

ENGINEERING STATEMENT

IN SUPPORT OF

MINOR MODIFICATION OF A LICENSED DIGITAL TRANSLATOR FACILITY

K13RK-D

ROSWELL, NM

Background

Hearst Properties Inc. (Hearst) is the licensee of digital television translator station K13RK-D (BLDTV-20091112ABQ, Facility ID. 53914) near Roswell, NM. The station currently operates on Ch. 13 with an ERP of 0.3 kW. Hearst, in the instant application, is seeking to increase the K13RK-D ERP from 0.3 kW to 0.83 kW. All other facility parameters would remain the same as currently authorized.

Site and Tower

The tower is located at 33° 24' 05.2" N and 104° 22' 46.1" W (NAD83). The overall height of the tower is 55.0m AGL and it passes the TOWAIR program. Therefore, the tower does not require an ASR, nor notification to the FAA.

KOAT intends to reuse the existing antenna which is side-mounted on the tower.

Note, during the process of preparing the modification application, it was discovered that the coordinates listed on the original construction permit were in NAD27 and were rounded to the nearest second. As such, these coordinates did not specify the precise location of the tower and have since been converted by Commission from NAD27 to NAD83. The current K13RK-D license list the tower coordinates as:

33° 24' 05.3" N (NAD83)
104° 22' 46.8" W

The actual coordinates of the tower are:

33° 24' 05.2" N (NAD83)
104° 22' 46.1" W

The discrepancy has been corrected in the application.

The site will remain the same as that of the licensed digital facility, as will the height of the antenna radiation center.

Antenna and Power

Hearst is proposing to continue using the licensed Kathrein/Scala TVO-4 omni-directional antenna for the facility with a horizontally polarized ERP of 0.83 kW (no vertical polarization component).

Interference

An interference check study was run using the FCC TVStudy software (Version 2.2.5) for the proposed facility parameters (including the use of a Simple Mask). The results of the study (copy attached hereto) show that potential interference is not predicted to exceed

0.49% to any full-service DTV or Class A stations or 1.99% to any digital low power stations as required by the Commission's Rules.

Environmental/RFR

This report addresses only the conditions specified in 47CFR1.1307 that deal with Radio Frequency Radiation. Any other non-RFR conditions that might require the preparation of an EA are beyond the scope of this report.

The location of the proposed facility is assumed to currently be "in compliance" with FCC guidelines for human exposure to RFR (as defined in OET-65). The worst-case ground level RFR contributed to the site by this proposal in public areas is calculated to be 0.001289 mW/cm², which is less than 5% of the MPE for public exposure (0.2 mW/cm²) at Ch. 13 (210-216 MHz). Per Section 1.1307(b) of the FCC Rules, the operation is categorically excluded from taking corrective action in areas with levels above the MPE limit since the contribution to the overall RFR from the facility is less than 5%.

Hearst agrees to comply with the Commission's requirements regarding power adjustments or cessation of operation as may be necessary to ensure a compliant environment for worker access. Workers will be trained on RFR issues and encouraged to wear personal RFR monitors when on the structure.

Certification

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.



Benjamin Pidek, P.E.
August 16, 2022

Attached:
TVStudy Interference Check Report

TVStudy TV Interference Check Report for K13RK-D on Ch. 13

Study created: 2022.08.16 20:39:01

Study build station data: LMS TV 2022-08-12

Proposal: K13RK-D D13 LD LIC ROSWELL, NM
File number: K13RK_Max_0_83kW_CoordCorr
Facility ID: 53914
Station data: User record
Record ID: 212
Country: U.S.

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

Search options:
Non-U.S. records included

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	KVIH-TV	D12	DT	CP	CLOVIS, NM	BLANK0000035800	134.4 km
No	KVIH-TV	D12	DT	LIC	CLOVIS, NM	BLCDT20091221AHU	134.4
No	K12NH-D	D12	LD	LIC	HOBBS, NM	BLDTV20111114BCD	135.9
Yes	KRQE	D13	DT	LIC	ALBUQUERQUE, NM	BLCDT20090622ABJ	276.7
No	K13UL-D	D13	LD	LIC	HILLSBORO, NM	BLDTV20100111ACE	299.4
No	KCOS	D13	DT	LIC	EL PASO, TX	BLEDT20110620AHQ	266.2
No	K13ZQ-D	D13	LD	LIC	LUBBOCK, TX	BLDTV20140224AFM	233.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D13
Mask: Simple
Latitude: 33 24 5.20 N (NAD83)
Longitude: 104 22 46.10 W
Height AMSL: 1189.0 m
HAAT: 0.0 m
Peak ERP: 0.830 kW
Antenna: Omnidirectional
Elev Pattn: Generic

48.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.830 kW	119.3 m	39.6 km
45.0	0.830	26.7	22.4
90.0	0.830	68.8	31.4
135.0	0.830	81.1	33.7
180.0	0.830	129.0	40.7
225.0	0.830	108.0	38.1
270.0	0.830	110.9	38.5
315.0	0.830	110.3	38.5

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 94 m

Distance to Canadian border: 1733.7 km

**Proposal is within coordination distance of Mexican border
Distance to Mexican border: 263.8 km

Conditions at FCC monitoring station: Douglas AZ
Bearing: 248.3 degrees Distance: 537.8 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 354.5 degrees Distance: 750.3 km

Study cell size: 1.00 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.