ENGINEERING EXHIBIT

Incentive Auction Channel Reassignment

Application for Digital Television Station Construction Permit

prepared for

CBS Broadcasting Inc.
WCBS-TV New York, NY
Facility ID 9610
Ch. 36 455 kW 520 m

CBS Broadcasting Inc. ("CBS") is the licensee of digital television station WCBS-TV, Channel 33, Facility ID 9610, New York, NY. *CBS* herein proposes construction of the WCBS-TV post-auction facility on Channel 36. Reassignment of WCBS-TV from Channel 33 to Channel 36 was specified in the *Incentive Auction Closing and Channel Reassignment Public Notice* (*"CCRPN"*, DA 17-317, released April 13, 2017).

The proposed WCBS-TV facility will employ a shared antenna which has been installed on the uppermost portion of a 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.

The proposed antenna is an elliptically polarized nondirectional RFS model PEP40E, having variable polarization technology. The antenna provides separate inputs for horizontally polarized and vertically polarized radiators, which permits each of the television stations that share the antenna to individually choose how much vertical polarization to utilize. *CBS* intends to employ 25 percent vertical polarization for WCBS-TV, such that the horizontally polarized ERP is 455 kW and the vertically polarized ERP is 113.75 kW. Following construction and licensing, any subsequent changes to the vertically polarized ERP will be described in a license modification application as necessary to show the revised system gains, losses, and transmitter power output. The horizontally polarized ERP will be maintained at 455 kW and the vertically

polarized ERP will not exceed the horizontally polarized ERP. The proposed antenna HAAT is 520 meters.

The shared antenna is currently authorized for use by WCBS-TV on its existing Channel 33 pursuant to a Construction Permit (file number BMPCDT-20080619AAZ). The licensed WCBS-TV facility (BLCDT-20090612AFN) is located 4.6 km distant at the Empire State Building. *CBS* expects to execute the relocation of the WCBS-TV Channel 33 facility to 1WTC as authorized by BMPCDT-20080619AAZ later in 2017.

A map is supplied as Figure 1 which depicts the standard predicted coverage contours. This map includes the location of New York, WCBS-TV's principal community. As demonstrated thereon, the proposed facility complies with §73.625(a)(1) as the entire principal community will be encompassed by the 48 dBμ contour.

The proposed noise limited service contour ("NLSC") extends slightly beyond that of the *CCRPN* parameters of 409 kW ERP and 519 meters HAAT.[1] The proposal complies with §73.3700(b)(ii) as described in the following.

WCBS-TV's reassignment facility experiences a loss of interference-free coverage area within the NLSC when compared to that of its baseline[2] pre-auction facility. Detailed analysis shows that an area of 141.3 square kilometers having a population of 32,890 persons which received interference-free service from the baseline WCBS-TV facility does not receive interference-free service from the reassignment parameters. A map is supplied as Figure 2 which shows the interference-free results for the *CCRPN* parameters and the baseline interference-free individual cells that are lost at reassignment. Therefore, WCBS-TV qualifies under §73.3700(b)(ii)(A) for a contour extension due the loss of interference-free coverage area resulting from the new channel assignment.

[1]The antenna heights above ground and above mean sea level are unchanged from authorized and reassignment values. The proposed WCBS-TV antenna HAAT is recalculated to be 520.0 meters, based on FCC 30 meter terrain data developed by OET.

[2]*"Final Digital Television Baseline Coverage Area And Population Served Information Related To Incentive Auction Repacking,"* DA 15-1296, Public Notice, Released November 12, 2015.

Interference study per FCC OET Bulletin 69[3] 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. **Pursuant to §73.616(e)(1), FCC processing of this proposal is requested on the basis of a 1 km cell size.** The interference study output report is provided as Table 1. This satisfies §73.3700(b)(ii)(C) for the proposed NLSC extension.

The amount of NLSC extension does not exceed one percent in any direction. Figure 3 supplies a coverage contour comparison of the proposed WCBS-TV facility to the reassignment facility's contour and a one percent extension distance of the reassignment facility's contour. Here, the contour level is adjusted with the dipole factor to match FCC application processing. Table 1's results also demonstrate that the proposed contour is within the baseline contour plus one percent. Therefore the proposed contour extension complies with §73.3700(b)(ii)(B).

The proposed WCBS-TV facility's terrain-limited population provides a 100.6 percent match of the *CCRPN* baseline facility, as detailed in the following table. The OET Bulletin 69 report summary in Table 1 also concludes that the proposed service area population is more than 95 percent of the baseline population.

Terrain Limited Population - Match of Reassignment

Population Summary (2010 Census) OET Bulletin 69: TVStudy	Reassignment Parameters	Proposed
Within Noise Limited Contour	21,732,169	21,861,302
Not affected by terrain losses	21,220,596	21,348,757
Match of Reassignment	---	**100.60%**

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

[3]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, **1 km cell size**, and 1 km terrain increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCCs implementation of TVStudy show excellent correlation.

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 a maximum of 10 percent antenna relative field in downward elevations, the calculated signal density near the 1WTC building at two meters above ground level attributable to the proposed facility is 0.7 $\mu W/cm^2$, which is 0.2 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.

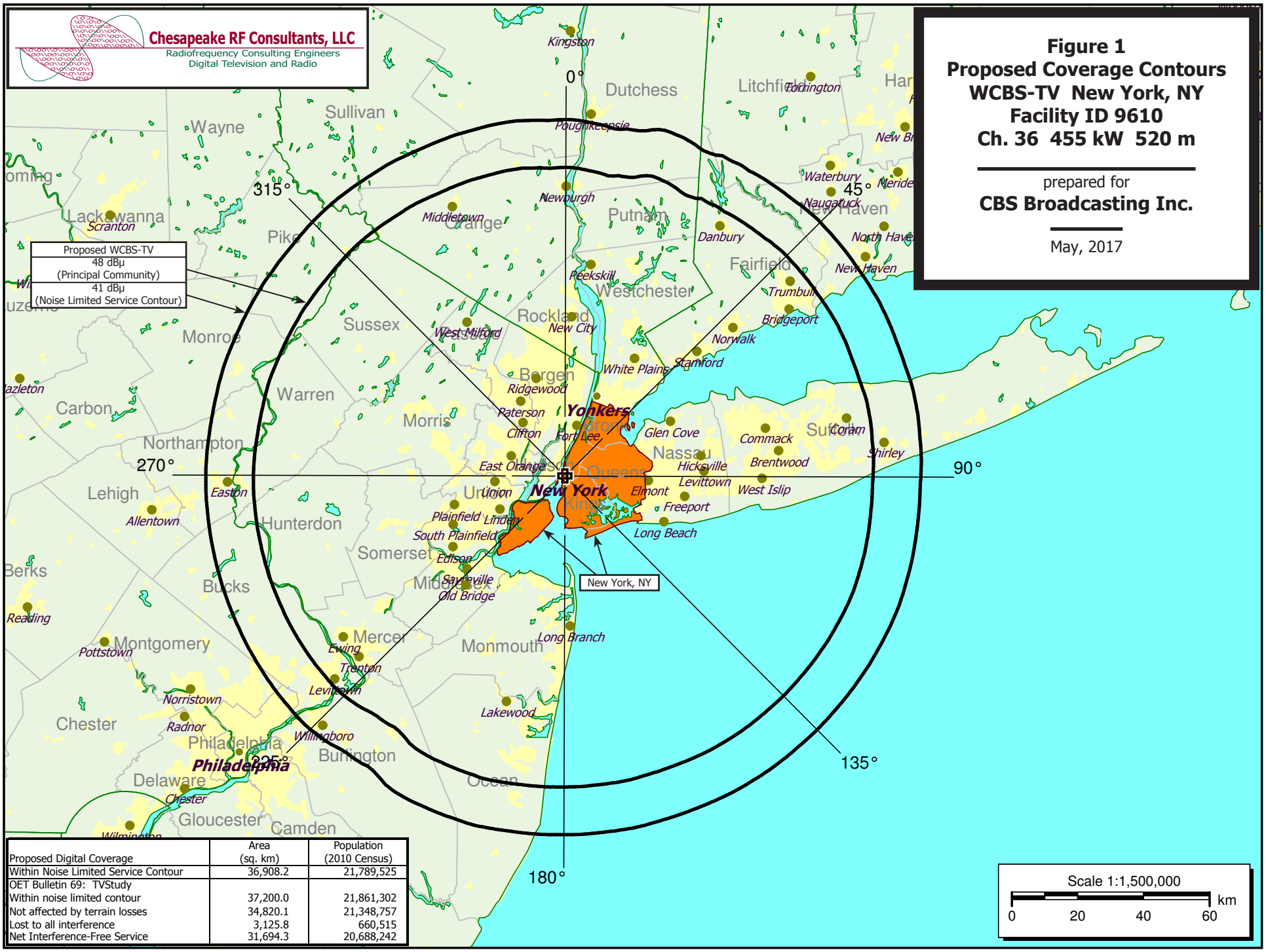
Access to the 1WTC rooftop, antenna support structure, and any areas within the building that may exceed exposure limits will be strictly controlled by the building owner. *CBS* will participate in the building's RF exposure safety program along with other broadcasters and FCC licensees that may utilize 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.

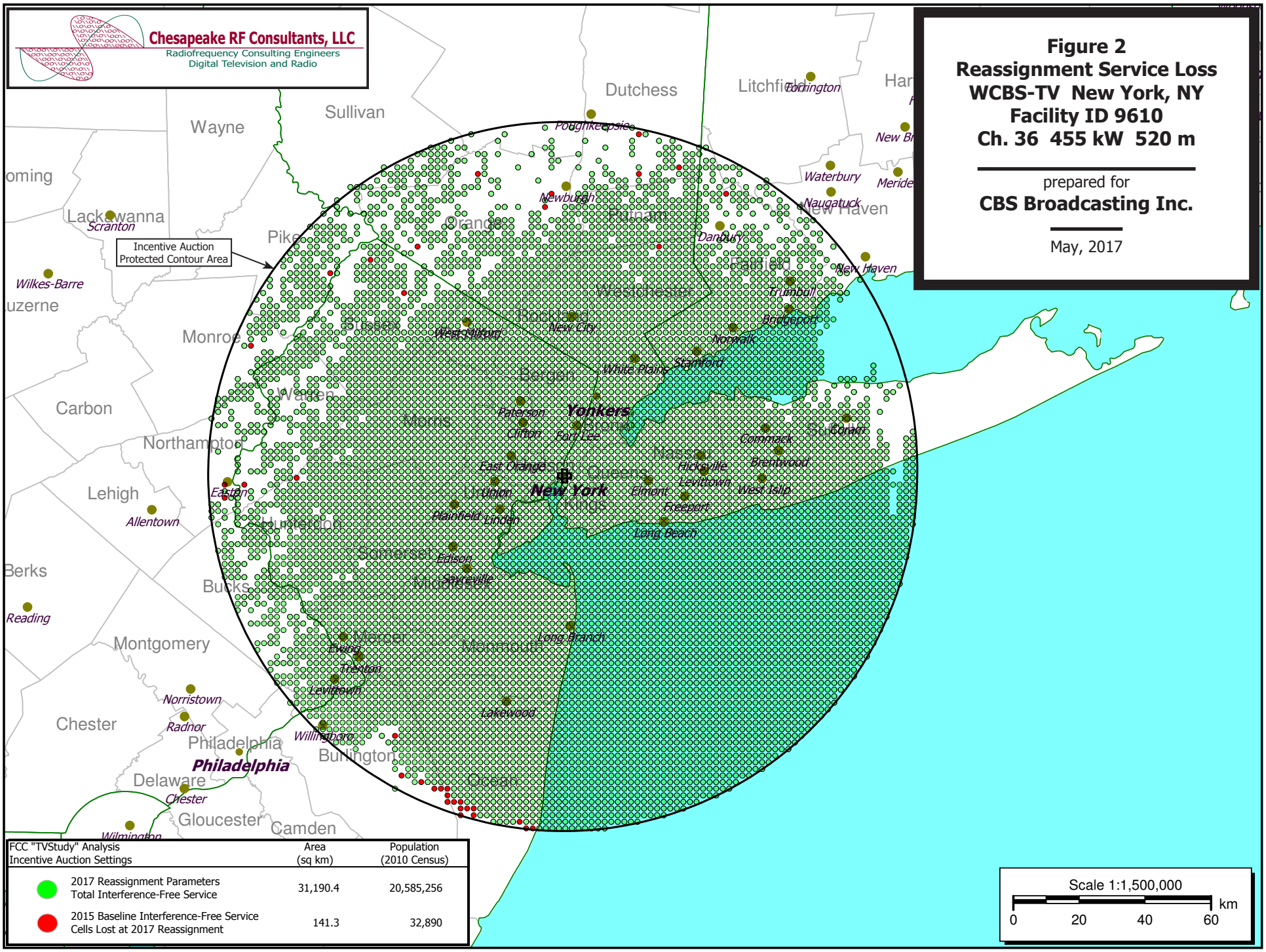
List of Attachments

Figure 1	Proposed Coverage Contours
Figure 2	Reassignment Service Loss
Figure 3	Proposed Contour Expansion
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. May 25, 2017
207 Old Dominion Road Yorktown, VA 23692 703-650-9600



Proposed Digital Coverage	Area (sq. km)	Population (2010 Census)
Within Noise Limited Service Contour	36,908.2	21,789,525
OET Bulletin 69: TVStudy		
Within noise limited contour	37,200.0	21,861,302
Not affected by terrain losses	34,820.1	21,348,757
Lost to all interference	3,125.8	660,515
Net Interference-Free Service	31,694.3	20,688,242


Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio
Figure 2
Reassignment Service Loss
WCBS-TV New York, NY
Facility ID 9610
Ch. 36 455 kW 520 m
prepared for
CBS Broadcasting Inc.
May, 2017
Incentive Auction
Protected Contour Area
Wayne
Sullivan
Dutchess
Litchfield
Wilkes-Barre
Scranton
Lackawanna
Monroe
Pike
Carbon
Northampton
Lehigh
Allentown
Berks
Reading
Bucks
Montgomery
Chester
Norristown
Radnor
Philadelphia
Delaware
Chester
Gloucester
Camden
Burlington
Willingboro
Trenton
Yonkers
New York
Paterson
Elizabeth
Jersey City
Long Beach
Poughkeepsie
Waterbury
Naugatuck
New Haven
Danbury
Norwalk
Stamford
Bridgeport
Meriden
Easton
Wilmington
FCC "TVStudy" Analysis
Incentive Auction Settings
Area (sq km)
Population (2010 Census)
2017 Reassignment Parameters
Total Interference-Free Service
31,190.4
20,585,256
2015 Baseline Interference-Free Service
Cells Lost at 2017 Reassignment
141.3
32,890
Scale 1:1,500,000
km
0
20
40
60

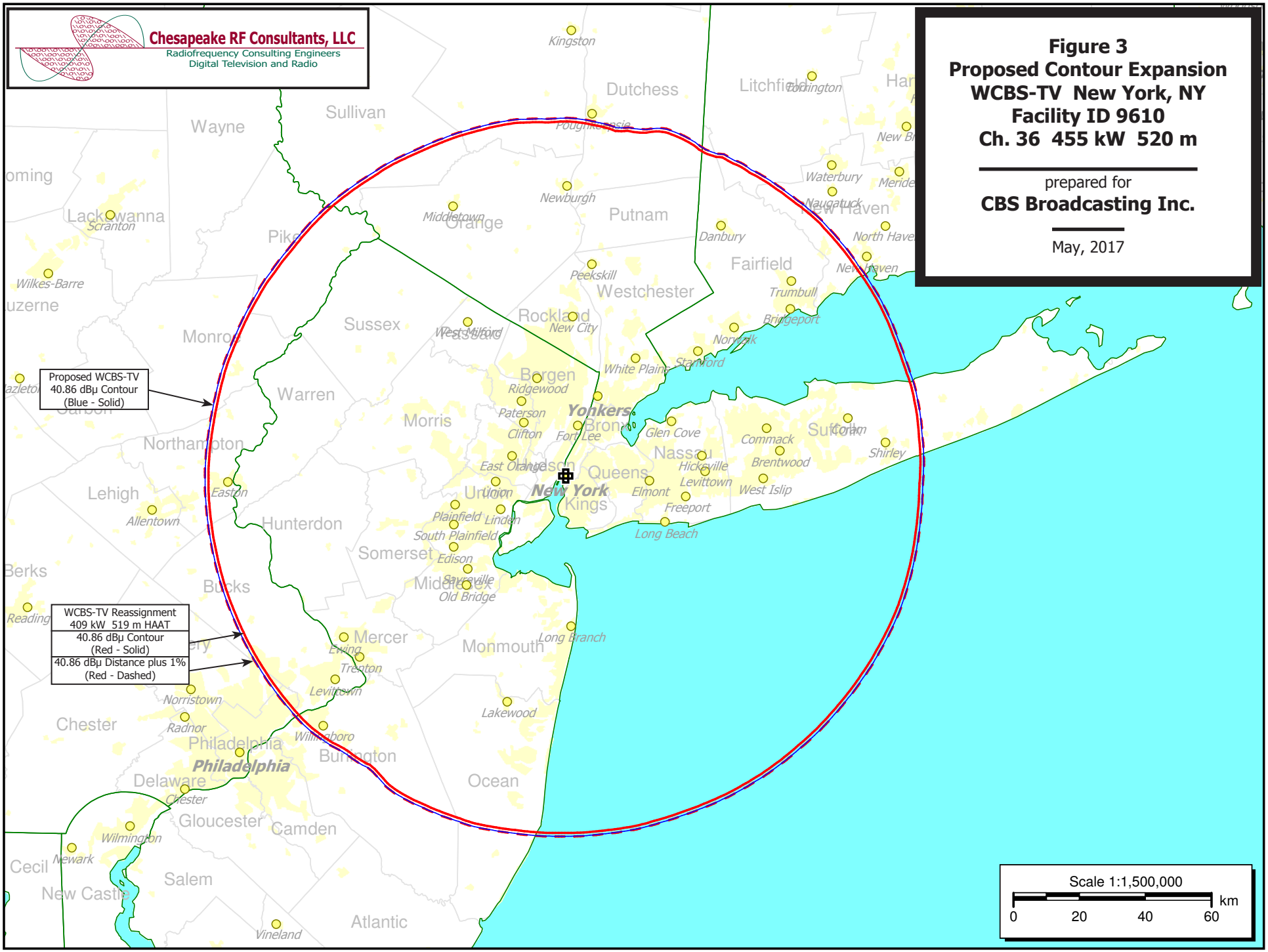

Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio
Figure 3
Proposed Contour Expansion
WCBS-TV New York, NY
Facility ID 9610
Ch. 36 455 kW 520 m
prepared for
CBS Broadcasting Inc.
May, 2017
Proposed WCBS-TV
40.86 dBµ Contour
(Blue - Solid)
WCBS-TV Reassignment
409 kW 519 m HAAT
40.86 dBµ Contour
(Red - Solid)
40.86 dBµ Distance plus 1%
(Red - Dashed)
Scale 1:1,500,000
km
0
20
40
60
Kingston
Dutchess
Litchfield
Wayne
Sullivan
Waterbury
Newburgh
Putnam
Danbury
Fairfield
Middletown
Orange
Peekskill
Westchester
Trumbull
Bridgeport
Rockland
New City
Sussex
Monroe
Norwalk
Stamford
White Plains
Bergen
Ridgewood
Warren
Paterson
Yonkers
Morris
Clifton
Fort Lee
Glen Cove
Commack
Brentwood
Shirley
Northampton
East Orange
Queens
Hicksville
Levittown
Lehigh
Easton
New York
Elmont
West Islip
Union
Kings
Freeport
Allentown
Hunterdon
Plainfield
Linden
Long Beach
South Plainfield
Somerset
Edison
Berks
Bucks
Old Bridge
Middlesex
Reading
Mercer
Long Branch
Monmouth
Ewing
Trenton
Norristown
Levittown
Lakewood
Chester
Radnor
Philadelphia
Burlington
Delaware
Ocean
Chester
Gloucester
Camden
Wilmington
Cecil
Newark
Salem
New Castle
Atlantic
Vineland

Table 1 WCBS-TV OET Bulletin 69 Interference Study
(page 1 of 5)


```
tvstudy v2.2.2
Database: localhost,  Study: WCBS-TV PROP 455KW 1km,  Model: Longley-Rice
Start: 2017.05.24 17:55:38

Study created: 2017.05.24 17:55:18

Study build station data: LMS TV 2017-05-22 (28)

    Proposal: WCBS-TV D36 DT BL NEW YORK, NY
 File number: WCBS-TV PROP 455KW
 Facility ID: 9610
Station data: User record
   Record ID: 200
     Country: U.S.

Stations potentially affected:

Call      Chan  Svc Status  City, State              File Number             Distance
WNJU      D35   DT  BL      LINDEN, NJ               DTVBL73333                0.0 km
WFPA-CD   D35   DC  BL      PHILADELPHIA, PA         DTVBL74216              127.6
WFSB      D36   DT  BL      HARTFORD, CT             DTVBL53115              155.3
WTTG      D36   DT  LIC     WASHINGTON, DC           BLCDT20080507AAA        326.7
WMEA-TV   D36   DT  BL      BIDDEFORD, ME            DTVBL39656              400.5
WMGM-TV   D36   DT  LIC     WILDWOOD, NJ             BLCDT20060626ABE        187.8
WCFE-TV   D36   DT  BL      PLATTSBURGH, NY          DTVBL46755              442.8
WSPX-TV   D36   DT  BL      SYRACUSE, NY             DTVBL64352              333.6
W47AO-D   D36   DC  BL      BERWICK, PA              DTVBL68136              187.8
WITF-TV   D36   DT  LIC     HARRISBURG, PA           BLANK0000001676         244.7
WPMC-CD   D36   DC  LIC     MAPPSVILLE, VA           BLANK0000001499         346.1

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D36
   Latitude:  40 42 46.80 N (NAD83)
  Longitude:  74  0 47.30 W
Height AMSL: 530.4 m
       HAAT: 520.0 m
   Peak ERP: 455 kW
    Antenna: Omnidirectional

40.9 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg    455 kW   513.8 m  108.3 km
 45.0        455      527.8    109.3
 90.0        455      510.7    108.1
135.0        455      517.7    108.6
180.0        455      521.6    108.9
225.0        455      524.2    109.1
270.0        455      523.7    109.1
315.0        455      520.1    108.8

Proposal service area is within 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
ERP: 455 kW   Field strength: 20.1 dBu, 0.0 mV/m

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 279.0 degrees   Distance: 2627.4 km


Study cell size: 1.00 km
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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 DTVBL73333 BL, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WNJU	D35	DT	BL	LINDEN, NJ	DTVBL73333	
Undesireds:	WCBS-TV	D36	DT	BL	NEW YORK, NY	DTVBL9610	0.0 km
	WCBS-TV	D36	DT	BL	NEW YORK, NY	WCBS-TV PROP 455KW	0.0
	WTIC-TV	D34	DT	BL	HARTFORD, CT	DTVBL147	147.9
	WPPX-TV	D34	DT	BL	WILMINGTON, DE	DTVBL51984	127.6
	WPXN-TV	D34	DT	BL	NEW YORK, NY	DTVBL73356	0.0
	WSWB	D34	DT	BL	SCRANTON, PA	DTVBL73374	164.7
	WHDH	D35	DT	BL	BOSTON, MA	DTVBL72145	292.8
	WENY-TV	D35	DT	BL	ELMIRA, NY	DTVBL71508	300.7
	WNYF-CD	D35	DC	LIC	WATERTOWN, NY	BLDTL20090924ABW	386.8
	WFPA-CD	D35	DC	BL	PHILADELPHIA, PA	DTVBL74216	127.6
	WPXW-TV	D35	DT	BL	MANASSAS, VA	DTVBL74091	326.9
	WFSB	D36	DT	BL	HARTFORD, CT	DTVBL53115	155.3
	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLCDT20060626ABE	187.8
	W47AO-D	D36	DC	BL	BERWICK, PA	DTVBL68136	187.8

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
36426.7	21,733,041	34063.6	21,211,881	33478.7	21,055,526	33477.7	21,055,526	0.00	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
WCBS-TV D36 DT BL	0.0	0	0.0	0		
WCBS-TV D36 DT BL	1.0	0			1.0	0
WTIC-TV D34 DT BL	3.0	423	0.0	0	0.0	0
WPPX-TV D34 DT BL	249.6	87,495	59.0	14,084	59.0	14,084
WHDH D35 DT BL	180.7	37,450	177.7	37,027	177.7	37,027
WENY-TV D35 DT BL	4.0	21	4.0	21	4.0	21
WFPA-CD D35 DC BL	300.2	96,487	110.7	23,653	110.7	23,653
WPXW-TV D35 DT BL	72.9	26,464	39.9	7,736	39.9	7,736

Interference to DTVBL74216 BL, scenario 1
Proposal causes no interference.

Interference to DTVBL53115 BL, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WFSB	D36	DT	BL	HARTFORD, CT	DTVBL53115	
Undesireds:	WCBS-TV	D36	DT	BL	NEW YORK, NY	DTVBL9610	155.3 km
	WCBS-TV	D36	DT	BL	NEW YORK, NY	WCBS-TV PROP 455KW	155.3
	WHDH	D35	DT	BL	BOSTON, MA	DTVBL72145	144.1
	WNJU	D35	DT	BL	LINDEN, NJ	DTVBL73333	155.3
	WMEA-TV	D36	DT	BL	BIDDEFORD, ME	DTVBL39656	245.1
	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLCDT20060626ABE	338.0
	WCFE-TV	D36	DT	BL	PLATTSBURGH, NY	DTVBL46755	336.1
	WSPX-TV	D36	DT	BL	SYRACUSE, NY	DTVBL64352	315.4
	W47AO-D	D36	DC	BL	BERWICK, PA	DTVBL68136	296.8
	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000001676	375.8

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
27006.6	4,756,703	24360.1	4,399,227	20177.7	3,626,288	20054.1	3,608,310	0.61	0.50

Undesired	Total IX		Unique IX, before		Unique IX, after	
WCBS-TV D36 DT BL	4133.5	761,406	3726.6	601,617		
WCBS-TV D36 DT BL	4261.1	779,914			3850.2	619,595
WHDH D35 DT BL	153.6	36,727	45.8	10,683	41.9	10,153
WNJU D35 DT BL	297.1	132,832	0.0	0	0.0	0
WMEA-TV D36 DT BL	10.0	808	0.0	0	0.0	0
WMGM-TV D36 DT LIC	23.2	10,908	2.0	724	2.0	724
WSPX-TV D36 DT BL	1.0	0	0.0	0	0.0	0

Interference to BLCDT20080507AAA LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTTG	D36	DT	LIC	WASHINGTON, DC	BLCDT20080507AAA	
Undesireds:	WCBS-TV	D36	DT	BL	NEW YORK, NY	DTVBL9610	326.7 km
	WCBS-TV	D36	DT	BL	NEW YORK, NY	WCBS-TV PROP 455KW	326.7
	WAHU-CD	D35	DC	BL	CHARLOTTESVILLE, VA	DTVBL47705	162.7
	WPXW-TV	D35	DT	BL	MANASSAS, VA	DTVBL74091	0.7
	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLCDT20060626ABE	201.0
	W47AO-D	D36	DC	BL	BERWICK, PA	DTVBL68136	239.5
	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000001676	155.5
	WWLM-CD	D36	DC	BL	WASHINGTON, PA	DTVBL267	302.6
	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	159.2
	WPMC-CD	D36	DC	LIC	MAPPSVILLE, VA	BLANK0000001499	180.7
	WFXR	D36	DT	BL	ROANOKE, VA	DTVBL24813	332.3
	WYSJ-CA	D36	DC	BL	YORKTOWN, VA	DTVBL35134	216.0

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
23595.7	8,070,059	22762.7	8,022,446	21803.0	7,927,257	21802.0	7,927,203	0.00	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
WCBS-TV D36 DT BL	6.9	514	0.0	0		
WCBS-TV D36 DT BL	8.9	568			1.0	54
WAHU-CD D35 DC BL	2.0	51	1.0	51	1.0	51
WPXW-TV D35 DT BL	105.7	13,322	90.8	11,329	90.8	11,329
WMGM-TV D36 DT LIC	96.5	7,746	34.8	5,154	34.8	5,154
WITF-TV D36 DT LIC	684.1	62,806	588.6	52,888	588.6	52,888
WSVF-CD D36 DC BL	167.7	21,023	109.1	15,107	109.1	15,107
WFXR D36 DT BL	55.9	4,037	14.0	134	14.0	134
WYSJ-CA D36 DC BL	1.0	0	0.0	0	0.0	0

Interference to DTVBL39656 BL, scenario 1
Proposal causes no interference.

Interference to BLCDT20060626ABE LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLCDT20060626ABE	
Undesireds:	WCBS-TV	D36	DT	BL	NEW YORK, NY	DTVBL9610	187.8 km
	WCBS-TV	D36	DT	BL	NEW YORK, NY	WCBS-TV PROP 455KW	187.8
	WFPA-CD	D35	DC	BL	PHILADELPHIA, PA	DTVBL74216	109.6
	WFSB	D36	DT	BL	HARTFORD, CT	DTVBL53115	338.0
	WTTG	D36	DT	LIC	WASHINGTON, DC	BLCDT20080507AAA	201.0
	W47AO-D	D36	DC	BL	BERWICK, PA	DTVBL68136	242.7
	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000001676	225.3
	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	356.5
	WPMC-CD	D36	DC	LIC	MAPPSVILLE, VA	BLANK0000001499	158.8
	WYSJ-CA	D36	DC	BL	YORKTOWN, VA	DTVBL35134	270.8

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
13269.9	802,370	13267.9	802,330	12933.7	787,787	12903.8	785,898	0.23	0.24

Undesired	Total IX		Unique IX, before		Unique IX, after	
WCBS-TV D36 DT BL	286.6	9,803	258.9	9,212		
WCBS-TV D36 DT BL	317.5	11,736			288.8	11,101
WFPA-CD D35 DC BL	20.8	2,639	10.9	2,311	10.9	2,311
WTTG D36 DT LIC	61.3	2,941	34.6	2,314	33.7	2,270
WITF-TV D36 DT LIC	12.9	199	0.0	0	0.0	0

Interference to DTVBL46755 BL, scenario 1
Proposal causes no interference.

Interference to DTVBL64352 BL, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WSPX-TV	D36	DT	BL	SYRACUSE, NY	DTVBL64352	

Undesireds:	WCBS-TV	D36	DT	BL	NEW YORK, NY	DTVBL9610	333.6 km
	WCBS-TV	D36	DT	BL	NEW YORK, NY	WCBS-TV PROP 455KW	333.6
	WENY-TV	D35	DT	BL	ELMIRA, NY	DTVBL71508	154.1
	WNYF-CD	D35	DC	LIC	WATERTOWN, NY	BLDTL20090924ABW	76.6
	WFSB	D36	DT	BL	HARTFORD, CT	DTVBL53115	315.4
	WUTV	D36	DT	BL	BUFFALO, NY	DTVBL415	235.4
	WCFE-TV	D36	DT	BL	PLATTSBURGH, NY	DTVBL46755	232.1
	W47AO-D	D36	DC	BL	BERWICK, PA	DTVBL68136	255.9
	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000001676	335.9

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
18571.7	1,106,361	16806.5	1,034,332	16231.0	1,026,386	16229.0	1,026,382	0.01	0.00

Undesired		Total IX	Unique IX, before		Unique IX, after	
WCBS-TV D36 DT BL	26.2	296	11.1	126		
WCBS-TV D36 DT BL	33.3	361			13.1	130
WNYF-CD D35 DC LIC	396.2	3,786	383.1	3,579	383.1	3,579
WFSB D36 DT BL	52.2	886	36.0	759	36.0	759
WUTV D36 DT BL	133.2	3,464	113.0	3,105	108.9	3,044
WCFE-TV D36 DT BL	6.1	8	1.0	0	1.0	0

Interference to DTVBL68136 BL, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W47AO-D	D36	DC	BL	BERWICK, PA	DTVBL68136	
Undesireds:	WCBS-TV	D36	DT	BL	NEW YORK, NY	DTVBL9610	187.8 km
	WCBS-TV	D36	DT	BL	NEW YORK, NY	WCBS-TV PROP 455KW	187.8
	WENY-TV	D35	DT	BL	ELMIRA, NY	DTVBL71508	145.3
	WFSB	D36	DT	BL	HARTFORD, CT	DTVBL53115	296.8
	WTTG	D36	DT	LIC	WASHINGTON, DC	BLCDT20080507AAA	239.5
	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLCDT20060626ABE	242.7
	WUTV	D36	DT	BL	BUFFALO, NY	DTVBL415	317.3
	WSPX-TV	D36	DT	BL	SYRACUSE, NY	DTVBL64352	255.9
	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000001676	91.8

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
5565.0	362,503	4127.8	265,361	3996.7	263,386	3994.7	263,359	0.05	0.01

Undesired		Total IX	Unique IX, before		Unique IX, after	
WCBS-TV D36 DT BL	40.1	453	20.1	343		
WCBS-TV D36 DT BL	43.1	480			22.1	370
WTTG D36 DT LIC	25.1	349	13.1	285	13.1	285
WMGM-TV D36 DT LIC	3.0	458	1.0	458	1.0	458
WITF-TV D36 DT LIC	92.9	887	71.8	717	71.8	717

Interference to BLANK0000001676 LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000001676	
Undesireds:	WCBS-TV	D36	DT	BL	NEW YORK, NY	DTVBL9610	244.7 km
	WCBS-TV	D36	DT	BL	NEW YORK, NY	WCBS-TV PROP 455KW	244.7
	WFPA-CD	D35	DC	BL	PHILADELPHIA, PA	DTVBL74216	142.7
	WPXW-TV	D35	DT	BL	MANASSAS, VA	DTVBL74091	156.1
	WFSB	D36	DT	BL	HARTFORD, CT	DTVBL53115	375.8
	WTTG	D36	DT	LIC	WASHINGTON, DC	BLCDT20080507AAA	155.5
	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLCDT20060626ABE	225.3
	WUTV	D36	DT	BL	BUFFALO, NY	DTVBL415	343.4
	WSPX-TV	D36	DT	BL	SYRACUSE, NY	DTVBL64352	335.9
	W47AO-D	D36	DC	BL	BERWICK, PA	DTVBL68136	91.8
	WWLM-CD	D36	DC	BL	WASHINGTON, PA	DTVBL267	285.7
	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	271.6
	WPMC-CD	D36	DC	LIC	MAPPSVILLE, VA	BLANK0000001499	299.9
	WYSJ-CA	D36	DC	BL	YORKTOWN, VA	DTVBL35134	365.0

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
19485.5	2,409,697	17125.1	2,207,263	14879.1	2,013,002	14875.1	2,012,984	0.03	0.00

Undesired	Total IX	Unique IX, before	Unique IX, after

Table 1 WCBS-TV OET Bulletin 69 Interference Study
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WCBS-TV D36 DT BL	268.3	22,122	60.0	6,090		
WCBS-TV D36 DT BL	290.2	22,715			64.0	6,108
WFPA-CD D35 DC BL	10.0	6,288	3.0	3,521	3.0	3,521
WPXW-TV D35 DT BL	10.9	1,482	1.0	134	1.0	134
WTTG D36 DT LIC	1816.9	158,918	1332.2	125,470	1325.2	125,230
WMGM-TV D36 DT LIC	256.5	25,534	25.0	7,573	24.0	7,518
WUTV D36 DT BL	2.0	0	0.0	0	0.0	0
W47AO-D D36 DC BL	576.1	28,091	275.2	11,182	274.2	11,158
WSVF-CD D36 DC BL	1.0	27	0.0	0	0.0	0

Interference to BLANK0000001499 LIC, scenario 1
Proposal causes no interference.

Interference to proposal, scenario 1
3.09% interference

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WCBS-TV	D36	DT	BL	NEW YORK, NY	WCBS-TV PROP 455KW	
Undesireds:	WNJU	D35	DT	BL	LINDEN, NJ	DTVBL73333	0.0 km
	WFPA-CD	D35	DC	BL	PHILADELPHIA, PA	DTVBL74216	127.6
	WFSB	D36	DT	BL	HARTFORD, CT	DTVBL53115	155.3
	WTTG	D36	DT	LIC	WASHINGTON, DC	BLCDT20080507AAA	326.7
	WMEA-TV	D36	DT	BL	BIDDEFORD, ME	DTVBL39656	400.5
	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLCDT20060626ABE	187.8
	WSPX-TV	D36	DT	BL	SYRACUSE, NY	DTVBL64352	333.6
	W47AO-D	D36	DC	BL	BERWICK, PA	DTVBL68136	187.8
	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000001676	244.7
	WPMC-CD	D36	DC	LIC	MAPPSVILLE, VA	BLANK0000001499	346.1

Service area		Terrain-limited		IX-free		Percent IX	
37200.0	21,861,302	34820.1	21,348,757	31694.3	20,688,242	8.98	3.09

Undesired		Total IX		Unique IX		Prcnt Unique IX	
WFSB D36 DT BL	2787.0	603,776	2359.6	500,078	6.78	2.34
WTTG D36 DT LIC	121.8	44,090	11.0	2,336	0.03	0.01
WMGM-TV D36 DT LIC	692.4	128,717	293.9	39,495	0.84	0.18
WITF-TV D36 DT LIC	52.9	27,944	9.0	6,020	0.03	0.03

Channel and Facility Information

Section	Question	Response
Proposed Community of License	Facility ID	9610
	State	New York
	City	NEW YORK
	DTV Channel	36
Facility Type	Facility Type	Commercial
	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	526.1 meters
	Height of Radiation Center Above Average Terrain	520.0 meters
	Height of Radiation Center Above Mean Sea Level	530.4 meters
	Effective Radiated Power	455 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	PEP40E
	Rotation	
	Electrical Beam Tilt	1
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Elliptical
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?	No
	Uploaded file for elevation antenna (or radiation) pattern data	

Construction Permit Certifications

Section	Question	Response
Post-Incentive Auction Expedited Processing	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
Environmental Effect	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
Broadcast Facility	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