

## **Supporting Statement Request for Experimental Authorization**

WCIU-TV Limited Partnership (“WCIU-TV LP”), licensee of Full Power television station WCIU-TV, Chicago, IL (Facility ID 71428) pursuant to 47 C.F.R. §§ 5.201, 5.601 and 5.602 (as applicable) (“WCIU”) respectfully requests that the Commission grant an Experimental Authorization to allow for the testing of ATSC 3.0 operations on RF channel 23 in Chicago, IL from Willis Tower, beginning on or about June 20, 2018 and ending no later than September 6, 2019. As demonstrated below, there is good cause to grant Experimental Authorization for the purposes of testing “Next-Generation Television” in a large market environment.

WCIU-TV LP has a history of helping further serve viewers by pioneering and implementing innovative broadcast technology. WCIU was the first UHF station to sign-on in the Chicago market in 1964. Since its inception, part of WCIU’s legacy has been to “serve the underserved” population of Chicago with the breadth, diversity and localism of its programming. WCIU-TV LP was also an early adopter of advanced uses of ATSC 1.0, initially creating Chicago’s first digital subchannel. In 2008, WCIU-TV LP pioneered one of the first secondary networks, or “diginets.” WCIU-TV LP’s diginets now includes MeTV, Heroes and Icons, Decades (together with CBS Television Stations) and Movies! (together with FOX Television Stations). Today, these networks are carried on over 400 affiliate television stations across the United States, providing viewers with free over the air quality programming, and adding value to the broadcaster ecosystem. While WCIU-TV LP is interested in the possibilities that Next-Generation Television offers, there are areas related to ATSC 3.0 that WCIU-TV LP would like to further test as described below.

WCIU-TV LP desires to test ATSC 3.0 operations in the Chicago Designated Market Area (“DMA”). As part of this Experimental Authorization, WCIU-TV LP will be working with other participating broadcast and industry technology vendors. WCIU-TV LP proposes RF channel 23 because it is the repack assigned channel for WCIU-TV LP owned WCIU. Further, WCIU currently holds a Construction Permit for 1000 kW ERP with a pattern similar to the proposed Experimental station. As further demonstrated in the Technical Statement (attached), the proposed facility causes no additional interference to existing Full Power, Class A, and LPTV facilities, repacked Full Power and Class A facilities, or potential LPTV facilities in the upcoming LPTV window.

The grant of this Experimental Authorization will not delay the repack timelines for any television station in the Chicago DMA or adjoining markets, including WCIU. The station will utilize an existing antenna infrastructure at Willis Tower for ATSC 3.0 operations. The station is coordinating closely with Willis Tower to ensure that the minor equipment reconfiguration necessary for the ATSC 3.0 equipment installation at the existing tower, as well as operation of ATSC 3.0 services, does not disrupt the repacking of stations or impede, in any measure, timely access to facilities at the site.

WCIU-TV LP proposes to make these tests in collaboration with industry partners under the project name “Chicago 3.0”. ATSC 3.0 testing in Chicago will allow WCIU-TV LP and their partners to (1) test the reliability of Next Generation Television in various environments. Currently, 13 Full Power and 5 Class A facilities originate from three downtown transmission sites, of which, Willis Tower is the primary site for most of the Chicago market TV stations. Downtown Chicago is very dense and as a result, there are unique challenges with RF multipath, especially from high-power television stations that originate from this area. Further testing is desired to validate that there are no additional viewer reception issues introduced with ATSC 3.0 transmission as compared with current ATSC 1.0 reception practices; (2) test Next Generation Television reception reliability when in mobile environments, and the tradeoffs of optimized modulation for mobile vs fixed reception environments; (3) test various levels of polarization (but no more than 50%) of the transmit antenna; (4) test new Next Generation Television opportunities and validate how well they perform in a large, urban and densely populated market environment adjacent to the Great Lakes; and (5) test ATSC 3.0 reception and practices with multichannel video programming distributors (“MVPDs”).

Initially, the program content of this Experimental station will be a simulcast of WCIU-TV and other commonly-owned networks. If additional Chicago market stations desire to simulcast their programming on this Experimental station, WCIU-TV LP will have the opportunity to coordinate this effort and each licensee understands that they will file for Experimental Authorization, if required. At no time will a participating partner station change any aspect of their existing licensed facility as a result of a simulcast channel on the Experimental Station.

A detailed Engineering Statement is attached to this application. This will be the first ATSC 3.0 facility to use a variable elliptically polarized antenna specifically optimized for ATSC 3.0 transmissions. Other test facilities are utilizing existing H-pol antennas that were designed for ATSC 1.0 transmissions or in the case of Cleveland, analog transmission. The Experimental Station and WCIU-TV would be collocated at the same transmission site (Willis).

WCIU-TV LP will be the responsible party and will maintain sole control of this Experimental station. Additionally, WCIU-TV LP has entered into an interference acceptance agreement with HC2 LPTV Holdings, Inc. (“HC2”), licensee of W25DW-D, Arbury Hills, Illinois (Facility ID 61692). HC2 holds a displacement Construction Permit, FCC File No. BDISDTL-20120106ABK, to relocate W25DW-D from channel 25 to channel 22, also in Arbury Hills, Illinois. A copy of this agreement is attached.

For reasons set forth herein, WCIU-TV LP requests that the Commission authorize this Experimental Station for ATSC 3.0 operations. The grant of this Experimental Authorization will serve the public interest by further helping the advancement and technical capabilities of broadcast stations and their industry vendor partners. Further, valuable information will be attempted to be gathered from consumers to ensure that the technical change from ATSC 1.0 to

ATSC 3.0 has minimal impact. Finally, the grant of this Experimental Authorization will cause no harmful interference to authorized current or repacked Full Power, Class A, or LPTV television stations.