EXHIBIT A

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of KTBS, LLC, licensee of full-power digital television station KTBS-DT, Channel 28 in Shreveport, Louisiana, in support of its request for Special Temporary Authority to use an auxiliary antenna for its operation on Channel 28 while the new repack antenna for KPXJ-DT (Minden, Louisiana) on Channel 32 is installed on the same tower as KTBS-DT. No change in site location is proposed herein.

It is proposed to mount a Dielectric broadband directional, horizontally-polarized antenna at the 444.2-meter level of the existing 556.5-meter KTBS-DT tower. The proposed effective radiated power for the facility is 1000 kW in the horizontal plane. Exhibit B is a map upon which the predicted service contours are plotted. As shown, the community of Shreveport is completely encompassed by the proposed STA 48 dBu city-grade service contour. In Exhibit C we have plotted the service contours of the main licensed KTBS-DT facility and that from proposed STA operation. As shown, the service contour of the STA facility is completely contained within that licensed to KTBS-DT in LMS-0000053971.

Elevation and azimuth pattern information for the proposed antenna are provided in Exhibit D. Since the STA facility proposed herein has a service contour contained completely within that licensed to KTBS-DT, no interference study is included herein. A power density calculation appears as Exhibit E.

Since no change in the overall height or location of the existing KTBS-DT tower is proposed herein, the Federal Aviation Administration has not been notified of this application.

EXHIBIT A

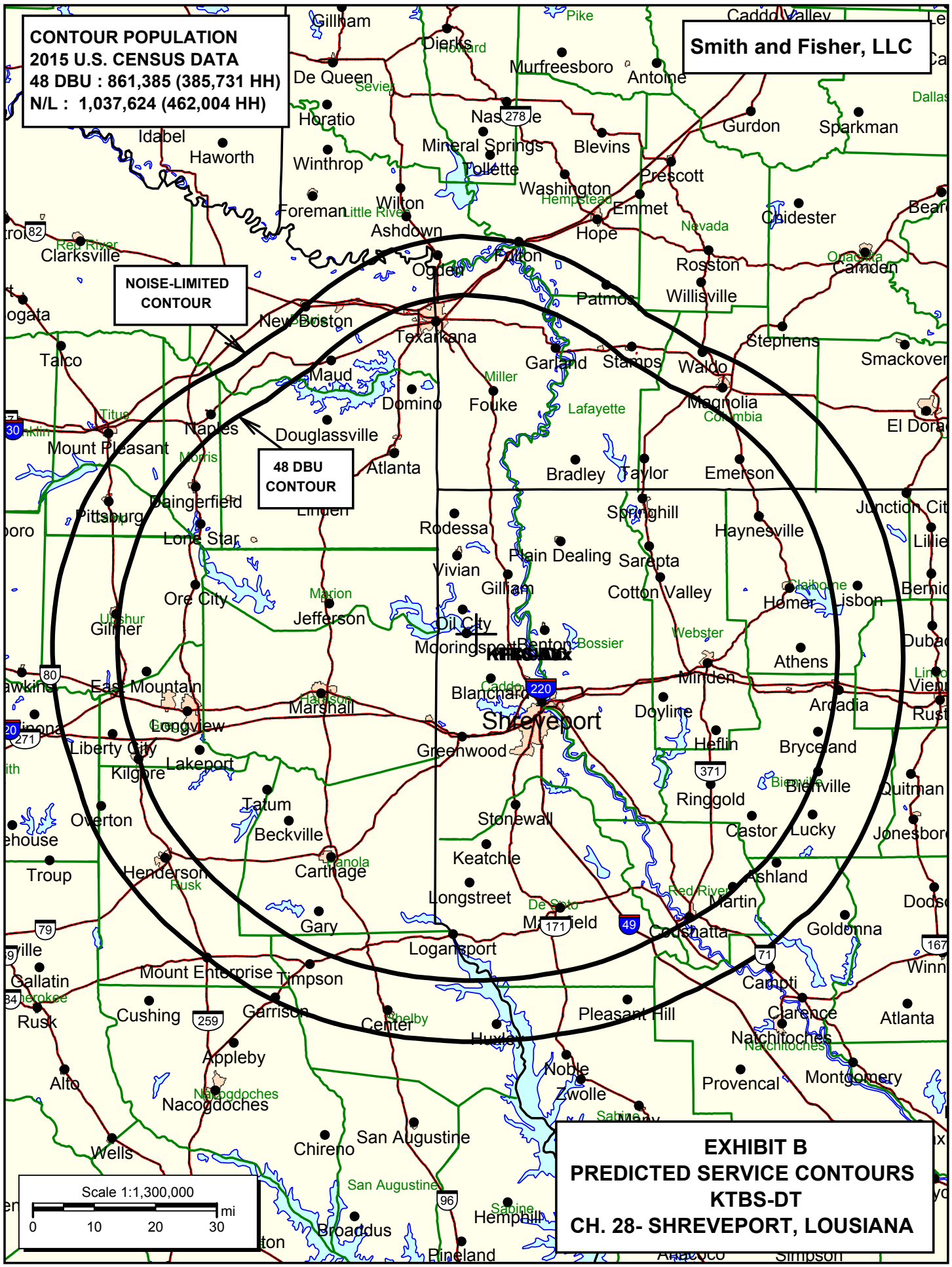
In addition, the Federal Communications Commission issued Antenna Structure Registration Number 1020877 to this tower.

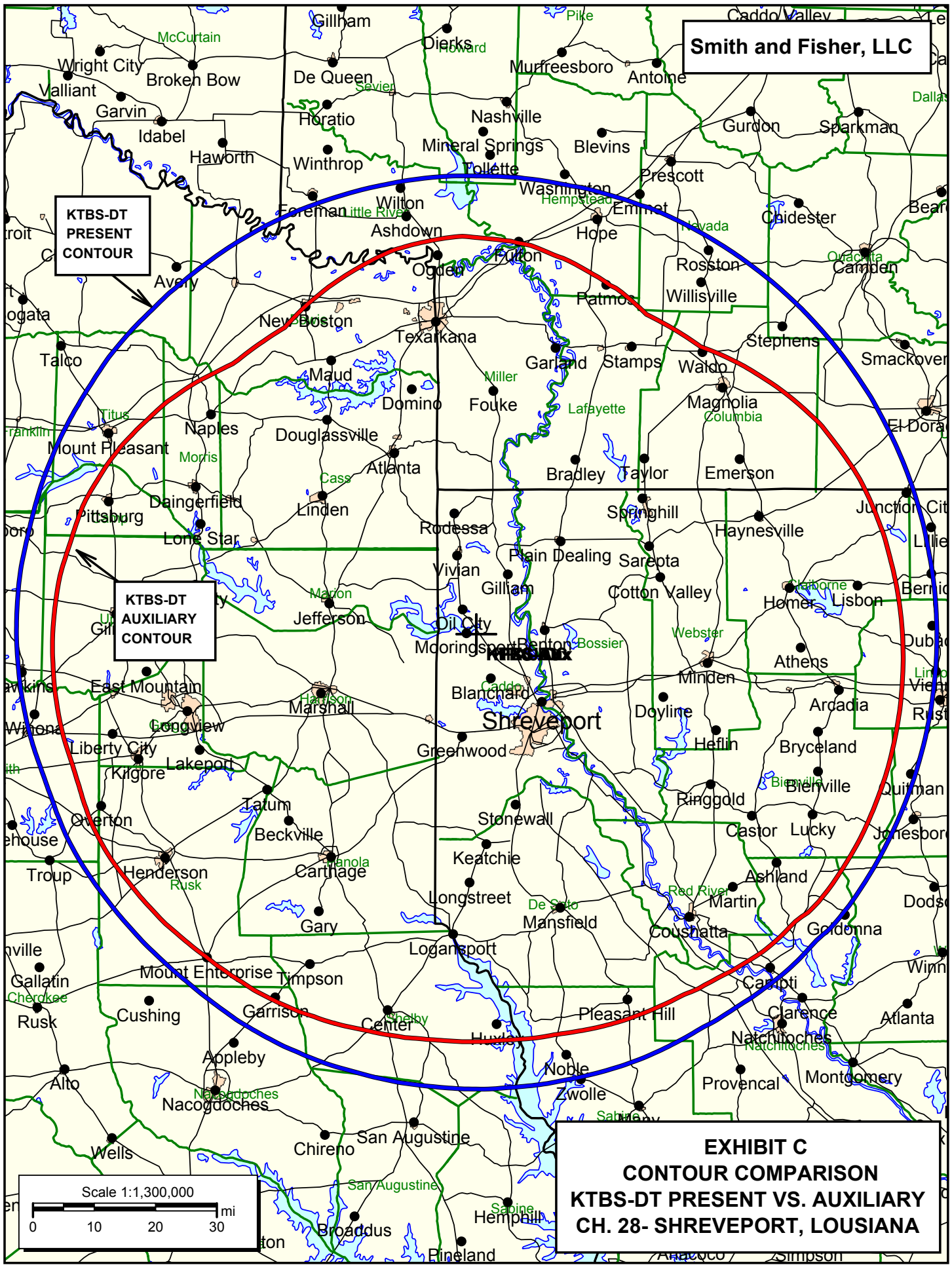
I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.



KEVIN T. FISHER

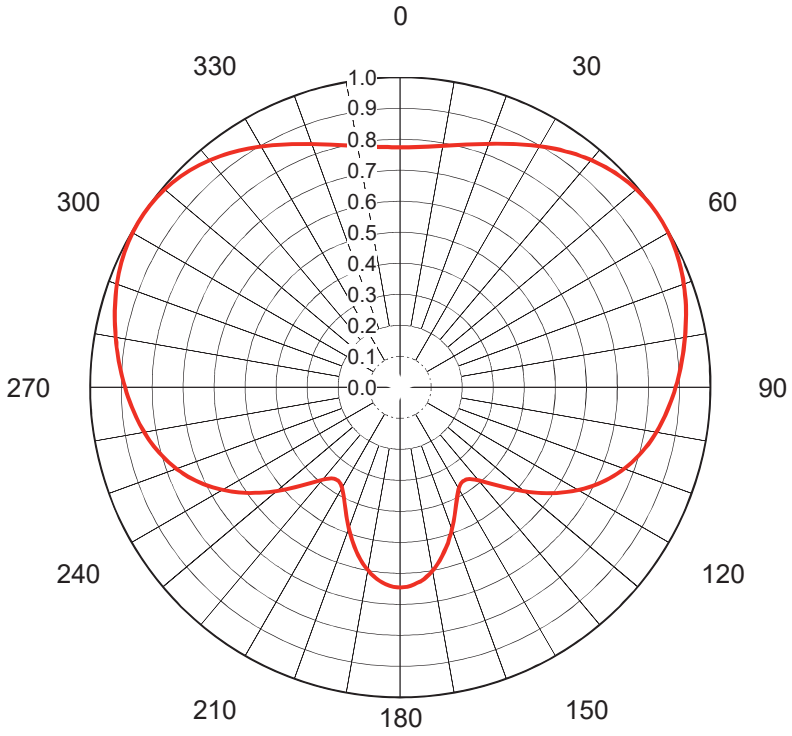
January 22, 2019


CONTOUR POPULATION
2015 U.S. CENSUS DATA
48 DBU : 861,385 (385,731 HH)
N/L : 1,037,624 (462,004 HH)
Smith and Fisher, LLC
NOISE-LIMITED CONTOUR
48 DBU CONTOUR
Shreveport
Texarkana
Nacogdoches
Longview
Marshall
Jefferson
Mount Pleasant
Clarksville
Atlanta
Douglassville
Naples
Maud
Domino
Fouke
Garland
Stamps
Waldo
Magnolia
Bradley
Taylor
Emerson
Springhill
Haynesville
Rodessa
Plain Dealing
Sarepta
Vivian
Gilliam
Cotton Valley
Homer
Minden
Athens
Doyline
Arcadia
Bryceland
Heflin
Ringgold
Bienville
Castor
Lucky
Ashland
Martin
Goldonna
Campti
Clarence
Natchitoches
Provencal
Montgomery
Zwolle
Noble
Pleasant Hill
Logansport
Stonewall
Keatchie
Longstreet
Mansfield
Gary
Carthage
Henderson
Beckville
Tatum
Overton
Troup
Gallatin
Mount Enterprise
Timpson
Cushing
Garrison
Center
Huxley
Appleby
Alto
Wells
Chireno
San Augustine
Broaddus
Hemphill
Pineland
Sabine
Oil City
Mooringsport
Benton
Blanchard
Greenwood
Kilgore
Liberty City
Lakeport
East Mountain
Ore City
Gilmer
Pittsburg
Daingerfield
Lone Star
Mount Pleasant
Titus
Morris
Talco
Red River
Bowie
Cass
Marion
Harrison
Panola
Rusk
Shelby
De Soto
Sabine
Natchitoches
Webster
Bossier
Claiborne
Caddo
Red River
Nevada
Hempstead
Miller
Lafayette
Columbia
Howard
Pike
Little River
Sevier
Ogden
Foreman
Wilton
Ashdown
Hope
Prescott
Washington
Mineral Springs
Pollette
Winthrop
Haworth
Idabel
Horatio
De Queen
Gillham
Dierks
Murfreesboro
Antoine
Gurdon
Sparkman
Blevins
Rosston
Willisville
Patmos
New Boston
Stephens
Smackover
Camden
Chidester
Junction City
Lillie
Bernice
Dubach
Vienna
Quitman
Jonesboro
Dodson
Winnsboro
Goldonna
Atlanta
Scale 1:1,300,000
mi
0
10
20
30
EXHIBIT B
PREDICTED SERVICE CONTOURS
KTBS-DT
CH. 28- SHREVEPORT, LOUSIANA


Smith and Fisher, LLC
KTBS-DT PRESENT CONTOUR
KTBS-DT AUXILIARY CONTOUR
Shreveport
Texarkana
Marshall
Longview
Tyler
Jefferson
Mount Pleasant
Pittsburg
Daingerfield
Naples
Douglassville
Atlanta
Linden
Lone Star
Avery
New Boston
Talco
Maud
Domino
Fouke
Garland
Stamps
Waldo
Magnolia
Columbia
Lafayette
Miller
Bradley
Taylor
Emerson
Springhill
Haynesville
Junction City
Rodessa
Vivian
Gilliam
Plain Dealing
Sarepta
Cotton Valley
Homer
Lisbon
Webster
Bossier
Minden
Athens
Arcadia
Doyline
Blanchard
Caddo
Oil City
Mooringsport
Benton
Greenwood
Stonewall
Keatchie
Longstreet
Mansfield
Logansport
Pleasant Hill
Many
Zwolle
Noble
Natchitoches
Provencal
Montgomery
Clarence
Campti
Coushatta
Martin
Ashland
Red River
De Soto
Castor
Lucky
Ringgold
Bienville
Bryceland
Heflin
Goldonna
Quitman
Jonesboro
Winnfield
Atlanta
Dodson
Carthage
Henderson
Troup
Rusk
Cushing
Garrison
Center
Shelby
Huxley
Appleby
Nacogdoches
Alto
Gallatin
Cherokee
Mount Enterprise
Timpson
Tatum
Beckville
Overton
Kilgore
Liberty City
Lakeport
Wells
Chireno
San Augustine
Broaddus
Pineland
Hemphill
Sabine
Harrison
Panola
Morris
Titus
Cass
Marion
Howard
Sevier
Little River
Hempstead
Nevada
Ouachita
Columbia
Claiborne
Webster
Red River
De Soto
Sabine
Scale 1:1,300,000
mi
0
10
20
30
EXHIBIT C
CONTOUR COMPARISON
KTBS-DT PRESENT VS. AUXILIARY
CH. 28- SHREVEPORT, LOUSIANA

Dielectric®

EXHIBIT D




# AZIMUTH PATTERN
## Horizontal Polarization

| | |
|---|---|
| Proposal No. | **C-71002-1** |
| Date | **29-Nov-17** |
| Call Letters | **KTBS 28** |
| Frequency | **557 MHz** |
| Antenna Type | **TFU-24WB-R C160** |
| Gain | **1.63 (2.13dB) Calculated** |
| Directional Drawing # | **WB-C160H** |

| Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0.774 | 36 | 0.935 | 72 | 0.966 | 108 | 0.785 | 144 | 0.367 | 180 | 0.645 | 216 | 0.364 | 252 | 0.785 | 288 | 0.965 | 324 | 0.934 |
| 1 | 0.774 | 37 | 0.941 | 73 | 0.962 | 109 | 0.777 | 145 | 0.364 | 181 | 0.645 | 217 | 0.368 | 253 | 0.792 | 289 | 0.969 | 325 | 0.928 |
| 2 | 0.775 | 38 | 0.946 | 74 | 0.958 | 110 | 0.768 | 146 | 0.364 | 182 | 0.643 | 218 | 0.374 | 254 | 0.800 | 290 | 0.972 | 326 | 0.922 |
| 3 | 0.776 | 39 | 0.952 | 75 | 0.954 | 111 | 0.760 | 147 | 0.365 | 183 | 0.641 | 219 | 0.381 | 255 | 0.807 | 291 | 0.976 | 327 | 0.916 |
| 4 | 0.777 | 40 | 0.957 | 76 | 0.950 | 112 | 0.750 | 148 | 0.367 | 184 | 0.638 | 220 | 0.389 | 256 | 0.814 | 292 | 0.979 | 328 | 0.910 |
| 5 | 0.778 | 41 | 0.962 | 77 | 0.945 | 113 | 0.741 | 149 | 0.372 | 185 | 0.633 | 221 | 0.399 | 257 | 0.820 | 293 | 0.982 | 329 | 0.903 |
| 6 | 0.780 | 42 | 0.966 | 78 | 0.941 | 114 | 0.731 | 150 | 0.377 | 186 | 0.628 | 222 | 0.410 | 258 | 0.826 | 294 | 0.985 | 330 | 0.897 |
| 7 | 0.782 | 43 | 0.971 | 79 | 0.937 | 115 | 0.720 | 151 | 0.385 | 187 | 0.622 | 223 | 0.422 | 259 | 0.832 | 295 | 0.987 | 331 | 0.891 |
| 8 | 0.785 | 44 | 0.975 | 80 | 0.932 | 116 | 0.710 | 152 | 0.393 | 188 | 0.616 | 224 | 0.434 | 260 | 0.838 | 296 | 0.990 | 332 | 0.884 |
| 9 | 0.788 | 45 | 0.979 | 81 | 0.928 | 117 | 0.698 | 153 | 0.402 | 189 | 0.608 | 225 | 0.447 | 261 | 0.844 | 297 | 0.992 | 333 | 0.878 |
| 10 | 0.791 | 46 | 0.982 | 82 | 0.924 | 118 | 0.687 | 154 | 0.413 | 190 | 0.600 | 226 | 0.461 | 262 | 0.849 | 298 | 0.994 | 334 | 0.871 |
| 11 | 0.794 | 47 | 0.986 | 83 | 0.919 | 119 | 0.675 | 155 | 0.424 | 191 | 0.591 | 227 | 0.475 | 263 | 0.854 | 299 | 0.996 | 335 | 0.865 |
| 12 | 0.798 | 48 | 0.989 | 84 | 0.915 | 120 | 0.662 | 156 | 0.436 | 192 | 0.581 | 228 | 0.490 | 264 | 0.859 | 300 | 0.997 | 336 | 0.859 |
| 13 | 0.802 | 49 | 0.991 | 85 | 0.910 | 121 | 0.649 | 157 | 0.448 | 193 | 0.570 | 229 | 0.505 | 265 | 0.864 | 301 | 0.998 | 337 | 0.853 |
| 14 | 0.806 | 50 | 0.993 | 86 | 0.906 | 122 | 0.636 | 158 | 0.461 | 194 | 0.559 | 230 | 0.519 | 266 | 0.869 | 302 | 0.999 | 338 | 0.847 |
| 15 | 0.810 | 51 | 0.995 | 87 | 0.901 | 123 | 0.623 | 159 | 0.473 | 195 | 0.548 | 231 | 0.534 | 267 | 0.874 | 303 | 0.999 | 339 | 0.841 |
| 16 | 0.815 | 52 | 0.997 | 88 | 0.897 | 124 | 0.609 | 160 | 0.486 | 196 | 0.536 | 232 | 0.549 | 268 | 0.879 | 304 | 0.999 | 340 | 0.835 |
| 17 | 0.820 | 53 | 0.998 | 89 | 0.892 | 125 | 0.594 | 161 | 0.499 | 197 | 0.523 | 233 | 0.564 | 269 | 0.883 | 305 | 0.999 | 341 | 0.830 |
| 18 | 0.825 | 54 | 0.999 | 90 | 0.888 | 126 | 0.580 | 162 | 0.512 | 198 | 0.511 | 234 | 0.579 | 270 | 0.888 | 306 | 0.998 | 342 | 0.824 |
| 19 | 0.831 | 55 | 1.000 | 91 | 0.883 | 127 | 0.565 | 163 | 0.525 | 199 | 0.498 | 235 | 0.593 | 271 | 0.892 | 307 | 0.997 | 343 | 0.819 |
| 20 | 0.836 | 56 | 1.000 | 92 | 0.878 | 128 | 0.551 | 164 | 0.537 | 200 | 0.485 | 236 | 0.607 | 272 | 0.897 | 308 | 0.996 | 344 | 0.814 |
| 21 | 0.842 | 57 | 1.000 | 93 | 0.874 | 129 | 0.536 | 165 | 0.549 | 201 | 0.472 | 237 | 0.621 | 273 | 0.901 | 309 | 0.994 | 345 | 0.810 |
| 22 | 0.848 | 58 | 1.000 | 94 | 0.869 | 130 | 0.521 | 166 | 0.560 | 202 | 0.459 | 238 | 0.635 | 274 | 0.906 | 310 | 0.993 | 346 | 0.805 |
| 23 | 0.854 | 59 | 0.999 | 95 | 0.864 | 131 | 0.506 | 167 | 0.571 | 203 | 0.446 | 239 | 0.648 | 275 | 0.910 | 311 | 0.990 | 347 | 0.801 |
| 24 | 0.860 | 60 | 0.998 | 96 | 0.859 | 132 | 0.492 | 168 | 0.582 | 204 | 0.434 | 240 | 0.661 | 276 | 0.915 | 312 | 0.988 | 348 | 0.797 |
| 25 | 0.866 | 61 | 0.996 | 97 | 0.854 | 133 | 0.477 | 169 | 0.591 | 205 | 0.422 | 241 | 0.674 | 277 | 0.919 | 313 | 0.985 | 349 | 0.793 |
| 26 | 0.872 | 62 | 0.995 | 98 | 0.849 | 134 | 0.463 | 170 | 0.600 | 206 | 0.411 | 242 | 0.686 | 278 | 0.923 | 314 | 0.982 | 350 | 0.790 |
| 27 | 0.879 | 63 | 0.993 | 99 | 0.844 | 135 | 0.449 | 171 | 0.609 | 207 | 0.400 | 243 | 0.698 | 279 | 0.928 | 315 | 0.978 | 351 | 0.787 |
| 28 | 0.885 | 64 | 0.991 | 100 | 0.838 | 136 | 0.436 | 172 | 0.616 | 208 | 0.391 | 244 | 0.709 | 280 | 0.932 | 316 | 0.974 | 352 | 0.784 |
| 29 | 0.892 | 65 | 0.988 | 101 | 0.832 | 137 | 0.424 | 173 | 0.623 | 209 | 0.382 | 245 | 0.720 | 281 | 0.936 | 317 | 0.970 | 353 | 0.782 |
| 30 | 0.898 | 66 | 0.986 | 102 | 0.826 | 138 | 0.412 | 174 | 0.629 | 210 | 0.375 | 246 | 0.730 | 282 | 0.941 | 318 | 0.966 | 354 | 0.780 |
| 31 | 0.904 | 67 | 0.983 | 103 | 0.820 | 139 | 0.401 | 175 | 0.634 | 211 | 0.369 | 247 | 0.740 | 283 | 0.945 | 319 | 0.961 | 355 | 0.778 |
| 32 | 0.911 | 68 | 0.980 | 104 | 0.814 | 140 | 0.392 | 176 | 0.638 | 212 | 0.365 | 248 | 0.750 | 284 | 0.949 | 320 | 0.956 | 356 | 0.777 |
| 33 | 0.917 | 69 | 0.977 | 105 | 0.807 | 141 | 0.383 | 177 | 0.641 | 213 | 0.362 | 249 | 0.759 | 285 | 0.953 | 321 | 0.951 | 357 | 0.776 |
| 34 | 0.923 | 70 | 0.973 | 106 | 0.800 | 142 | 0.376 | 178 | 0.643 | 214 | 0.361 | 250 | 0.768 | 286 | 0.957 | 322 | 0.945 | 358 | 0.775 |
| 35 | 0.929 | 71 | 0.969 | 107 | 0.793 | 143 | 0.371 | 179 | 0.645 | 215 | 0.362 | 251 | 0.777 | 287 | 0.961 | 323 | 0.940 | 359 | 0.774 |

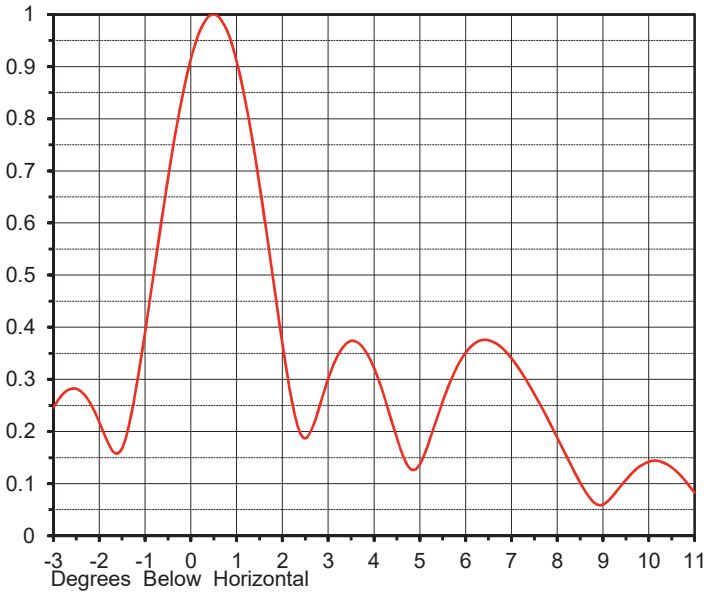
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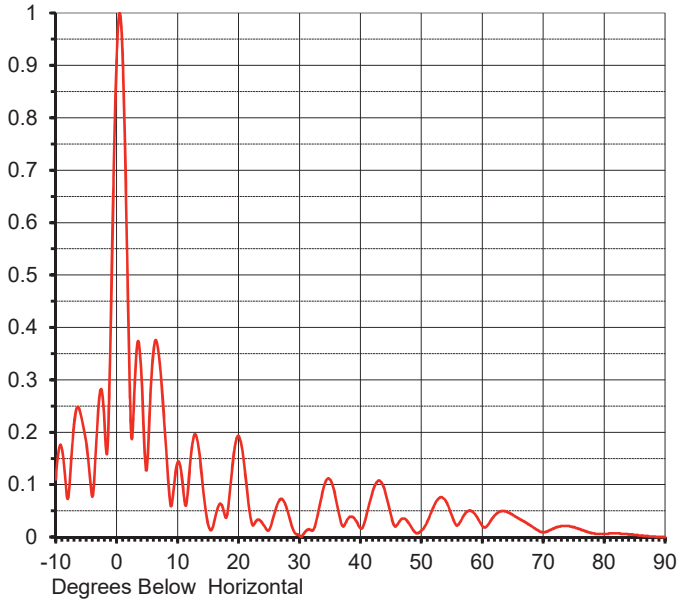
EXHIBIT D

# ELEVATION PATTERN

| | |
|---|---|
| Proposal No. | **C-71002-1** |
| Date | **29-Nov-17** |
| Call Letters | **KTBS 28** |
| Frequency | **557 MHz** |
| Antenna Type | **TFU-24WB-R C160** |

| | | | |
|---|---|---|---|
| RMS Directivity at Main Lobe | **21.60 ( 13.34 dB )** | Beam Tilt | **0.50 deg** |
| RMS Directivity at Horizontal | **18.10 ( 12.58 dB )** | Drawing Number | **24W216050** |
| | **Calculated** | | |




| Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field |
|---|---|---|---|---|---|---|---|---|---|
| -10.0 | 0.110 | 10.0 | 0.142 | 30.0 | 0.003 | 50.0 | 0.012 | 70.0 | 0.009 |
| -9.0 | 0.170 | 11.0 | 0.083 | 31.0 | 0.011 | 51.0 | 0.030 | 71.0 | 0.013 |
| -8.0 | 0.073 | 12.0 | 0.131 | 32.0 | 0.013 | 52.0 | 0.057 | 72.0 | 0.018 |
| -7.0 | 0.215 | 13.0 | 0.195 | 33.0 | 0.042 | 53.0 | 0.075 | 73.0 | 0.021 |
| -6.0 | 0.239 | 14.0 | 0.114 | 34.0 | 0.096 | 54.0 | 0.069 | 74.0 | 0.021 |
| -5.0 | 0.180 | 15.0 | 0.025 | 35.0 | 0.110 | 55.0 | 0.041 | 75.0 | 0.019 |
| -4.0 | 0.077 | 16.0 | 0.029 | 36.0 | 0.072 | 56.0 | 0.023 | 76.0 | 0.015 |
| -3.0 | 0.246 | 17.0 | 0.064 | 37.0 | 0.022 | 57.0 | 0.042 | 77.0 | 0.011 |
| -2.0 | 0.218 | 18.0 | 0.037 | 38.0 | 0.035 | 58.0 | 0.051 | 78.0 | 0.007 |
| -1.0 | 0.390 | 19.0 | 0.135 | 39.0 | 0.036 | 59.0 | 0.040 | 79.0 | 0.006 |
| 0.0 | 0.915 | 20.0 | 0.193 | 40.0 | 0.017 | 60.0 | 0.021 | 80.0 | 0.006 |
| 1.0 | 0.911 | 21.0 | 0.132 | 41.0 | 0.042 | 61.0 | 0.024 | 81.0 | 0.007 |
| 2.0 | 0.368 | 22.0 | 0.034 | 42.0 | 0.086 | 62.0 | 0.041 | 82.0 | 0.007 |
| 3.0 | 0.301 | 23.0 | 0.032 | 43.0 | 0.108 | 63.0 | 0.049 | 83.0 | 0.006 |
| 4.0 | 0.322 | 24.0 | 0.025 | 44.0 | 0.089 | 64.0 | 0.048 | 84.0 | 0.005 |
| 5.0 | 0.137 | 25.0 | 0.013 | 45.0 | 0.042 | 65.0 | 0.042 | 85.0 | 0.004 |
| 6.0 | 0.351 | 26.0 | 0.049 | 46.0 | 0.023 | 66.0 | 0.035 | 86.0 | 0.003 |
| 7.0 | 0.341 | 27.0 | 0.073 | 47.0 | 0.035 | 67.0 | 0.029 | 87.0 | 0.002 |
| 8.0 | 0.188 | 28.0 | 0.051 | 48.0 | 0.026 | 68.0 | 0.021 | 88.0 | 0.001 |
| 9.0 | 0.060 | 29.0 | 0.013 | 49.0 | 0.009 | 69.0 | 0.014 | 89.0 | 0.000 |
| | | | | | | | | 90.0 | 0.000 |

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EXHIBIT E

POWER DENSITY CALCULATION

PROPOSED KTBS-DT STA REQUEST
CHANNEL 28 – SHREVEPORT, LOUSIANA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Shreveport facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 1000 kW, an antenna radiation center 444.2 meters above ground, and the specific elevation pattern of the proposed Dielectric antenna, maximum power density two meters above ground of 0.00093 $mW/cm^2$ is calculated to occur 474 meters southeast and southwest of the base of the tower. Since this is only 0.3 percent of the 0.37 $mW/cm^2$ reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 28 (554-560 MHz), a grant of this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.