

Experimental STA Request for Extension of -10db HD Operation

June 30, 2021

Dear Secretary,

Educational Media Foundation (EMF) requested and was granted Experimental Authority for operation of the KLVB digital carrier levels. Specifically, EMF was granted permission to operate KLVB (FIN 70676) in the asymmetrical mode with the upper digital sideband carrier at a power level of -10dbc and the lower digital sideband carrier at a power level of -14dbc. The original request was granted on Aug 09, 2019 and is seen in FCC file number 20190530AAX. Per the requirements in the grant, EMF is required to request an extension on an annual basis.

Methodology and Results

EMF found areas inside the KLVB 60dbu analog contour where the digital signal level was below usable reception levels due to the terrain within the 60dbu contour. Operating the upper sideband carrier at the -10dbc level while leaving the lower sideband carrier level at -14dbc helped alleviate this problem. Signal levels and a drive test were performed upon commencing operation of the increased power on the upper sideband and a noticeable difference was observed.

Technical Showing for Asymmetrical Operation

According to MM Docket No. 99-325 Paragraph 20, increased digital sideband operation above -14dbc is allowed if certain criteria is met:

20. A licensee desiring FM Digital ERP in excess of -14 dBc is required to calculate the station's analog F(50,10) field strength at all points on the protected 60 dBu F(50,50) contour of a potentially affected first-adjacent channel analog FM station. This calculation must be done using the station's licensed analog facilities⁴³ and the standard FCC contour prediction methodology. Once the most restrictive analog F(50,10) field strength of the proponent station has been determined, the licensee will use the following table to determine the proponent station's maximum permissible FM Digital ERP:

Proponent Analog F(50,10) Field Strength at Protected Analog 60 dBu F(50,50) Contour	Maximum Permissible FM Digital ERP
51.2 dB μ and above	-14 dBc
50.7 dB μ - 51.1 dB μ	-13 dBc
50.3 dB μ - 50.6 dB μ	-12 dBc

Educational Media Foundation

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Exhibit 1
Citrus Heights, CA

49.6 dB μ - 50.2 dB μ	-11 dBc
49.5 dB μ or less	-10 dBc

In the case of KLVB operating on channel 258 and first adjacent station KMVQ-FM (FID 1084) operating on channel 259, the KLVB 49.5dbu(F50-10) contour does not overlap the KMVQ-FM 60dbu(F50-50) contour as seen in Exhibit 1-A. Therefore, according to the chart seen above, -10dbc is permissible on the KLVB upper sideband.

Lack of Objectionable Interference

This experimental authority is specifically conditioned on the lack of objectionable interference.

EMF has received no complaints of interference since commencing operation with the -10dbc power level on the KLVB upper sideband. In the event of interference complaints, EMF agrees to discontinue operation of the KLVB experimental power level of -10dbc on the upper sideband carrier and revert to the -14dbc power level.

Term of Operation

EMF understands this experimental operation, when granted on Aug 09, 2019, was valid for a 5-year period and is required to request renewal of the grant on an annual basis. This is the second request of a renewal of this experimental operation of -10dbc on the upper sideband carrier. Since no interference complaints have been received during the first 24 months of operation and with a noticeable improvement of reception of the digital carrier, EMF respectfully requests an extension of the experimental operation.

Anti-Drug Abuse Act Certification

Applicant certifies that neither licensee/permittee nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.

Sincerely,

James L Travis
FCC Compliance Engineer
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■ KLVB (258)
■ KMQV-FM (259)

KLVB vs KMQV-FM First Adjacent Channel Study

Exhibit 1-A

KMQV-FM
 BLH19920427KB
 Latitude: 37-41-14.94 N
 Longitude: 122-26-03.90 W
 ERP: 40.00 kW
 Channel: 259
 Frequency: 99.7 MHz
 AMSL Height: 452.0 m
 Elevation: 401.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: None

KLVB
 BLED20151119AYW
 Latitude: 38-38-53 N
 Longitude: 121-05-51 W
 ERP: 3.30 kW
 Channel: 258
 Frequency: 99.5 MHz
 AMSL Height: 316.0 m
 Elevation: 252.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: None

