

**GREG BEST  
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## ENGINEERING EXHIBIT FOR WKMJ ATSC 3.0 LICENSE MOD

### INTRODUCTION

This document provides information to confirm that the proposed operation of WKMJ for ATSC 3.0 using the technical facility for WKPC as the ATSC 1.0 host is compliant with FCC rules with regard to FCC 73-3801 (f).

### PROPOSED OPERATION


The proposed operation of WKMJ as an ATSC 3.0 service will comply with the ATSC 1.0 simulcast rules. WKPC will serve as the ATSC 1.0 host for WKMJ. Both WKMJ and WKPC are owned by the same licensee, Kentucky Educational TV Authority. The technical facility of host station WKPC is composed of a transmitter, transmission line, and ERI ATW22H3-ETO-30H elliptically polarized omnidirectional antenna mounted at 524 ft with an HAAT of 827 ft that produces an ERP of 58 kW.

The technical facility for WKPC produces a Noise Limited Service Contour (NLSC) that encompasses the WKMJ ATSC 1.0 NLSC as shown on the attached map. The map shows the population data served by the service contours and the complete overlap of the contours. Since the NLSC of WKPC encompasses all of the WKMJ NLSC contour, this demonstrates compliance with the requirements outlined in 73.3801 (f) that the host station (WKPC) will serve 100 % of the WKMJ ATSC 1.0 service area and population. This confirms that there is no loss of population served with WKMJ converting to ATSC 3.0 operation. Both WKMJ and WKPC technical facilities are located on the same physical tower and both stations serve the same DMA of Louisville, KY.

### Certification

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained herein are believed to be true and correct based on my personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.

Respectfully,



# WKMJ ATSC 3.0 AND WKPC HOST POPULATION COVERAGE

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## WKMJ-TV

0000087448

Latitude: 38-22-01 N

Longitude: 085-49-54 W

ERP: 40.00 kW

Channel: 34

Frequency: 593.0 MHz

AMSL Height: 444.1 m

Elevation: 297.8 m

Horiz. Pattern: Omni

Vert. Pattern: Yes

Elec Tilt: 0.75

Prop Model: None

## WKPC-TV

0000087420

Latitude: 38-22-01 N

Longitude: 085-49-54 W

ERP: 58.00 kW

Channel: 30

Frequency: 569.0 MHz

AMSL Height: 457.5 m

Elevation: 297.8 m

Horiz. Pattern: Omni

Vert. Pattern: Yes

Elec Tilt: 0.75

Prop Model: None

## WKMJ POP COUNT STATS

WKPC is Host for WKMJ 1.0 Service

WKMJ ATSC 1.0 Contour Pop Count = 1,569,126

WKPC Host Contour Pop Count = 1,616,517

2020 Census Basis

## Contour Legend

WKMJ-TV (34)

WKPC-TV (30)

