

## TECHNICAL NARRATIVE

This Technical Statement and attached exhibits were prepared on behalf of Saver Media, LLC (“Saver”), licensee of KQTC, Facility ID No. 190414, Channel 258C2, Christoval, Texas. Saver herein is filing an FCC Form 301 minor modification application to license an auxiliary antenna for KQTC. The proposed auxiliary site is an existing tower which is less than 200 feet and does not have an Antenna Structure Registration Number ("ASR"). The tower is a self supporting triangular steel tower 180 feet in overall height. The application site coordinates are 31° 25' 43.7" North Latitude, 100° 26' 56.8" West. The proposed KQTC auxiliary station will not result in extension of the licensed main facility FCC F(50,50) 60 dBu contour in any direction as required in Section 73.1675(a). Attached to this narrative is Exhibit 1, a contour map demonstrating compliance of Section 73.1675(a).

Compliance with environmental processing is demonstrated in Section III – Engineering 17. Environmental Protection Agency - Exhibit 34 as Compliance with RF Exposure Limits and Section 106 and FM Model for Windows.

**KQTC Aux.**

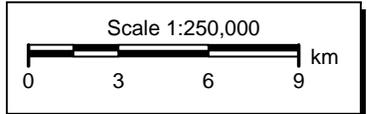
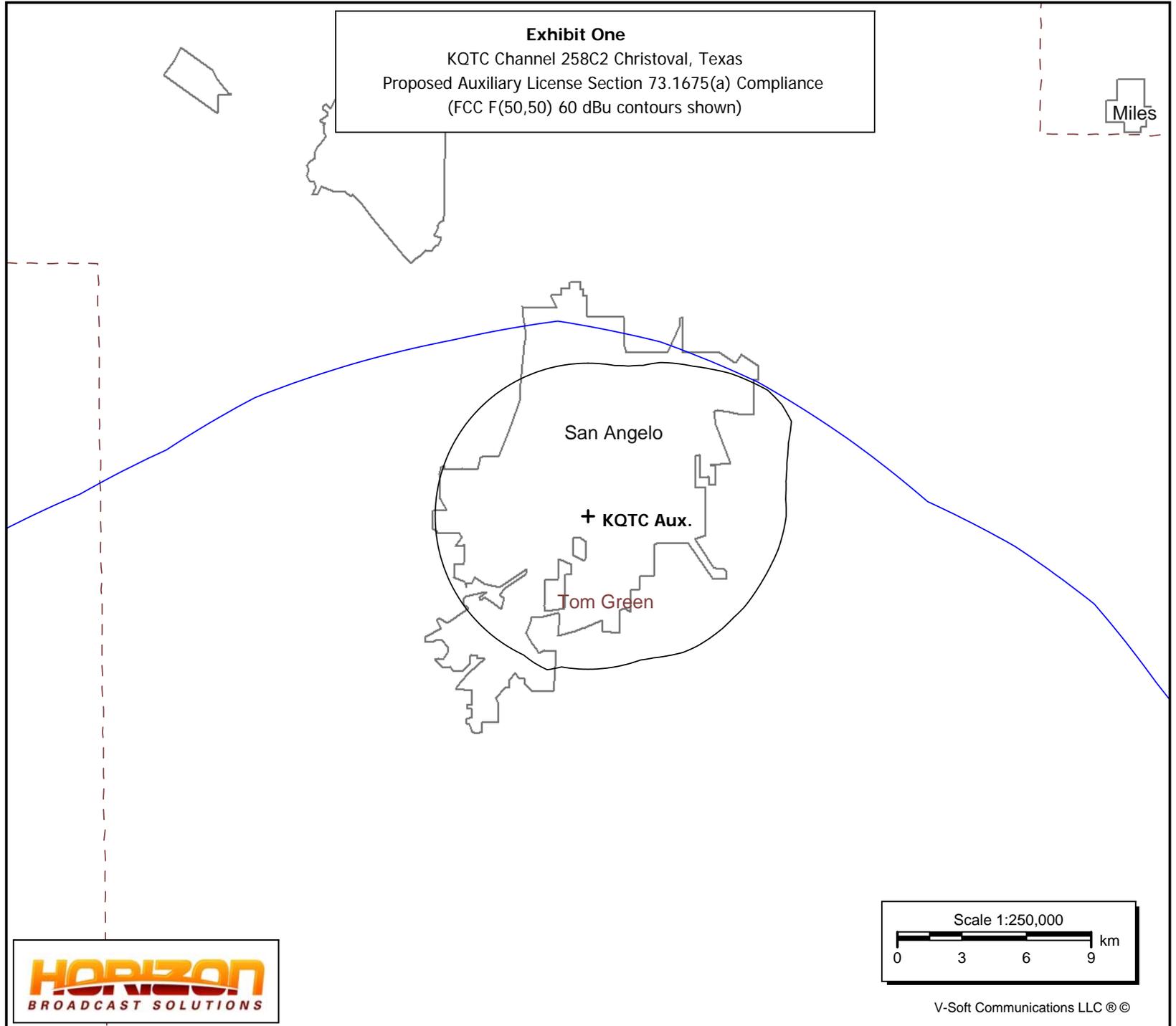
San Angelo, TX  
Latitude: 31-25-43.70 N  
Longitude: 100-26-56.80 W  
ERP: 0.25 kW  
HAAT: 29.63 m  
Channel: 258  
Frequency: 99.5 MHz  
AMSL Height: 611.0 m  
Elevation: 564.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: Longley-Rice  
Climate: Cont temperate  
Conductivity: 0.0050  
Dielec Const: 15.0  
Refractivity: 311.0  
Receiver Ht AG: 2.0 m  
Receiver Gain: 0 dB  
Time Variability: 50.0%  
Sit. Variability: 50.0%  
ITM Mode: Broadcast

**KQTC**

Christoval, TX  
BLH20160120AAR  
Latitude: 31-00-32.30 N  
Longitude: 100-30-54.60 W  
ERP: 50.00 kW  
HAAT: 121.0 m  
Channel: 258  
Frequency: 99.5 MHz  
AMSL Height: 828.0 m  
Elevation: 705.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: Longley-Rice  
Climate: Cont temperate  
Conductivity: 0.0050  
Dielec Const: 15.0  
Refractivity: 311.0  
Receiver Ht AG: 2.0 m  
Receiver Gain: 0 dB  
Time Variability: 50.0%  
Sit. Variability: 50.0%  
ITM Mode: Broadcast

**Exhibit One**

KQTC Channel 258C2 Christoval, Texas  
Proposed Auxiliary License Section 73.1675(a) Compliance  
(FCC F(50,50) 60 dBu contours shown)



V-Soft Communications LLC ©

**Human Exposure to Radiofrequency Electromagnetic Field  
&  
Section 106 Compliance  
(Environmental)**

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. 1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. Saver Media, LLC seeks an auxiliary license for KQTC Channel 258C2, Facility ID# 190414, licensed to Christoval, Texas. The proposed auxiliary site is an existing tower which is less than 200 feet in overall height and does not have an Antenna Structure Registration Number ("ASR"). The tower is a self supporting triangular steel tower 180 feet in overall height. The application site coordinates are 31° 25' 43.7" North Latitude, 100° 26' 56.8" West (NAD 27). The proposed transmit antenna is a PSI Model FML-2, two bay non-directional full wave circularly polarized antenna.

The proposed KQTC auxiliary facility would operate with 0.25 kW at 47 meters height above ground and 30 meters HAAT. Because this facility operates from an existing tower and no modifications of the tower are being made, it is believed to be exempt from a Section 106 review by the SHPO/THPO.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. Using this antenna, the maximum calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 1.55/cm<sup>2</sup> at 25.4 meters, which is 0.775 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in 1.1307(b) regarding sites with multiple emitters, which excludes applicant from responsibility for taking any corrective action in areas where the proposal's contribution is less than five percent.

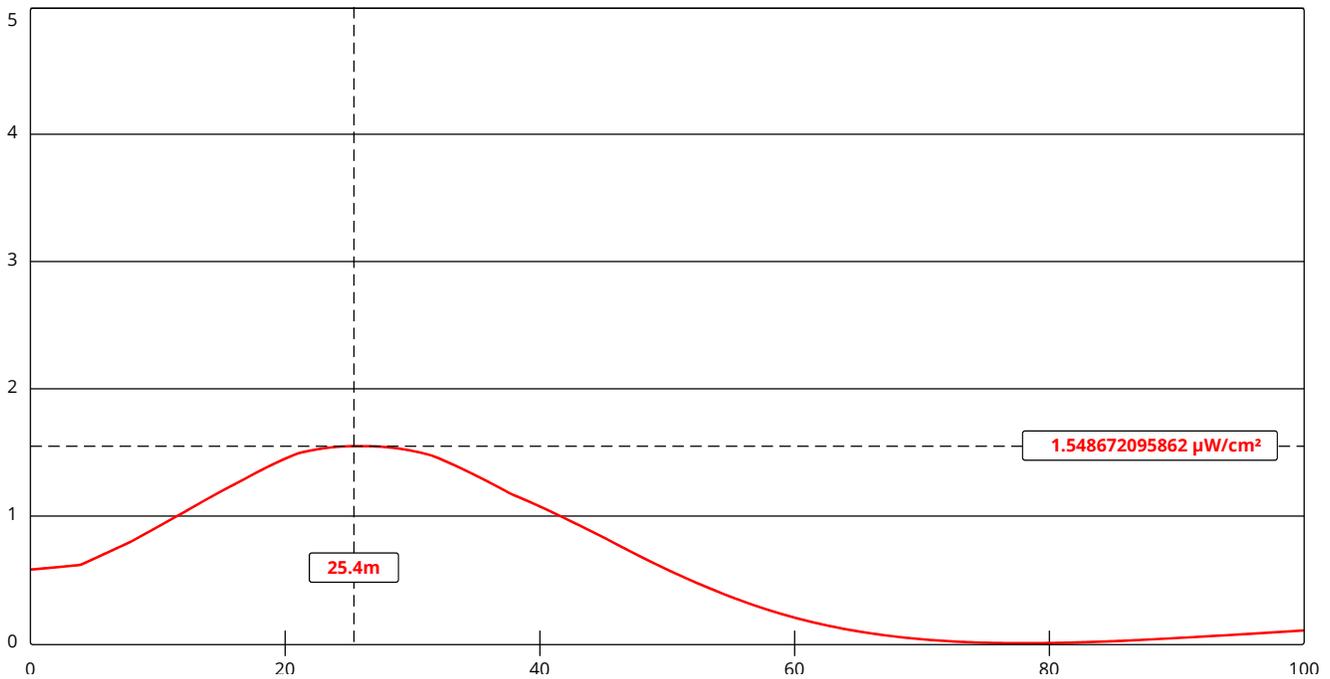
The applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower or occupy a hazardous area for maintenance or inspection.



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# FM Model

The FM Model calculator determines the potential exposure from radiofrequency (RF) electromagnetic fields produced by FM broadcast station antennas at ground level. The FM Model software was originally developed by the FCC in 1997 as a standalone executable program and this improved version provides more precise predictions and runs via a JavaScript enabled web browser. The FM Model is originally based on measured data [published in 1985 by the EPA](#) (<http://nepis.epa.gov/Exe/ZyNET.exe/2000ED2W.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1981+Thru+1985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A\zfiles\Index%20Data\81thru85\Txl\00000003\2000ED2W.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h|-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p|f&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL>). [▼ Show More.....](#)



[View Tabular Results +](#)

|                                |                                  |                     |                                  |
|--------------------------------|----------------------------------|---------------------|----------------------------------|
| Channel Selection              | Channel 258 (99.5 MHz) ▼         |                     |                                  |
| <a href="#">Antenna Type +</a> | EPA Type 2: Opposed V Dipole ▼   |                     |                                  |
| Height (m)                     | <input type="text" value="47"/>  | Distance (m)        | <input type="text" value="100"/> |
| ERP-H (W)                      | <input type="text" value="250"/> | ERP-V (W)           | <input type="text" value="250"/> |
| Num of Elements                | <input type="text" value="2"/>   | Element Spacing (λ) | <input type="text" value="1"/>   |
| Num of Points                  | <input type="text" value="500"/> | Apply               |                                  |