

APPENDIX 1  
PRECLUSION STUDY  
STATION WTTK-DT (FACILITY ID 56526)  
KOKOMO, INDIANA  
CH 54 1000 KW(MAX-DA) 285 M

A study was conducted to determine the preclusive effect of the proposed WTTK-DT operation from the WXIN tower on future land mobile operations on Channels 53 (704-710 MHz), 54 (710-716 MHz) and 55 (716-726 MHz). As demonstrated below both Channels 53 and 54 are already precluded from potential land mobile use prior to the end of the DTV transition by other authorized or proposed television facilities. Only a very small area on Channel 55 would be precluded due to the proposed WTTK-DT operation.

Figures 1, 2 and 3, herein, are maps showing the predicted preclusion zones for Channels 54, 53 and 55, respectively. Figure 4 is a summary of all other stations employed in the preclusion analysis.

The FCC CDBS Database dated March 3, 2003 was employed in the preclusion study. Records in the FCC CDBS database were assumed to be correct.

The following assumptions were made in the preparation of the preclusion study:

- Assumed land mobile base station facilities: 1 kW effective radiated power, 152 m (500 ft) antenna height above average terrain.

- Protected television station contours:\*

Mode of Operation	Protected Contour
Analog TV	64 dBu, f(50,50) (Grade B)
DTV	41 dBu, f(50,90) (noise-limited)

- Assumed land mobile base station f(50,10) interfering contours with calculated distances:†

Protected U.S. TV	Co-Channel	Adjacent-Channel
Analog	24 dBu (120 km)	64 dBu (19 km)
DTV	18 dBu (152 km)	64 dBu (19 km)

Preclusion area calculations were conducted based on the following procedures as outlined below:

- The WTTK-DT construction permit and application facilities contours plus the appropriate land mobile base station interfering contour distance were projected on a map. The contours were based on the conventional FCC procedures outlined in Part 73 of the FCC Rules. The U.S.G.S. 3-second computer database was employed in the determination of antenna height above average terrain in the respective directions. The additional area subject to preclusion by the WTTK-DT application facility was identified.
- For stations with facilities indicated in Figure 4, the protected contour was projected based on the conventional FCC procedures outlined in Part 73 of the FCC Rules. The U.S.G.S. 3-second computer database was employed in the determination of antenna height above average terrain in the respective directions. If the subject station is directional, the directional antenna pattern from the FCC CDBS database was employed. The appropriate buffer distance from the table

---

\* See Section 27.60 of the FCC Rules.

† See Section 27.60 of the FCC Rules. Interfering contour distance based on assumed land mobile facility of 1 kW effective radiated power and 152 m height above average terrain.

above was added to the calculated contour to demonstrate areas precluded by these existing facilities.

The results of the study indicate that future land mobile operations on Channels 53, 54 and 55 would not be precluded solely by the WTTK-DT application with the exception of a very small area on Channel 55. The WTTK-DT application precludes an area of 59 square kilometers on Channel 55 out of a total potentially affected area of 14,340 square kilometers, or 0.4% of the preclusion zone. Therefore, it is concluded that the WTTK-DT application will cause virtually no additional preclusion to future land mobile facilities based on the television facilities currently operative in the CDBS database.

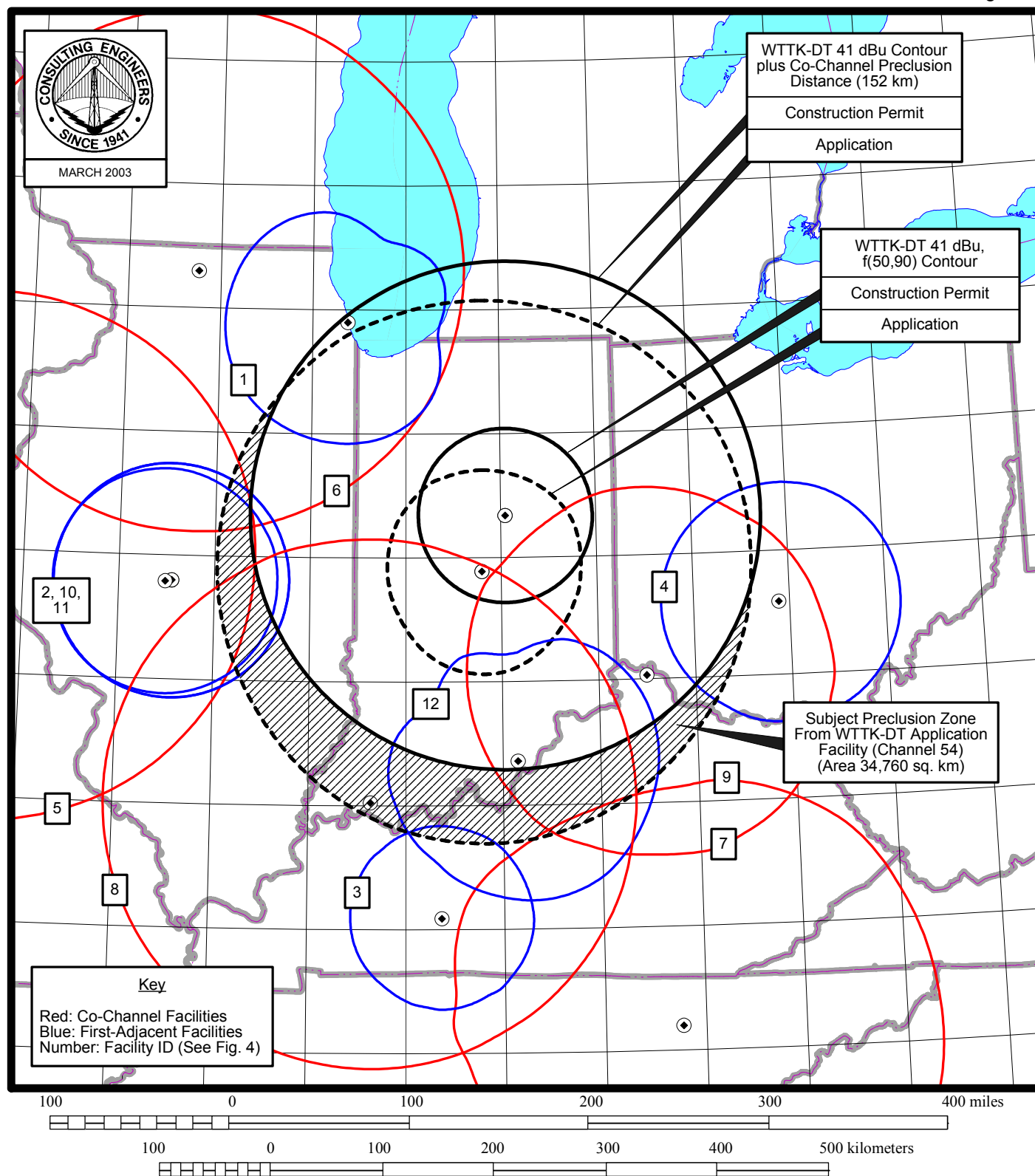
Louis Robert du Treil, Jr.  
Consulting Engineer

du Treil, Lundin & Rackley, Inc.  
201 Fletcher Ave.  
Sarasota, FL 35237-6019

(941) 329-6004

March 13, 2003

Figure 1



## CHANNEL 54 PRECLUSION STUDY

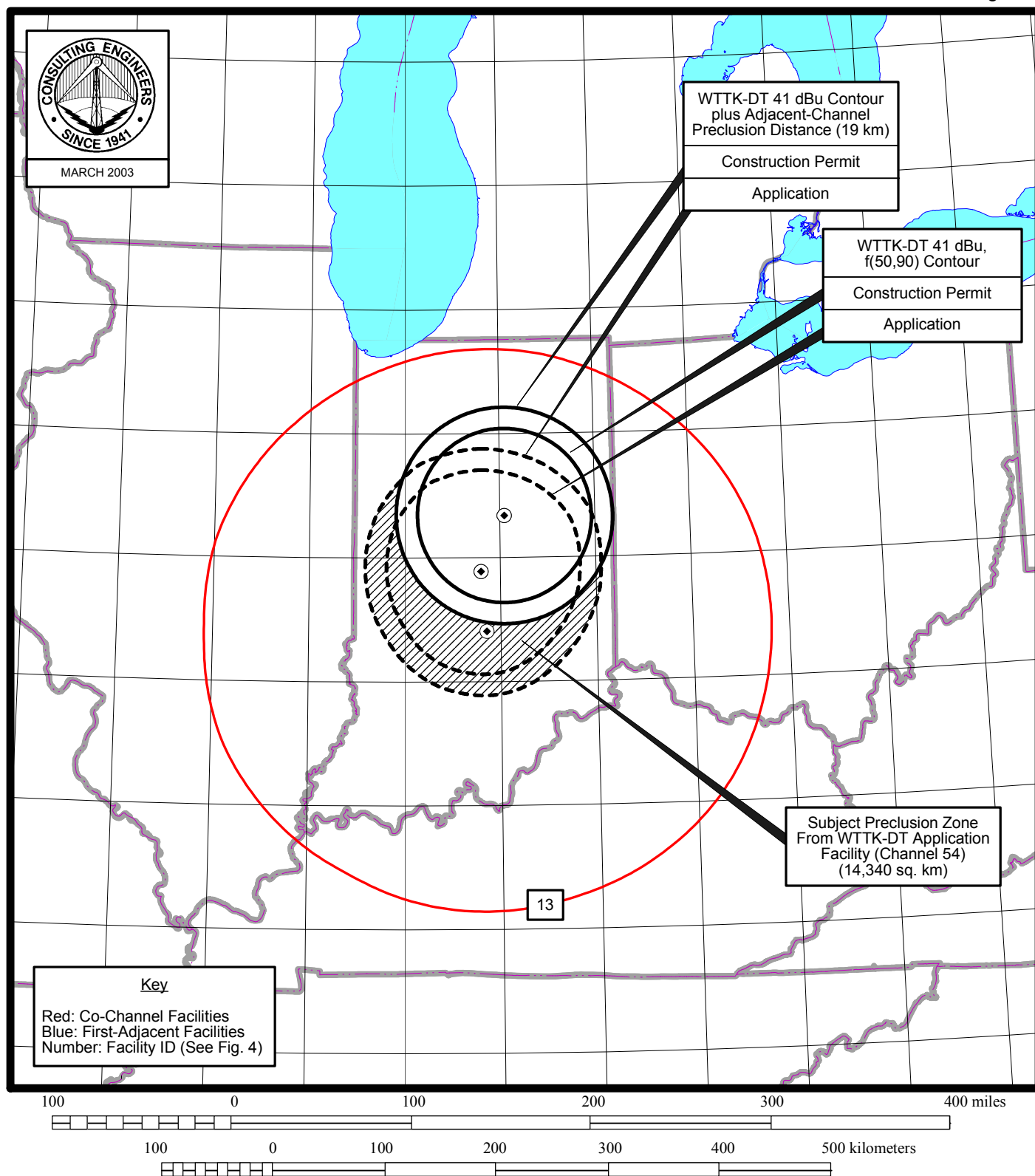
STATION WTTK-DT (FACILITY ID 56526)

KOKOMO, INDIANA

CH 54 1000 KW(MAX-DA) 285 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 2



## CHANNEL 53 PRECLUSION STUDY

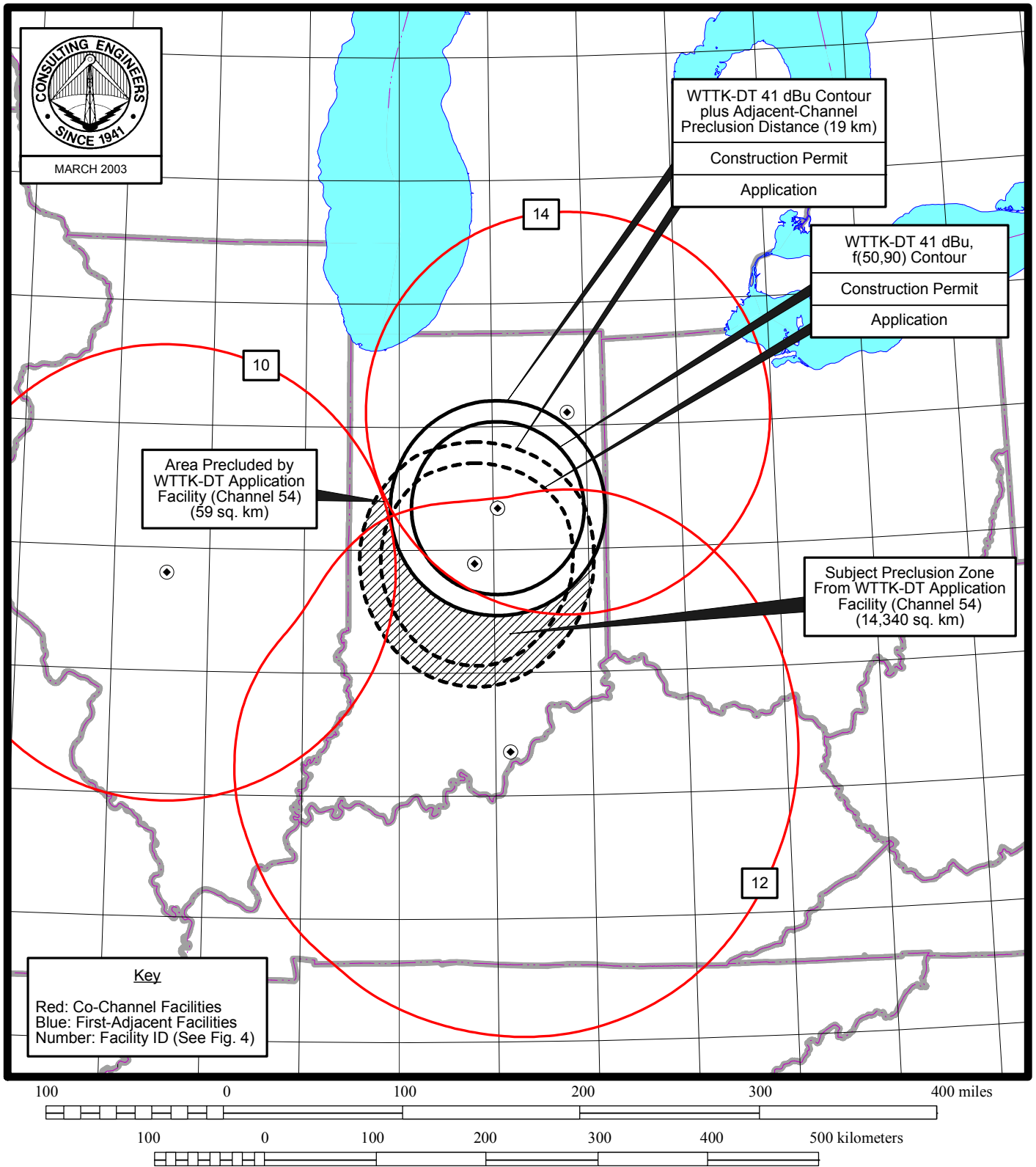
STATION WTTK-DT (FACILITY ID 56526)

KOKOMO, INDIANA

CH 54 1000 KW(MAX-DA) 285 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 3



## CHANNEL 55 PRECLUSION STUDY

STATION WTTK-DT (FACILITY ID 56526)  
KOKOMO, INDIANA  
CH 54 1000 KW(MAX-DA) 285 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

APPENDIX 1  
 PRECLUSION STUDY  
 STATION WTTK-DT (FACILITY ID 56526)  
 KOKOMO, INDIANA  
 CH 54 1000 KW(MAX-DA) 285 M

Tabulation of Stations Considered in Preclusion Study

Number	Facility
1	WGBO-D, JOLIET, IL, Channel d53
2	WCFN, SPRINGFIELD, IL, Channel d53
3	WKGB-T, BOWLING GREEN, KY, Channel n53
4	WWHO, CHILLICOTHE, OH, Channel n53
5	WGEM-D, QUINCY, IL, Channel d54
6	WREX-D, ROCKFORD, IL, Channel d54
7	WCVN-T, COVINGTON, KY, Channel n54
8	NEW, OWENSBORO, KY, Channel d54
9	WPXK, JELLICO, TN, Channel n54
10	WRSP-T, SPRINGFIELD, IL, Channel n55 (License)
11	WRSP-T, SPRINGFIELD, IL, Channel n55 (CP)
12	WHAS-D, LOUISVILLE, KY, Channel d55
13	WTTV-D, BLOOMINGTON, IN, Channel d53
14	WFFT-T, FT. WAYNE, IN, Channel n55