



**STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF A REQUEST FOR
SPECIAL TEMPORARY AUTHORIZATION
TO OPERATE A TEMPORARY DIGITAL TELEVISION
FACILITY TO EVALUATE AND DEMONSTRATE
VARIOUS PROGRAM STREAM CAPABILITIES OF
THE AUTHORIZED ATSC 3.0 BROADCAST STANDARD
IN THE LAS VEGAS DESIGNATED MARKET AREA
THE PROPOSED FACILITY IS TO OPERATE AT
THE KSNV TRANSMITTER SITE ON
CH. 33 - 42.0 kW – 374 meters HAAT**

Prepared for: KUPN LICENSEE, LLC

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Licensed Professional Engineer in the Commonwealth of Virginia, No. 7418, and in New York State, No. 63418.

GENERAL

This office has been authorized by KUPN LICENSEE, LLC, licensee of DTV station KSNV, channel 22, Las Vegas, Nevada, to prepare this statement, and the associated exhibits, in support of a request for STA to operate an experimental DTV facility for the purpose of testing, evaluation and demonstration of the ATSC 3.0 Broadcast Standard and its extended variety of distribution functions that include but are not limited to video programming for hdtv, 4K and 8K, all with enhanced multi-channel audio, ancillary program functions, multi-speed data to fixed and mobile receivers, etc. The temporary ATSC 3.0 transmission facility is planned to be tested during the time leading up to the Consumer Electronics Show scheduled for January 5th through 8th, 2023 and the National Association

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of Broadcasters Convention and Show scheduled for April 15th through 19th, both in Las Vegas, Nevada. Therefore the applicant respectfully requests STA to become effective for experimental operation as early as December 12th, 2023 through April 21st, 2023.

It is herein proposed to utilize an existing broadband Dielectric Model TFU-8WB/VP-R S230 elliptically polarized directional antenna that is mounted on the tower (ASR No. 1203429) that is also used by KSNV, channel 22, and KVCW, channel 29. For this channel 33 request the normal operation of the licensed KSNV and KVCW facilities will not be affected in any instance. The instant request proposes a maximum ERP of 42 kW on channel 33, however the actual experimental ERP might be adjusted to various levels below the proposed maximum as a part of the experimental and demonstration process. This experimental operation and demonstration will also have the added benefit of allowing numerous video program providers, data transmission and distribution entities, equipment designers and manufacturers, data and software distribution for all vehicles that are used in the transportation industry, etc. This temporary facility in the Las Vegas market is intended to provide technical data and information meant to assist multiple industries that might consider the potential for their future deployment of the many functions of the ATSC 3.0 broadcast standard.

ALLOCATION CONSIDERATIONS

An allocation study for the proposed channel 33 facility was performed using the Commission's application processing and interference analysis software, *tvstudy*, v. 2.2.5, the results of which are shown in Appendices A. Of all potentially affected protected facilities listed, with the sole exception of K33MJ-D, none is predicted to receive new

interference in excess of the percentage limits, as permitted in Section 73.616 of the Commission's Rules.

K33MJ-D is currently licensed as a secondary facility LPTV facility on channel 33, which is licensed to Pahrump, Nevada. The licensee, Sinclair Media II, Inc. has agreed to accept the predicted interference from the requested STA facility to 63.90% of the population predicted to receive service from the K33MJ-D licensed facility during the pendency of the requested STA.

BLANKETING AND INTERMODULATION INTERFERENCE

Other broadcast and non-broadcast technical facilities will be co-located with, or are located within 10 km of the proposed channel 33 experimental STA operation site. The applicant recognizes its responsibility to remedy complaints of interference which might result from this proposal in accordance with applicable Rules.

RADIO FREQUENCY IMPACT

The proposed 42 kW facility has been evaluated based on the elevation pattern of the proposed antenna, a Dielectric elliptically polarized directional model TFU-8WB/VP-R S230, shown elsewhere in this proposal. As shown in Appendices A the KSNV 42 kW channel 33 experimental STA facility proposed herein will operate with a maximum ERP of 42 kW from an elliptically polarized directional transmitting antenna with a centerline height of 47.4 meters above ground level (AGL). Considering the elevation pattern submitted elsewhere in this application, the vertical plane relative field factor is less than 0.210 at all depression angles greater than 12 degrees. The proposed KSNV experimental 42 kW STA facility is predicted to produce a worst-case power density at two meters above

ground level, at 31.8 meters from the tower base, of $15.674 \mu\text{W}/\text{cm}^2$, which is 4.01% of the FCC guideline value of $391.33 \mu\text{W}/\text{cm}^2$ for an "uncontrolled" environment, and 0.801% of the FCC's guideline value for "controlled" environments. Therefore, pursuant to Section 1.1307(b)(3) of the FCC Rules, because the proposed channel 33 experimental STA facility would not exceed 5% of the uncontrolled and controlled exposure limits, the proposal's power density contribution is considered insignificant. Additionally, the Black Mountain antenna farm is a controlled access site. Access to the transmitting tower site and any RF transmitting equipment is restricted and clearly marked with warning signs. When workers or other authorized personnel enter the restricted area appropriate measures are taken to assure worker safety.

OCCUPATIONAL SAFETY

In accordance with its obligations as an occupant of the Black Mountain site the applicant is committed to the protection of personnel working on the tower structure, or in the vicinity of the proposed experimental operation, by reducing power and/or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure the proper protection of persons who might be required to perform their assigned tasks in this controlled environment.

SUMMARY

The proposed experimental DTV operation will contribute to the body of knowledge in general, especially the multiple features incorporated in the ATSC 3.0 standard. These many features provide, in addition to video program broadcasting, for data distribution that is required by a broad spectrum of industrial, commercial and consumer oriented entities.

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It is therefore submitted that the instant request for an experimental STA, as described herein, complies with the pertinent Rules, Regulations, and Policies of the Federal Communications Commission. This statement and the attached exhibits were prepared by me, or under my direct supervision, and are believed to be true and correct to the best of my knowledge and belief.

Dated: November 30, 2022

