

## **ENGINEERING EXHIBIT**

### **Incentive Auction Channel Reassignment**

### **Application for Modification of Digital Television Station Construction Permit**

prepared for

#### **WNET**

WNET(DT) Newark, NJ  
Facility ID 18795  
Ch. 12 6.52 kW 508 m

*WNET* is the licensee of digital television station WNET, Channel 13, Facility ID 18795, Newark, NJ. Reassignment of WNET from Channel 13 to Channel 12 was specified in the *Incentive Auction Closing and Channel Reassignment Public Notice* (“*CCRPN*”, DA 17-317, released April 13, 2017). *WNET* herein proposes modification of the WNET Channel 12 Construction Permit (“CP”, file# 0000025352). This application is intended to be filed during the second filing window.<sup>1</sup> The CP authorizes operation at 4.56 kW effective radiated power (“ERP”) at 508 meters antenna height above average terrain (“HAAT”). *WNET* proposes herein to increase the ERP to 6.52 kW.

As with the current authorization, the proposed WNET facility will employ a shared antenna which will be installed on a portion of the mast atop the recently completed One World Trade Center building (“1WTC”). The mast structure atop 1WTC is associated with FCC Antenna Structure Registration number 1263701. No change to the overall structure height will result.

Figure 1 supplies a map that demonstrates compliance with §73.625(a)(1) regarding coverage of the entire principal community. The proposed facility’s predicted population exceeds 95 percent of the *CCRPN* baseline facility’s population.

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<sup>1</sup>Public Notice “*Incentive Auction Task Force and Media Bureau Announce the Opening of the Second Filing Window for Eligible Full Power and Class A Television Station—October 3 Through November 2, 2017*” DA 17-911, released September 20, 2017.

Interference study per FCC OET Bulletin 69<sup>2</sup> shows that the proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby post-auction full service and Class A television stations and reassignments as required by §73.616. **FCC processing of this proposal is requested using a 2 km cell size and 0.1 km terrain profile increment.** The interference study output report is provided as Table 1.

The proposed 6.52 kW ERP exceeds the maximum allowed for the proposed antenna HAAT of 508 meters permitted by §73.622(f)(7)(i). Section 73.622(f)(5) permits the maximum ERP to be exceeded in order to provide the same geographic coverage area as the largest station within the same market. As demonstrated in Figure 2, the total area within the proposed WNET NLSC is 33,762 square kilometers, which does not exceed the NLSC area of WABC-TV (43,775 sq. km, Ch. 7 CP, New York NY, BMPCDT-20080620AMV). Thus, the 6.52 kW ERP specified herein is in compliance with §73.622(f)(5) of the FCC's Rules.

The nearest FCC monitoring station is 295 km distant at Laurel MD. This exceeds by a large margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with “quiet” zones specified in §73.1030(a) and (b). There are no authorized AM stations within 3 kilometers of the site. The site location is beyond the border areas requiring international coordination.

### **Human Exposure to Radiofrequency Electromagnetic Field (Environmental)**

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number. 65. Based on OET-65 equation (10), and assuming the worst case of 100 percent antenna relative field in downward elevations,

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<sup>2</sup>FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 (“OET-69”). This analysis employed the FCC's current “TVStudy” software with the default application processing template settings, 2 km cell size, and **0.1 km terrain profile increment**. Comparisons of various results of this computer program (run on a Mac processor) to the FCC's implementation of TVStudy show excellent correlation. In order to allow the upload of elevation pattern data, a response of “Yes” is provided in the accompanying Form 2100 Antenna Technical Data section question regarding whether the elevation pattern varies for reasons other than the use of mechanical beamtilt.

the calculated signal density near the 1WTC building at two meters above ground level attributable to the proposed facility is  $1.7 \mu\text{W}/\text{cm}^2$ , which is 0.8 percent of the general population / uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in §1.1307(b)(3) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent. When the antenna's elevation pattern is considered the calculated signal density will be even lower.

Access to the 1WTC rooftop, antenna support structure, and any areas within the building that may exceed exposure limits will be strictly controlled by the building owner. *WNET* will participate in the building's RF exposure safety program along with other broadcasters and FCC licensees that may utilize the 1WTC as a transmission site. As necessary, based on calculations or actual measurements considering all emitters, exposure abatement procedures will be established. The RF safety program will be employed protecting maintenance and installation workers from excessive exposure when work must be performed in locations where high RF levels may be present. Such areas will be placed under strict restricted access and properly identified.

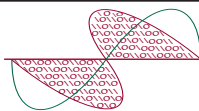
The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. The applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, mast or antenna from RF electromagnetic field exposure in excess of FCC guidelines. This exhibit is limited to the evaluation of exposure to RF electromagnetic field.

*List of Attachments*

Figure 1	Proposed Coverage Contours
Figure 2	Maximum ERP per §73.622(f)
Table 1	OET Bulletin 69 Interference Study
Form 2100	Saved Version of Engineering Sections from FCC Form at Time of Upload

**Chesapeake RF Consultants, LLC**

Joseph M. Davis, P.E.	October 17, 2017	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600

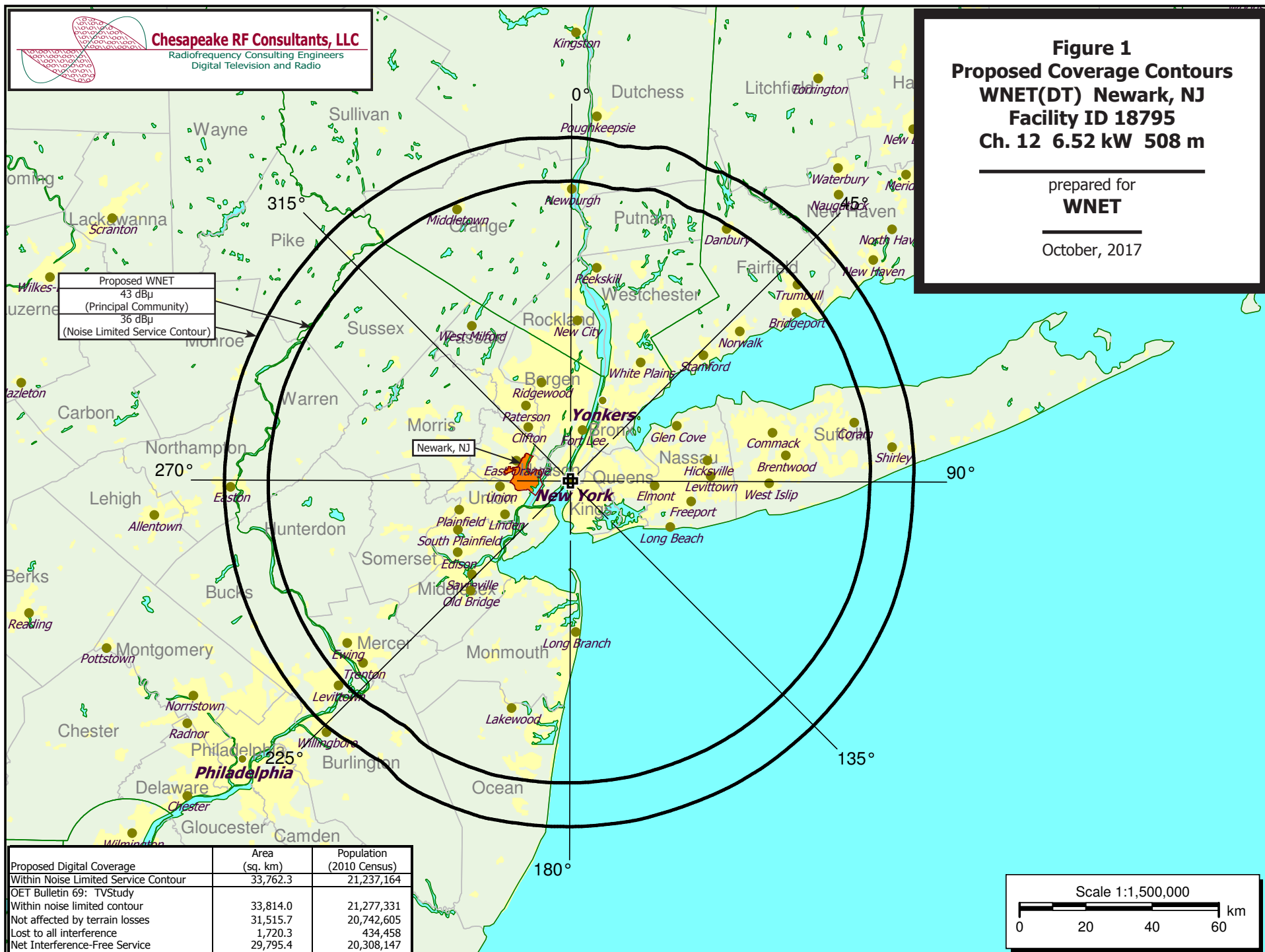


**Chesapeake RF Consultants, LLC**  
Radiofrequency Consulting Engineers  
Digital Television and Radio

**Figure 1**  
**Proposed Coverage Contours**  
**WNET(DT) Newark, NJ**  
**Facility ID 18795**  
**Ch. 12 6.52 kW 508 m**

prepared for  
**WNET**

October, 2017



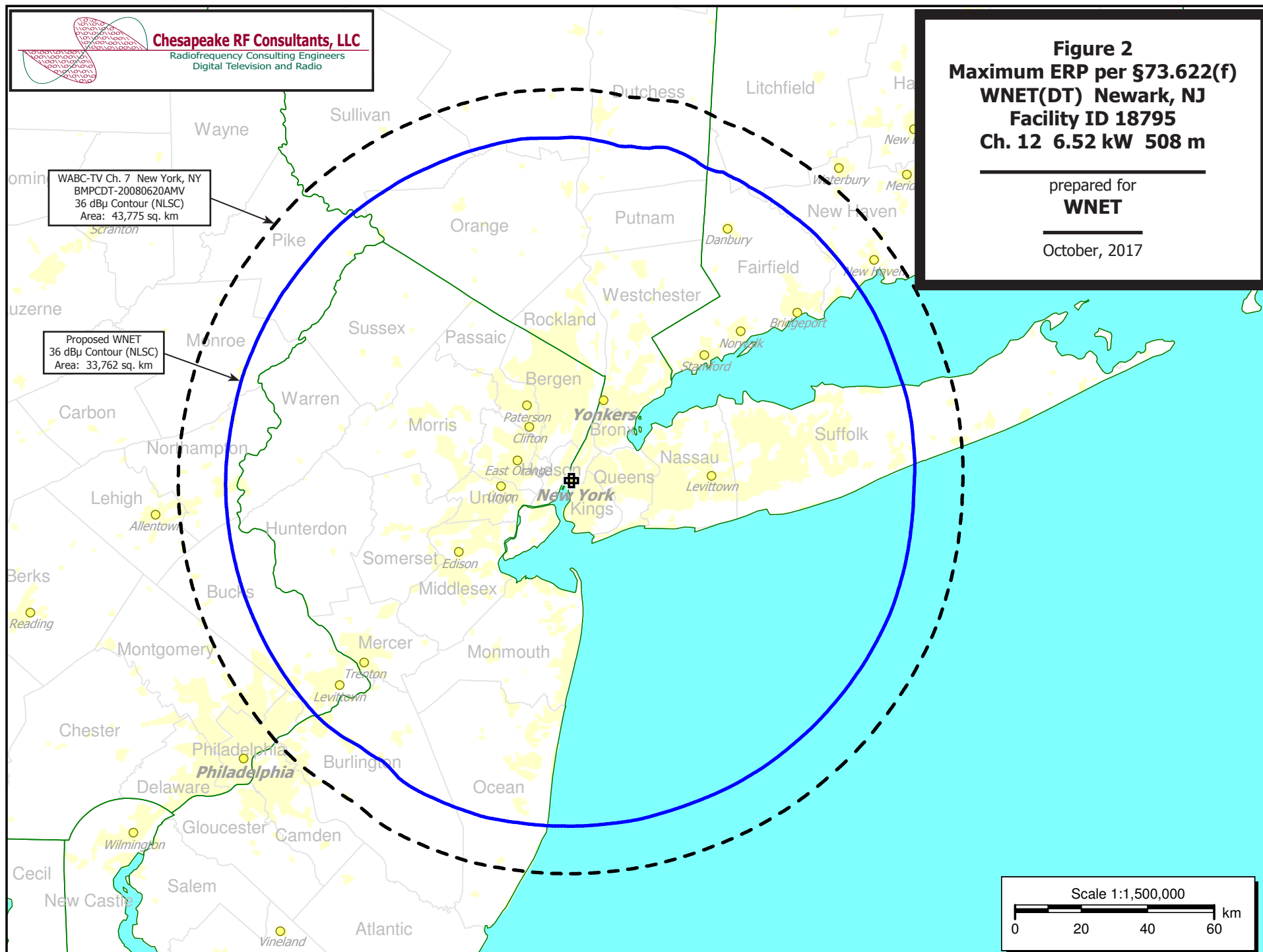


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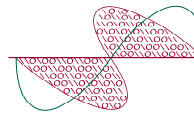
**Figure 2**  
**Maximum ERP per §73.622(f)**  
**WNET(DT) Newark, NJ**  
**Facility ID 18795**  
**Ch. 12 6.52 kW 508 m**

prepared for  
**WNET**

October, 2017



**Table 1 WNET(DT) OET Bulletin 69 Interference Study**  
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**Chesapeake RF Consultants, LLC**  
Radiofrequency Consulting Engineers  
Digital Television and Radio

tvstudy v2.2.3 (6K70F1)

Database: localhost, Study: WNET 6.52kW Prop 2.0-0.1, Model: Longley-Rice  
Start: 2017.10.17 15:55:47

Study created: 2017.10.17 15:54:45

Study build station data: LMS TV 2017-10-07 LMSTV

Proposal: WNET D12 DT APP NEWARK, NJ  
File number: WNET 6.52kW Prop  
Facility ID: 18795  
Station data: User record  
Record ID: 1373  
Country: U.S.  
Zone: I

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WWLP	D11	DT	LIC	SPRINGFIELD, MA	BLCDT20090612AJV	187.5 km
No	WPIX	D11	DT	CP	NEW YORK, NY	BMPCDT20080620ALB	0.0
Yes	WPIX	D11	DT	LIC	NEW YORK, NY	BLCDT20090911ABN	4.6
No	WBRE-TV	D11	DT	LIC	WILKES-BARRE, PA	BLCDT20051123AJX	164.7
Yes	WBAL-TV	D12	DT	CP	BALTIMORE, MD	BLANK0000024625	271.8
Yes	WNYT	D12	DT	LIC	ALBANY, NY	BLANK0000004731	212.6
Yes	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	164.7
Yes	WNAC-TV	D12	DT	LIC	PROVIDENCE, RI	BLCDT20090612AFT	262.2
Yes	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	127.8
No	WGBY-TV	D13	DT	CP	SPRINGFIELD, MA	BLANK0000025429	204.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D12  
Latitude: 40 42 46.80 N (NAD83)  
Longitude: 74 0 47.30 W  
Height AMSL: 518.2 m  
HAAT: 507.8 m  
Peak ERP: 6.52 kW  
Antenna: Omnidirectional  
Elev Pattn: RFS662-16D-OWT  
Elec Tilt: 2.50

36.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	6.52 kW	501.6 m	103.3 km
45.0	6.52	515.6	104.3
90.0	6.52	498.5	103.1
135.0	6.52	505.5	103.6
180.0	6.52	509.4	103.9
225.0	6.52	512.0	104.0
270.0	6.52	511.5	104.0
315.0	6.52	507.9	103.8

ERP exceeds maximum

ERP: 6.52 kW ERP maximum: 5.51 kW

\*\*Proposal service area extends beyond baseline plus 1.0%  
Proposal service area population is more than 95.0% of baseline

Distance to Canadian border: 397.2 km

Distance to Mexican border: 2670.8 km

Conditions at FCC monitoring station: Laurel MD  
Bearing: 235.2 degrees Distance: 294.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

**Table 1 WNET(DT) OET Bulletin 69 Interference Study**  
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Bearing: 279.0 degrees Distance: 2627.4 km

Study cell size: 2.00 km  
Profile point spacing: 0.10 km

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

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Interference to BLCDT20090911ABN LIC, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WPIX	D11	DT	LIC	NEW YORK, NY	BLCDT20090911ABN	
Undesireds:	WNET	D12	DT	BL	NEWARK, NJ	DTVBL18795	4.6 km
	WNET	D12	DT	APP	NEWARK, NJ	WNET 6.52kW Prop	4.6
	WTNH	D10	DT	LIC	NEW HAVEN, CT	BLCDT20040701AEC	114.6
	WWLP	D11	DT	LIC	SPRINGFIELD, MA	BLCDT20090612AJV	183.0
	WJZ-TV	D11	DT	CP	BALTIMORE, MD	BLANK0000024506	275.8
	WBRE-TV	D11	DT	LIC	WILKES-BARRE, PA	BLCDT20051123AJX	165.6
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
29997.2 20,638,932		28048.8 20,244,312		26655.2 19,953,652		26655.2 19,953,652	0.00 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
WNET D12 DT BL		4.0 61		0.0 0		0.0 0	
WNET D12 DT APP		4.0 61				0.0 0	
WTNH D10 DT LIC		188.7 39,831		44.6 12,560		44.6 12,560	
WWLP D11 DT LIC		424.8 92,896		84.0 18,141		84.0 18,141	
WJZ-TV D11 DT CP		478.7 93,177		80.1 17,104		80.1 17,104	
WBRE-TV D11 DT LIC		1120.5 231,121		522.1 100,888		522.1 100,888	

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Interference to BLANK0000024625 CP, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WBAL-TV	D12	DT	CP	BALTIMORE, MD	BLANK0000024625	
Undesireds:	WNET	D12	DT	BL	NEWARK, NJ	DTVBL18795	271.8 km
	WNET	D12	DT	APP	NEWARK, NJ	WNET 6.52kW Prop	271.8
	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	215.7
	WVPT	D12	DD	CP	STAUNTON, VA	BLANK0000028448	264.9
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	144.0
	WWPX-TV	D13	DT	CP	MARTINSBURG, WV	BLANK0000027005	122.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
32291.8 9,662,486		30296.6 9,256,332		29325.0 8,907,495		29321.0 8,906,757	0.01 0.01
Undesired		Total IX		Unique IX, before		Unique IX, after	
WNET D12 DT BL		40.2 13,743		12.1 7,654		16.1 8,392	
WNET D12 DT APP		72.3 24,003				16.1 8,392	
WYOU D12 DT CP		867.2 296,011		779.6 273,304		751.5 263,782	
WVPT D12 DD CP		92.3 45,183		84.3 44,992		84.3 44,992	
WHYY-TV D13 DT CP		55.5 21,331		0.0 0		0.0 0	
WWPX-TV D13 DT CP		7.9 180		7.9 180		7.9 180	

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Interference to BLANK0000004731 LIC, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WNYT	D12	DT	LIC	ALBANY, NY	BLANK0000004731	
Undesireds:	WNET	D12	DT	BL	NEWARK, NJ	DTVBL18795	212.6 km
	WNET	D12	DT	APP	NEWARK, NJ	WNET 6.52kW Prop	212.6
	WWLP	D11	DT	LIC	SPRINGFIELD, MA	BLCDT20090612AJV	123.0
	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	222.4
	WNAC-TV	D12	DT	LIC	PROVIDENCE, RI	BLCDT20090612AFT	239.4
	WGBY-TV	D13	DT	CP	SPRINGFIELD, MA	BLANK0000025429	119.6
	WNYI	D13	DT	APP	ITHACA, NY	BLANK0000029367	167.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX



**Table 1 WNET(DT) OET Bulletin 69 Interference Study**  
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38151.4	1,967,183	32962.8	1,689,322	32434.5	1,674,643	32438.5	1,674,674	-0.01	-0.00
Undesired		Total IX		Unique IX, before		Unique IX, after			
WNET D12 DT BL	132.2		2,239	52.1	1,069				
WNET D12 DT APP	116.2		2,053			48.1	1,038		
WWLP D11 DT LIC	43.9		682	12.0	214	12.0	214		
WYOU D12 DT CP	220.2		9,257	160.0	8,260	160.0	8,260		
WNAC-TV D12 DT LIC	240.2		4,462	96.1	2,279	104.2	2,347		
WGBY-TV D13 DT CP	148.1		1,996	28.0	227	28.0	227		

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Interference to BLANK0000028347 CP, scenario 1

Desired:	Call WYOU	Chan D12	Svc DT	Status CP	City, State SCRANTON, PA	File Number BLANK0000028347	Distance		
Undesireds:	WNET	D12	DT	BL	NEWARK, NJ	DTVBL18795	164.7 km		
	WNET	D12	DT	APP	NEWARK, NJ	WNET 6.52kW Prop	164.7		
	WPIX	D11	DT	CP	NEW YORK, NY	BMPCDT20080620ALB	164.7		
	WBAL-TV	D12	DT	CP	BALTIMORE, MD	BLANK0000024625	215.7		
	WNYT	D12	DT	LIC	ALBANY, NY	BLANK0000004731	222.4		
	WICU-TV	D12	DT	LIC	ERIE, PA	BLCDT20090619ABT	357.0		
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	137.6		
	WNYI	D13	DT	APP	ITHACA, NY	BLANK0000029367	175.8		
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
41052.9	3,553,761	35407.3	2,853,975	34337.1	2,701,763	34284.9	2,689,287	0.15	0.46

Undesired		Total IX		Unique IX, before		Unique IX, after	
WNET D12 DT BL	657.3		98,782	360.8	49,766		
WNET D12 DT APP	741.6		117,222			413.0	62,242
WBAL-TV D12 DT CP	556.9		93,711	260.5	44,387	236.5	38,567
WNYT D12 DT LIC	160.4		8,733	108.3	5,553	104.3	5,549
WICU-TV D12 DT LIC	4.0		0	0.0	0	0.0	0
WHYY-TV D13 DT CP	80.2		9,689	8.0	508	8.0	508
WNYI D13 DT APP	4.0		102	0.0	0	0.0	0

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Interference to BLANK0000028347 CP, scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance		
Desired:	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347			
Undesireds:	WNET	D12	DT	BL	NEWARK, NJ	DTVBL18795	164.7 km		
	WNET	D12	DT	APP	NEWARK, NJ	WNET 6.52kW Prop	164.7		
	WPIX	D11	DT	CP	NEW YORK, NY	BMPCDT20080620ALB	164.7		
	WBAL-TV	D12	DT	CP	BALTIMORE, MD	BLANK0000024625	215.7		
	WNYT	D12	DT	LIC	ALBANY, NY	BLANK0000004731	222.4		
	WICU-TV	D12	DT	LIC	ERIE, PA	BLCDT20090619ABT	357.0		
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	137.6		
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
41052.9	3,553,761	35407.3	2,853,975	34337.1	2,701,763	34284.9	2,689,287	0.15	0.46

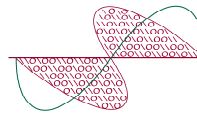
Undesired		Total IX		Unique IX, before		Unique IX, after	
WNET D12 DT BL	657.3		98,782	360.8	49,766		
WNET D12 DT APP	741.6		117,222			413.0	62,242
WBAL-TV D12 DT CP	556.9		93,711	260.5	44,387	236.5	38,567
WNYT D12 DT LIC	160.4		8,733	108.3	5,553	104.3	5,549
WICU-TV D12 DT LIC	4.0		0	0.0	0	0.0	0
WHYY-TV D13 DT CP	80.2		9,689	8.0	508	8.0	508

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Interference to BLANK0000028347 CP, scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	
Undesireds:	WNET	D12	DT	BL	NEWARK, NJ	DTVBL18795	164.7 km
	WNET	D12	DT	APP	NEWARK, NJ	WNET 6.52kW Prop	164.7
	WPIX	D11	DT	CP	NEW YORK, NY	BMPCDT20080620ALB	164.7
	WBAL-TV	D12	DT	CP	BALTIMORE, MD	BLANK0000024625	215.7
	WNYT	D12	DT	LIC	ALBANY, NY	BLANK0000004731	222.4



**Table 1 WNET(DT) OET Bulletin 69 Interference Study**  
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Radiofrequency Consulting Engineers  
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WICU-TV	D12	DT	APP	ERIE, PA	BPCDT20120619ABB	357.0
WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	137.6
WNYI	D13	DT	APP	ITHACA, NY	BLANK0000029367	175.8

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
41052.9 3,553,761	35407.3 2,853,975	34337.1 2,701,763	34284.9 2,689,287	0.15 0.46

Undesired	Total IX	Unique IX, before	Unique IX, after
WNET D12 DT BL	657.3 98,782	360.8 49,766	
WNET D12 DT APP	741.6 117,222		413.0 62,242
WBAL-TV D12 DT CP	556.9 93,711	260.5 44,387	236.5 38,567
WNYT D12 DT LIC	160.4 8,733	108.3 5,553	104.3 5,549
WICU-TV D12 DT APP	8.1 0	0.0 0	0.0 0
WHYY-TV D13 DT CP	80.2 9,689	8.0 508	8.0 508
WNYI D13 DT APP	4.0 102	0.0 0	0.0 0

Interference to BLANK0000028347 CP, scenario 4

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	
Undesireds:	WNET	D12	DT	BL	NEWARK, NJ	DTVBL18795	164.7 km
	WNET	D12	DT	APP	NEWARK, NJ	WNET 6.52kW Prop	164.7
	WPIX	D11	DT	CP	NEW YORK, NY	BMPCDT20080620ALB	164.7
	WBAL-TV	D12	DT	CP	BALTIMORE, MD	BLANK0000024625	215.7
	WNYT	D12	DT	LIC	ALBANY, NY	BLANK0000004731	222.4
	WICU-TV	D12	DT	APP	ERIE, PA	BPCDT20120619ABB	357.0
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	137.6

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
41052.9 3,553,761	35407.3 2,853,975	34337.1 2,701,763	34284.9 2,689,287	0.15 0.46

Undesired	Total IX	Unique IX, before	Unique IX, after
WNET D12 DT BL	657.3 98,782	360.8 49,766	
WNET D12 DT APP	741.6 117,222		413.0 62,242
WBAL-TV D12 DT CP	556.9 93,711	260.5 44,387	236.5 38,567
WNYT D12 DT LIC	160.4 8,733	108.3 5,553	104.3 5,549
WICU-TV D12 DT APP	8.1 0	0.0 0	0.0 0
WHYY-TV D13 DT CP	80.2 9,689	8.0 508	8.0 508

Interference to BLCDT20090612AFT LIC, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WNAC-TV	D12	DT	LIC	PROVIDENCE, RI	BLCDT20090612AFT	
Undesireds:	WNET	D12	DT	BL	NEWARK, NJ	DTVBL18795	262.2 km
	WNET	D12	DT	APP	NEWARK, NJ	WNET 6.52kW Prop	262.2
	WWLP	D11	DT	LIC	SPRINGFIELD, MA	BLCDT20090612AJV	119.7
	WENH-TV	D11	DT	LIC	DURHAM, NH	BLEDT20090817ABS	144.5
	WNYT	D12	DT	LIC	ALBANY, NY	BLANK0000004731	239.4
	WGBY-TV	D13	DT	CP	SPRINGFIELD, MA	BLANK0000025429	119.8

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
32316.5 7,310,183	30698.2 6,971,640	30331.4 6,927,242	30347.6 6,929,179	-0.05 -0.03

Undesired	Total IX	Unique IX, before	Unique IX, after
WNET D12 DT BL	185.8 20,532	44.4 3,465	
WNET D12 DT APP	153.5 18,538		28.3 1,528
WWLP D11 DT LIC	12.0 2,060	4.0 1,073	4.0 1,073
WENH-TV D11 DT LIC	52.1 12,031	44.1 9,036	44.1 9,036
WNYT D12 DT LIC	258.2 29,781	96.7 8,523	112.9 8,580
WGBY-TV D13 DT CP	28.1 2,239	12.1 215	12.1 215

Interference to BLANK0000026205 CP, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	
Undesireds:	WNET	D12	DT	BL	NEWARK, NJ	DTVBL18795	127.8 km
	WNET	D12	DT	APP	NEWARK, NJ	WNET 6.52kW Prop	127.8

**Table 1 WNET(DT) OET Bulletin 69 Interference Study**  
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WBAL-TV	D12	DT	CP	BALTIMORE, MD	BLANK0000024625	144.0
WGBY-TV	D13	DT	CP	SPRINGFIELD, MA	BLANK0000025429	326.8
WNYI	D13	DT	APP	ITHACA, NY	BLANK0000029367	309.4
WWPX-TV	D13	DT	CP	MARTINSBURG, WV	BLANK0000027005	250.0

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
29492.0 10,379,045	27863.6 9,996,767	27474.5 9,828,995	27418.4 9,786,361	0.20 0.43

Undesired	Total IX	Unique IX, before	Unique IX, after
WNET D12 DT BL	104.2 103,245	80.1 86,177	
WNET D12 DT APP	168.3 148,370		136.2 128,811
WBAL-TV D12 DT CP	19.8 874	0.0 0	0.0 0
WGBY-TV D13 DT CP	48.1 22,158	20.0 4,945	12.0 2,454
WNYI D13 DT APP	8.0 13,303	8.0 13,303	8.0 13,303
WWPX-TV D13 DT CP	256.9 46,279	233.1 45,260	233.1 45,260

Interference to BLANK0000026205 CP, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	
Undesireds:	WNET	D12	DT	BL	NEWARK, NJ	DTVBL18795	127.8 km
	WNET	D12	DT	APP	NEWARK, NJ	WNET 6.52kW Prop	127.8
	WBAL-TV	D12	DT	CP	BALTIMORE, MD	BLANK0000024625	144.0
	WGBY-TV	D13	DT	CP	SPRINGFIELD, MA	BLANK0000025429	326.8
	WWPX-TV	D13	DT	CP	MARTINSBURG, WV	BLANK0000027005	250.0

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
29492.0 10,379,045	27863.6 9,996,767	27482.5 9,842,298	27426.4 9,799,664	0.20 0.43

Undesired	Total IX	Unique IX, before	Unique IX, after
WNET D12 DT BL	104.2 103,245	80.1 86,177	
WNET D12 DT APP	168.3 148,370		136.2 128,811
WBAL-TV D12 DT CP	19.8 874	0.0 0	0.0 0
WGBY-TV D13 DT CP	48.1 22,158	20.0 4,945	12.0 2,454
WWPX-TV D13 DT CP	256.9 46,279	233.1 45,260	233.1 45,260

Interference to proposal, scenario 1  
2.09% interference

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WNET	D12	DT	APP	NEWARK, NJ	WNET 6.52kW Prop	
Undesireds:	WPIX	D11	DT	CP	NEW YORK, NY	BMPCDT20080620ALB	0.0 km
	WBAL-TV	D12	DT	CP	BALTIMORE, MD	BLANK0000024625	271.8
	WNYT	D12	DT	LIC	ALBANY, NY	BLANK0000004731	212.6
	WYOU	D12	DT	CP	SCRANTON, PA	BLANK0000028347	164.7
	WNAC-TV	D12	DT	LIC	PROVIDENCE, RI	BLCDT20090612AFT	262.2
	WHYY-TV	D13	DT	CP	WILMINGTON, DE	BLANK0000026205	127.8

Service area	Terrain-limited	IX-free	Percent IX
33814.0 21,277,331	31515.7 20,742,605	29795.4 20,308,147	5.46 2.09

Undesired	Total IX	Unique IX	Prct Unique IX
WBAL-TV D12 DT CP	454.2 107,261	68.1 4,333	0.22 0.02
WNYT D12 DT LIC	326.0 45,384	141.4 22,789	0.45 0.11
WYOU D12 DT CP	1188.5 223,601	557.9 84,701	1.77 0.41
WNAC-TV D12 DT LIC	164.1 26,226	20.2 9,484	0.06 0.05
WHYY-TV D13 DT CP	571.9 275,834	225.4 142,971	0.72 0.69

**Channel and Facility Information**

Section	Question	Response
Proposed Community of License	Facility ID	18795
	State	New Jersey
	City	NEWARK
	DTV Channel	12
Facility Type	Facility Type	Noncommercial Educational
	Station Type	Main
Zone	Zone	1

**Antenna Location Data**

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1263701
Coordinates (NAD83)	Latitude	40° 42' 46.8" N+
	Longitude	074° 00' 47.3" W-
	Structure Type	BTWR-Building with TOWER /ANTENNA on top
	Overall Structure Height	546.2 meters
	Support Structure Height	406.8 meters
	Ground Elevation (AMSL)	4.3 meters
Antenna Data	Height of Radiation Center Above Ground Level	513.9 meters
	Height of Radiation Center Above Average Terrain	507.8 meters
	Height of Radiation Center Above Mean Sea Level	518.2 meters
	Effective Radiated Power	6.52 kW

## Antenna Technical Data

Section	Question	Response
Antenna Type	Antenna Type	Non-Directional
	Do you have an Antenna ID?	
	Antenna ID	
Antenna Manufacturer and Model	Manufacturer:	RFS
	Model	662-16D VPT
	Rotation	
	Electrical Beam Tilt	2.5
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Circular
DTV and DTS: Elevation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	Yes
	Uploaded file for elevation antenna (or radiation) pattern data	WNET RFS662-16D-OWT Ch12.xml

**Construction  
Permit  
Certifications**

Section	Question	Response
<b>Post-Incentive Auction Expedited Processing</b>	It will operate on the DTV channel for this station as established in the post-incentive auction channel reassignment public notice.	Yes
	It will operate post-incentive auction facilities that do not expand the noise-limited service contour in any direction beyond that established by the post-incentive auction channel reassignment public notice.	No
	It will operate post-incentive auction facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the post-incentive auction channel reassignment public notice.	Yes
	The antenna structure to be used by this facility has been registered by the Commission and will not require re-registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely affect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.	Yes
<b>Environmental Effect</b>	Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? (See Section 1.1306 of 47 C.F.R.)	No
<b>Broadcast Facility</b>	The proposed facility complies with the applicable engineering standards and assignment requirements of 47 C. F.R. Sections 73.616, 73.622(i), 73.623(e), 73.625, 73.1030, and 73.1125.	Yes