

EXHIBIT A

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of the COUNTY OF ACCOMACK, VIRGINIA, licensee of television translator W39CS, Channel 39 in Onancock, Virginia, in support of this Application for Construction Permit to specify digital operation on Channel 18 from the proposed site. This application is being submitted in response to the Commission's assignment of Channel 39 to WUNP-DT in Roanoke Rapids, Virginia. WUNP-DT is located 265 kilometers from W39CS, thereby placing it in a displacement situation according to 73.3572(a)(4)(iv)(A)(1) of the FCC rules.

It is proposed to utilize the authorized RFS directional panel antenna which is mounted at the 138-meter level of an existing 145-meter communications tower. Exhibit B is a map upon which the predicted service contours are plotted. It is important to note that the proposed 51 dBu contour encompasses a significant portion of the Grade A contour which obtains from the licensed W39CS facility. Operating parameters for the proposed facility are tabulated in Exhibit C. An interference study is 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 1016112 to this tower.

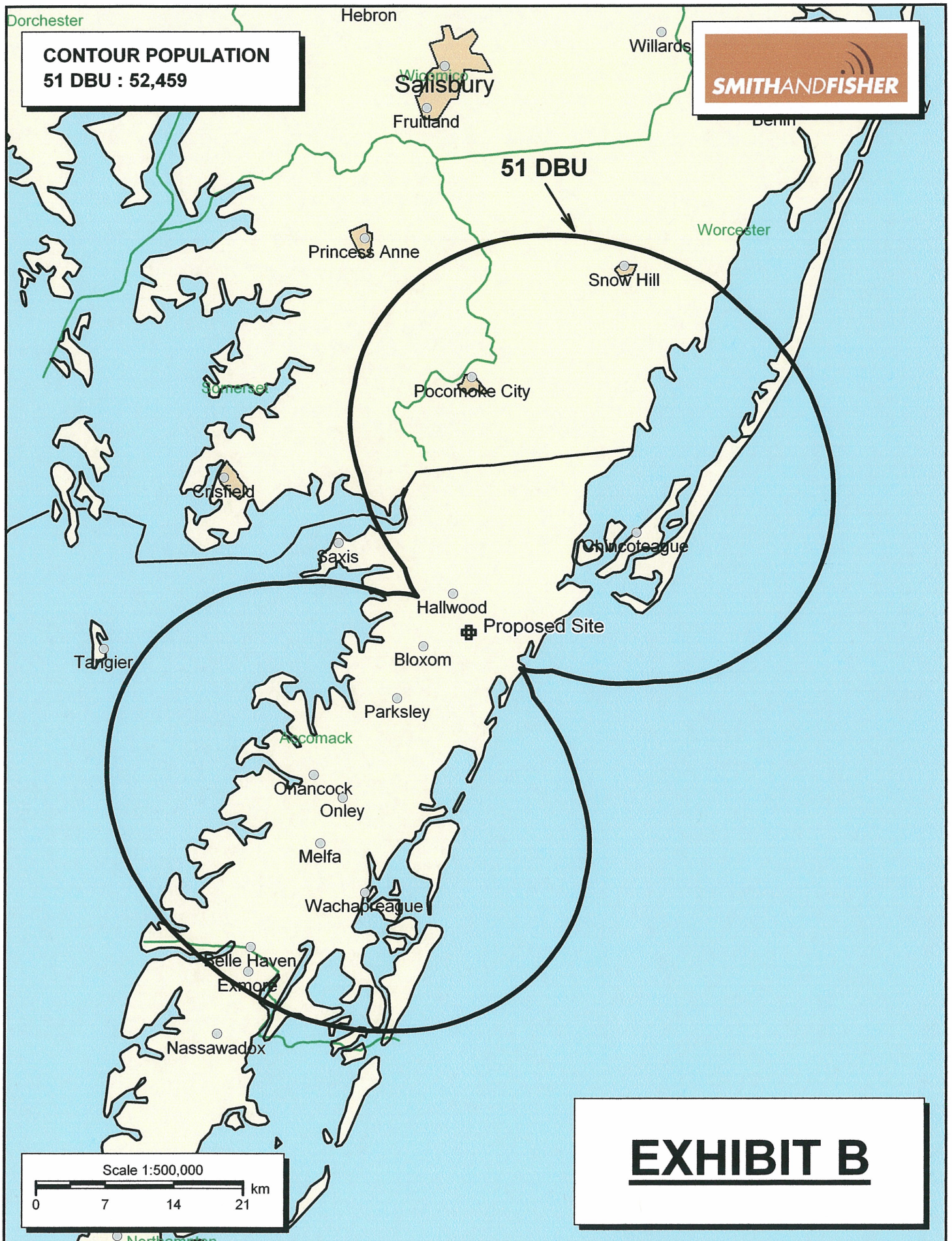
I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.



KEVIN T. FISHER

November 19, 2010





## EXHIBIT B



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EXHIBIT C

## PROPOSED OPERATING PARAMETERS

PROPOSED W39CS  
CHANNEL 18 - ONANCOCK, VIRGINIA

Transmitter Power Output:	0.4 kw
Transmission Line Efficiency:*	63.2%
Antenna Power Gain – Toward Horizon:	31.6
Antenna Power Gain – Main Lobe:	31.6
Effective Radiated Power – Toward Horizon:	8.0 kw
Effective Radiated Power – Main Lobe:	8.0 kw
Transmitter Make and Model:	Type-accepted
Transmission Line Make and Model:	Standard
Size and Type:	3-1/2" air heliax
Length:	460 feet
Antenna Make and Model:	RFS PHP20B
Orientation	35°T
Beam Tilt	0.5 degrees
Radiation Center Above Ground:	138.4 meters
Radiation Center Above Mean Sea Level:	152.4 meters

\*Includes 0.5 dB combiner loss

EXHIBIT D-1

LONGLEY-RICE INTERFERENCE STUDIES  
PROPOSED W39CS  
CHANNEL 18 - ONANCOCK, VIRGINIA

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 proposed station) already is predicted to exist (also known as "masking"). The results of these studies are provided in Exhibit D-2. They conclude that the facility proposed herein causes no interference to any of the potentially affected stations.

As a result, it is believed that the proposed digital LPTV facility complies with the requirements of Sections 74.409, 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 W39CS  
CHANNEL 18 - ONANCOCK, VIRGINIA

<u>Call Sign</u>	<u>Status</u>	<u>City, State</u>	<u>Ch.</u>	Longley-Rice Service <u>Population</u>	Unmasked Interference From <u>Proposed Facility</u>	<u>%</u>	.
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[NO STATIONS AFFECTED]

EXHIBIT E

POWER DENSITY CALCULATION

PROPOSED W39CS  
CHANNEL 18 - ONANCOCK, VIRGINIA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Onancock facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 8.0 kw, an antenna radiation center of 138 meters above ground, and assuming a vertical relative field value of 20% at the steeper elevation angles for the proposed RFS directional antenna, maximum power density two meters above ground of  $0.00058 \text{ mw/cm}^2$  is calculated to occur near the base of the tower. Since this is only 0.2 percent of the  $0.33 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 18 (494-500 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.