresno, California (LMS File No. 0000054276).¹ By this amendment, it is proposed to change from UHF channel 31 to VHF channel 5 and operate with a directional antenna maximum effective radiated power (ERP) of 1.6 kW using a Jampro model JCPD-2-/1(2) LV1 circularly polarized directional antenna. The antenna radiation center height will be 1402.5 m AMSL. There will be no change in the overall structure height (no ASRN).

2. Elimination of Mutual Exclusivity: This amendment will eliminate KVHF-LD's mutual exclusivity with a displacement application filed by KTFF-LD (LMS File No. 0000053783, channel 31, Fresno, California) in MX Group MX80. Furthermore, the amendment does not implicate the application of another station.

3. Eligibility to File in Special Displacement Window: Station KVHF-LD was eligible to file in the special displacement window as (1) it was operating with its currently licensed facilities (FCC File No. BLDTL-20100204ABX) prior to April 13, 2017 – the release date of the *Closing and Channel Reassignment Public Notice*² and (2) it operates on channel 42 which has been repurposed for new, flexible 600 MHz Band wireless service.³

¹ See FCC Public Notice dated February 9, 2018 entitled “*Incentive Auction Task Force and Media Bureau Announce Post-Incentive Auction Special Displacement Window April 10, 2018 through May 15, 2018 and Make Location and Channel Data Available*” (DA 18-124, MB Docket No. 16-306, GN Docket No. 12-268) (“FCC Special Displacement Window PN”).

² See *Media Bureau Announces Date by Which LPTV and TV Translator Stations Must Be “Operating” In Order to Participate In Post-Incentive Auction Special Displacement Window, Public Notice*, 31 FCC Rcd 5383 (MB 2016).

³ See *The Incentive Auction Task Force and Media Bureau Announce Procedures for Low Power Television, Television Translator and Replacement Translator Stations During the Post-Incentive Auction Transition*, Public Notice, at Section III paragraph 8 (DA 17-442, Released May 12, 2017).

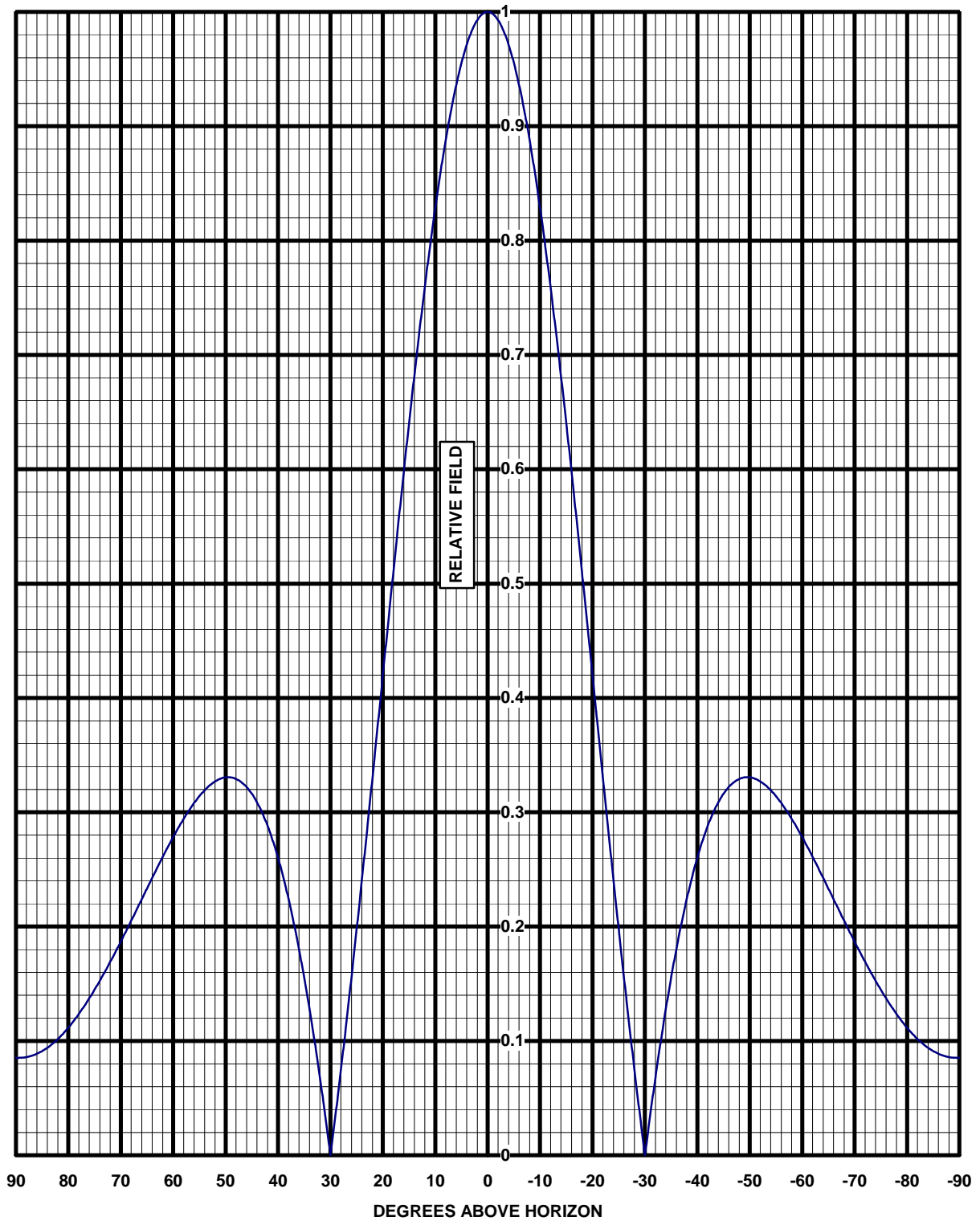
4. Interference Compliance: As indicated in the attached *TVStudy* analysis, KVHF-LD's proposed channel 5 operation meets the FCC's interference protection requirements with respect to all protected facilities based on both the pre- and post-transition allocation environments. A cell size of 1.0 km and a profile resolution of 0.1 km points/km were utilized for the *TVStudy* analysis.

5. RFR Compliance: The proposed facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level to workers and the general public. The radiation center for the proposed antenna will be located 36.5 meters above ground level. The total average digital ERP is 3.2 kW (circular polarization). A greater than expected vertical plane relative field value of 0.331 is presumed for the antenna's steep downward radiation (-22° to -90° elevation, see attached antenna vertical plane radiation pattern data). The calculated power density at a point 2 meters above ground level is 9.8 uW/cm², which is 4.9% of the FCC's recommended limit of 200 uW/cm² for channel 5 for an uncontrolled environment.

Access to the transmitting site shall be restricted and appropriately marked with RFR warning signs. Furthermore, as this is a multi-user site, a formal RFR protection protocol is in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures will be taken to assure worker safety with respect to RFR exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.



COMPUTED ELEVATION PATTERN



Customer: Ventura Media
Site: KVHF-LD
Bays: 2

Model: JCPD-2/1 (2) LV1
Description: VHF Panel Antenna
-0° Beam Tilt, 0% Null Fill



Elevation Pattern Tabulation

ELEVATION PATTERN TABULATION

RELATIVE FIELD VS ELEVATION ANGLE

<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>	<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>	<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>
10	0.828	-26	0.155	-61	0.270
9	0.860	-27	0.114	-62	0.261
8	0.888	-28	0.075	-63	0.252
7	0.913	-29	0.037	-64	0.243
6	0.936	-30	0.000	-65	0.233
5	0.955	-31	0.035	-66	0.224
4	0.971	-32	0.068	-67	0.215
3	0.984	-33	0.099	-68	0.205
2	0.993	-34	0.128	-69	0.196
1	0.998	-35	0.155	-70	0.187
0	1.000	-36	0.180	-71	0.178
-1	0.998	-37	0.203	-72	0.169
-2	0.993	-38	0.224	-73	0.161
-3	0.984	-39	0.243	-74	0.153
-4	0.971	-40	0.260	-75	0.145
-5	0.955	-41	0.275	-76	0.137
-6	0.936	-42	0.288	-77	0.130
-7	0.913	-43	0.299	-78	0.124
-8	0.888	-44	0.309	-79	0.117
-9	0.860	-45	0.316	-80	0.112
-10	0.828	-46	0.322	-81	0.106
-11	0.795	-47	0.326	-82	0.102
-12	0.759	-48	0.329	-83	0.098
-13	0.721	-49	0.330	-84	0.094
-14	0.682	-50	0.331	-85	0.091
-15	0.640	-51	0.329	-86	0.089
-16	0.598	-52	0.327	-87	0.087
-17	0.554	-53	0.324	-88	0.086
-18	0.510	-54	0.319	-89	0.085
-19	0.465	-55	0.314	-90	0.085
-20	0.420	-56	0.308		
-21	0.375	-57	0.302		
-22	0.330	-58	0.294		
-23	0.285	-59	0.287		
-24	0.241	-60	0.278		
-25	0.198				

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