

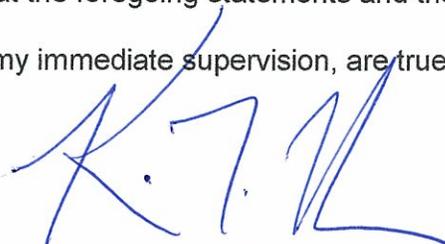
ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of NW COMMUNICATIONS OF PHOENIX, INC., licensee of television translator K39FC, Channel 39 in East Flagstaff, Arizona, in support of this Application for Construction Permit to specify digital operation on Channel 39 from the licensed K39FC site, as a "flashcut" proposal.

It is proposed to utilize the existing Andrew directional antenna, which is mounted at the 11-meter level of an existing 12-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 51 dBu contour encompasses a significant portion of the Grade A contour that obtains from the licensed K39FC facility. An interference study is provided in Exhibit C, and a power density calculation follows as Exhibit D.

Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application. Due to the diminutive height of the tower and its proximity to the nearest airport runway, FCC antenna structure registration is not required. This conclusion is supported by the Commission's TOWAIR program.

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

August 4, 2009

**CONTOUR POPULATION**  
51 DBU : 82,206  
41 DBU : 95,358

**Smith and Fisher**

Coconino

Cameron

41 DBU

51 DBU

Leupp

K39FC

Flagstaff

Williams

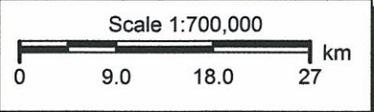
Sedona

Clarkdale  
Cottonwood

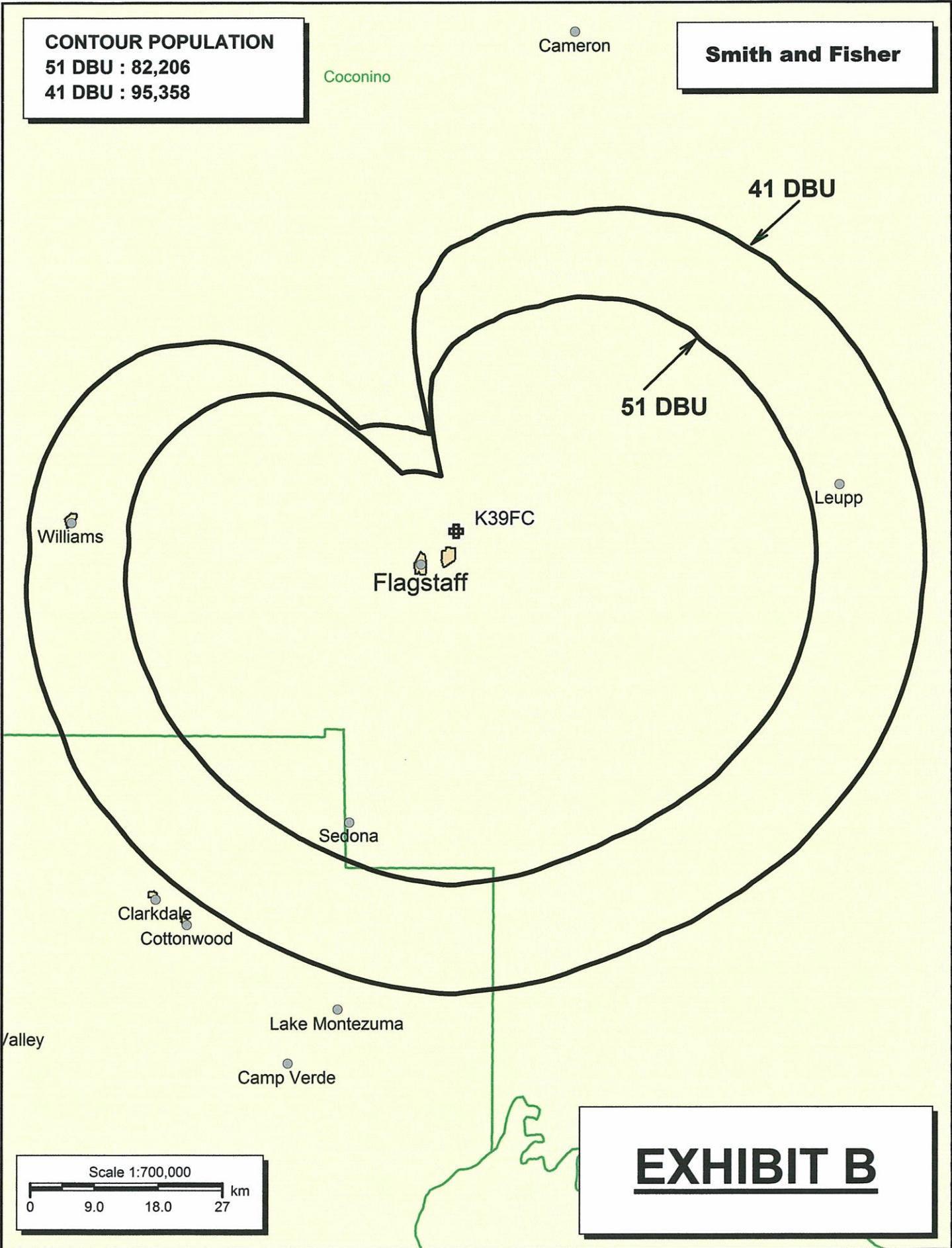
Lake Montezuma

Camp Verde

Valley



**EXHIBIT B**



LONGLEY-RICE INTERFERENCE STUDY  
PROPOSED K39FC-D  
CHANNEL 39 – EAST FLAGSTAFF, ARIZONA

We conducted a detailed interference study using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to all facilities of concern. The software utilizes a 1-square kilometer cell size, calculates signal strength at 1.0-kilometer increments along each radial studied, and employs the 2000 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 that proposed K39FC-D) already is predicted to exist (also known as "masking"). A summary of the results of this study is provided in Exhibit C-2. They conclude that the facility proposed herein causes no significant new interference to any of the potentially affected stations.

As a result, it is believed that the proposed K39FC-D facility complies with the requirements of Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030 of the Commission's Rules.

INTERFERENCE SUMMARY  
PROPOSED K39FC-D  
CHANNEL 39 – EAST FLAGSTAFF, ARIZONA

<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>
K39IT-D BLDTT-20070803ADJ	Lic.	Prescott, AZ	39	83,628	1217	1.5*
KTAZ-DT BPCDT-20080729AAO	CP	Phoenix, AZ	39	3,229,795	224	<0.1
K40AD-D BDFCDTT-20090501ABX	CP	Cottonwood, AZ	40	129,113	872	0.7

\*Interference partially masked by analog K39FC

POWER DENSITY CALCULATION

PROPOSED K39FC-D  
CHANNEL 39 – EAST FLAGSTAFF, ARIZONA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this East Flagstaff facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 0.7 kw, an antenna radiation center 11 meters above ground, and the vertical pattern of the Andrew antenna, maximum power density two meters above ground of  $0.018 \text{ mw/cm}^2$  is calculated to occur 4 meters south of the base of the tower. Since this is only 4.4 percent of the  $0.41 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 39 (620-626 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.