

July 7, 2006

VIA ECFS

Marlene H. Dortch, Esq.
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554
ATTN: Video Services Division

Note: Exempt From Filing Fees

Re: **Request for Waiver of July 2006 DTV Replication/Maximization Deadline**
Noncommercial Educational Station WITF-DT, Harrisburg, PA
Facility ID: 73083 / FRN: 0005017454
MB Docket No. 03-15

Dear Ms. Dortch:

On behalf of WITF, Inc. ("WITF"), licensee of noncommercial educational television station WITF-DT, Harrisburg, Pennsylvania, and pursuant to the FCC Public Notice in DA 06-1255, *DTV Channel Election Issues – Compliance with the July 1 Replication/Maximization Interference Protection Deadline* (June 14, 2006) ("Public Notice"), we hereby request a waiver of WITF-TV/DT's July 1, 2006 replication requirements.¹

In the *Second DTV Periodic Review Report and Order*,² the Commission adopted a July 1, 2006 replication/maximization protection deadline for noncommercial DTV licensees. The Commission stated that, in cases where a station was unable to meet the applicable deadline due to "circumstances beyond a station's control," it would "grant extensions of the applicable replication or maximization interference protection deadline on a six-month basis if good cause is shown."³ As explained below, WITF requires a waiver due to the recent change forced upon its post-transition DTV channel plans, and the resulting increase in its corresponding replication requirements, which mean WITF-DT's licensed operation falls just short of the applicable

¹ The deadline was extended to July 7 by the FCC Public Notice *DTV Channel Election Issues – Media Bureau Extends Filing Deadline for Compliance with the July 1, 2006 Replication/Maximization Interference Protection Deadline to July 7, 2006*, DA 06-1372 (June 29, 2006).

² Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television, *Report and Order*, 19 FCC Rcd 18279 (rel. Sept. 7, 2004) ("*Report and Order*").

³ *Id.*, ¶ 87.

standard. Moreover, antenna height mounting restrictions in connection with WITF's current analog operation, constraints upon WITF's current ability to modify its facilities, and other factors beyond WITF's control support a waiver of the replication deadline.

In its November, 2004 Pre-Election Certification, WITF certified that it would operate post-transition "replication" facilities for WITF-DT. *See* FCC File No. BCERET-20041103AEG. At the time it made that certification, WITF fully intended and expected to return to its NTSC channel 33 for DTV use at the end of transition. That meant, among other things, that it would be subject to an 80% replication requirement at the July, 2006 deadline.⁴ Accordingly, in January of 2005, WITF elected its NTSC Channel 33 as its First Round Channel Election. *See* FCC File No. BFREET-20050124AEB.

However, WITF's election of its NTSC Channel 33 was disapproved by the Commission in June, 2005 due to small amounts (0.3%) of interference to Station WTAJ in Altoona, Pennsylvania. As a result, in August of 2005, WITF sought to reach an agreement with Station WTAJ to allow for WITF-DT's use of Channel 33. After those efforts failed, WITF had no choice in its First Round Conflict Decision in August, 2005 but to modify its channel election to select its existing DTV Channel 36. *See* FCC File No. BFRECT-20050812AAS. The FCC released its tentative designation of post-transition DTV Channel 36 for WITF on October 5, 2005.

When WITF had certified its intent to replicate, it had been more than four years since it had built-out and licensed its WITF-DT facility on Channel 36 at 50 kW ERP. *See* FCC File BLEDT-20000922AHE, granted October 31, 2000. With that constructed DTV facility, WITF already met the 80% replication standard required of stations that receive a DTV channel designation on a channel that is not their current DTV channel – which is precisely what WITF expected to receive upon its then planned, and later filed, election of its NTSC Channel 33. WITF-DT's currently licensed and operating digital facilities on Channel 36 provide 96% replication, easily surpassing the 80% threshold that would have applied had WITF's initial channel election been approved. *See* attached Engineering Statement. It was only after the FCC identified a conflict with the Channel 33 election that WITF conceded that it would be required to stay on Channel 36 as its permanent DTV channel (which decision was later acknowledged by the Commission with the issuance of the tentative table in October, 2005). Due to the required change from the election of its NTSC channel to that of its existing DTV channel, WITF must now "construct full, authorized DTV facilities,"⁵ which FCC staff has confirmed requires 100% analog replication.

As explained in the attached Engineering Statement, WITF-DT's current ability to maximize replication is constrained by the side-mounting of the station's DTV antenna (as required to avoid interference with WITF's analog Channel 33 operation), and the resulting need

⁴ Id., ¶ 78.

⁵ Id.

Marlene H. Dortch, Esq.

July 7, 2006

Page 3

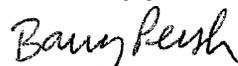
to employ a standard omnioid antenna to best fit the allotment. Accordingly, WITF's circumstance corresponds with that outlined on page 5 of the FCC's June 14, 2006 Public Notice with respect to licensees that "may be able to come close to meeting the applicable replication or maximization requirements, but cannot meet the precise requirements," such as "licensees with a top-mounted analog antenna and side-mounted digital antenna" that if switched in order to achieve greater replication would cause analog viewers to lose service.

WITF's currently licensed DTV operation comes very close to its now-applicable 100% replication standard. The licensed WITF-DT facility (at 50 kW ERP and 411 meters HAAT) reaches a population of 1,854,500, or 95.7% of the "Table II" replication baseline population of 1,938,141 (which is based on WITF-DT at 50 kW ERP and 427 meters HAAT). As noted above and in the attached technical statement, it is the lower DTV antenna height (as necessitated by the current analog antenna position), and the corresponding antenna design options, which prevent full compliance at 100% replication.

Nonetheless, WITF plans to pursue various options to modify its DTV operation following the termination of analog operation to increase its digital coverage and replication. In particular, as noted in the engineering statement, a top-mounted DTV antenna, additional transmitter module, and the use of new DTV antenna will be considered. At the present time, however, WITF's options for increasing power and replication are limited, and in fact the current filing freeze precludes extending WITF-DT beyond its allotment footprint, as would be needed to achieve 100% replication. *See* Engineering Statement at 2. Even if permitted, such a modification would require the purchase of an additional DTV transmitter module and new analog and digital antennas, in addition to switching the current side- and top-mount positions of the DTV and analog antennas. WITF estimates that such facility changes would require expenditures on the order of \$660,000. For a small public broadcaster such as WITF, such costs could not be justified by the relatively minor impact of viewers, considering that only 4% population (fewer than 100,000 persons) constitute the difference between WITF-DT's current licensed operation and 100% replication facilities, and further considering the \$1,748,239 in expenses that WITF has already incurred to date for its DTV conversion.

WITF is a noncommercial educational broadcaster and operates station WITF-TV/DT on a noncommercial educational basis. WITF is therefore exempt from filing fees pursuant to Section 1.1114 of the FCC's Rules, and exempt from regulatory fees pursuant to Section 1.1162 of the FCC's Rules. The applicant certifies that no party to this filing is subject to a denial of federal benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862. Should any questions arise concerning this waiver request, kindly contact this office.

Very truly yours,



Barry S. Persh
Counsel for WITF, Inc.

Enclosure

cc: Shaun Maher (at Shaun.Maher@fcc.gov)

ENGINEERING STATEMENT
ON BEHALF OF
WITF, INC.
LICENSEE OF
WITF-DT, CHANNEL 36, HARRISBURG, PENNSYLVANIA
IN SUPPORT OF REQUEST FOR
WAIVER OF REPLICATION/MAXIMIZATION
INTERFERENCE PROTECTION DEADLINE
UNDER MB DOCKET NO. 03-15

JUNE 2006

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

This engineering statement has been prepared on behalf of WITF, Inc. [“WITF”], licensee of WITF-DT, Channel 36, Harrisburg, Pennsylvania, a non-commercial educational station. This statement supports WITF’s request for a waiver of the Replication/Maximization Interference Protection Deadline of July 1, 2006, MB Docket No. 03-15. This request follows the numbered points for the example of a side-mounted DTV antenna given on Page 5 of Public Notice DA 06-1255 June 14, 2000.

(1) Licensed Facility Serves 96% of Replication Population

WITF-DT Channel 36 facilities are authorized at 50 kW ERP (maximum directional) with height above average terrain (“HAAT”) of 411 meters. WITF was an early provider of full digital television service; a construction permit was granted for near-replication facilities on January 1, 1998 [BPEDT-19990303KE] and a digital license was granted October 31, 2000 [BLEDT-20000922AHE]. The facility has been serving almost 96% of the replication population [as given in Table II 12/21/04] for over 5 years, except for an interruption due to fire damage.

(2) Reasons License Facility is Less Than Replication

The fact that this facility has been serving slightly less than replication population is due to two factors. First, a non-directional antenna that fits within the DTV allotment would have an omnidirectional ERP of only 43 kW. The allotment is shown in Exhibit E-1a and the relative field values are tabulated in Exhibit E-1b. Second, the actual antenna had to be side-mounted 16 meters lower on the tower so as not to interfere with the NTSC Channel 33 operation. The standard omniod side-mounted antenna installed at the lower height was the best fit for the allotment. Exhibit E-2a plots the licensed antenna pattern and the relative field values are given in Exhibit E-2b.

The transmitter was sized to operate efficiently at an output power resulting in 50 kW maximum ERP from the omniod antenna. Because of the lower height, the maximum ERP could

be as high as 57.7 kW and remain within the allotment. That power would serve 97% of the replication population; a 1% increase over the licensed operation, yet still short of full replication. However, achieving the 57.7 kW ERP would involve running the existing transmitter “flat-out” and would significantly shorten its operating life.

(3) Cost of Full Replication

As described above, the arbitrary nature of the allotment parameters (replication pattern) makes it impossible to exactly match the allotment with actual facilities. Full replication cannot be achieved under the current freeze. Extending service beyond the allotment footprint in order to achieve replication, if permitted during the transition, would involve an additional DTV transmitter module, new antennas for both NTSC and DTV as well as swapping their relative positions on the tower. No effort is warranted to specify the costs for such changes; suffice it to say that it is prohibitively expensive for such a small increase in over-the-air service.

(4) Future Modification

The licensee has expressed a commitment to explore cost-effective options to expand DTV service when the existing freeze is lifted and short lived modifications to the analog facility are not required. These options include:

- a) Top-mounting the DTV antenna
- b) Additional transmitter module
- c) New DTV antenna

The specifics of the facility improvement cannot be determined without knowledge of the final DTV Table of Allotments and the post-freeze interference protection standards. While these

improvements would still involve significant cost, it is hoped that these costs will be justified by service population gains exceeding the 4% required to just achieve replication.

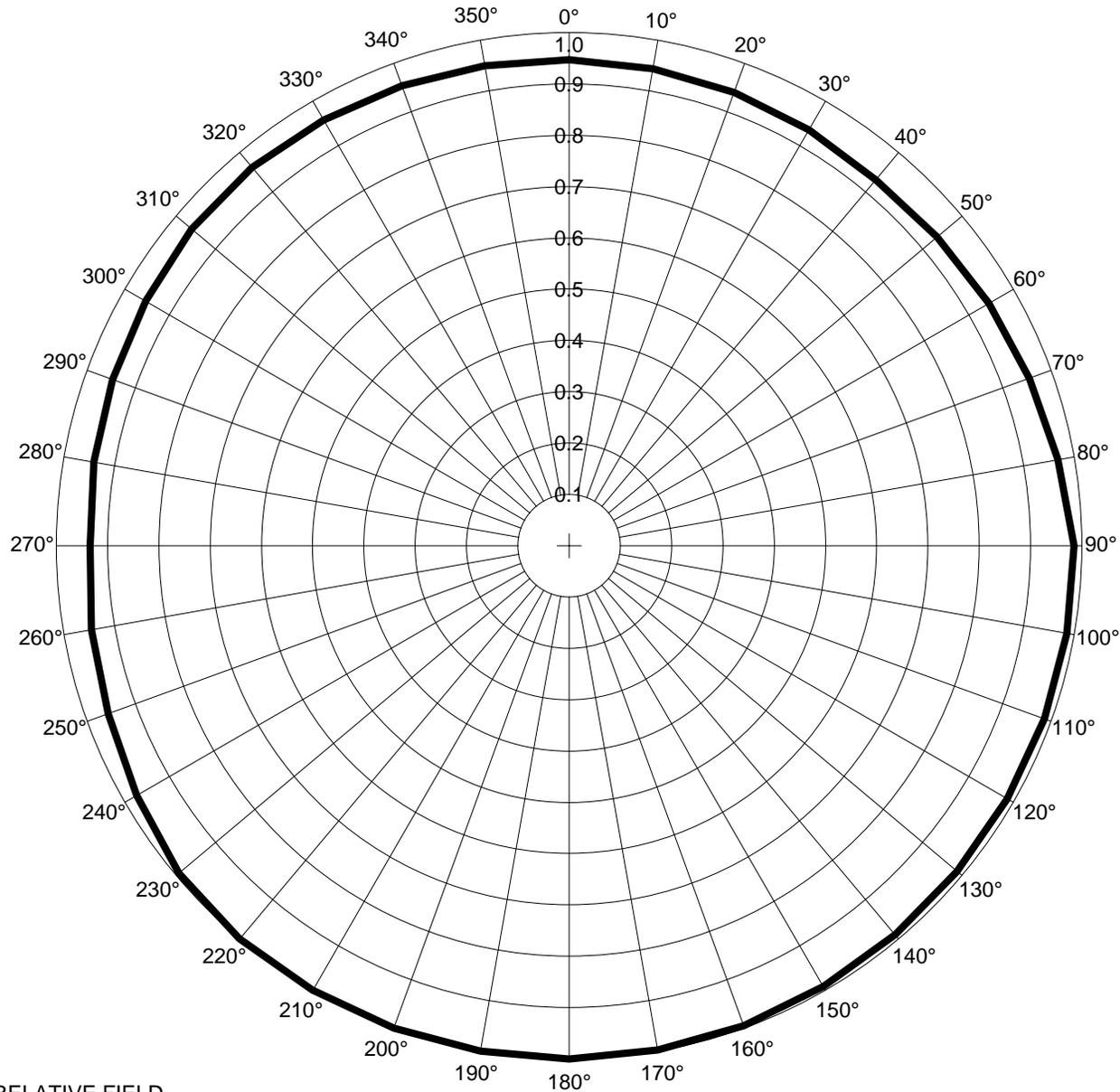
For the reasons stated above, WITF requests full interference protection to its allotted facility until the end of the transition. WITF requests a waiver of the 100% replication population requirement based upon its existing 5 year operation that continues to serve 96% of the replication population.

EXHIBIT E-1b
WITF-DT, CHANNEL 36, ALLOTMENT
RELATIVE FIELD AND ERP BY AZIMUTH
JUNE 2006

<u>Azimuth</u> N ° E, T	<u>Relative</u> <u>Field</u>	<u>ERP</u> kW	<u>Azimuth</u> N ° E, T	<u>Relative</u> <u>Field</u>	<u>ERP</u> kW
0	0.947	44.8	180	1.000	50.0
10	0.944	44.6	190	1.000	50.0
20	0.940	44.2	200	1.000	50.0
30	0.936	43.8	210	1.000	50.0
40	0.931	43.3	220	1.000	50.0
50	0.936	43.8	230	0.993	49.3
60	0.945	44.7	240	0.974	47.4
70	0.955	45.6	250	0.957	45.8
80	0.968	46.9	260	0.946	44.7
90	0.985	48.5	270	0.934	43.6
100	0.986	48.6	280	0.941	44.3
110	0.986	48.6	290	0.947	44.8
120	0.986	48.6	300	0.953	45.4
130	0.987	48.7	310	0.961	46.2
140	0.989	48.9	320	0.962	46.3
150	0.992	49.2	330	0.958	45.9
160	0.995	49.5	340	0.954	45.5
170	0.997	49.7	350	0.950	45.1

HORIZONTAL PLANE PATTERN

TRUE NORTH



RELATIVE FIELD

EXHIBIT E - 1a
HORIZONTAL PATTERN
WITF-DT(ALLOT), HARRISBURG, PA
JUNE 2006

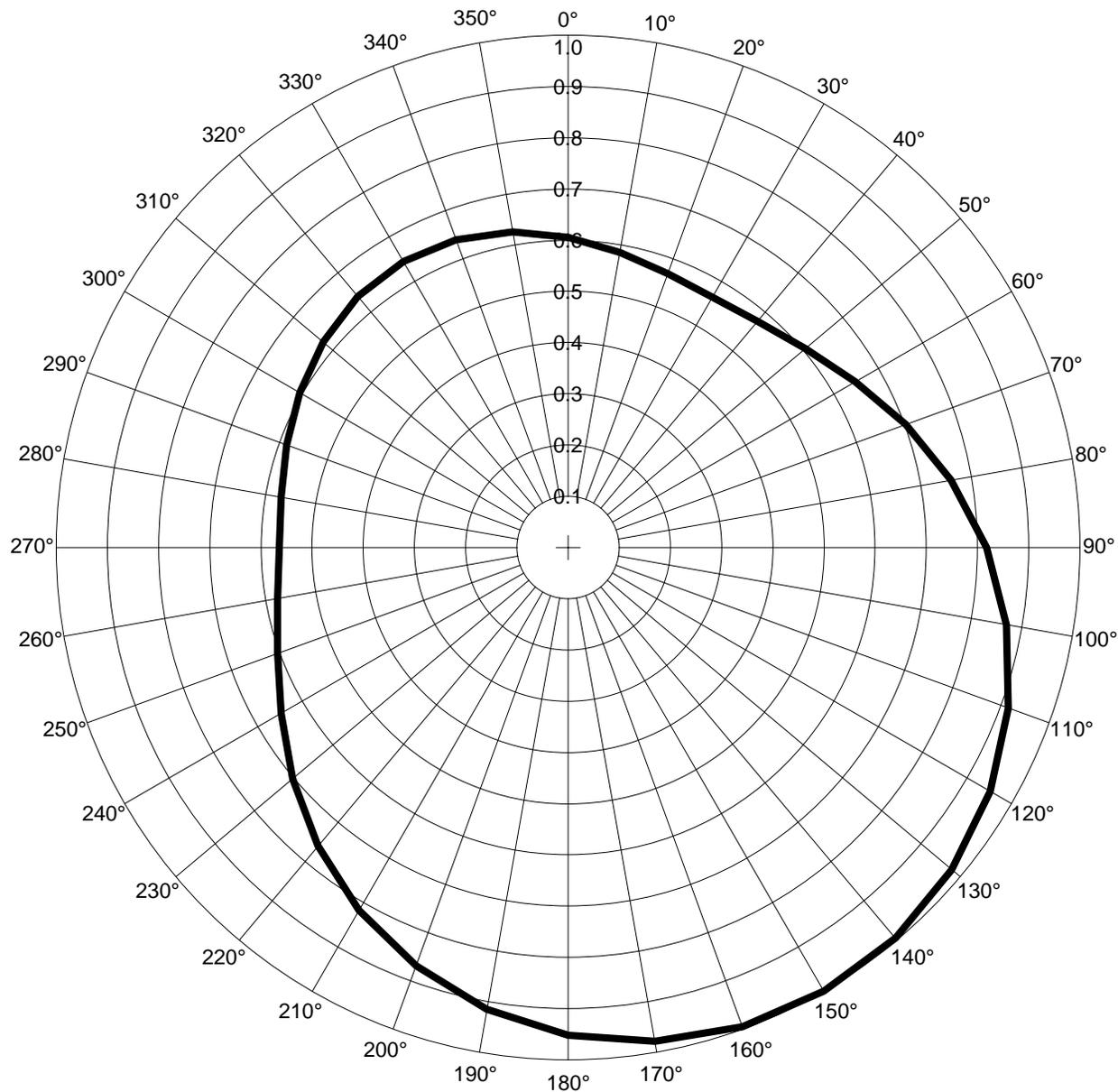
COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS

EXHIBIT E-2b
WITF-DT, CHANNEL 36, LICENSE
RELATIVE FIELD AND ERP BY AZIMUTH
JUNE 2006

<u>Azimuth</u> N ° E, T	<u>Relative</u> <u>Field</u>	<u>ERP</u> kW	<u>Azimuth</u> N ° E, T	<u>Relative</u> <u>Field</u>	<u>ERP</u> kW
0	0.605	18.3	180	0.952	45.3
10	0.585	17.1	190	0.915	41.9
20	0.569	16.2	200	0.869	37.8
30	0.564	15.9	210	0.817	33.4
40	0.576	16.6	220	0.760	28.9
50	0.604	18.2	230	0.702	24.6
60	0.648	21.0	240	0.648	21.0
70	0.702	24.6	250	0.604	18.2
80	0.760	28.9	260	0.576	16.6
90	0.817	33.4	270	0.564	15.9
100	0.869	37.8	280	0.569	16.2
110	0.915	41.9	290	0.585	17.1
120	0.952	45.3	300	0.605	18.3
130	0.978	47.8	310	0.625	19.5
140	0.995	49.5	320	0.639	20.4
150	1.000	50.0	330	0.644	20.7
160	0.995	49.5	340	0.639	20.4
170	0.978	47.8	350	0.625	19.5

HORIZONTAL PLANE PATTERN

TRUE NORTH



RELATIVE FIELD

EXHIBIT E - 2a
HORIZONTAL PATTERN
WITF-DT (LIC), HARRISBURG, PA
JUNE 2006

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS