

tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: KTVU_TEMP_AUX_APP, Model: Longley-Rice

Start: 2020.03.03 11:17:18

Study created: 2020.03.03 11:17:18

Study build station data: LMS TV 2020-02-21

Proposal: KTVU D31 DT APP OAKLAND, CA

File number: KTVU_TEMP_AUX_APP

Facility ID: 35703

Station data: User record

Record ID: 813

Country: U.S.

Zone: II

Search options:

Non-U.S. records included

Baseline record excluded if station has CP

Stations potentially affected by proposal:

| IX | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-----|---------|------|-----|--------|-------------------|------------------|----------|
| No | KFSN-TV | D30 | DT | LIC | FRESNO, CA | BLANK0000081720 | 276.9 km |
| Yes | KQED | D30 | DT | LIC | SAN FRANCISCO, CA | BLANK0000040845 | 0.0 |
| No | KBTF-CD | D31 | DC | LIC | BAKERSFIELD, CA | BLDTA20100921ABW | 428.8 |
| No | KBTF-CD | D31 | DC | CP | BAKERSFIELD, CA | BLANK0000063351 | 419.5 |
| Yes | KEMO-TV | D32 | DD | BL | FREMONT, CA | DTVBL34440 | 102.8 |
| Yes | KION-TV | D32 | DT | APP | MONTEREY, CA | BLANK0000035685 | 154.4 |
| Yes | KION-TV | D32 | DT | LIC | MONTEREY, CA | BLCDT20030604ACO | 154.4 |
| Yes | KCNS | D32 | DT | CP | SAN FRANCISCO, CA | BLANK0000034679 | 0.0 |

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D31
Latitude: 37 45 19.00 N (NAD83)
Longitude: 122 27 10.00 W
Height AMSL: 511.3 m
HAAT: 487.0 m
Peak ERP: 470 kW
Antenna: DIE TUP_C3_4_1D 0.0 deg
Elev Pattn: Generic
Elec Tilt: 1.50

40.4 dBu contour:

| Azimuth | ERP | HAAT | Distance |
|---------|--------|---------|----------|
| 0.0 deg | 353 kW | 485.1 m | 104.6 km |
| 45.0 | 428 | 504.4 | 108.0 |
| 90.0 | 461 | 505.1 | 108.7 |
| 135.0 | 430 | 494.1 | 107.2 |
| 180.0 | 353 | 393.8 | 97.4 |
| 225.0 | 184 | 504.3 | 100.1 |
| 270.0 | 11.6 | 505.2 | 78.9 |
| 315.0 | 173 | 503.7 | 99.5 |

Distance to Canadian border: 1167.0 km

Distance to Mexican border: 731.2 km

**Proposal is within coordination distance of FCC monitoring station
Conditions at FCC monitoring station: Livermore CA
Bearing: 92.9 degrees Distance: 61.5 km
ERP: 466 kW HAAT: 505.8 m Field strength: 68.1 dBu, 2.5 mV/m

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 74.6 degrees Distance: 1507.5 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%

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Interference to BLANK0000040845 LIC scenario 1

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-------------|---------|------|-----|--------|-------------------|-------------------|----------|
| Desired: | KQED | D30 | DT | LIC | SAN FRANCISCO, CA | BLANK0000040845 | |
| Undesireds: | KTVU | D31 | DT | BL | OAKLAND, CA | DTVBL35703 | 0.0 km |
| | KTVU | D31 | DT | APP | OAKLAND, CA | KTVU_TEMP_AUX_APP | 0.0 |
| | KFSN-TV | D30 | DT | LIC | FRESNO, CA | BLANK0000081720 | 276.9 |

| | Service area | Terrain-limited | IX-free, before | IX-free, after | Percent New |
|---------|--------------|-----------------|-----------------|-------------------|-------------|
| IX | | | | | |
| 37935.5 | 8,195,398 | 32151.2 | 7,283,828 | 30589.2 6,924,841 | -0.01 - |
| 0.00 | | | | | |

| Undesired | Total IX | Unique IX, before | Unique IX, after |
|---------------------------|----------|-------------------|------------------|
| KTVU D31 DT BL 4.0 | 44 | 4.0 | 44 |
| KTVU D31 DT APP 0.0 | 0 | 0.0 | 0 |
| KFSN-TV D30 DT LIC 1562.0 | 358,987 | 1562.0 | 358,987 |

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Interference to DTVBL34440 BL scenario 1

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-------------|---------|------|-----|--------|-------------------|-------------------|----------|
| Desired: | KEMO-TV | D32 | DD | BL | FREMONT, CA | DTVBL34440 | |
| Undesireds: | KTVU | D31 | DT | BL | OAKLAND, CA | DTVBL35703 | 102.8 km |
| | KTVU | D31 | DT | APP | OAKLAND, CA | KTVU_TEMP_AUX_APP | 102.8 |
| | KVPT | D32 | DT | LIC | FRESNO, CA | BLANK0000063002 | 364.0 |
| | KION-TV | D32 | DT | APP | MONTEREY, CA | BLANK0000035685 | 253.4 |
| | KCNS | D32 | DT | CP | SAN FRANCISCO, CA | BLANK0000034679 | 102.8 |

| | | | | | | |
|---------|-----|----|----|----------------|-----------------|-------|
| KTXL | D33 | DT | BL | SACRAMENTO, CA | DTVBL10205 | 107.5 |
| KKPX-TV | D33 | DT | CP | SAN JOSE, CA | BLANK0000029965 | 110.5 |

| IX | Service area | Terrain-limited | IX-free, before | IX-free, after | Percent New |
|---------|--------------|-----------------|-----------------|-------------------|-------------|
| 25454.1 | 4,175,960 | 19735.6 | 3,761,563 | 11625.7 1,215,473 | 0.00 |

| Undesired | Total IX | Unique IX, before | Unique IX, after |
|--------------------|------------------|-------------------|------------------|
| KTVU D31 DT BL | 1172.2 163,915 | 0.0 0 | |
| KTVU D31 DT APP | 827.7 147,666 | | 0.0 0 |
| KVPT D32 DT LIC | 171.1 10,279 | 0.0 0 | 0.0 0 |
| KION-TV D32 DT APP | 279.6 34,632 | 40.2 301 | 40.2 301 |
| KCNS D32 DT CP | 7588.5 2,493,683 | 5406.1 2,157,773 | 5493.3 2,176,764 |
| KTXL D33 DT BL | 1284.6 182,702 | 373.1 24,233 | 373.1 24,233 |
| KKPX-TV D33 DT CP | 1085.1 143,652 | 12.0 6,264 | 12.0 6,264 |

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Interference to DTVBL34440 BL scenario 2

| Desired: | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-------------|---------|------|-----|--------|-------------------|-------------------|----------|
| | KEMO-TV | D32 | DD | BL | FREMONT, CA | DTVBL34440 | |
| Undesireds: | KTVU | D31 | DT | BL | OAKLAND, CA | DTVBL35703 | 102.8 km |
| | KTVU | D31 | DT | APP | OAKLAND, CA | KTVU_TEMP_AUX_APP | 102.8 |
| | KVPT | D32 | DT | LIC | FRESNO, CA | BLANK0000063002 | 364.0 |
| | KION-TV | D32 | DT | LIC | MONTEREY, CA | BLCDT20030604ACO | 253.4 |
| | KCNS | D32 | DT | CP | SAN FRANCISCO, CA | BLANK0000034679 | 102.8 |
| | KTXL | D33 | DT | BL | SACRAMENTO, CA | DTVBL10205 | 107.5 |
| | KKPX-TV | D33 | DT | CP | SAN JOSE, CA | BLANK0000029965 | 110.5 |

| IX | Service area | Terrain-limited | IX-free, before | IX-free, after | Percent New |
|---------|--------------|-----------------|-----------------|-------------------|-------------|
| 25454.1 | 4,175,960 | 19735.6 | 3,761,563 | 11665.9 1,215,774 | 0.00 |

| Undesired | Total IX | Unique IX, before | Unique IX, after |
|-----------|----------|-------------------|------------------|
|-----------|----------|-------------------|------------------|

| | | | | | | |
|--------------------|--------|-----------|--------|-----------|--------|-----------|
| KTVU D31 DT BL | 1172.2 | 163,915 | 0.0 | 0 | | |
| KTVU D31 DT APP | 827.7 | 147,666 | | | 0.0 | 0 |
| KVPT D32 DT LIC | 171.1 | 10,279 | 0.0 | 0 | 0.0 | 0 |
| KION-TV D32 DT LIC | 131.3 | 21,851 | 0.0 | 0 | 0.0 | 0 |
| KCNS D32 DT CP | 7588.5 | 2,493,683 | 5426.2 | 2,157,773 | 5513.4 | 2,176,764 |
| KTXL D33 DT BL | 1284.6 | 182,702 | 385.2 | 34,758 | 385.2 | 34,758 |
| KKPX-TV D33 DT CP | 1085.1 | 143,652 | 12.0 | 6,264 | 12.0 | 6,264 |

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Interference to BLANK0000035685 APP scenario 1

| Desired: | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-------------|---------|------|-----|--------|--------------------------|-------------------|----------|
| | KION-TV | D32 | DT | APP | MONTEREY, CA | BLANK0000035685 | |
| Undesireds: | KTVU | D31 | DT | BL | OAKLAND, CA | DTVBL35703 | 154.4 km |
| | KTVU | D31 | DT | APP | OAKLAND, CA | KTVU_TEMP_AUX_APP | 154.4 |
| | KEMO-TV | D32 | DD | BL | FREMONT, CA | DTVBL34440 | 253.4 |
| | KVPT | D32 | DT | LIC | FRESNO, CA | BLANK0000063002 | 210.0 |
| | KCNS | D32 | DT | CP | SAN FRANCISCO, CA | BLANK0000034679 | 154.4 |
| | K32LT-D | D32 | DC | LIC | SAN LUIS OBISPO, CA | BLANK0000068200 | 156.8 |
| | KTXL | D33 | DT | BL | SACRAMENTO, CA | DTVBL10205 | 193.3 |
| | KDJT-CD | D33 | DC | BL | SALINAS/MONTEREY,ETC, CA | DTVBL52888 | 26.8 |
| | KKPX-TV | D33 | DT | CP | SAN JOSE, CA | BLANK0000029965 | 147.0 |

| IX | Service area | Terrain-limited | IX-free, before | IX-free, after | Percent New |
|---------|--------------|-----------------|-----------------|----------------|-------------|
| 29131.8 | 2,601,475 | 19363.4 | 948,146 | 17576.4 | 796,691 |
| 0.00 | | | | 17576.4 | 796,691 |

| Undesired | Total IX | Unique IX, before | Unique IX, after |
|--------------------|----------|-------------------|------------------|
| KTVU D31 DT BL | 91.8 | 82,251 | 0.0 |
| KTVU D31 DT APP | 79.8 | 82,036 | 0.0 |
| KEMO-TV D32 DD BL | 171.7 | 73,542 | 15.9 |
| KVPT D32 DT LIC | 303.5 | 241 | 167.7 |
| KCNS D32 DT CP | 1211.6 | 111,838 | 700.0 |
| K32LT-D D32 DC LIC | 179.7 | 3,118 | 107.8 |
| KTXL D33 DT BL | 4.0 | 0 | 0.0 |

| | | | | | | |
|-------------------|-------|--------|-------|--------|-------|--------|
| KDJT-CD D33 DC BL | 528.1 | 66,972 | 232.1 | 37,078 | 232.1 | 37,078 |
| KKPX-TV D33 DT CP | 115.7 | 82,366 | 8.0 | 1,771 | 8.0 | 1,771 |

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 Interference to BLCDT20030604ACO LIC scenario 1

| Desired: | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-------------|---------|------|-----|--------|--------------------------|-------------------|----------|
| | KION-TV | D32 | DT | LIC | MONTEREY, CA | BLCDT20030604ACO | |
| Undesireds: | KTVU | D31 | DT | BL | OAKLAND, CA | DTVBL35703 | 154.4 km |
| | KTVU | D31 | DT | APP | OAKLAND, CA | KTVU_TEMP_AUX_APP | 154.4 |
| | KEMO-TV | D32 | DD | BL | FREMONT, CA | DTVBL34440 | 253.4 |
| | KVPT | D32 | DT | LIC | FRESNO, CA | BLANK0000063002 | 210.0 |
| | KCNS | D32 | DT | CP | SAN FRANCISCO, CA | BLANK0000034679 | 154.4 |
| | K32LT-D | D32 | DC | LIC | SAN LUIS OBISPO, CA | BLANK0000068200 | 156.8 |
| | KDJT-CD | D33 | DC | BL | SALINAS/MONTEREY,ETC, CA | DTVBL52888 | 26.8 |
| | KKPX-TV | D33 | DT | CP | SAN JOSE, CA | BLANK0000029965 | 147.0 |

| IX | Service area | Terrain-limited | IX-free, before | IX-free, after | Percent New |
|---------|--------------|-----------------|-----------------|----------------|-------------|
| 24798.8 | 2,400,317 | 16670.9 | 855,808 | 15423.8 | 781,965 |
| 0.00 | | | | 15423.8 | 781,965 |

| Undesired | Total IX | Unique IX, before | Unique IX, after |
|--------------------|----------|-------------------|------------------|
| KTVU D31 DT BL | 43.9 | 15,153 | 0.0 |
| KTVU D31 DT APP | 35.9 | 6,869 | 0.0 |
| KEMO-TV D32 DD BL | 83.9 | 3,651 | 8.0 |
| KVPT D32 DT LIC | 263.5 | 218 | 151.8 |
| KCNS D32 DT CP | 727.4 | 36,864 | 391.6 |
| K32LT-D D32 DC LIC | 159.7 | 354 | 79.9 |
| KDJT-CD D33 DC BL | 460.2 | 59,868 | 216.2 |
| KKPX-TV D33 DT CP | 55.9 | 8,580 | 8.0 |

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 Interference to BLANK0000034679 CP scenario 1

| | | | | | | | |
|-------------|--------------|-------------|-----------|--------------|----------------------------------|--------------------------------|----------|
| Desired: | Call KCNS | Chan D32 | Svc DT | Status CP | City, State SAN FRANCISCO, CA | File Number BLANK0000034679 | Distance |
| Undesireds: | KTVU | D31 | DT | BL | OAKLAND, CA | DTVBL35703 | 0.0 km |
| | KTVU | D31 | DT | APP | OAKLAND, CA | KTVU_TEMP_AUX_APP | 0.0 |
| | KEMO-TV | D32 | DD | BL | FREMONT, CA | DTVBL34440 | 102.8 |
| | KVPT | D32 | DT | LIC | FRESNO, CA | BLANK0000063002 | 302.1 |
| | KION-TV | D32 | DT | APP | MONTEREY, CA | BLANK0000035685 | 154.4 |
| | K32LT-D | D32 | DC | LIC | SAN LUIS OBISPO, CA | BLANK0000068200 | 310.8 |
| | KTXL | D33 | DT | BL | SACRAMENTO, CA | DTVBL10205 | 100.8 |
| | KDJT-CD | D33 | DC | BL | SALINAS/MONTEREY,ETC, CA | DTVBL52888 | 139.3 |
| | KKPX-TV | D33 | DT | CP | SAN JOSE, CA | BLANK0000029965 | 7.7 |

| | | | | | | | | | |
|----|--------------|-----------|-----------------|-----------|-----------------|-----------|----------------|-----------|-------------|
| | Service area | | Terrain-limited | | IX-free, before | | IX-free, after | | Percent New |
| IX | | | | | | | | | |
| | 37139.3 | 8,270,858 | 31335.2 | 7,381,656 | 21102.3 | 4,977,721 | 21102.3 | 4,977,721 | 0.00 |
| | 0.00 | | | | | | | | |

| | | | | | | | | |
|--------------------|--------|-----|--|-----------|--------|-------------------|--------|------------------|
| Undesired | | | | Total IX | | Unique IX, before | | Unique IX, after |
| KTVU D31 DT BL | | 4.0 | | 44 | | 0.0 | | 0 |
| KTVU D31 DT APP | | 0.0 | | 0 | | | 0.0 | 0 |
| KEMO-TV D32 DD BL | 7934.7 | | | 2,203,410 | 4743.2 | 1,826,434 | 4743.2 | 1,826,434 |
| KVPT D32 DT LIC | 1074.5 | | | 304,486 | 12.0 | 0 | 12.0 | 0 |
| KION-TV D32 DT APP | 3193.9 | | | 102,162 | 1594.7 | 21,150 | 1594.7 | 21,150 |
| K32LT-D D32 DC LIC | 4.0 | | | 0 | 0.0 | 0 | 0.0 | 0 |
| KTXL D33 DT BL | 2233.0 | | | 507,948 | 377.8 | 62,869 | 377.8 | 62,869 |
| KDJT-CD D33 DC BL | 20.0 | | | 2,579 | 0.0 | 0 | 0.0 | 0 |
| KKPX-TV D33 DT CP | 217.9 | | | 20,494 | 59.6 | 19,148 | 59.6 | 19,148 |

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 Interference to BLANK0000034679 CP scenario 2

| | | | | | | | |
|-------------|--------------|-------------|-----------|--------------|----------------------------------|--------------------------------|----------|
| Desired: | Call KCNS | Chan D32 | Svc DT | Status CP | City, State SAN FRANCISCO, CA | File Number BLANK0000034679 | Distance |
| Undesireds: | KTVU | D31 | DT | BL | OAKLAND, CA | DTVBL35703 | 0.0 km |
| | KTVU | D31 | DT | APP | OAKLAND, CA | KTVU_TEMP_AUX_APP | 0.0 |

| | | | | | | |
|---------|-----|----|-----|--------------------------|------------------|-------|
| KEMO-TV | D32 | DD | BL | FREMONT, CA | DTVBL34440 | 102.8 |
| KVPT | D32 | DT | LIC | FRESNO, CA | BLANK0000063002 | 302.1 |
| KION-TV | D32 | DT | LIC | MONTEREY, CA | BLCDT20030604ACO | 154.4 |
| K32LT-D | D32 | DC | LIC | SAN LUIS OBISPO, CA | BLANK0000068200 | 310.8 |
| KTXL | D33 | DT | BL | SACRAMENTO, CA | DTVBL10205 | 100.8 |
| KDJT-CD | D33 | DC | BL | SALINAS/MONTEREY,ETC, CA | DTVBL52888 | 139.3 |
| KKPX-TV | D33 | DT | CP | SAN JOSE, CA | BLANK0000029965 | 7.7 |

| IX | Service area | Terrain-limited | IX-free, before | IX-free, after | Percent New |
|---------|--------------|-----------------|-----------------|-------------------|-------------------|
| 37139.3 | 8,270,858 | 31335.2 | 7,381,656 | 21374.5 4,982,778 | 21374.5 4,982,778 |
| 0.00 | | | | | 0.00 |

| | | Total IX | Unique IX, before | Unique IX, after |
|--------------------|--------|-----------|-------------------|------------------|
| Undesired | | | | |
| KTVU D31 DT BL | 4.0 | 44 | 0.0 | 0 |
| KTVU D31 DT APP | 0.0 | 0 | 0.0 | 0 |
| KEMO-TV D32 DD BL | 7934.7 | 2,203,410 | 5070.7 | 1,834,086 |
| KVPT D32 DT LIC | 1074.5 | 304,486 | 12.0 | 0 |
| KION-TV D32 DT LIC | 2495.1 | 63,690 | 1322.5 | 16,093 |
| K32LT-D D32 DC LIC | 4.0 | 0 | 0.0 | 0 |
| KTXL D33 DT BL | 2233.0 | 507,948 | 381.8 | 62,936 |
| KDJT-CD D33 DC BL | 20.0 | 2,579 | 0.0 | 0 |
| KKPX-TV D33 DT CP | 217.9 | 20,494 | 59.6 | 19,148 |

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 Interference to proposal scenario 1
 **MX: 2.23% interference received

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-------------|---------|------|-----|--------|-------------------|-------------------|----------|
| Desired: | KTVU | D31 | DT | APP | OAKLAND, CA | KTVU_TEMP_AUX_APP | |
| Undesireds: | KQED | D30 | DT | LIC | SAN FRANCISCO, CA | BLANK0000040845 | 0.0 km |
| | KEMO-TV | D32 | DD | BL | FREMONT, CA | DTVBL34440 | 102.8 |
| | KION-TV | D32 | DT | APP | MONTEREY, CA | BLANK0000035685 | 154.4 |
| | KCNS | D32 | DT | CP | SAN FRANCISCO, CA | BLANK0000034679 | 0.0 |

| Service area | Terrain-limited | IX-free | Percent IX |
|--------------|-----------------|---------|------------|
|--------------|-----------------|---------|------------|

30804.9 7,652,243 25664.1 6,725,925 24856.5 6,576,196 3.15 2.23

| Undesired | | Total IX | | Unique IX | Prcnt Unique IX |
|--------------------|-------|----------|-------|-----------|-----------------|
| KQED D30 DT LIC | 47.6 | 17,004 | 3.9 | 0 | 0.02 0.00 |
| KEMO-TV D32 DD BL | 567.9 | 129,672 | 567.9 | 129,672 | 2.21 1.93 |
| KION-TV D32 DT APP | 156.2 | 1,923 | 156.2 | 1,923 | 0.61 0.03 |
| KCNS D32 DT CP | 79.6 | 18,134 | 35.9 | 1,130 | 0.14 0.02 |

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Interference to proposal scenario 2
2.22% interference received

| | Call | Chan | Svc | Status | City, State | File Number | Distance |
|-------------|---------|------|-----|--------|-------------------|-------------------|----------|
| Desired: | KTVU | D31 | DT | APP | OAKLAND, CA | KTVU_TEMP_AUX_APP | |
| Undesireds: | KQED | D30 | DT | LIC | SAN FRANCISCO, CA | BLANK0000040845 | 0.0 km |
| | KEMO-TV | D32 | DD | BL | FREMONT, CA | DTVBL34440 | 102.8 |
| | KION-TV | D32 | DT | LIC | MONTEREY, CA | BLCDT20030604ACO | 154.4 |
| | KCNS | D32 | DT | CP | SAN FRANCISCO, CA | BLANK0000034679 | 0.0 |

| Service area | | Terrain-limited | | IX-free | Percent IX |
|--------------|-----------|-----------------|-----------|-------------------|------------|
| 30804.9 | 7,652,243 | 25664.1 | 6,725,925 | 24908.5 6,576,419 | 2.94 2.22 |

| Undesired | | Total IX | | Unique IX | Prcnt Unique IX |
|--------------------|-------|----------|-------|-----------|-----------------|
| KQED D30 DT LIC | 47.6 | 17,004 | 3.9 | 0 | 0.02 0.00 |
| KEMO-TV D32 DD BL | 567.9 | 129,672 | 567.9 | 129,672 | 2.21 1.93 |
| KION-TV D32 DT LIC | 104.2 | 1,700 | 104.2 | 1,700 | 0.41 0.03 |
| KCNS D32 DT CP | 79.6 | 18,134 | 35.9 | 1,130 | 0.14 0.02 |