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## DIGITAL LPTV FACILITY MINOR CHANGE APPLICATION

W18EW

FCC FACILITY ID: 185273

JACKSON, TN

### ENGINEERING NARRATIVE

#### Minor Change Application:

W18EW, seeks to modify its licensed facility to specific a new tower site and antenna system as well as maximum effective radiated power (ERP). The proposed antenna is a Scala/Kathrein CA7-YAGI/2, directional antenna. A full-service filter mask is to be employed. The facility requested is not contingent upon a grant or channel move of any other known facility at the time of filing.

#### Modification Compliance:

Pursuant to 47 CFR §74.787(b) the instant application is considered a “minor” change because;

There is no change in transmitting antenna location such that the protected contour resulting from the change does not overlap some portion of the protected contour of the authorized facilities of the existing station as illustrated in Figure 1, Present & Proposed Service Contours.

There is no change in transmitting antenna location greater than 30 miles (48km) from the reference coordinates of the existing station’s antenna location, as noted below:

CALCULATED DISTANCE BETWEEN EXISTING AND PROPOSED SITES

SITE	LAT (NAD83)	LON (NAD83)	(KM)	(MI)
CURRENT/EXISTING	35-47-47.48 N	88-15-54.03 W	43.24	26.87
PROPOSED	35-52-52.53 N	87-47-52.29 W		

#### FCC Tower Registration (ASR) - FAA Notification:

The proposed mounting structure is a 30-foot self-supporting tower/mast with an overall height of less than 35 feet/10.7 meters with the top mounted antenna. The center of radiation of the proposed antenna is at 32 feet/10 meters AGL.

The FAA’s online Part 77 Notice Criteria Tool reports that no notice is required. Results: “You do not exceed Notice Criteria.”

As the structure does not require notice to the FAA and is less than 61 meters in overall height, FCC Antenna Structure Registration is not required.

Proposed Site Map:

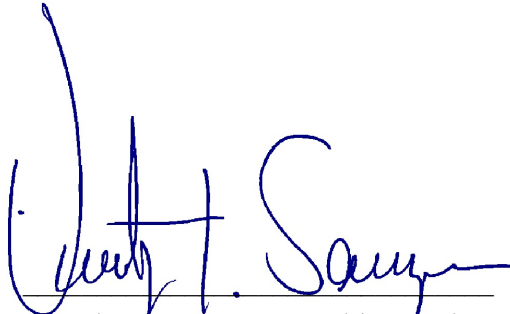
A topographical map with the site marked upon it is provided as Figure 2.

A TV Interference Check Study of the proposal using the FCC TVStudy program (Version 2.2.5), shows that no prohibitive interference will occur from the proposal. A copy of the summary report has been included in this application. The applicant accepts any interference that is predicted to exist to the proposed facility by any authorized or previously proposed primary or secondary TV station.

Environmental Evaluation Statement:

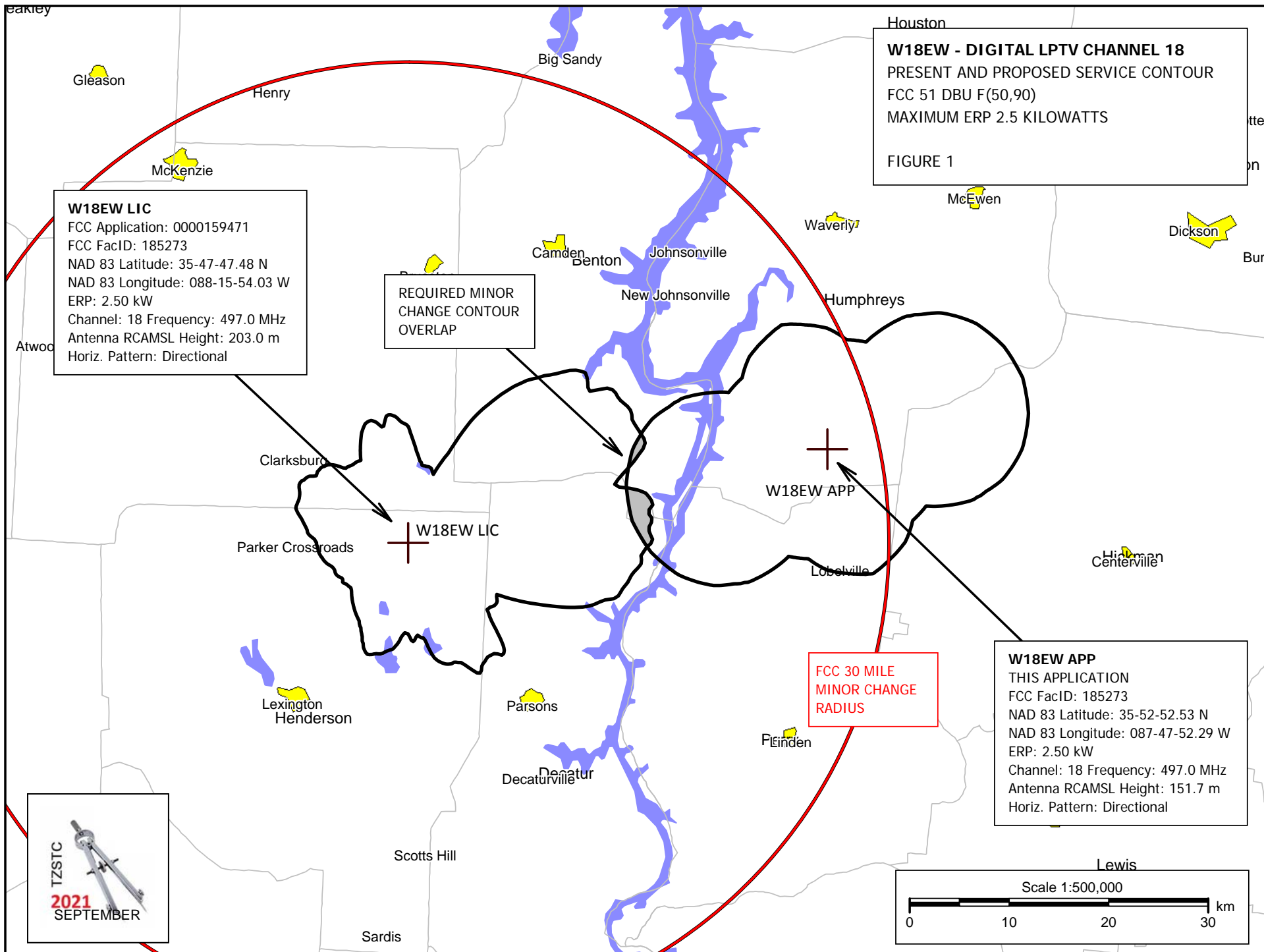
The environmental evaluation statement concerning this proposal has been included in this application and can be found as a separate file upload within the application. A grant of this proposal would NOT be an action which would have a significant environmental effect as demonstrated in the environmental evaluation statement.

September 20, 2021

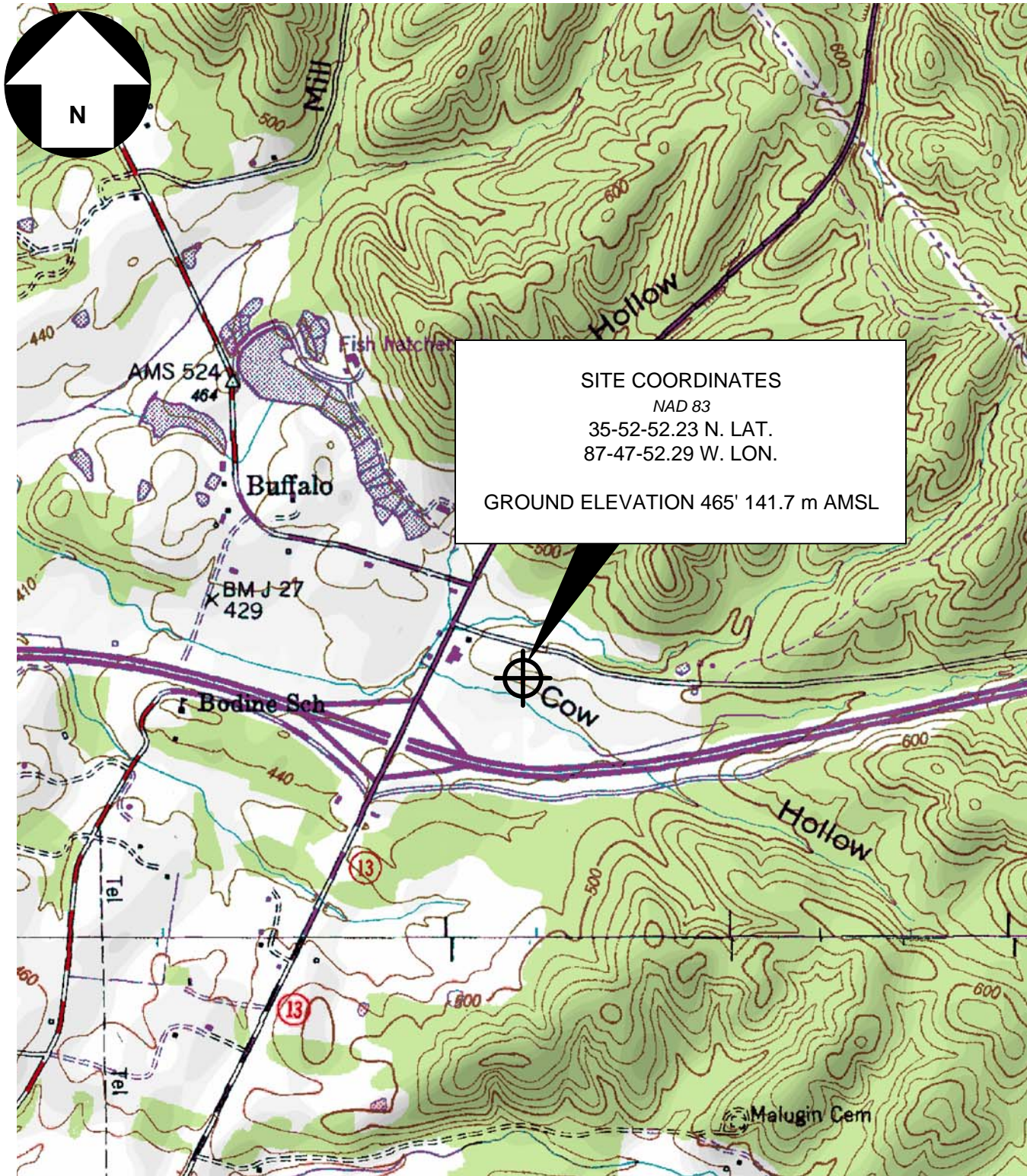


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**TOPOGRAPHIC SITE MAP**

W18EW LPTV CH 18

**FIGURE  
2**

FALL CHURCH, VIRGINIA 22043-2555

SIZE  
A

CAGE NO  
N/A

DWG NO  
20210920W18EWF2

REV  
NONE

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SCALE 1:24,000

SEPTEMBER 2021

SHEET

# FCC TVSTUDY SUMMARY REPORT

[SEE SPECIAL NOTES AT END OF THIS SUMMARY]

Proposal: W18EW-D D18 LD APP JACKSON, TN  
 File number: W18EW APP  
 Facility ID: 185273  
 Station data: User record  
 Record ID: 565  
 Country: U.S.

Proposal "before": W18EW-D D18 LD LIC \*P JACKSON, TN  
 File number: BLANK0000159471  
 Facility ID: 185273  
 Station data: LMS TV 2021-09-17  
 Record ID: 25076ff37be66933017beed53d0309d4  
 Country: U.S.

Build options:  
 Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	DWIIW-LP	N14z	TX	APP	NASHVILLE, TN	BLANK0000010767	99.5 km
No	WAAY-TV	D17	DT	LIC	HUNTSVILLE, AL	BLANK0000071637	171.3
No	WAAY-TV	D17	DT	CP	HUNTSVILLE, AL	BLANK0000127697	171.3
No	WKMU	D17	DT	LIC	MURRAY, KY	BLANK0000087481	111.9
No	WKOH	D17	DT	LIC	OWENSBORO, KY	BLANK0000087401	223.0
No	WEPH	D17	DT	LIC	TUPELO, MS	BLANK0000062855	260.1
No	WRTN-LD	D17	LD	CP	ALEXANDRIA, TN	BLANK0000054584	99.8
No	W17EI-D	D17	LD	CP	JACKSON, TN	BLANK0000071918	87.7
No	W18ET-D	D18	LD	LIC	BIRMINGHAM, AL	BLANK0000136285	282.6
Yes	WZDX	D18	DT	LIC	HUNTSVILLE, AL	BLANK0000108705	171.3 NOTE 1
No	WBMM	D18	DT	LIC	TUSKEGEE, AL	BLANK0000081490	456.9
No	KVTJ-DT	D18	DT	LIC	JONESBORO, AR	BLANK0000064048	247.7
No	DKTWN-LD	D18	LD	APP	LITTLE ROCK, AR	BLDTL20070521AAM	393.3
No	WUVG-DT	D18	DT	LIC	ATHENS, GA	BLANK0000081094	390.7
No	WSEC	D18	DT	LIC	JACKSONVILLE, IL	BLANK0000150703	458.4
No	WZDS-LD	D18	LD	CP	EVANSVILLE, IN	BLANK0000074344	232.0
No	WAWV-TV	D18	DT	LIC	TERRE HAUTE, IN	BLANK0000087258	375.3
No	WKYU-TV	D18	DT	LIC	BOWLING GREEN, KY	BLDTL20040803AAG	179.2
No	WMYO-CD	D18	DC	LIC	LOUISVILLE, KY	BLANK0000087049	326.9
No	WQWQ-LD	D18-	LD	LIC	PADUCAH, KY	BLANK0000150501	148.0
No	KDKZ-LD	D18	LD	LIC	FARMINGTON, MO	BLANK0000029554	325.3
No	W17DV-D	D18	LD	CP	STARKVILLE, MS	BLANK0000071826	284.6
No	WSTR-TV	D18	DT	LIC	CINCINNATI, OH	BLANK0000157764	468.3
No	W18DS-D	D18	LD	LIC	CHATTANOOGA, TN	BLDTL20120320ABS	242.7
No	WPXK-TV	D18	DT	LIC	JELICO, TN	BLANK0000081463	347.4
No	DWJFB-LP	D18z	LD	APP	LEBANON, TN	BLANK0000005264	99.8 NOTE 2
No	WHNT-TV	D19	DT	CP	HUNTSVILLE, AL	BLANK0000127591	171.2
No	WHNT-TV	D19	DT	LIC	HUNTSVILLE, AL	BLCDT20111118COZ	171.2
No	WCZU-LD	D19	LD	LIC	BOWLING GREEN, KY	BLANK0000124983	193.2
No	WPSD-TV	D19	DT	LIC	PADUCAH, KY	BLANK0000116960	180.0
No	WPED-LD	D19	LD	LIC	Memphis, TN	BLANK0000081521	211.6
No	WLLC-LD	D19	LD	LIC	NASHVILLE, TN	BLANK0000152055	96.8
No	WNPX-LP	N20-	TX	LIC	NASHVILLE, TN	BLTTL20021119ABM	99.8
No	WNTU-LP	N26-	TX	LIC	NASHVILLE, TN	BLTTL20001018ABZ	96.8

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D18  
Mask: Full Service  
Latitude: 35 52 52.53 N (NAD83)  
Longitude: 87 47 52.29 W  
Height AMSL: 151.7 m  
HAAT: 0.0 m  
Peak ERP: 2.50 kW  
Antenna: KAT-CA7YAGI/2 70.0 deg  
Elev Pattn: Generic

49.1 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.289 kW	-6.2 m	13.6 km
45.0	1.58	-10.7	20.9
90.0	1.88	-17.5	21.7
135.0	0.243	-35.5	13.0
180.0	0.289	-13.3	13.6
225.0	1.58	-18.6	20.9
270.0	1.88	-1.3	21.7
315.0	0.243	20.3	13.0

Database HAAT does not agree with computed HAAT  
Database HAAT: 0 m Computed HAAT: -10 m

Distance to Canadian border: 780.4 km

Distance to Mexican border: 1401.8 km

Conditions at FCC monitoring station: Powder Springs GA  
Bearing: 127.8 degrees Distance: 359.0 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 292.4 degrees Distance: 1594.3 km

No land mobile station failures found

Proposal is not within the Offshore Radio Service protected area

Study cell size: 1.00 km  
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%  
Maximum new IX to LPTV: 2.00%

Proposal causes no interference to BLANK0000108705 LIC

---- Below is IX received by proposal W18EW APP ----  
\*\*MX with BLANK0000005264 APP scenario 1, 6.35% interference received

\*NOTE 1  
APPLICANT ACCEPTS ALL INCOMING INTEFERENCE FROM FULL OR SECONDARY  
FACILITIES, AND ALL LICENSED OR PENDING APPLICATIONS.

\*NOTE 2  
DWJFB-LP D18z LD APP LEBANON, TN BLANK0000005264  
IS A DELETED FACILITY - AND THE DATABASE RECORD SHOULD BE MARKED IN-ACTIVE  
THE LICENSEE/APPLICANT HAS TURNED IN ITS AUTHORIZATION AS A MATTER OF RECORD