

## ENGINEERING EXHIBIT

### **“Maximization” Application to Modify Digital Television Station Construction Permit**

prepared for

#### **North Carolina License Holdings, Inc.**

WCTI-DT New Bern, NC

Facility ID 18334

Ch. 12 32.8 kW 589 m

*North Carolina License Holdings, Inc. (“NCLH”)* is the licensee of television station WCTI-TV, analog Channel 12 and digital Channel 48, New Bern, NC. A Construction Permit (“CP”, BPCDT-20080314ADE) authorizes construction of the WCTI-DT post-transition digital facility on Channel 12, as established in Appendix B of the Seventh Report and Order in MB Docket 87-278. *NCLH* herein seeks to modify the CP to expand the WCTI-DT post-transition Channel 12 digital facility. The instant application is intended to be filed by June 20, 2008 in response to the FCC’s lifting of the August 3, 2004 “freeze” concerning expansion in service area.<sup>1</sup>

The current CP authorizes operation with an effective radiated power (“ERP”) of 22.2 kW at 589 meters antenna height above average terrain (“HAAT”), with a nondirectional antenna. An increase in ERP to 32.8 kW is proposed herein. No other changes are proposed.

The proposed digital Channel 12 operation will employ the existing non-directional antenna system licensed for WCTI-TV’s analog Channel 12. The antenna is a circularly polarized RCA model TCL-16A12. The antenna is top-mounted on the existing WCTI-TV antenna supporting structure, having FCC Antenna Structure Registration (“ASR”) number 1011271. No change to the overall structure height and no tower work are required to carry out this proposal.

A map is supplied as **Figure 1**, which depicts the standard predicted coverage contours. This map includes the location of New Bern, WCTI-DT’s principal community. As demonstrated

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<sup>1</sup>Public Notice “*Commission Lifts the Freeze On the Filing of Maximization Applications and Petitions for Digital Channel Substitutions, Effective Immediately*” DA 08-1213, released May 30, 2008.

thereon, the proposed facility complies with §73.625(a)(1), as the entire principal community will be encompassed by the 43 dBμ contour.

The proposed WCTI-DT facility’s predicted service population provides a 104.1 percent match of the Appendix B facility, as detailed in the table below.

<b>Post-Transition Population Summary</b>		
Population Summary (2000 Census) OET Bulletin 69 method	Appendix B	Proposed
Within Noise Limited Contour	1,366,157	1,448,744
Not affected by terrain losses	1,365,045	1,444,269
Lost to all interference	40,124	65,735
Net DTV Service	<b>1,324,921</b>	<b>1,378,534</b>
Match of Appendix B	---	<b>104.05%</b>

A detailed interference study per OET Bulletin 69<sup>2</sup> shows that the proposal complies with the 0.5 percent limit of new interference caused to the Appendix B facilities and current post-transition authorizations of pertinent nearby stations. The interference study output report is provided as **Table 1**. Protection requirements towards authorized Class A stations are also satisfied.

The nearest FCC monitoring station is 453 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 3.2 kilometers of the site, based on information contained within the Commission’s database. The site location is beyond the border zones that would require international coordination.

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

The proposal will involve use of an existing transmitting antenna. The use of existing transmitting locations has been characterized as being environmentally preferable by the

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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”). The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. A standard cell size of 2 km was employed. Comparisons of various results of this computer program (run on a Sun Sparc processor) to the Commission’s implementation of OET-69 show excellent correlation.

Commission, according to Note 1 of §1.1306 of the FCC Rules. No tower construction or change in structure height is proposed. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission’s rules.

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% antenna relative field in downward elevations, the calculated power density attributable to the proposed WCTI-DT facility at locations near the transmitter site at a height of two meters above ground level is  $6.4 \mu\text{W}/\text{cm}^2$ , which is 3.2 percent of the “uncontrolled / general public” maximum permissible exposure limit. This is below the five percent threshold limit described in §1.1307(b) 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 RF exposure level will be even lower.

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC’s guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, 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, tower or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

### **Certification**

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direction, and that they are true and correct to the best of his knowledge and belief.

Joseph M. Davis, P.E.  
June 16, 2008

**Chesapeake RF Consultants, LLC**  
11993 Kahns Road  
Manassas, VA 20112  
703-650-9600

### List of Attachments

Figure 1	Proposed Coverage Contours
Table 1	OET Bulletin 69 Interference Study
Form 301	Saved Version of Engineering Sections from FCC Form at Time of Upload

*This material was entered June 16, 2008 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's name and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.*

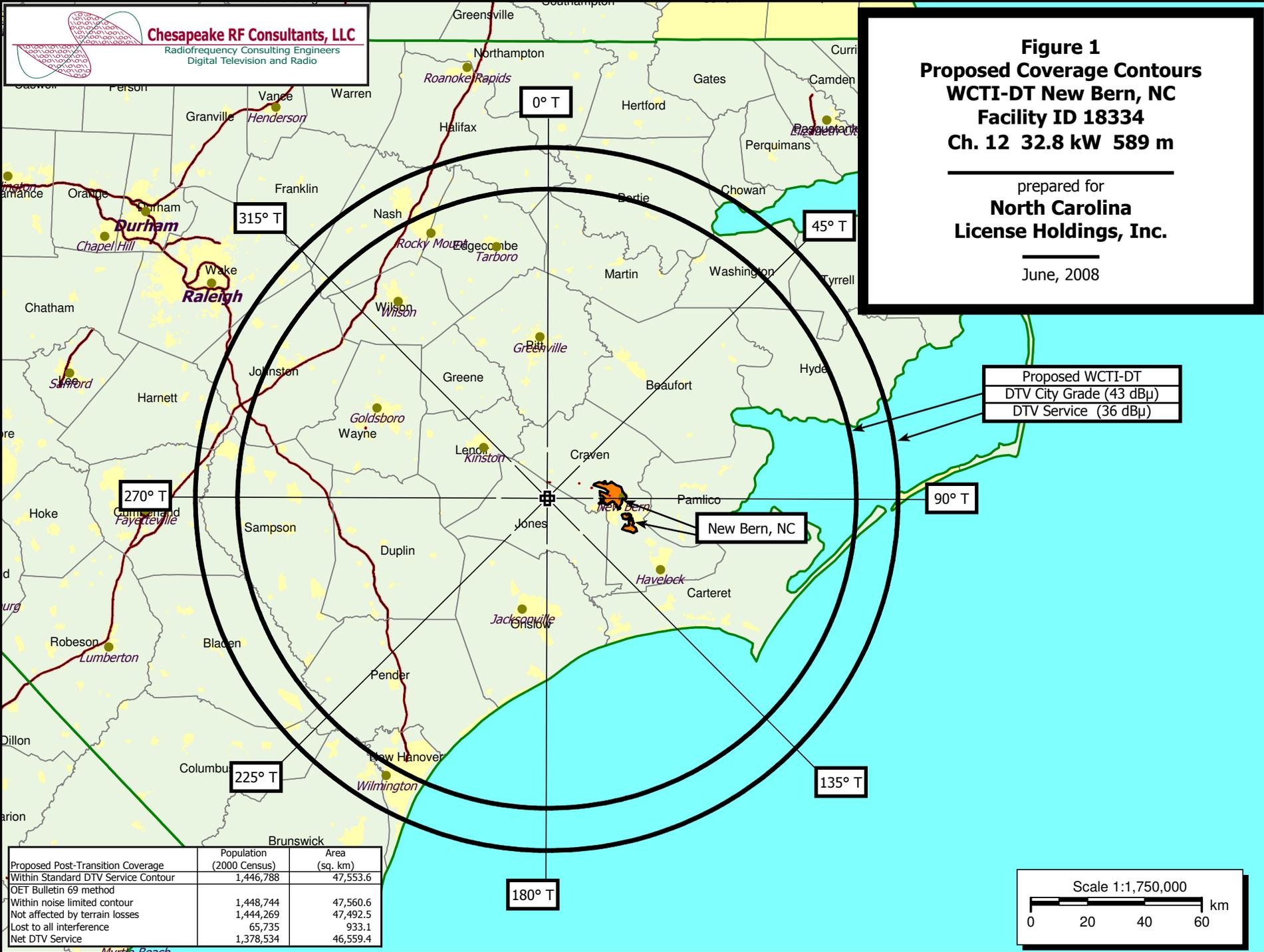
**Figure 1**  
**Proposed Coverage Contours**  
**WCTI-DT New Bern, NC**  
**Facility ID 18334**  
**Ch. 12 32.8 kW 589 m**

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prepared for  
**North Carolina**  
**License Holdings, Inc.**

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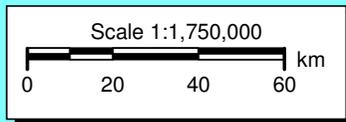
June, 2008



Proposed WCTI-DT  
 DTV City Grade (43 dBμ)  
 DTV Service (36 dBμ)

New Bern, NC

Proposed Post-Transition Coverage	Population (2000 Census)	Area (sq. km)
Within Standard DTV Service Contour	1,446,788	47,553.6
OET Bulletin 69 method		
Within noise limited contour	1,448,744	47,560.6
Not affected by terrain losses	1,444,269	47,492.5
Lost to all interference	65,735	933.1
Net DTV Service	1,378,534	46,559.4



**Table 1 WCTI-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 1 of 9)

TW Census data selected 2000  
Post Transition Data Base Selected /space/software/cdbs/pt\_tvdb.sff

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 06-12-2008 Time: 22:26:19

Record Selected for Analysis

WCTI-DT USERRECORD-01 NEW BERN NC US  
Channel 12 ERP 32.8 kW HAAT 589. m RCAMSL 00602 m  
Latitude 035-06-15 Longitude 0077-20-12  
Status APP Zone 2 Border  
Last update Cutoff date Docket  
Comments  
Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	36.0 dBu F(50,90) (km)
0.0	32.800	586.4	122.8
45.0	32.800	586.9	122.9
90.0	32.800	587.6	122.9
135.0	32.800	594.8	123.4
180.0	32.800	593.4	123.4
225.0	32.800	590.2	123.1
270.0	32.800	592.3	123.3
315.0	32.800	582.1	122.5

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

**Table 1 WCTI-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 2 of 9)

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Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
12	WCTI-DT	NEW BERN NC	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
11	WTVD	DURHAM NC	125.2	CP	BPCDT	-20080317AIJ
11	WTVD	DURHAM NC	125.2	PLN	DTVPLN	-DTVPO331
12	WWBT	RICHMOND VA	267.4	CP	BPCDT	-20080317AGM
12	WWBT	RICHMOND VA	267.4	PLN	DTVPLN	-DTVPO411
13	WBTW	FLORENCE SC	199.0	CP	BPCDT	-20080410AAT
13	WBTW	FLORENCE SC	199.0	PLN	DTVPLN	-DTVPO471
13	WVEC-TV	HAMPTON VA	205.7	PLN	DTVPLN	-DTVPO484
13	WVEC-TV	HAMPTON VA	205.7	CP	BPCDT	-20080305AFC

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Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
11	WTVD	DURHAM NC	BPCDT	-20080317AIJ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
10	WNCT-TV	GREENVILLE NC	108.4	CP MOD	BMPCDT	-20040730ARH
10	WNCT-TV	GREENVILLE NC	108.4	PLN	DTVPLN	-DTVPO276
11	WTVI	CHARLOTTE NC	200.3	LIC	BMLEDT	-20030428AAT
11	WTVI	CHARLOTTE NC	200.3	PLN	DTVPLN	-DTVPO330
11	WJHL-TV	JOHNSON CITY TN	334.8	CP	BPCDT	-20080410AAV
11	WJHL-TV	JOHNSON CITY TN	334.8	PLN	DTVPLN	-DTVPO347
11	WVPT	STAUNTON VA	286.1	LIC	BLEDT	-20021220ADX
11	WVPT	STAUNTON VA	286.1	PLN	DTVPLN	-DTVPO354
12	WCTI-TV	NEW BERN NC	125.1	PLN	DTVPLN	-DTVPO388
12	WWBT	RICHMOND VA	224.0	CP	BPCDT	-20080317AGM
12	WWBT	RICHMOND VA	224.0	PLN	DTVPLN	-DTVPO411
12	WCTI-DT	NEW BERN NC	125.2	APP	USERRECORD-01	

Total scenarios = 16

Result key: 1  
Scenario 1 Affected station 1  
Before Analysis

Results for: 11A NC DURHAM BPCDT 20080317AIJ CP  
HAAT 615.0 m, ATV ERP 17.9 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	295677	43963.5
not affected by terrain losses	2933968	43307.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	131822	2476.6
lost to ATV IX only	131822	2476.6
lost to all IX	131822	2476.6

**Table 1 WCTI-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 3 of 9)

Potential Interfering Stations Included in above Scenario 1

10A NC GREENVILLE	BMPCDT	20040730ARH	CP
11A NC CHARLOTTE	BMLEDT	20030428AAT	LIC
11A TN JOHNSON CITY	BPCDT	20080410AAV	CP
11A VA STAUNTON	BLEDT	20021220ADX	LIC
12A NC NEW BERN	DTVPLN	DTVP0388	PLN

After Analysis

Results for: 11A NC DURHAM BPCDT 20080317AIJ CP  
HAAT 615.0 m, ATV ERP 17.9 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	2956677	43963.5
not affected by terrain losses	2933968	43307.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	137960	2742.4
lost to ATV IX only	137960	2742.4
lost to all IX	137960	2742.4

Potential Interfering Stations Included in above Scenario 1

10A NC GREENVILLE	BMPCDT	20040730ARH	CP
11A NC CHARLOTTE	BMLEDT	20030428AAT	LIC
11A TN JOHNSON CITY	BPCDT	20080410AAV	CP
11A VA STAUNTON	BLEDT	20021220ADX	LIC
12A NC NEW BERN	USERRECORD01		APP

Percent new IX = 0.2190%

Worst case new IX 0.2190% Scenario 1

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Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
11	WTVD	DURHAM NC	DTVPLN	-DTVP0331

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
10	WNCT-TV	GREENVILLE NC	108.4	CP MOD	BMPCDT	-20040730ARH
10	WNCT-TV	GREENVILLE NC	108.4	PLN	DTVPLN	-DTVP0276
11	WTVI	CHARLOTTE NC	200.3	LIC	BMLEDT	-20030428AAT
11	WTVI	CHARLOTTE NC	200.3	PLN	DTVPLN	-DTVP0330
11	WJHL-TV	JOHNSON CITY TN	334.9	CP	BPCDT	-20080410AAV
11	WJHL-TV	JOHNSON CITY TN	334.9	PLN	DTVPLN	-DTVP0347
11	WVPT	STAUNTON VA	286.1	LIC	BLEDT	-20021220ADX
11	WVPT	STAUNTON VA	286.1	PLN	DTVPLN	-DTVP0354
12	WCTI-TV	NEW BERN NC	125.1	PLN	DTVPLN	-DTVP0388
12	WBWT	RICHMOND VA	224.0	CP	BPCDT	-20080317AGM
12	WBWT	RICHMOND VA	224.0	PLN	DTVPLN	-DTVP0411
12	WCTI-DT	NEW BERN NC	125.2	APP	USERRECORD-01	

Total scenarios = 16

**Table 1 WCTI-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 4 of 9)

Result key: 17  
Scenario 1 Affected station 2  
Before Analysis

Results for: 11A NC DURHAM DTVPLN DTVP0331 PLN  
HAAT 607.0 m, ATV ERP 19.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	2959261	44120.5
not affected by terrain losses	2934989	43464.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	131013	2549.1
lost to ATV IX only	131013	2549.1
lost to all IX	131013	2549.1

Potential Interfering Stations Included in above Scenario 1

10A NC GREENVILLE	BMPCDT	20040730ARH	CP
11A NC CHARLOTTE	BMLEDT	20030428AAT	LIC
11A TN JOHNSON CITY	BPCDT	20080410AAV	CP
11A VA STAUNTON	BLEDT	20021220ADX	LIC
12A NC NEW BERN	DTVPLN	DTVP0388	PLN

After Analysis

Results for: 11A NC DURHAM DTVPLN DTVP0331 PLN  
HAAT 607.0 m, ATV ERP 19.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	2959261	44120.5
not affected by terrain losses	2934989	43464.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	137162	2810.9
lost to ATV IX only	137162	2810.9
lost to all IX	137162	2810.9

Potential Interfering Stations Included in above Scenario 1

10A NC GREENVILLE	BMPCDT	20040730ARH	CP
11A NC CHARLOTTE	BMLEDT	20030428AAT	LIC
11A TN JOHNSON CITY	BPCDT	20080410AAV	CP
11A VA STAUNTON	BLEDT	20021220ADX	LIC
12A NC NEW BERN	USERRECORD01		APP

Percent new IX = 0.2193%

Worst case new IX 0.2193% Scenario 1

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
12	WBWT	RICHMOND VA	BPCDT	-20080317AGM

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
11	WBAL-TV	BALTIMORE MD	216.4	PLN	DTVPLN	-DTVP0322
11	WBAL-TV	BALTIMORE MD	216.4	CP	BPCDT	-20080312AAT
11	WTVD	DURHAM NC	224.0	CP	BPCDT	-20080317AIJ

**Table 1 WCTI-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 5 of 9)

11	WTVD	DURHAM NC	224.0	PLN	DTVPLN	-DTVP0331
11	WVPT	STAUNTON VA	175.0	LIC	BLEDT	-20021220ADX
11	WVPT	STAUNTON VA	175.0	PLN	DTVPLN	-DTVP0354
12	WHYY-TV	WILMINGTON DE	343.3	PLN	DTVPLN	-DTVP0366
12	WHYY-TV	WILMINGTON DE	343.3	CP MOD	BMPEDT	-20080208ABY
12	WCTI-TV	NEW BERN NC	267.3	PLN	DTVPLN	-DTVP0388
12	WBOY-TV	CLARKSBURG WV	315.7	PLN	DTVPLN	-DTVP0413
12	WBOY-TV	CLARKSBURG WV	315.7	CP MOD	BMPEDT	-20080317AEM
12	WWPX	MARTINSBURG WV	222.3	LIC	BLCDDT	-20021108AAX
12	WWPX	MARTINSBURG WV	222.3	PLN	DTVPLN	-DTVP0414
13	WJZ-TV	BALTIMORE MD	216.4	CP	BPCDDT	-20080312ABN
13	WJZ-TV	BALTIMORE MD	216.4	PLN	DTVPLN	-DTVP0444
13	WVEC-TV	HAMPTON VA	119.5	PLN	DTVPLN	-DTVP0484
13	WVEC-TV	HAMPTON VA	119.5	CP	BPCDDT	-20080305AFC
13	WSET-TV	LYNCHBURG VA	189.4	PLN	DTVPLN	-DTVP0485
12	WCTI-DT	NEW BERN NC	267.4	APP	USERRECORD-01	

Total scenarios = 4

Result key: 34  
Scenario 2 Affected station 3  
Before Analysis

Results for: 12A VA RICHMOND BPCDDT 20080317AGM CP

HAAT	241.0 m, ATV ERP	5.7 kW
	POPULATION	AREA (sq km)
within Noise Limited Contour	1319494	22716.3
not affected by terrain losses	1308134	22297.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	42284	1108.4
lost to ATV IX only	42284	1108.4
lost to all IX	42284	1108.4

Potential Interfering Stations Included in above Scenario 2

12A DE WILMINGTON	DTVPLN	DTVP0366	PLN
12A WV MARTINSBURG	BLCDDT	20021108AAX	LIC
13A VA HAMPTON	BPCDDT	20080305AFC	CP
12A NC NEW BERN	DTVPLN	DTVP0388	PLN

After Analysis

Results for: 12A VA RICHMOND BPCDDT 20080317AGM CP

HAAT	241.0 m, ATV ERP	5.7 kW
	POPULATION	AREA (sq km)
within Noise Limited Contour	1319494	22716.3
not affected by terrain losses	1308134	22297.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	47960	1289.8
lost to ATV IX only	47960	1289.8
lost to all IX	47960	1289.8

Potential Interfering Stations Included in above Scenario 2

12A DE WILMINGTON	DTVPLN	DTVP0366	PLN
12A WV MARTINSBURG	BLCDDT	20021108AAX	LIC
13A VA HAMPTON	BPCDDT	20080305AFC	CP
12A NC NEW BERN	USERRECORD01		APP

Percent new IX = 0.4484%

Worst case new IX 0.4484% Scenario 2

**Table 1 WCTI-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 6 of 9)

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
12	WVBT	RICHMOND VA	DTVPLN	-DTVP0411

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
11	WBAL-TV	BALTIMORE MD	216.4	PLN	DTVPLN	-DTVP0322
11	WBAL-TV	BALTIMORE MD	216.4	CP	BPCDDT	-20080312AAT
11	WTVD	DURHAM NC	224.0	CP	BPCDDT	-20080317AIJ
11	WTVD	DURHAM NC	224.0	PLN	DTVPLN	-DTVP0331
11	WVPT	STAUNTON VA	175.0	LIC	BLEDT	-20021220ADX
11	WVPT	STAUNTON VA	175.0	PLN	DTVPLN	-DTVP0354
12	WHYY-TV	WILMINGTON DE	343.3	PLN	DTVPLN	-DTVP0366
12	WHYY-TV	WILMINGTON DE	343.3	CP MOD	BMPEDT	-20080208ABY
12	WCTI-TV	NEW BERN NC	267.3	PLN	DTVPLN	-DTVP0388
12	WBOY-TV	CLARKSBURG WV	315.7	PLN	DTVPLN	-DTVP0413
12	WBOY-TV	CLARKSBURG WV	315.7	CP MOD	BMPEDT	-20080317AEM
12	WWPX	MARTINSBURG WV	222.3	LIC	BLCDDT	-20021108AAX
12	WWPX	MARTINSBURG WV	222.3	PLN	DTVPLN	-DTVP0414
13	WJZ-TV	BALTIMORE MD	216.4	CP	BPCDDT	-20080312ABN
13	WJZ-TV	BALTIMORE MD	216.4	PLN	DTVPLN	-DTVP0444
13	WVEC-TV	HAMPTON VA	119.5	PLN	DTVPLN	-DTVP0484
13	WVEC-TV	HAMPTON VA	119.5	CP	BPCDDT	-20080305AFC
13	WSET-TV	LYNCHBURG VA	189.4	PLN	DTVPLN	-DTVP0485
12	WCTI-DT	NEW BERN NC	267.4	APP	USERRECORD-01	

Total scenarios = 8

Result key: 38  
Scenario 2 Affected station 4  
Before Analysis

Results for: 12A VA RICHMOND DTVPLN DTVP0411 PLN

HAAT	241.0 m, ATV ERP	5.4 kW
	POPULATION	AREA (sq km)
within Noise Limited Contour	1318639	22651.8
not affected by terrain losses	1308749	22305.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	42135	1100.3
lost to ATV IX only	42135	1100.3
lost to all IX	42135	1100.3

Potential Interfering Stations Included in above Scenario 2

12A DE WILMINGTON	DTVPLN	DTVP0366	PLN
12A WV MARTINSBURG	BLCDDT	20021108AAX	LIC
13A VA HAMPTON	BPCDDT	20080305AFC	CP
12A NC NEW BERN	DTVPLN	DTVP0388	PLN

After Analysis

Results for: 12A VA RICHMOND DTVPLN DTVP0411 PLN

HAAT	241.0 m, ATV ERP	5.4 kW
	POPULATION	AREA (sq km)

**Table 1 WCTI-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 7 of 9)

within Noise Limited Contour	1318639	22651.8
not affected by terrain losses	1308749	22305.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	47485	1293.8
lost to ATV IX only	47485	1293.8
lost to all IX	47485	1293.8

Potential Interfering Stations Included in above Scenario 2

12A DE WILMINGTON	DTVPLN	DTVP0366	PLN
12A WV MARTINSBURG	BLCDT	20021108AAX	LIC
13A VA HAMPTON	BPCDT	20080305AFC	CP
12A NC NEW BERN	USERRECORD01		APP

Percent new IX = 0.4224%

Worst case new IX 0.4224% Scenario 2

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Analysis of Interference to Affected Station 5

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	WBTW	FLORENCE SC	BPCDT -20080410AAT

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	WCTI-TV	NEW BERN NC	199.0	PLN	DTVPLN -DTVP0388
13	WLOS	ASHEVILLE NC	334.4	CP	BPCDT -20080317AGL
13	WLOS	ASHEVILLE NC	334.4	PLN	DTVPLN -DTVP0452
13	WVEC-TV	HAMPTON VA	375.0	PLN	DTVPLN -DTVP0484
13	WVEC-TV	HAMPTON VA	375.0	CP	BPCDT -20080305AFC
13	WSET-TV	LYNCHBURG VA	328.8	PLN	DTVPLN -DTVP0485
12	WCTI-DT	NEW BERN NC	199.0	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 6

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	WBTW	FLORENCE SC	DTVPLN -DTVP0471

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	WCTI-TV	NEW BERN NC	199.0	PLN	DTVPLN -DTVP0388
13	WLOS	ASHEVILLE NC	334.4	CP	BPCDT -20080317AGL
13	WLOS	ASHEVILLE NC	334.4	PLN	DTVPLN -DTVP0452
13	WVEC-TV	HAMPTON VA	375.0	PLN	DTVPLN -DTVP0484
13	WVEC-TV	HAMPTON VA	375.0	CP	BPCDT -20080305AFC
13	WSET-TV	LYNCHBURG VA	328.8	PLN	DTVPLN -DTVP0485
12	WCTI-DT	NEW BERN NC	199.0	APP	USERRECORD-01

Proposal causes no interference

**Table 1 WCTI-DT OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 8 of 9)

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Analysis of Interference to Affected Station 7

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	WVEC-TV	HAMPTON VA	DTVPLN -DTVP0484

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	WCTI-TV	NEW BERN NC	205.7	PLN	DTVPLN -DTVP0388
12	WWTB	RICHMOND VA	119.5	CP	BPCDT -20080317AGM
12	WWTB	RICHMOND VA	119.5	PLN	DTVPLN -DTVP0411
13	WJZ-TV	BALTIMORE MD	280.3	CP	BPCDT -20080312ABN
13	WJZ-TV	BALTIMORE MD	280.3	PLN	DTVPLN -DTVP0444
13	WBTW	FLORENCE SC	375.0	CP	BPCDT -20080410AAT
13	WBTW	FLORENCE SC	375.0	PLN	DTVPLN -DTVP0471
13	WSET-TV	LYNCHBURG VA	286.3	PLN	DTVPLN -DTVP0485
12	WCTI-DT	NEW BERN NC	205.7	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 8

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	WVEC-TV	HAMPTON VA	BPCDT -20080305AFC

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	WCTI-TV	NEW BERN NC	205.7	PLN	DTVPLN -DTVP0388
12	WWTB	RICHMOND VA	119.5	CP	BPCDT -20080317AGM
12	WWTB	RICHMOND VA	119.5	PLN	DTVPLN -DTVP0411
13	WJZ-TV	BALTIMORE MD	280.4	CP	BPCDT -20080312ABN
13	WJZ-TV	BALTIMORE MD	280.4	PLN	DTVPLN -DTVP0444
13	WBTW	FLORENCE SC	375.0	CP	BPCDT -20080410AAT
13	WBTW	FLORENCE SC	375.0	PLN	DTVPLN -DTVP0471
13	WSET-TV	LYNCHBURG VA	286.3	PLN	DTVPLN -DTVP0485
12	WCTI-DT	NEW BERN NC	205.7	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 9

Analysis of current record

Channel	Call	City/State	Application Ref. No.
12	WCTI-DT	NEW BERN NC	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
11	WTVD	DURHAM NC	125.2	CP	BPCDT -20080317AIJ

**Table 1 WCTI-DT OET Bulletin 69 Interference Study**

(worst-case scenarios shown page 9 of 9)

11	WTVD	DURHAM NC	125.2	PLN	DTVPLN	-DTVP0331
12	WWBT	RICHMOND VA	267.4	CP	BPCDT	-20080317AGM
12	WWBT	RICHMOND VA	267.4	PLN	DTVPLN	-DTVP0411
13	WBTW	FLORENCE SC	199.0	CP	BPCDT	-20080410AAT
13	WBTW	FLORENCE SC	199.0	PLN	DTVPLN	-DTVP0471
13	WVEC-TV	HAMPTON VA	205.7	PLN	DTVPLN	-DTVP0484
13	WVEC-TV	HAMPTON VA	205.7	CP	BPCDT	-20080305AFC

Total scenarios = 4

Results for: 12A NC NEW BERN USERRECORD01 APP

HAAT 589.0 m, ATV ERP 32.8 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1448744	47560.6
not affected by terrain losses	1444269	47492.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	65735	933.1
lost to ATV IX only	65735	933.1
lost to all IX	65735	933.1

Potential Interfering Stations Included in above Scenario 4

11A NC DURHAM	DTVPLN	DTVP0331	PLN
12A VA RICHMOND	DTVPLN	DTVP0411	PLN

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FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

<b>SECTION III-D - DTV Engineering</b>	
<b>Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.</b>	
<p><b>Pre-Transition Certification Checklist:</b> An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction permit application to change pre-transition facilities. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.</p> <p><b>Post-Transition Expedited Processing:</b> An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.</p>	
1. The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:	
(a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622.	<input checked="" type="radio"/> Yes <input type="radio"/> No
(b) It will operate a pre-transition facility from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622.	<input type="radio"/> Yes <input type="radio"/> No
(c) It will operate a pre-transition facility with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622.	<input type="radio"/> Yes <input type="radio"/> No
(d) It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B").	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
(e) It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. Applicant must <b>submit the Exhibit</b> called for in Item 13.	<input checked="" type="radio"/> Yes <input type="radio"/> No
3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community.	<input checked="" type="radio"/> Yes <input type="radio"/> No
4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable.	<input checked="" type="radio"/> Yes <input type="radio"/> No
5. The antenna structure to be used by this facility has been registered by the Commission and will not require registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect 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.	<input checked="" type="radio"/> Yes <input type="radio"/> No

<b>SECTION III-D - DTV Engineering</b>	
<b>TECHNICAL SPECIFICATIONS</b>	
Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.	
<b>TECH BOX</b>	
1. Channel Number:	DTV 12 Analog TV, if any 12
2. Zone:	<input type="radio"/> I <input checked="" type="radio"/> II <input type="radio"/> III
3. Antenna Location Coordinates: (NAD 27)	Latitude: Degrees 35 Minutes 6 Seconds 15 <input checked="" type="radio"/> North <input type="radio"/> South  Longitude: Degrees 77 Minutes 20 Seconds 12 <input checked="" type="radio"/> West <input type="radio"/> East
4. Antenna Structure Registration Number: 1011271	<input type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA
5. Antenna Location Site Elevation Above Mean Sea Level:	14 meters
6. Overall Tower Height Above Ground Level:	606 meters
7. Height of Radiation Center Above Ground Level:	588 meters
8. Height of Radiation Center Above Average Terrain :	589 meters
9. Maximum Effective Radiated Power (average power):	32.8 kW
10. Antenna Specifications:	

a. Manufacturer RCA Model TCL-16A12

b. Electrical Beam Tilt:  
0.78 degrees  Not Applicable

c. Mechanical Beam Tilt:  
degrees toward azimuth  
degrees True  Not Applicable  
Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). [Exhibit 42]

d. Polarization:  
 Horizontal  Circular  Elliptical

e. Directional Antenna Relative Field Values:  Not applicable (Nondirectional)

[For a composite directional (not off-the-shelf) antenna, press the following button to fill in the relative field values subform.]  
[Relative Field Values]

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If a directional antenna is proposed, the requirements of 47 C.F.R. Sections 73.625(c) must be satisfied. **Exhibit required.** [Exhibit 43]

11. Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616?  Yes  No [Exhibit 44]  
If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if **Certification Checklist** item 3 is answered "No.") [Exhibit 45]

13. **Environmental Protection Act. Submit in an Exhibit** the following: [Exhibit 46]  
If **Certification Checklist** Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.  
  
By checking "Yes" to **Certification Checklist** Item 2, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.  
  
If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R Section 1.1311.

**PREPARERS CERTIFICATION ON SECTION III MUST BE COMPLETED AND SIGNED.**

**SECTION III - PREPARER'S CERTIFICATION**

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name JOSEPH M. DAVIS, P.E.		Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature		Date 6/16/2008	
Mailing Address CHESAPEAKE RF CONSULTANTS, LLC 11993 KAHNS ROAD			
City MANASSAS	State or Country (if foreign address) VA		Zip Code 20112 -
Telephone Number (include area code) 7036509600	E-Mail Address (if available) JOSEPH.DAVIS@RF-CONSULTANTS.COM		

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).