

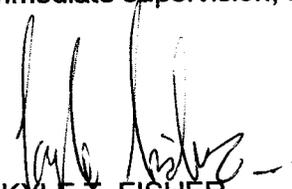
ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING NETWORK, licensee of television translator K56GF, Channel 56 in Sioux Falls, South Dakota, in support of this Application for Construction Permit to specify operation on Channel 33 from the licensed K56GF site. This proposal is being submitted in response to the Commission's reclamation of Channel 56 spectrum for future auction, thereby placing this translator in a displacement situation.

It is proposed to mount a standard Andrew omnidirectional antenna at the authorized height on the side of an existing 60-meter communications tower. Exhibit B is a map upon which the predicted service contours are plotted. It is important to note that the newly proposed 74 dBu contour encompasses a significant portion of that which obtains from the licensed K56GF facility. Operating parameters for the proposed facility are tabulated in Exhibit C. A contour overlap analysis and interference study are provided in Exhibit D, and a power density calculation follows as Exhibit E.

Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration Number 1050703 to this tower.

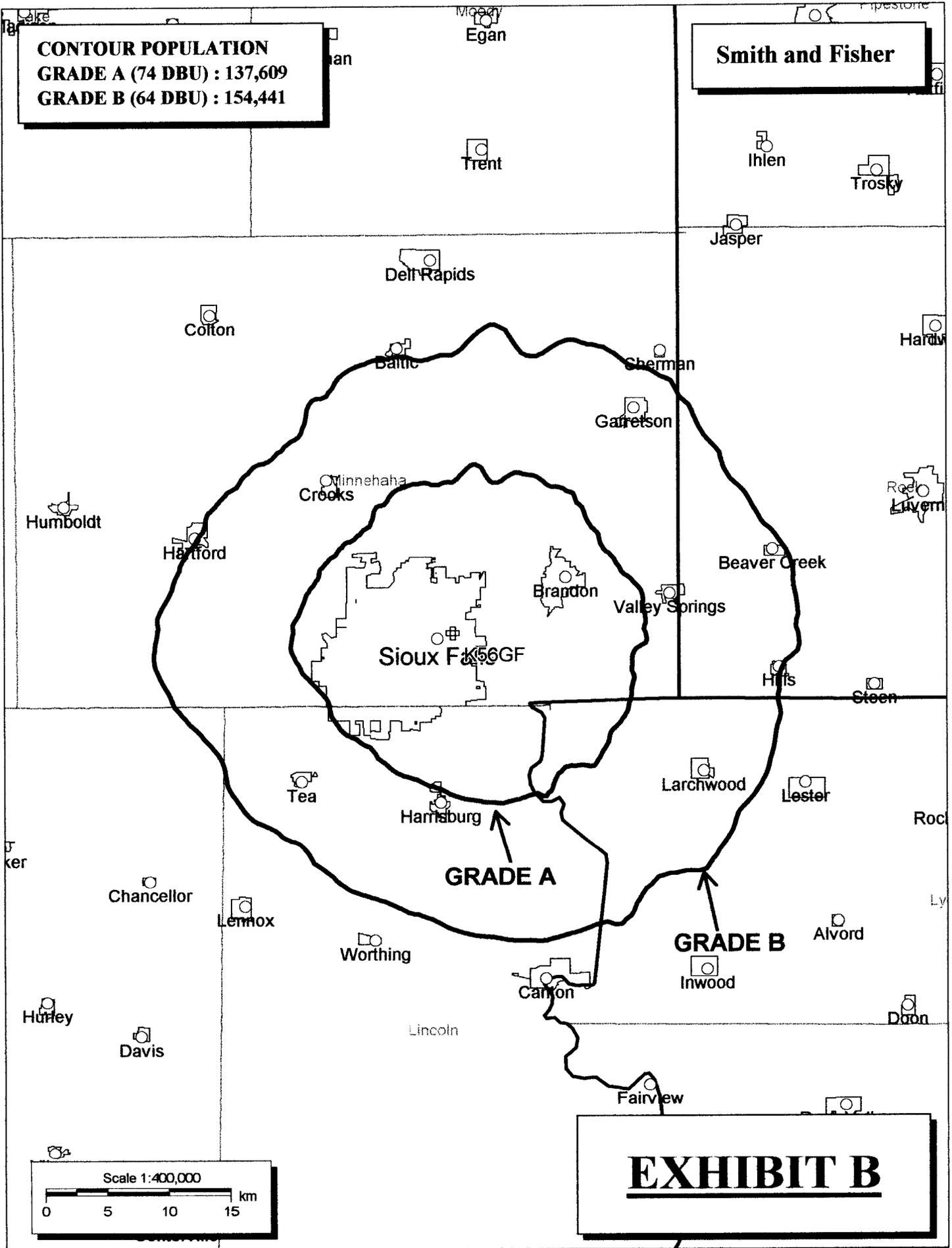
I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.


KYLE T. FISHER

August 27, 2003

CONTOUR POPULATION
GRADE A (74 DBU) : 137,609
GRADE B (64 DBU) : 154,441

Smith and Fisher



Scale 1:400,000

0 5 10 15 km

EXHIBIT B

PROPOSED OPERATING PARAMETERS

PROPOSED K56GF
CHANNEL 33 – SIOUX FALLS, SOUTH DAKOTA

| | |
|--|------------------------|
| Transmitter Power Output: | 1.0 kw |
| Transmission Line Efficiency: | 74.8% |
| Antenna Power Gain – Toward Horizon: | 28.2 |
| Antenna Power Gain – Main Lobe: | 28.2 |
| Effective Radiated Power – Toward Horizon: | 21.1 kw |
| Effective Radiated Power – Main Lobe: | 21.1 kw |
| Transmitter Make and Model: | Type-accepted |
| Rated Output | 1.0 kw |
| Transmission Line Make and Model: | Andrew LDF7-50A |
| Size and Type: | 1-5/8" foam dielectric |
| Length: | 210 feet |
| Antenna Make and Model: | Andrew ALP16L2-HSOC |
| Orientation | Omnidirectional |
| Beam Tilt | 0.5 degrees |
| Effective Height Above Ground: | 57 meters |
| Effective Height Above Mean Sea Level: | 498.9 meters |

CONTOUR OVERLAP AND
LONGLEY-RICE INTERFERENCE STUDIES
PROPOSED K56GF
CHANNEL 33 – SIOUX FALLS, SOUTH DAKOTA

We conducted a computer analysis of the interference situation for the proposed facility, the results of which are shown in Exhibit D-2. The study is based on contour protection requirements of Sections 74.705, 74.706, and 74.707 of the FCC's Rules with respect to analog full-power, digital full-power, and low power television stations, respectively. It concludes that the facility proposed herein meets these requirements except to five stations: KELO-DT, Channel 32 in Sioux Falls, South Dakota; K33AB, Channel 33 in Sibley, Iowa; KUSD-DT, Channel 34 in Vermillion, South Dakota; KAAL-DT, Channel 33 in Austin, Minnesota; and, KBIN-DT, Channel 33 in Council Bluffs, Iowa.

We then conducted detailed interference studies using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to these facilities of concern. The software utilizes a 2-square kilometer cell size (except where noted), calculates signal strength at 1.0 kilometer increments along each radial studied, and employs the 1990 U.S. Census to count population within cells. In addition, the program does not attribute interference to the proposed facility in cells within the protected contour of the station under study where interference from another source (other than Trinity's proposed K56GF) already is predicted to exist (also known as "masking"). The results of these studies are provided in Exhibit D-3. They conclude that

the facility proposed herein causes no significant new interference to any of the potentially affected stations.

As a result, waivers of Section 74.706 of the Commission's Rules with respect to interference to KELO-DT, KUSD-DT, KAAL-DT, and KBIN-DT, and Section 74.707 with regard to K33AB, are requested and believed to be justified based on the aforementioned Longley-Rice studies.

SMITH AND FISHER

EXHIBIT D-2

PROPOSED K56GF
CH. 33 - SIOUX FALLS SD

REFERENCE
43 33 14 N
96 41 05 W

LPTV Pwr = 21.1 kW, HAMS L COR= 499 M

DISPLAY DATES
DATA 08-26-03
SEARCH 08-27-03

..... Channel 33-, 584 MHz

| Call | Channel | Location | Dist | Azi | FCC | Margin |
|-----------|---------|----------------|-----------|-------|----------|---------|
| KELO-D CP | 32 | Sioux Falls | SD 12.74 | 107.9 | > 126.91 | -114.17 |
| K33AB LI | 33N | Sibley, Etc. | IA 83.73 | 101.3 | > 177.50 | -93.77 |
| KUSD-D CP | 34 | Vermillion | SD 56.52 | 188.2 | > 091.95 | -35.43 |
| KAAL-D CP | 33 | Austin | MN 285.31 | 87.1 | > 303.96 | -18.65 |
| KBIN-D CP | 33 | Council Bluffs | IA 264.85 | 164.5 | > 272.45 | -7.60 |
| K34DR LI | 34N | Humboldt | SD 38.01 | 301.5 | > 017.12 | 20.89 |
| KAAL-D ST | 33 | Austin | MN 285.31 | 87.1 | > 260.98 | 24.33 |
| K33GX LI | 33+ | Springfield | SD 134.02 | 232.1 | > 087.61 | 46.41 |
| ALK30F AL | 32+ | St. James | MN 172.19 | 73.1 | > 118.60 | 53.59 |
| NEW AP | 33- | Aberdeen | SD 249.79 | 328.9 | > 183.14 | 66.65 |
| KXNETV LI | 19+ | Norfolk | NE 154.06 | 198.5 | > 085.49 | 68.57 |
| KXNETV AP | 19+ | Norfolk | NE 154.06 | 198.5 | > 085.33 | 68.73 |

INTERFERENCE SUMMARY

PROPOSED K56GF
CHANNEL 33 – SIOUX FALLS, SOUTH DAKOTA

| <u>Call Sign</u> | <u>Status</u> | <u>City, State</u> | <u>Ch.</u> | <u>Longley-Rice Service Population</u> | <u>Unmasked Interference From Proposed Facility</u> | <u>%</u> |
|------------------------------|---------------|--------------------|------------|--|---|----------|
| KELO-DT BPCDT-19991021AAX | CP | Sioux Falls, SD | 32 | 517,760 | 0 | 0 |
| K33AB BLTT-19790731IA | Lic. | Sibley, IA | 33 | 7,880 | 0 | 0 |
| KUSD-DT BPEDT-20000217AAF | CP | Vermillion, SD | 34 | 393,723 | 8 | <0.1 |
| KAAL-DT BPCDT-19991022ABU | CP | Austin, MN | 33 | 528,318 | 0 | 0 |
| KBIN-DT BPEDT-19980826KE | CP | Council Bluffs, IA | 33 | 731,850 | 0 | 0 |

POWER DENSITY CALCULATION

PROPOSED K56GF
CHANNEL 33 – SIOUX FALLS, SOUTH DAKOTA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Sioux Falls facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 21.1 kw, an effective antenna height of 57 meters above ground, and the vertical pattern of the Andrew antenna, maximum power density two meters above ground of 0.0022 mw/cm^2 is calculated to occur 13 meters from the base of the tower. Since this is only 0.5 percent of the 0.39 mw/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 33 (584-590 MHz), this proposal may be excluded from consideration with respect to public exposure to nonionizing 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 nonionizing radiation.