ENGINEERING STATEMENT
SUPPORTING REQUEST FOR WAIVER
TELEVISION STATION WICD(TV)
(FACILITY ID NO. 25684)
CHAMPAIGN, ILLINOIS
CHANNEL 32

Background

This statement was prepared on behalf of WICD Licensee, LLC, licensee of WICD, Champaign, IL, in support of a request for waiver of the FCC's Phase Assignment, Testing Period, and Phase Completion Date for television station WICD in the Champaign & Springfield-Decatur DMA[*]. WICD is licensed for operation on RF Channel 41 with a maximum directional effective radiated power (ERP) of 950 kW and an antenna height above average terrain (HAAT) of 375 m.[†]

As a result of the FCC's Incentive Auction repack process, the WICD facility was reassigned to RF Channel 32. WICD holds a construction permit (C.P.) for operation on Channel 32 with a non-directional ERP of 1000 kW and an antenna HAAT of 396 m.[‡] An FCC engineering database summary sheet for the WICD C.P. facility is attached hereto for reference. This is the WICD early transition facility, which is the subject of the instant request.

In coordination with the wireless carrier T-Mobile, WICD Licensee, LLC seeks a waiver of the FCC's Phase Assignment, Testing Period, and Phase Completion Date to allow WICD to make the transition to Channel 32 earlier than its given phase transition date. Specifically, the target date for WICD to begin operations on Channel 32 is September 1, 2018. This will facilitate the early deployment of new 600 MHz band wireless broadband services.

This statement demonstrates that WICD C.P. facility can transition to Channel 32 before its assigned phase date without any disruption to the FCC's transition plans. Specifically, it is demonstrated that the operation of WICD on Channel 32 as authorized

[*] Nielsen Designated Market Area abbreviated as DMA.
[†] See FCC File No. BLCDT-20050620AAO.
[‡] See FCC File No. 0000034926.

in its C.P. will have no adverse interference consequences, either caused or received, under the current allocation environment.

Assigned Phase

WICD was assigned to transition Phase 7, with a testing begin date of October 19, 2019. This is based on the latest FCC Phase Assignment spreadsheet dated May 9, 2018.

Linked Station Sets and Linked Station Neighbor Stations

An inspection of the latest FCC Linked Station Set (LSS) and Linked Station Neighbor (LSN) spreadsheet databases indicates that the WICD facility is not part of any LSSs or LSNs. These are based on the latest LSS and LSN spreadsheets available from the FCC, both dated May 9, 2018.

Interference Caused Analysis Under Current Allocation Environment

An interference analysis was conducted for the WICD Channel 32 C.P. facility utilizing the latest version[§] of the FCC's *TVStudy* coverage and interference analysis prediction software. The report of the results is attached hereto entitled 'Interference Caused Analysis for WICD(TV) Channel 32 C.P. Facility Under Current Allocation Environment.'

The results of the analysis indicate that there are no cases of outgoing (caused) interference exceeding the 0.5% permissible interference level to any other protected full-power or Class A television stations now operating.

Interference Received Analysis Under Current Allocation Environment

An interference analysis specifically for the 'received case' of interference was conducted for the WICD Channel 32 early transition facility utilizing the FCC's *TVStudy* prediction software. The report of the results is attached hereto entitled 'Interference Received Analysis for WICD(TV) Channel 32 C.P. Facility Under Current Allocation

[§] *TVStudy* Version 2.2.5

Environment.' The purpose of this study is to evaluate all current environment records in the received interference analysis.

The results of the analysis indicate that there are no cases of incoming (received) interference exceeding the permissible 0.5% interference level to the WICD Channel 32 early transition facility.

Effects on Linked Station Sets

It has been determined that the early transition of the WICD facility to Channel 32 in advance of its phase transition date will not create any pairwise interference cases or new linked station sets as a result of interference caused cases.

Conclusion

It is concluded that the early transition of the WICD facility on Channel 32 as described herein, will not result in any interference caused or received cases that would result in the creation of any new linked station sets or dependencies established in the Incentive Auction repack process.

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du Treil, Lundin & Rackley, Inc.
3135 Southgate Circle
Sarasota, Florida 34239

May 16, 2018

TV Inquiry

WICD EARLY TRANSITION FACILITY

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

Callsign: WICD **Service:** DT **Status:** CP MOD **App. Status:** GRANT **Border Code:** **Rec. Type:** C

Channel: 32 **Offset:** **Zone:** 1 **Docket Number:** **DTV Type:** POSTTRAN

Fac. ID: 25684 **Assoc. ID:** **Application File No.:** BLANK-0000034392 **DT Emission Mask:**

City: CHAMPAIGN **State:** IL **Country:** US **CP Expiration Date:**

Party Name: WICD LICENSEE, LLC **Last Change Date:** 3/13/2018

Latitude (NAD 83): 40-04-10
Longitude (NAD 83): 087-54-46

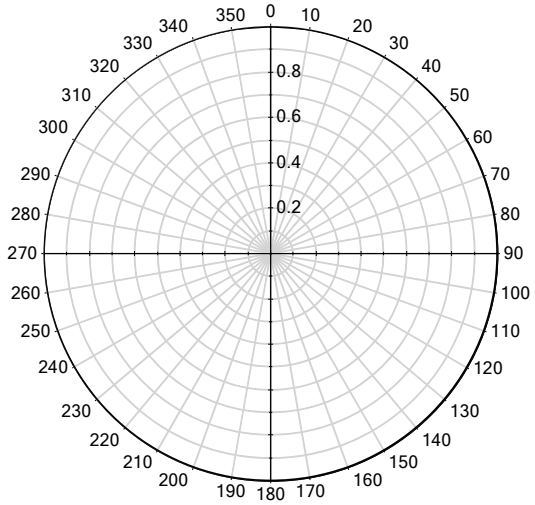
RCAMSL (m): 600.5
Site Elevation AMSL (m): 201.5
HAAT (m): 396
Maximum HAAT (m):

Height AGL (m): 399
Overall Height AGL (m): 407.8
ERP (kW): 1000
Maximum ERP (kW):
Maximum ERP (dBk): 30
Maximum ERP at any Angle (kW):

Polarization: E
Electrical Tilt (°): 1
Mechanical Tilt (°):
Mechanical Tilt Azimuth (°):
Degrees True (°):
Antenna Make:
Antenna Model:

Antenna Type: N **Antenna ID:** 1002287 **Rotation (°):** 0

0°	1.000	**90°**	1.000	**180°**	1.000	**270°**	1.000
10°	1.000	**100°**	1.000	**190°**	1.000	**280°**	1.000
20°	1.000	**110°**	1.000	**200°**	1.000	**290°**	1.000
30°	1.000	**120°**	1.000	**210°**	1.000	**300°**	1.000
40°	1.000	**130°**	1.000	**220°**	1.000	**310°**	1.000
50°	1.000	**140°**	1.000	**230°**	1.000	**320°**	1.000
60°	1.000	**150°**	1.000	**240°**	1.000	**330°**	1.000
70°	1.000	**160°**	1.000	**250°**	1.000	**340°**	1.000
80°	1.000	**170°**	1.000	**260°**	1.000	**350°**	1.000



Standard Pattern:

Antenna Make: DIE

Antenna Model: TFU-28GTH

Last Change Date:

Note: Rotation or tilt is not applied to the pattern shown

Type: TOWER **ASRN:** 1036562

Latitude (NAD 27): 040-04-09.9
Longitude (NAD 27): 087-54-45.9
Latitude (NAD 83): 40-04-10.0
Longitude (NAD 83): 087-54-46.0

Struct. Address:
1.5 MILES EAST AND 1 MILE NORTH
HORNER IL

Entity Name: WICD Licensee, LLC

FAA Study No.: 65-OE-4
Date Received: 01/11/2017
Date Entered: 01/11/2017
Date Issued: 01/11/2017
Date Constructed: 03/21/1995
Date Dismantled:

Structure Height (m): 390.2
Structure Height (ft): 1280.2
Ground Elevation (m): 201.5
Ground Elevation (ft): 661.1
Overall Height AGL (m): 407.8
Overall Height AGL (ft): 1337.9
Overall Height AMSL (m): 609.3
Overall Height AMSL (ft): 1999.0

INTERFERENCE CAUSED ANALYSIS FOR WICD(TV) CHANNEL 32
C.P. FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT

```
tvstudy v2.2.5 (4uoc83)
Database: localhost,  Study: wicd32e3,  Model: Longley-Rice

Study build station data: LMS TV 2018-05-15

    Proposal: WICD D32 DT CP CHAMPAIGN, IL
 File number: BLANK0000034392
 Facility ID: 25684
Station data: LMS TV 2018-05-15
   Record ID: 25076f915f0d91b4015f20c8515525af
     Country: U.S.
        Zone: I

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

Search options:
All post-transition APP, CP, and baseline records excluded

Individual records excluded:
20110706ABJ   WNDY-TV D32 DT LIC MARION, IN BLCDT20110706ABJ

Stations potentially affected by proposal:

IX   Call      Chan       Svc Status  City, State              File Number            Distance
No   WFLD      D31        DT  LIC     CHICAGO, IL              BLCDT20090223ABV       202.5 km
No   WANE-TV   D31        DT  LIC     FORT WAYNE, IN           BLCDT20090622ACE       257.2
No   KDNL-TV   D31        DT  LIC     ST. LOUIS, MO            BLCDT20021216AAE       265.6
No   WMEU-CD   D32        DC  LIC     CHICAGO, IL              BLDTA20131212ABK       202.5
Yes  WTJR      D32        DT  LIC     QUINCY, IL               BLCDT20091110ADL       290.9
Yes  WPSD-TV   D32        DT  LIC     PADUCAH, KY              BLCDT20040227ABD       333.0
Yes  WIFS      D32        DT  LIC     JANESVILLE, WI           BLCDT20040930BHL       356.3

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D32
   Latitude:  40  4 10.00 N (NAD83)
  Longitude:  87 54 46.00 W
Height AMSL: 600.5 m
       HAAT: 396.0 m
   Peak ERP: 1000 kW
    Antenna: Omnidirectional
Elev Pattrn: Generic
  Elec Tilt: 1.00

40.5 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg   1000 kW   394.7 m  106.8 km
 45.0       1000      399.0    107.2
 90.0       1000      403.0    107.6
135.0       1000      393.2    106.7
180.0       1000      395.0    106.8
225.0       1000      393.4    106.7
270.0       1000      397.4    107.1
315.0       1000      395.2    106.8

ERP exceeds maximum
ERP: 1000 kW   ERP maximum: 893 kW

Distance to Canadian border: 452.7 km

Distance to Mexican border: 1676.0 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 29.4 degrees   Distance: 325.8 km

Proposal is not within the West Virginia quiet zone area
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INTERFERENCE CAUSED ANALYSIS FOR WICD(TV) CHANNEL 32
C.P. FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT

Conditions at Table Mountain receiving zone:
Bearing: 276.0 degrees Distance: 1469.4 km

Study cell size: 2.00 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%

Interference to BLCDT20091110ADL LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTJR	D32	DT	LIC	QUINCY, IL	BLCDT20091110ADL	
Undesireds:	WICD	D32	DT	CP	CHAMPAIGN, IL	BLANK0000034392	290.9 km
	KTVO	D33	DT	APP	KIRKSVILLE, MO	BPCDT20130206ADL	113.0

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
26378.3	334,527	26279.0	334,221	26266.9	334,203	26170.8	333,954	0.37 / 0.07

Undesired	Total IX	Unique IX, before		Unique IX, after	
WICD D32 DT CP	96.1	249		96.1	249
KTVO D33 DT APP	12.0	18	12.0	12.0	18

Interference to BLCDT20091110ADL LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTJR	D32	DT	LIC	QUINCY, IL	BLCDT20091110ADL	
Undesireds:	WICD	D32	DT	CP	CHAMPAIGN, IL	BLANK0000034392	290.9 km
	KTVO	D33	DT	APP	KIRKSVILLE, MO	BLANK0000035797	113.0

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
26378.3	334,527	26279.0	334,221	26042.3	332,838	25946.2	332,589	0.37 / 0.07

Undesired	Total IX	Unique IX, before		Unique IX, after	
WICD D32 DT CP	96.1	249		96.1	249
KTVO D33 DT APP	236.7	1,383	236.7	236.7	1,383

Interference to BLCDT20091110ADL LIC scenario 3

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTJR	D32	DT	LIC	QUINCY, IL	BLCDT20091110ADL	
Undesireds:	WICD	D32	DT	CP	CHAMPAIGN, IL	BLANK0000034392	290.9 km
	KTVO	D33	DT	LIC	KIRKSVILLE, MO	BLCDT20030604AAC	113.0

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
26378.3	334,527	26279.0	334,221	26270.9	334,203	26174.9	333,954	0.37 / 0.07

Undesired	Total IX	Unique IX, before		Unique IX, after	
WICD D32 DT CP	96.1	249		96.1	249
KTVO D33 DT LIC	8.0	18	8.0	8.0	18

Interference to BLCDT20040227ABD LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WPSD-TV	D32	DT	LIC	PADUCAH, KY	BLCDT20040227ABD	
Undesireds:	WICD	D32	DT	CP	CHAMPAIGN, IL	BLANK0000034392	333.0 km
	WAAY-TV	D32	DT	LIC	HUNTSVILLE, AL	BLCDT20050701ABO	350.7
	WTJR	D32	DT	LIC	QUINCY, IL	BLCDT20091110ADL	370.2

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
40909.3	883,812	40356.0	878,287	40232.3	875,819	39978.9	872,529	0.63 / 0.38

INTERFERENCE CAUSED ANALYSIS FOR WICD(TV) CHANNEL 32
C.P. FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT

Undesired		Total IX	Unique IX, before		Unique IX, after	
WICD D32 DT CP	257.4	3,505			253.5	3,290
WAAY-TV D32 DT LIC	107.8	2,148	107.8	2,148	107.8	2,148
WTJR D32 DT LIC	15.9	320	15.9	320	11.9	105

Interference to BLCDT20040930BHL LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WIFS	D32	DT	LIC	JANESVILLE, WI	BLCDT20040930BHL	
Undesireds:	WICD	D32	DT	CP	CHAMPAIGN, IL	BLANK0000034392	356.3 km
	WMEU-CD	D32	DC	LIC	CHICAGO, IL	BLDTA20131212ABK	200.0
	WTJR	D32	DT	LIC	QUINCY, IL	BLCDT20091110ADL	374.9
	WFQX-TV	D32	DT	LIC	CADILLAC, MI	BLCDT20091217ACU	354.7
	WCCO-TV	D32	DT	LIC	MINNEAPOLIS, MN	BMLCDT20120907ABQ	367.5
	WITI	D33	DT	LIC	MILWAUKEE, WI	BLANK0000040653	129.2

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
25541.1	1,400,358	25202.0	1,397,144	25093.8	1,391,971	25085.9	1,391,864	0.03	0.01

Undesired	Total IX	Unique IX, before		Unique IX, after	
WICD D32 DT CP	12.0	171		8.0	107
WMEU-CD D32 DC LIC	20.0	1,224	12.0	514	12.0	514
WTJR D32 DT LIC	4.0	64	0.0	0	0.0	0
WCCO-TV D32 DT LIC	40.2	374	40.2	374	40.2	374
WITI D33 DT LIC	51.9	4,221	47.9	3,575	47.9	3,575

Interference to BLCDT20040930BHL LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WIFS	D32	DT	LIC	JANESVILLE, WI	BLCDT20040930BHL	
Undesireds:	WICD	D32	DT	CP	CHAMPAIGN, IL	BLANK0000034392	356.3 km
	WMEU-CD	D32	DC	LIC	CHICAGO, IL	BLDTA20131212ABK	200.0
	WTJR	D32	DT	LIC	QUINCY, IL	BLCDT20091110ADL	374.9
	WFQX-TV	D32	DT	APP	CADILLAC, MI	BLANK0000035809	354.7
	WCCO-TV	D32	DT	LIC	MINNEAPOLIS, MN	BMLCDT20120907ABQ	367.5
	WITI	D33	DT	LIC	MILWAUKEE, WI	BLANK0000040653	129.2

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
25541.1	1,400,358	25202.0	1,397,144	25089.9	1,391,830	25081.9	1,391,723	0.03	0.01

Undesired	Total IX	Unique IX, before		Unique IX, after	
WICD D32 DT CP	12.0	171		8.0	107
WMEU-CD D32 DC LIC	20.0	1,224	12.0	514	12.0	514
WTJR D32 DT LIC	4.0	64	0.0	0	0.0	0
WFQX-TV D32 DT APP	4.0	141	4.0	141	4.0	141
WCCO-TV D32 DT LIC	40.2	374	40.2	374	40.2	374
WITI D33 DT LIC	51.9	4,221	47.9	3,575	47.9	3,575

INTERFERENCE RECEIVED ANALYSIS FOR WICD(TV) CHANNEL 32
C.P. FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT

```
tvstudy v2.2.5 (4uoc83)

    Database: localhost
Station Data: LMS TV 2018-05-03
       Study: LMS180503
       Model: Longley-Rice
    Scenario: wicd32e3r
```

Desired station / Undesired station	Service area	Total interference	Terrain-limited	Unique interference	Interference-free	
WICD D32 DT CP CHAMPAIGN, IL	35941.9	1,238,332	35905.8	1,237,046	35271.4	1,229,844
WFLD D31 DT LIC CHICAGO, IL	0.0	0	0.0	0		
WMEU-CD D32 DC LIC CHICAGO, IL	282.4	2,539	282.4	2,539	(0.21%)	
WTJR D32 DT LIC QUINCY, IL	292.2	4,346	228.5	4,061	(0.33%)	
WPSD-TV D32 DT LIC PADUCAH, KY	123.5	602	59.8	317	(0.03%)	
WIFS D32 DT LIC JANESVILLE, WI	0.0	0	0.0	0		