

ENGINEERING STATEMENT
SUPPORTING REQUEST FOR WAIVER
TELEVISION STATION KTFN(TV)
(FACILITY ID NO. 68753)
EL PASO, TEXAS
CHANNEL 20

Background

This statement was prepared on behalf of Entravision Communications Corporation, licensee of KTFN, El Paso, Texas, in support of a request for waiver of the FCC's Phase Assignment, Testing Period, and Phase Completion Date for television station KTFN in the El Paso DMA^{*}. KTFN is licensed for operation on RF Channel 51 with a maximum directional effective radiated power (ERP) of 250 kW and an antenna height above average terrain (HAAT) of 525 m.[†]

As a result of the FCC's Incentive Auction repack process, the KTFN facility was reassigned to RF Channel 20. KTFN now holds a construction permit for operation on Channel 20 with a maximum directional ERP of 1000 kW and an antenna HAAT of 524 m.[‡] An FCC engineering database summary sheet for the KTFN construction permit facility is attached hereto for reference. The KTFN construction permit facility is the subject early transition facility.

In coordination with the wireless carrier T-Mobile, Entravision Communications Corporation seeks a waiver of the FCC's Phase Assignment, Testing Period, and Phase Completion Date to allow KTFN to make the transition to Channel 20 earlier than its given phase transition date. Specifically, the target date for KTFN to begin operations on Channel 20 is April 12, 2019. This will facilitate the early deployment of new 600 MHz band wireless broadband services.

This statement demonstrates that the KTFN facility can transition to Channel 20 before its assigned phase date without any disruption to the FCC's transition plans. Specifically, it is demonstrated that the operation of KTFN on Channel 20 will have no

^{*} Nielsen Designated Market Area abbreviated as DMA.

[†] See FCC File No. BLCDDT-20120214ABE.

[‡] See FCC File No. 0000034466.

adverse interference consequences, either caused or received, under the current allocation environment.

Assigned Phase

KTFN was assigned to transition Phase 8, with a testing begin date of January 18, 2020. This is based on the latest FCC Phase Assignment spreadsheet dated August 22, 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 KTFN 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 July 27, 2018.

Interference Caused Analysis Under Current Allocation Environment

An interference analysis was conducted for the KTFN Channel 20 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 KTFN Channel 20 Construction Permit Facility Under Current Allocation Environment.'

The results of the analysis indicate that the proposal meets the 0.5% permissible interference level with respect to interference caused to all other full-service and Class A television stations.

Interference Received Analysis Under Current Allocation Environment

An interference analysis specifically for the 'received case' of interference was conducted for the KTFN Channel 20 early transition facility utilizing the FCC's *TVStudy* prediction software. The report of the results is attached hereto entitled 'Interference Received Analysis for KTFN Channel 20 Construction Permit Facility Under Current

[§] *TVStudy* version 2.2.5

Allocation Environment.' The purpose of this study is to evaluate all current environment records in the received interference analysis.

The results of the analysis indicate that there are no cases of incoming (received) interference exceeding the permissible 0.5% interference level to the KTFN Channel 20 early transition facility.

Effects on Linked Station Sets

It has been determined that the early transition of the KTFN facility to Channel 20 in advance of its phase transition date will not create any pairwise interference cases or new linked station sets.

Conclusion

It is concluded that the early transition of the KTFN facility on Channel 20 as described herein, will not result in any interference caused or received cases that would result in the creation of any new linked station sets or dependencies established in the Incentive Auction repack process.



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September 30, 2018



Callsign: KTFN **Service:** DT **Status:** CP MOD **App. Status:** GRANT **Border Code:** **Rec. Type:** C
Channel: 20 **Offset:** **Zone:** 2 **Docket Number:** **DTV Type:** POSTTRAN
Fac. ID: 68753 **Assoc. ID:** **Application File No.:** BLANK-0000034466 **DT Emission Mask:**
City: EL PASO **State:** TX **Country:** US **CP Expiration Date:**
Party Name: ENTRAVISION HOLDINGS, LLC **Last Change Date:** 4/19/2018

Latitude (NAD 83): 31-48-18.9 **Height AGL (m):** 58 **Polarization:** E
Longitude (NAD 83): 106-29-00.7 **Overall Height AGL (m):** 118.3 **Electrical Tilt (°):** 1
ERP (kW): 1000 **Mechanical Tilt (°):**
Maximum ERP (kW): **Mechanical Tilt Azimuth (°):**
Maximum ERP (dBk): 30 **Degrees True (°):**
Maximum ERP at any Angle (kW): **Antenna Make:**
Antenna Model:

RCAMSL (m): 1766.4
Site Elevation AMSL (m): 1708.4
HAAT (m): 524
Maximum HAAT (m):

Antenna Type: D **Antenna ID:** 1002331 **Rotation (°):** 0

0° 0.717	90° 0.879	180° 0.182	270° 0.202
10° 0.535	100° 0.980	190° 0.182	280° 0.313
20° 0.384	110° 1.000	200° 0.182	290° 0.475
30° 0.283	120° 0.949	210° 0.192	300° 0.667
40° 0.242	130° 0.828	220° 0.192	310° 0.828
50° 0.283	140° 0.667	230° 0.192	320° 0.949
60° 0.384	150° 0.475	240° 0.182	330° 1.000
70° 0.535	160° 0.313	250° 0.182	340° 0.980
80° 0.717	170° 0.202	260° 0.152	350° 0.879

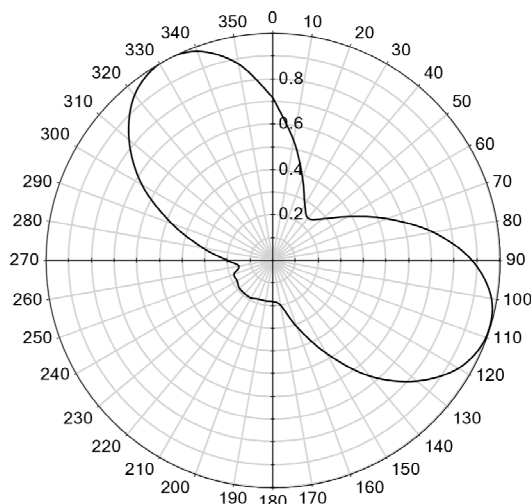
Standard Pattern:

Antenna Make: DIE

Antenna Model: TFU-12DSB/VP-R BP285

Last Change Date:

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



Type: TOWER	ASRN: 1202400	FAA Study No.: 2011-ASW-3190-OE	Structure Height (m): 103.9
Latitude (NAD 27): 031-48-18.5	Date Received: 05/06/2016	Structure Height (ft): 340.9	
Longitude (NAD 27): 106-28-58.7	Date Entered: 05/06/2016	Ground Elevation (m): 1708.4	
Latitude (NAD 83): 31-48-18.9	Date Issued: 05/06/2016	Ground Elevation (ft): 5605.0	
Longitude (NAD 83): 106-29-00.7	Date Constructed: 01/05/2000	Overall Height AGL (m): 118.3	
Struct. Address:	Date Dismantled:	Overall Height AGL (ft): 388.1	
Ranger Peak		Overall Height AMSL (m): 1826.7	
El Paso	TX	Overall Height AMSL (ft): 5993.1	
Entity Name: Pinnacle Towers LLC			

INTERFERENCE CAUSED ANALYSIS FOR KTFN CHANNEL 20 CONSTRUCTION PERMIT FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: ktfn20e2, Model: Longley-Rice

Study build station data: LMS TV 2018-09-27

Proposal: KTFN20E2 D20 DT CP EL PASO, TX
File number: ktfn20e2
Facility ID: 68753
Station data: User record
Record ID: 3239
Country: U.S.
Zone: II

Build options:

Protect pre-transition records not on baseline channel

Search options:

Non-U.S. records included

All post-transition APP, CP, and baseline records excluded

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KRWB-TV	D21	DT	LIC	ROSWELL, NM	BLCDT20090619ABH	253.8 km
No	XHCHU	D20	DT	LIC	CIUDAD CUAUHTEMOC, CH	BLANKBPFS20151106EOS	380.8
No	XHCHD	D20	DT	LIC	CIUDAD DELICIAS, CH	BLANKBPFS20151106EPM	417.5
No	CADENATRES	D21	DT	LIC	SAN BUENAVENTURA, CH	BLANKBPFS20160525AAW	237.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D20

Latitude: 31 48 18.90 N (NAD83)

Longitude: 106 29 0.70 W

Height AMSL: 1766.4 m

HAAT: 524.0 m

Peak ERP: 1000 kW

Antenna: DIE-TFU-12DSB/VP-R BP285 (ID 1002331) 0.0 deg

Elev Pattn: Generic

Elec Tilt: 1.00

39.4 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	514 kW	200.3 m	81.5 km
45.0	68.9	565.8	98.3
90.0	773	568.6	120.0
135.0	559	643.0	120.9
180.0	33.1	595.7	93.7
225.0	36.9	497.4	88.5
270.0	40.8	577.5	94.5
315.0	789	533.9	118.1

Database HAAT does not agree with computed HAAT

Database HAAT: 524 m Computed HAAT: 523 m

ERP exceeds maximum

ERP: 1000 kW ERP maximum: 454 kW

Distance to Canadian border: 1911.2 km

**Proposal is within coordination distance of Mexican border

Distance to Mexican border: 4.8 km

Conditions at FCC monitoring station: Douglas AZ

Bearing: 264.4 degrees Distance: 301.9 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

INTERFERENCE CAUSED ANALYSIS FOR KTFN CHANNEL 20 CONSTRUCTION PERMIT FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT

Bearing: 6.5 degrees Distance: 930.5 km

No land mobile station failures found

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 KTFN CHANNEL 20 CONSTRUCTION
PERMIT FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT

tvstudy v2.2.5 (4uoc83)

Database: localhost
Station Data: LMS TV 2018-08-07
Study: LMS180808
Model: Longley-Rice
Scenario: ktfn20e2r

Desired station	Service area		Terrain-limited		Interference-free	
Undesired station	Total interference		Unique interference			
KTFN20E2 D20 DT CP EL PASO, TX	23254.6	1,017,335	21400.3	1,013,157	21400.3	1,013,157
KTFN20E2 D20 DT CP EL PASO, TX	10423.2	1,343,156	10100.6	1,343,155	10100.6	1,343,155 (in Mexico)
XHCHU D20 DT LIC CIUDAD CUAUHEMOC, CH	0.0		0	0.0	0	