

TECHNICAL EXHIBIT  
MINOR CHANGE APPLICATION  
STATION WHPX-DT (FACILITY ID 51980)  
NEW LONDON, CONNECTICUT

OCTOBER 5, 2005

CH 34 90 KW (MAX-DA) 368 M

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Technical Narrative

This Technical Exhibit supports a minor change application for digital television station WHPX-DT on channel 34 at New London, Connecticut. Station WHPX-DT is licensed to operate with a directional antenna visual effective radiated power (ERP) of 90 kW and an antenna height above average terrain (HAAT) of 363 meters (BLCDT-20020510AAE).

The purpose of this application is to correct the geographic coordinates and elevation data to harmonize with the antenna structure registration information for the WHPX-DT antenna supporting structure. The corrections are to the latitude by 1 second and the site elevation and antenna height, both above mean sea level and above average terrain.

The correction will result in some extension of the predicted noise-limited contour. A “Gain” area of 121.6 square kilometers over land (or 1% of the authorized service land area of 12,050 square kilometers) would be created. A waiver request of the FCC Filing Freeze for television stations is attached elsewhere.

Tower Registration

The proposed antenna structure has been registered with the FCC (ASRN: 1237074). The WHPX analog antenna is a combined, “stack-mounted” configuration with the WHPX-DT antenna. There will be no change in the overall height of the existing structure as a result of the instant proposal.

Allocation Considerations

An interference analysis using the provisions of the FCC’s OET-69 program was conducted. The OET-69 results indicate that only “de minimis” interference will be caused to any station. The results are shown below:

Ch.	Call	City	St	Status	Application Ref. No.	Before	After	Baseline	Change	%
20	WTXX	WATERBURY	CT	LIC	BLCT -19820428KE	1,143,197	1,143,023	5,311,911	-174	<b>-0.003</b>
26	WHPX	NEW LONDON	CT	LIC	BLCT -19860924KI	There is no interference to station 2				
26	WHPX	NEW LONDON	CT	LIC	BMLCT -20030710ABP	There is no interference to station 3				
27	WUNI	WORCESTER	MA	LIC	BLCT -19991214ABC	There is no interference to station 4				
30	WVIT	NEW BRITAIN	CT	LIC	BLCT -19791113LC	854,993	855,091	4,344,485	98	<b>0.002</b>
32	WBPX	BOSTON	MA	APP	BPCT -20020213AAH	There is no interference to station 6				
33	WFSB-DT	HARTFORD	CT	PLN	DTVPLN-DTVP0894	925,340	926,964	3,886,896	1,624	<b>0.042</b>
33	WFSB	HARTFORD	CT	LIC	BLCDDT -20041029AIL	748,735	750,419	3,886,896	1,684	<b>0.043</b>
33	WPXG	CONCORD	NH	LIC	BLCDDT -20031014AEP	There is no interference to station 9				
33	WNBU-DT	CONCORD	NH	PLN	DTVPLN-DTVP0909	There is no interference to station 10				
33	WPIX-DT	NEW YORK	NY	PLN	DTVPLN-DTVP0911	There is no interference to station 11				
33	WPIX	NEW YORK	NY	CP	BPCDDT -19991019ABH	513,945	17,592,497	0	0	
34	WNEU	MERRIMACK	NH	LIC	BLCDDT -20021028AAH	123,321	128,933	1,913,440	5,612	<b>0.293</b>
34	WGOT-DT	MERRIMACK	NH	PLN	DTVPLN-DTVP0946	64,931	66,356	1,913,440	1,425	<b>0.074</b>
34	WIVT	BINGHAMTON	NY	APP	BFRCDT -20050812AFK	13,477	13,477	886,454	0	<b>0</b>
34	WIVT	BINGHAMTON	NY	LIC	BLCT -20040113ABJ	There is no interference to station 16				
34	960910KE	LAKE PLACID	NY	APP	BPET -19960910KE	There is no interference to station 17				
34	WMHT	SCHENECTADY	NY	LIC	BLEDT -20040108ALV	20,023	20,198	1,199,417	175	<b>0.015</b>
34	WMHT-DT	SCHENECTADY	NY	PLN	DTVPLN-DTVP0949	32,939	33,341	1,199,417	402	<b>0.034</b>
34	WYBE	PHILADELPHIA	PA	LIC	BLEDT -20030213AAD	195,390	195,390	5,686,854	0	<b>0</b>
34	WYBE-DT	PHILADELPHIA	PA	PLN	DTVPLN-DTVP0953	97,995	97,995	5,686,854	0	<b>0</b>
35	WVIT-DT	NEW BRITAIN	CT	PLN	DTVPLN-DTVP0967	279,015	294,566	3,903,015	15,551	<b>0.398</b>
35	WVIT	NEW BRITAIN	CT	LIC	BLCDDT -20041203AEF	296,930	319,225	3,903,015	22,295	<b>0.571</b>
35	WZMY-TV	DERRY	NH	CP	BPCDDT -19991101AKG	There is no interference to station 24				
35	WNDS-DT	DERRY	NH	PLN	DTVPLN-DTVP0985	There is no interference to station 25				
36	WSBE-TV	PROVIDENCE	RI	LIC	BLET -19860926KP	641,925	642,520	3,213,170	595	<b>0.019</b>
38	WSBK-TV	BOSTON	MA	LIC	BLCT -19910619KG	There is no interference to station 27				

### Environmental Considerations

An evaluation was conducted for the proposed facility concerning compliance with Section 1.1307(b) of the FCC Rules regarding human exposure to radio frequency (RF) energy.<sup>1</sup> Calculations prepared in accordance with FCC Bulletin OET-65 (Edition 97-01) indicate that the proposal will not result in human exposure to RF radiation at ground level in excess of FCC standards. Power density calculations were conducted at 2-m above ground<sup>2</sup> based on the following conservative assumptions, with the following results:

<sup>1</sup> See FCC Office of Engineering and Technology Bulletin No. 56 for background information on non-ionizing RF energy of the type discussed here. Internet web reference:

[http://www.fcc.gov/Bureaus/Engineering\\_Technology/Documents/bulletins/oet56/oet56e4.pdf](http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e4.pdf)

<sup>2</sup> The antenna radiation center height above ground is 339 m.

Call Sign	Channel	Total Peak ERP (kW)	Relative Field Factor <sup>3</sup>	FCC Limit <sup>4</sup> (mW/cm <sup>2</sup> )	Percentage of Limit
WHPX-DT	34	90	0.15	0.4	0.2%

As indicated above, the total exposure to RF radiation at 2-m above ground level will not exceed 5% of the FCC limit for general population / uncontrolled exposure. Therefore, the proposal complies with the FCC limits for human exposure to RF energy.

The applicant, in coordination with other users of the transmission facility, shall reduce power or cease operation as necessary to protect persons having access to the WHPX-DT tower or antenna from radio frequency radiation in excess of the FCC guidelines.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner as part of the tower registration process.



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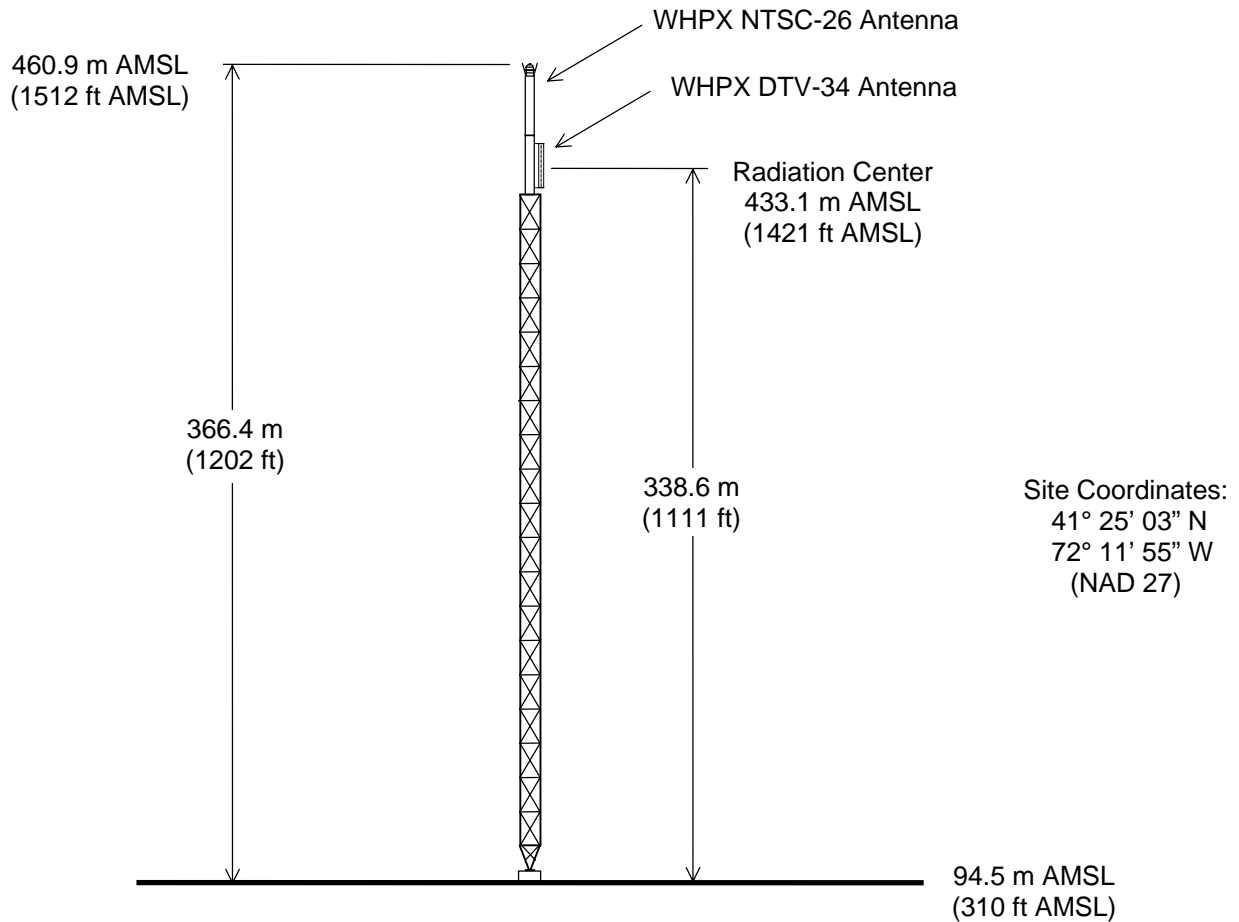
October 5, 2005

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<sup>3</sup> See attached Figure 3

<sup>4</sup> For general population/uncontrolled environments

Tower Reg. No. 1237074



## ANTENNA AND SUPPORTING STRUCTURE

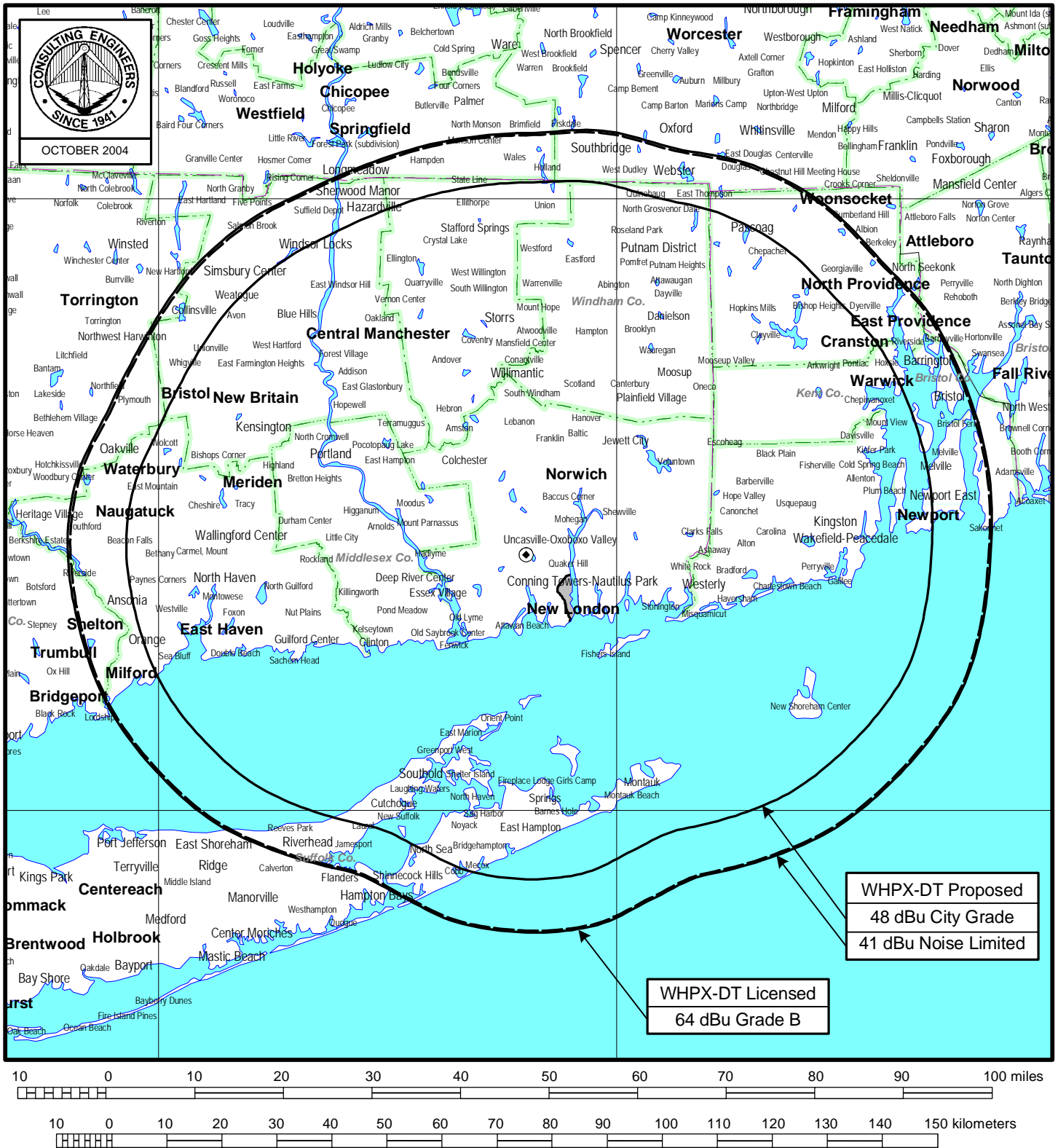
STATION WHPX-DT

NEW LONDON, CONNECTICUT

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

Figure 2



## PREDICTED COVERAGE CONTOURS

STATION WHPX-DT  
NEW LONDON, CONNECTICUT  
CH 34 90 KW (MAX-DA) 368 M  
du Treil, Lundin & Rackley, Inc Sarasota, Florida

# Dielectric

Date  
Call Letters  
Location  
Customer  
Antenna Type

30 Aug 1999  
WHPX-DT Channel 34  
New London, CT  
TFU-18DSC C170

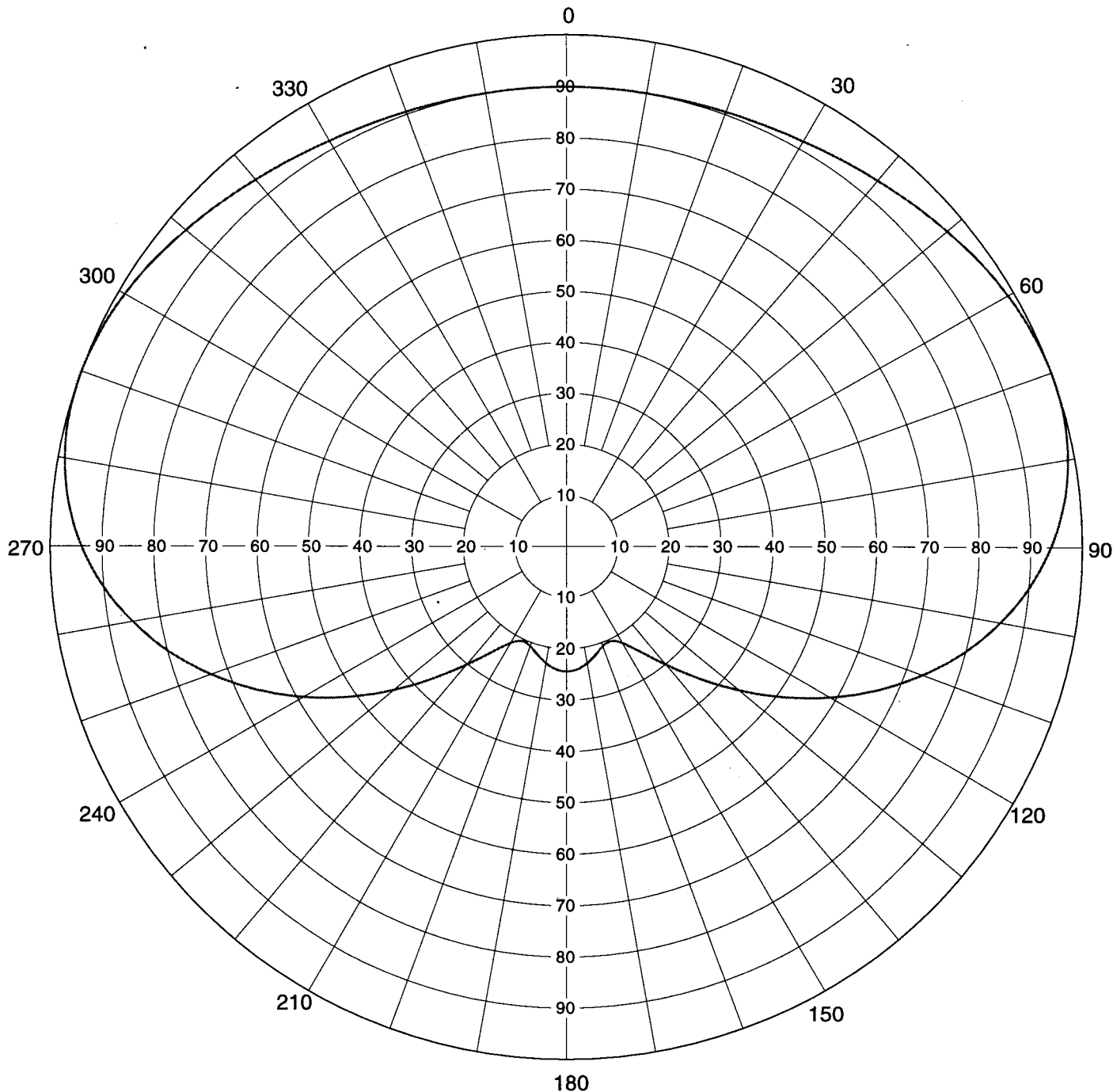
## AZIMUTH PATTERN

RMS Gain at Main Lobe  
Calculated / Measured

1.70 (2.30 dB)  
Calculated

Frequency  
Drawing #

593 MHz  
C170

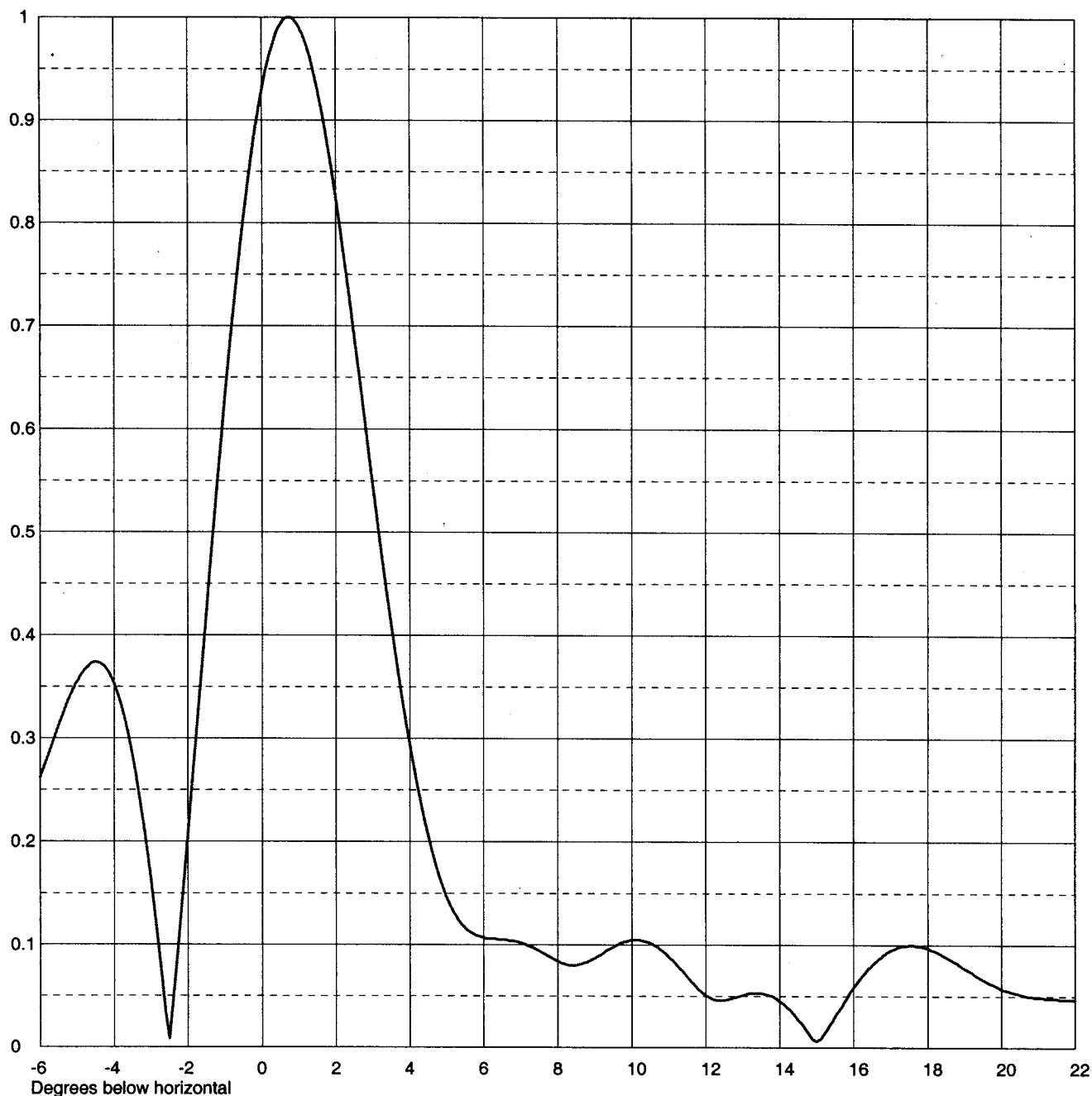


Remarks:

Date	21 Sep 1999		
Call Letters	WHPX-DT	Channel	34
Location	New London, CT		
Customer			
Antenna Type	TFU-18DSC C170		

## ELEVATION PATTERN

RMS Gain at Main Lobe	15.0 (11.76 dB)	Beam Tilt	0.75 Degrees
RMS Gain at Horizontal	13.0 (11.14 dB)	Frequency	593.00 MHz
Calculated / Measured	Calculated	Drawing #	18Q15007



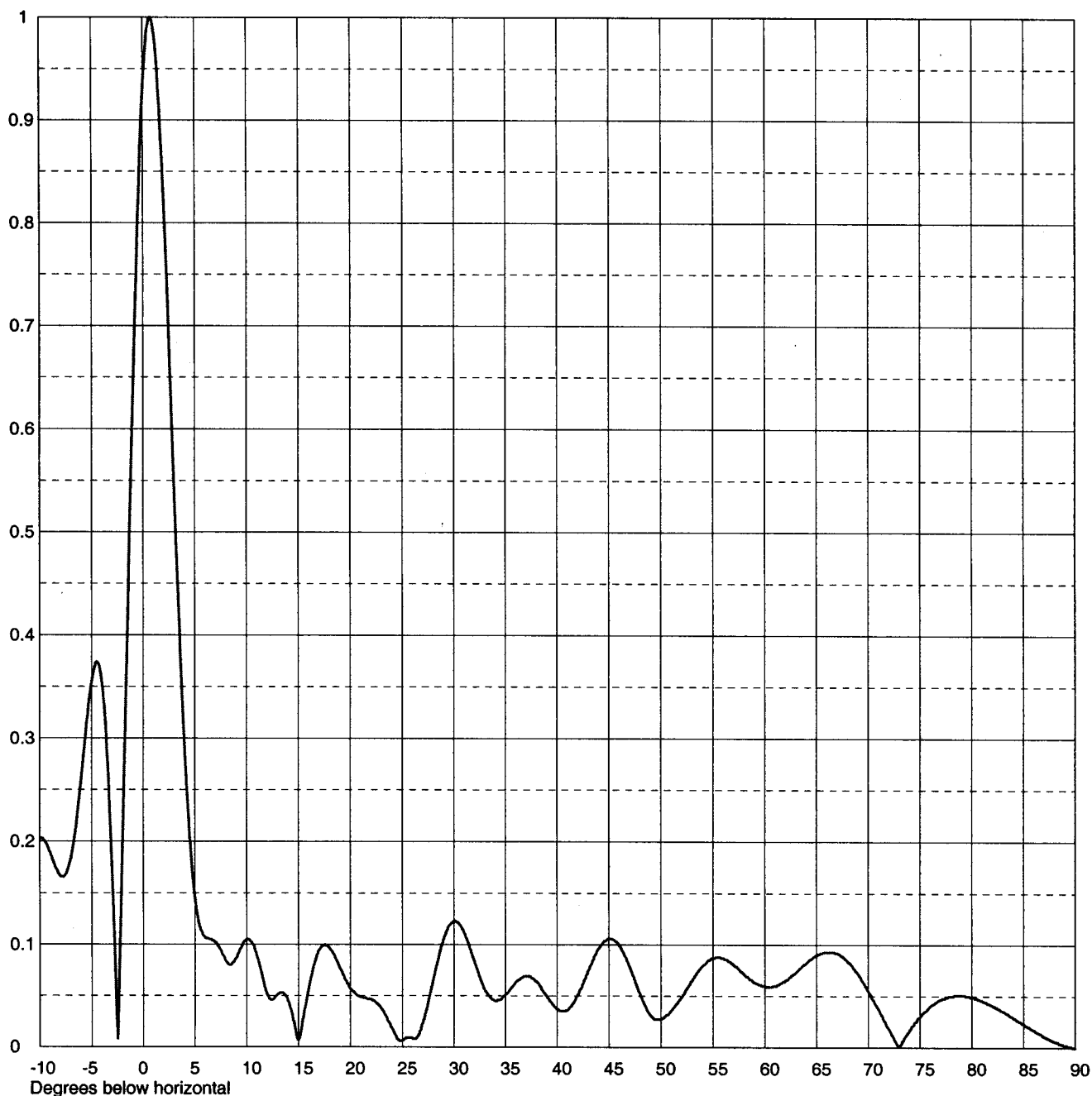
Remarks:

# Dielectric

Date **21 Sep 1999**  
 Call Letters **WHPX-DT** Channel **34**  
 Location **New London, CT**  
 Customer  
 Antenna Type **TFU-18DSC C170**

## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>15.0 (11.76 dB)</b>	Beam Tilt	<b>0.75 Degrees</b>
RMS Gain at Horizontal	<b>13.0 (11.14 dB)</b>	Frequency	<b>593.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>18Q15007-90</b>



Remarks: