tvstudy v2.2.2
Database: localhost,  Study: KTXL-P4,  Model: Longley-Rice
Start: 2017.05.18 12:12:32

Study created: 2017.05.18 12:12:25

Study build station data: LMS TV 2017-05-16 (6)

    Proposal: KTXL-P4 D33 DT APP SACRAMENTO, CA
 File number: KTXL-P4
 Facility ID: 10205
Station data: User record
   Record ID: 176
     Country: U.S.
        Zone: II

Stations potentially affected:

| Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|
| KVPT | D32 | DT | BL | FRESNO, CA | DTVBL69733 | 259.3 km |
| KION-TV | D32 | DT | LIC | MONTEREY, CA | BLCDT20030604ACO | 193.3 |
| KCNS | D32 | DT | BL | SAN FRANCISCO, CA | DTVBL71586 | 100.8 |
| KBAK-TV | D33 | DT | LIC | BAKERSFIELD, CA | BLCDT20060628ABK | 406.6 |
| KDJT-CD | D33 | DC | LIC | SALINAS/MONTEREY,ETC, CA | BLANK0000001623 | 168.4 |
| KGPE | D34 | DT | LIC | FRESNO, CA | BLCDT20030702ABJ | 226.5 |
| KFSF-DT | D34 | DT | LIC | VALLEJO, CA | BLCDT20100513ABB | 100.8 |

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D33
   Latitude:  38 16 18.00 N (NAD83)
  Longitude: 121 30 22.00 W
Height AMSL: 601.6 m
       HAAT: 599.0 m
   Peak ERP: 810 kW
    Antenna: DIE-TFU-22ETT/VP-R 3BP250SP 0.0 deg

40.6 dBu contour:

| Azimuth | ERP | HAAT | Distance |
|---|---|---|---|
| 0.0 deg | 617 kW | 599.8 m | 116.8 km |
| 45.0 | 500 | 594.7 | 114.6 |
| 90.0 | 278 | 596.1 | 109.5 |
| 135.0 | 766 | 599.0 | 118.8 |
| 180.0 | 217 | 602.0 | 107.6 |
| 225.0 | 57.7 | 602.6 | 96.3 |
| 270.0 | 113 | 601.5 | 102.0 |
| 315.0 | 36.7 | 599.6 | 92.4 |

ERP exceeds maximum
ERP: 810 kW   ERP maximum: 328 kW

Proposal service area is within baseline plus 1.0%
Proposal service area population is more than 95.0% of baseline

Distance to Canadian border: 1118.4 km

Distance to Mexican border: 729.8 km

**Proposal is within coordination distance of FCC monitoring station
Conditions at FCC monitoring station: Livermore CA
Bearing: 199.8 degrees   Distance: 64.5 km
ERP: 40.9 kW   Field strength: 41.1 dBu, 0.1 mV/m

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 76.6 degrees   Distance: 1412.9 km


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%

---

Interference to DTVBL69733 BL, scenario 1
Proposal causes no interference.

---

Interference to DTVBL69733 BL, scenario 2
Proposal causes no interference.

---

Interference to DTVBL69733 BL, scenario 3
Proposal causes no interference.

---

Interference to BLCDT20030604ACO LIC, scenario 1
Proposal causes no interference.

---

Interference to DTVBL71586 BL, scenario 1

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | KCNS | D32 | DT | BL | SAN FRANCISCO, CA | DTVBL71586 | |
| Undesireds: | KTXL | D33 | DT | BL | SACRAMENTO, CA | DTVBL10205 | 100.8 km |
| | KTXL-P4 | D33 | DT | APP | SACRAMENTO, CA | KTXL-P4 | 100.8 |
| | KTVU | D31 | DT | BL | OAKLAND, CA | DTVBL35703 | 0.0 |
| | KVPT | D32 | DT | BL | FRESNO, CA | DTVBL69733 | 302.1 |
| | KION-TV | D32 | DT | LIC | MONTEREY, CA | BLCDT20030604ACO | 154.4 |
| | K50LZ-D | D32 | DC | BL | SAN LUIS OBISPO, CA | DTVBL29885 | 310.8 |
| | KDJT-CD | D33 | DC | LIC | SALINAS/MONTEREY,ETC, CA | BLANK0000001623 | 139.3 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 36574.0 | 8,048,412 | 30900.3 | 7,110,421 | 26740.4 | 6,728,992 | 26684.7 | 6,714,055 | 0.21 | 0.22 |

| Undesired | | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|---|
| KTXL D33 DT BL | 1776.6 | 349,328 | | 1063.2 | 160,957 | | |
| KTXL-P4 D33 DT APP | 1832.3 | 364,265 | | | | 1119.0 | 175,894 |
| KVPT D32 DT BL | 761.1 | 188,028 | | 27.9 | 37 | 27.9 | 37 |
| KION-TV D32 DT LIC | 2375.4 | 32,476 | | 2295.5 | 29,199 | 2295.5 | 29,199 |
| K50LZ-D D32 DC BL | 8.0 | 11 | | 4.0 | 11 | 4.0 | 11 |
| KDJT-CD D33 DC LIC | 16.0 | 2,811 | | 0.0 | 0 | 0.0 | 0 |

---

Interference to BLCDT20060628ABK LIC, scenario 1

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | KBAK-TV | D33 | DT | LIC | BAKERSFIELD, CA | BLCDT20060628ABK | |
| Undesireds: | KTXL | D33 | DT | BL | SACRAMENTO, CA | DTVBL10205 | 406.6 km |
| | KTXL-P4 | D33 | DT | APP | SACRAMENTO, CA | KTXL-P4 | 406.6 |
| | KVPT | D32 | DT | BL | FRESNO, CA | DTVBL69733 | 156.5 |
| | KNLA-CD | D32 | DC | BL | LOS ANGELES, CA | DTVBL167309 | 143.7 |
| | K50LZ-D | D32 | DC | BL | SAN LUIS OBISPO, CA | DTVBL29885 | 187.3 |
| | KDFX-CD | D33 | DC | APP | INDIO/PALM SPRINGS, CA | BLANK0000024531 | 264.5 |
| | KDJT-CD | D33 | DC | LIC | SALINAS/MONTEREY,ETC, CA | BLANK0000001623 | 298.9 |
| | KTBN-TV | D33 | DT | LIC | SANTA ANA, CA | BLCDT20091019ABG | 144.8 |
| | KGPE | D34 | DT | LIC | FRESNO, CA | BLCDT20030702ABJ | 194.7 |
| | KMEX-DT | D34 | DT | LIC | LOS ANGELES, CA | BLCDT20121203ASI | 144.4 |
| | KTAS | D34 | DT | LIC | SAN LUIS OBISPO, CA | BLCDT20070222AAX | 187.4 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 36205.7 | 1,510,400 | 24945.2 | 1,263,910 | 24821.5 | 1,259,429 | 24821.5 | 1,259,429 | 0.00 | 0.00 |

| Undesired | | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|---|
| KTXL D33 DT BL | 4.0 | 43 | | 4.0 | 43 | | |
| KTXL-P4 D33 DT APP | 4.0 | 43 | | | | 4.0 | 43 |
| KVPT D32 DT BL | 71.9 | 4,398 | | 67.9 | 4,398 | 67.9 | 4,398 |
| KNLA-CD D32 DC BL | 4.0 | 0 | | 0.0 | 0 | 0.0 | 0 |
| KTBN-TV D33 DT LIC | 43.8 | 40 | | 35.8 | 40 | 35.8 | 40 |
| KGPE D34 DT LIC | 4.0 | 0 | | 0.0 | 0 | 0.0 | 0 |
| KMEX-DT D34 DT LIC | 11.9 | 0 | | 4.0 | 0 | 4.0 | 0 |

---

Interference to BLCDT20060628ABK LIC, scenario 2

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | KBAK-TV | D33 | DT | LIC | BAKERSFIELD, CA | BLCDT20060628ABK | |
| Undesireds: | KTXL | D33 | DT | BL | SACRAMENTO, CA | DTVBL10205 | 406.6 km |
| | KTXL-P4 | D33 | DT | APP | SACRAMENTO, CA | KTXL-P4 | 406.6 |
| | KVPT | D32 | DT | BL | FRESNO, CA | DTVBL69733 | 156.5 |
| | KNLA-CD | D32 | DC | BL | LOS ANGELES, CA | DTVBL167309 | 143.7 |
| | K50LZ-D | D32 | DC | BL | SAN LUIS OBISPO, CA | DTVBL29885 | 187.3 |
| | KDFX-CD | D33 | DC | BL | INDIO/PALM SPRINGS, CA | DTVBL51207 | 264.5 |
| | KDJT-CD | D33 | DC | LIC | SALINAS/MONTEREY,ETC, CA | BLANK0000001623 | 298.9 |
| | KTBN-TV | D33 | DT | LIC | SANTA ANA, CA | BLCDT20091019ABG | 144.8 |
| | KGPE | D34 | DT | LIC | FRESNO, CA | BLCDT20030702ABJ | 194.7 |
| | KMEX-DT | D34 | DT | LIC | LOS ANGELES, CA | BLCDT20121203ASI | 144.4 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | KTAS | D34 | DT | LIC | SAN LUIS OBISPO, CA | BLCDT20070222AAX | 187.4 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 36205.7 | 1,510,400 | 24945.2 | 1,263,910 | 24821.5 | 1,259,429 | 24821.5 | 1,259,429 | 0.00 | 0.00 |

| Undesired | | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|---|
| KTXL D33 DT BL | 4.0 | 43 | | 4.0 | 43 | | |
| KTXL-P4 D33 DT APP | 4.0 | 43 | | | | 4.0 | 43 |
| KVPT D32 DT BL | 71.9 | 4,398 | | 67.9 | 4,398 | 67.9 | 4,398 |
| KNLA-CD D32 DC BL | 4.0 | 0 | | 0.0 | 0 | 0.0 | 0 |
| KTBN-TV D33 DT LIC | 43.8 | 40 | | 35.8 | 40 | 35.8 | 40 |
| KGPE D34 DT LIC | 4.0 | 0 | | 0.0 | 0 | 0.0 | 0 |
| KMEX-DT D34 DT LIC | 11.9 | 0 | | 4.0 | 0 | 4.0 | 0 |

---

Interference to BLANK0000001623 LIC, scenario 1

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | KDJT-CD | D33 | DC | LIC | SALINAS/MONTEREY,ETC, CA | BLANK0000001623 | |
| Undesireds: | KTXL | D33 | DT | BL | SACRAMENTO, CA | DTVBL10205 | 168.4 km |
| | KTXL-P4 | D33 | DT | APP | SACRAMENTO, CA | KTXL-P4 | 168.4 |
| | KION-TV | D32 | DT | LIC | MONTEREY, CA | BLCDT20030604ACO | 26.8 |
| | KCNS | D32 | DT | BL | SAN FRANCISCO, CA | DTVBL71586 | 139.3 |
| | KBAK-TV | D33 | DT | LIC | BAKERSFIELD, CA | BLCDT20060628ABK | 298.9 |
| | KFSF-DT | D34 | DT | LIC | VALLEJO, CA | BLCDT20100513ABB | 139.3 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 11613.3 | 1,251,045 | 9216.5 | 824,844 | 9164.6 | 824,825 | 9164.6 | 824,825 | 0.00 | 0.00 |

| Undesired | | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|---|
| KTXL D33 DT BL | 12.0 | 0 | | 8.0 | 0 | | |
| KTXL-P4 D33 DT APP | 12.0 | 0 | | | | 8.0 | 0 |
| KION-TV D32 DT LIC | 35.9 | 19 | | 35.9 | 19 | 35.9 | 19 |
| KBAK-TV D33 DT LIC | 7.9 | 0 | | 4.0 | 0 | 4.0 | 0 |

---

Interference to BLCDT20030702ABJ LIC, scenario 1
Proposal causes no interference.

---

Interference to BLCDT20100513ABB LIC, scenario 1

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | KFSF-DT | D34 | DT | LIC | VALLEJO, CA | BLCDT20100513ABB | |
| Undesireds: | KTXL | D33 | DT | BL | SACRAMENTO, CA | DTVBL10205 | 100.8 km |
| | KTXL-P4 | D33 | DT | APP | SACRAMENTO, CA | KTXL-P4 | 100.8 |
| | KDJT-CD | D33 | DC | LIC | SALINAS/MONTEREY,ETC, CA | BLANK0000001623 | 139.3 |
| | KGPE | D34 | DT | LIC | FRESNO, CA | BLCDT20030702ABJ | 277.8 |
| | KTAS | D34 | DT | LIC | SAN LUIS OBISPO, CA | BLCDT20070222AAX | 310.7 |
| | KCRA-TV | D35 | DT | LIC | SACRAMENTO, CA | BMLCDT20110630AGB | 101.5 |

| Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New IX | |
|---|---|---|---|---|---|---|---|---|---|
| 30565.5 | 7,348,828 | 25375.2 | 6,528,430 | 24138.3 | 6,346,239 | 24138.3 | 6,346,239 | 0.00 | 0.00 |

| Undesired | | Total IX | | Unique IX, before | | Unique IX, after | |
|---|---|---|---|---|---|---|---|
| KTXL D33 DT BL | 768.3 | 141,618 | | 11.9 | 7,138 | | |
| KTXL-P4 D33 DT APP | 839.7 | 153,021 | | | | 11.9 | 7,138 |
| KGPE D34 DT LIC | 357.0 | 46,599 | | 83.8 | 13,867 | 83.8 | 13,867 |
| KTAS D34 DT LIC | 16.0 | 32 | | 8.0 | 11 | 8.0 | 11 |
| KCRA-TV D35 DT LIC | 1117.2 | 161,154 | | 337.1 | 26,665 | 265.6 | 15,262 |

---

Interference to proposal, scenario 1
2.44% interference

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|---|---|---|---|---|---|---|---|
| Desired: | KTXL-P4 | D33 | DT | APP | SACRAMENTO, CA | KTXL-P4 | |
| Undesireds: | KION-TV | D32 | DT | LIC | MONTEREY, CA | BLCDT20030604ACO | 193.3 km |
| | KCNS | D32 | DT | BL | SAN FRANCISCO, CA | DTVBL71586 | 100.8 |
| | KBAK-TV | D33 | DT | LIC | BAKERSFIELD, CA | BLCDT20060628ABK | 406.6 |
| | KDJT-CD | D33 | DC | LIC | SALINAS/MONTEREY,ETC, CA | BLANK0000001623 | 168.4 |
| | KFSF-DT | D34 | DT | LIC | VALLEJO, CA | BLCDT20100513ABB | 100.8 |

| Service area | | Terrain-limited | | IX-free | | Percent IX | |
|---|---|---|---|---|---|---|---|
| 36412.2 | 7,477,862 | 32392.7 | 5,441,465 | 31343.3 | 5,308,750 | 3.24 | 2.44 |

| Undesired | | Total IX | | Unique IX | | Prcnt Unique IX | |
|---|---|---|---|---|---|---|---|
| KCNS D32 DT BL | 755.7 | 124,399 | | 55.6 | 446 | 0.17 | 0.01 |
| KDJT-CD D33 DC LIC | 333.4 | 14,617 | | 293.8 | 8,316 | 0.91 | 0.15 |
| KFSF-DT D34 DT LIC | 700.1 | 123,953 | | 0.0 | 0 | 0.00 | 0.00 |