

Spectrum Trading

IEEE 802.16 Presentation Submission Template (Rev. 8.3)

Document Number: C802.16h-07/040

Date Submitted: March 13, 2007

Source:

Darrin M. Mylet

Cantor Fitzgerald

110 E 59th Street

New York NY 10022

Voice: 212 610 2200

Fax: 212 612 4322

E-mail: dmylet@cantor.com

Venue: IEEE 802.16 Session #47 Orlando, USA

Base Document: N/A

Purpose:

Better understand the tools, components and marketplace issues of spectrum trading.

Notice:

This document has been prepared to assist IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

Release:

The contributor grants a free, irrevocable license to the IEEE to incorporate material contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE's name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE's sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.16.

IEEE 802.16 Patent Policy:

The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures <<http://ieee802.org/16/ipr/patents/policy.html>>, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair <<mailto:chair@wirelessman.org>> as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.16 Working Group. The Chair will disclose this notification via the IEEE 802.16 web site <<http://ieee802.org/16/ipr/patents/notices>>.

Evolution Of An Electronic/On-Line Spectrum & Tower Marketplace

Introducing The:
Cantor Spectrum and Tower Exchange



Sales & Trading
Investment Banking
Asset Management
Market Commentary
Market Data
Brokerage Services

Home
Our Heritage
Our People
Our Commitment
News
Careers
Contact Us

CANTOR
Fitzgerald

Cantor Spectrum & Tower Exchange

CANTOR
Spectrum & Tower Exchange

Cantor Spectrum Exchange | Cantor TowerExchange | Contact Us | In the News

Cantor Spectrum & Tower Exchange

- > [Registered Users Login](#)
- > [SELLER Registration for Wireless Spectrum](#)
- > [BUYER Registration for Wireless Spectrum](#)
- > [Cantor Spectrum Markets](#)
- > [About FCC Secondary Markets](#)
- > [Cantor Spectrum FAQs](#)

"The Cantor Fitzgerald Spectrum & Tower Exchange & Marketplace™ is a web-based service that makes offering, finding, pricing and executing transfer of wireless spectrum rights, tower assets and tower/rooftop space as efficient, neutral and transparent as possible."

Cantor Spectrum Exchange revolutionizes the market for radio frequency spectrum, including the manner in which wireless spectrum is bought, sold and leased between counterparties. The exchange is well poised to be the premier trading and data resource for spectrum available for lease and sale.

Cantor Telecom brings to you a scalable trading platform that is neutral and focused on the industry. Integrating our electronic and voice trading systems along with leading edge mapping and analysis methods we have formed a revolutionary spectrum and tower exchange.

Our primary goal is to create a viable marketplace for spectrum trading. We will make it easier to find/post specific assets, BID/OFFER these assets and execute these asset transactions more quickly, efficiently and at a lower cost.

Traditional methods of trading spectrum may not bring all the participants together and/or generate the right price.

New participants upload standard brokerage agreements, sign them and then are given a User ID & Password



User ID:

Password:

Forgot your password? [Click here](#)

New User? [Click here](#)

Copyright © 2005 All rights reserved.



**Simple On-Line
Log In**



Telecom Home



Analysis & Research



General Information

Spectrum

Tower/Structures

Change Password

All Fields marked with * are required

Save Changes

* First Name: Anita

* Last Name: Phreq

* Company Name: Cantor Exchange

FCC/FAA Filing Name/Affiliated:

Name for Trading Anita Don't Reveal Identity

Street Address: 186000 Spectrum Ave

City: Exchange

State/Province: WA

Zip/Postal Code: 98850

Country: USA

* Contact Email Address: CantorExchange@wacorp.net

Set Notification Preferences

* Phone Number: 425-643-5000

Mobile Number:

First, users must create a profile of how to be contacted and what name to use when placing trades.



Telecom Home



Analysis & Research



General Information | Spectrum | Tower/Structures | Change Password

Notify Email Address:

Notify	Email		Notify	Email	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	My New Listing Releases	<input type="checkbox"/>	<input type="checkbox"/>	My Preferences Match My New Listing
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	My Preferences Match New Listing By Others	<input checked="" type="checkbox"/>	<input type="checkbox"/>	My Listing Is Cancelled
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Listing I Bid On Is Cancelled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	My Listing Expires
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Listing I Bid On Expires	<input checked="" type="checkbox"/>	<input type="checkbox"/>	My Listing Closes
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Listing I Bid On Closes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I Bid On Listing
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	My Listing Is Bid On	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I Counter Bid On Listing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Counter Bid To My Bid			

Phone Number:

Mobile Number:

**Notification Configuration Is Key
Given The Size Of The
Marketplace & Depth Of Activity**



Telecom Home



Analysis & Research



Legal & Regulatory Documents

Business Solutions
by Frequency

General Information | **Spectrum** | Tower/Structures | Change Password

Preferences Preset S1

State Preferences: CO,IN,KY,MD,MN,MT,NH,NY,
OH,PA,SD,TX,UT,WA,WY

Desired Bands/Frequencies: Cellular

Preferences Preset S2

State Preferences: AL,AR,CT,FL,ID,IA,LA,MA,
MS,MO,NE,NV,NJ,NC,OK,
OR,RI,TN,TX,VT,WV,WI

Desired Bands/Frequencies: Mass Media

Preferences Preset S3

State Preferences: AL,AK,AZ,AR,CA,CO,CT,DE,
DC,FL,GA,HI,ID,IL,IN,
IA,KS,KY,LA,ME,MD,MA,
MI,MN,MS,MO,MT,NE,NV,
NH,NJ,NM,NY,NC,ND,OH,
OK,OR,PA,RI,SC,SD,TN,
TX,UT,VT,VA,WA,WV,WI,
WY

Desired _____

Users Can Set Broad or Specific Preferences Down To The Channel For Spectrum Along With Geography



Telecom Home



Analysis & Research



Legal & Regulatory Documents



Business Solutions by Frequency

General Information

Spectrum

Tower/Structures

Change Password

Preferences Preset T1

Save Changes

State Preferences: ME,MD,MA,MI,MN,MS,MO

State Selection - Microsoft Internet Explorer

<input type="checkbox"/> Alabama	<input type="checkbox"/> Alaska	<input type="checkbox"/> Arizona
<input type="checkbox"/> Arkansas	<input type="checkbox"/> California	<input type="checkbox"/> Colorado
<input type="checkbox"/> Connecticut	<input type="checkbox"/> Delaware	<input type="checkbox"/> District of Columbia
<input type="checkbox"/> Florida	<input type="checkbox"/> Georgia	<input type="checkbox"/> Hawaii
<input type="checkbox"/> Idaho	<input type="checkbox"/> Illinois	<input type="checkbox"/> Indiana
<input type="checkbox"/> Iowa	<input type="checkbox"/> Kansas	<input type="checkbox"/> Kentucky
<input type="checkbox"/> Louisiana	<input checked="" type="checkbox"/> Maine	<input checked="" type="checkbox"/> Maryland
<input checked="" type="checkbox"/> Massachusetts	<input checked="" type="checkbox"/> Michigan	<input checked="" type="checkbox"/> Minnesota
<input checked="" type="checkbox"/> Mississippi	<input checked="" type="checkbox"/> Missouri	<input type="checkbox"/> Montana
<input type="checkbox"/> Nebraska	<input type="checkbox"/> Nevada	<input type="checkbox"/> New Hampshire
<input type="checkbox"/> New Jersey	<input type="checkbox"/> New Mexico	<input type="checkbox"/> New York
<input type="checkbox"/> North Carolina	<input type="checkbox"/> North Dakota	<input type="checkbox"/> Ohio
<input type="checkbox"/> Oklahoma	<input type="checkbox"/> Oregon	<input type="checkbox"/> Pennsylvania
<input type="checkbox"/> Rhode Island	<input type="checkbox"/> South Carolina	<input type="checkbox"/> South Dakota
<input type="checkbox"/> Tennessee	<input type="checkbox"/> Texas	<input type="checkbox"/> Utah
<input type="checkbox"/> Vermont	<input type="checkbox"/> Virginia	<input type="checkbox"/> Washington
<input type="checkbox"/> West Virginia	<input type="checkbox"/> Wisconsin	<input type="checkbox"/> Wyoming

**Tower And Rooftop Preferences
Are Determined By State**

Entity Name

CANTOR
Spectrum & Tower Exchange

CREATE LISTING | SEARCH | MY TRADES | PROFILE | DEMOS | LOGOFF

CREATE LISTING: EXISTING ASSETS

Config | Spectrum | Towers | Search Rings | Backhaul

Asset Management

Search Entity Names: spect [Go]

You Searched: spect

We Found Companies Like:

- SPECTA GUARD
- SPECTACOR MANAGEMENT GROUP
- SPECTACOR MANAGEMENT GROUP DBA SMG
- SPECTACOR MANAGEMENT GROUP INC
- SPECTACOR MANAGEMENT INC
- SPECTAGUARD INC
- SPECTER, MARVIN M DBA : M M SPECTER P E L S
- SPECTHRIE, ROBYN L

Company Names to Search Assets

- D
- D
- M
- L
- L
- M
- U
- U
- N
- N
- A
- A
- T
- T

all

CREATE LISTING: EXISTING ASSETS

Config | Spectrum | Towers | Search Rings | Backhaul

Asset Management

Customer Information

Radio Service Codes:

- CN (10) - PCS Narrowband
- CP (341) - Part 22 VHF/UHF Paging (excluding 931MHz)
- PC (4) - Public Coast Stations
- QA (8) - 220-222 MHz Band
- QT (2) - Non-Nationwide 5 Channel Trunked, 220 MHz
- YC (3) - SMR, 806-821/851-866 MHz
- YD (2) - SMR, 896-901/935-940 MHz

Radio Service Type

**Selling/Leasing Assets- We Pull
Your FCC Records Automatically
For Ease Of Use & Accuracy**



Telecom Home



Analysis & Research



CREATE LISTING: EXISTING ASSETS

Config

My Spectrum

My Towers

My Search Rings

My Backhaul

Asset Management

Company Names Searching:

DC... of ...

CW - PCS Broadband

Call Sign	Status	Type	Name	Address	FRN
KNLF707	A	L	Broadband Cellular Systems, Inc.		800-688-719
	<input type="checkbox"/>		1885.5 - 1890		
	<input type="checkbox"/>		1885.5 - 1890		
KNLF708	A	L	Broadband Cellular Systems, Inc.		800-688-719
	<input type="checkbox"/>		1885.5 - 1890		
	<input type="checkbox"/>		1885.5 - 1890		
KNLF885	A	L	Broadband Cellular Systems, Inc.		800-688-719
	<input type="checkbox"/>		1885 - 1890		

Post

**Sellers/Lessees Get A Breakdown
Of The Entity Names, Radio
Service & Specific Call Sign**

Sellers/Lessees Can Review The FCC Info Obtained By The Exchange And See A Snapshot In Real-Time

Call Sign:
KNLF707

LICENSE STATUS:
A - ACTIVE

OWNER:
DOBSON CELLULAR SYSTEMS, INC.

LICENSEE TYPE:
O - OWNER

Boundary: BTA345



Largest Cities: ?

[PRINT](#)

GENERAL INFORMATION

RADIO SERVICE CODE:	CW	GRANT DATE:	09/17/1996
UNIQUE SYSTEM IDENTIFIER:	9366	EXPIRED DATE:	09/17/2006
FRN:		CANCELLATION DATE:	
RADIO SERVICE TYPE:	PCS BROADBAND	EFFECTIVE DATE:	12/24/2004
REGULATORY STATUS:	COMMON CARRIER	LAST ACTION DATE:	12/24/2004

MARKET INFORMATION

FREQUENCY (LOW / HIGH, MHZ):	1982.5 1990		
CHANNEL BLOCK:	C		
SUBMARKET:	1	BOUNDARY TYPE:	BTA345

LICENSEE / CONTACT INFO

CONTACT COMPANY:		CERTIFIER NAME:	RONALD RIPLEY SR. V.P. & GENERAL COUNSEL
DOBSON CELLULAR SYSTEMS, INC. ATTN:		PHONE:	
		FAX:	
		EMAIL:	



Telecom Home



Analysis & Research



Legal & Regulatory Documents



Business Solutions by Frequency

CREATE LISTING: SPECTRUM

FROM:

EXISTING ASSETS

OR...

GRAPHICALLY DESIGN:

- SPECTRUM
- TOWERS
- ROOFTOPS
- LAND
- BUY
- SELL
- LEASE
- OFFER

CHOOSE THIS OPTION TO BUY SPECTRUM FROM SOMEONE ELSE.



Telecom Home



Analysis & Research



Legal & Regulatory Documents



Business Solutions by Frequency

Would Like To	
Trading Name:	Don't Reveal Identity
Transaction Type:	Sell
Entry Date:	22 October 2005
Spectrum/Boundary:	<input type="button" value="Define"/>
Desired Acquisition Date:	22 Oct 2005
Price(\$):	1,000,000.00
Legal Regulatory:	<input type="button" value="Browse"/>
Upload More Info:	<input type="button" value="Browse"/>
Listing Comments:	5 mhz PCS spectrum, choice location
Trade Type:	Indication Request
Server Time:	10:56:57 AM
Trade Start Time:	11 02 AM 22 Oct 2005
Trade End Time:	11 02 AM 22 Nov 2005

Sellers Can Post Their Spectrum Assets Manually By Breaking Up The Assets (Partition And Desegregation)

CREATE LISTING: EXISTING ASSETS

Config	Spectrum	Towers	Search Rings	Backhaul
Asset Management				
ASR Number	Height	Address		
<input type="checkbox"/> 1245607 ?	36.6 m.	1.4 miles south southeast of P... -- Pen Mar Park, MD		
<input type="checkbox"/> 1006604 ?	91.4 m.	3.6 MI NW -- UNION, MD		
<input type="checkbox"/> 1006612 ?	106.6 m.	1.5 MI NE OF HANCOCK -- DIXON, MD		
<input type="checkbox"/> 1006609 ?	91.4 m.	SHOAL CREEK -- JOPLIN, MO		
<input type="checkbox"/> 1010810 ?	79.2 m.	7.5 MI N -- TIAWAH, OK		
<input type="checkbox"/> 1010819 ?	76.2 m.	6.5 MI N -- CHELSEA, OK		
<input type="checkbox"/> 1011671 ?	91.5 m.	8 MI ESE -- CANISTEO, NY		
<input type="checkbox"/> 1022299 ?	70.1 m.	2.8 MI NW -- CANTON, ME		
<input type="checkbox"/> 1030118 ?	91.4 m.	1 MI SW -- FULDA, IN		
<input type="checkbox"/> 1205699 ?	26.8 m.	.5 MILES EAST OF -- BIRMINGHAM, AL		
<input type="checkbox"/> 1006615 ?	91.4 m.	3 MI SSE -- FREEBURG, MD		
<input type="checkbox"/> 1006616 ?	91.4 m.	4 MI S -- EVERTON, MD		
<input type="checkbox"/> 1006638 ?	70.1 m.	2.2 MI ESE -- LEBANON, MD		
<input type="checkbox"/> 1006614 ?	60.9 m.	1 MI ESE -- FREISTATT, MO		
<input type="checkbox"/> 1010815 ?	61 m.	3 MI N -- FOSTER, OK		
<input type="checkbox"/> 1010816 ?	76.2 m.	2 MI ESE -- DIBBLE, OK		
<input type="checkbox"/> 1011678 ?	121.9 m.	ATOP BEACON HILL 8.6 MI SW OF ... -- PEKIN POINT		

Own Tower Or Rooftop Structures? Search Your Existing Assets And Post One Or All

Spectrum
 Tower Structures
 Tower/Rooftop Space
 Type: For Sale For Lease
 Indication ID:
 Area: Spectrum:

Indication ID	Entry Date	Spectrum Type	Bid Price	Status Type	Graphical Illustration
004035	9/5/2005	Geography	\$.00	Sell	
Owner: Anita Phreq none					



FCC Tower Summary

- ◆ 0 to 50 ft. (0)
- ◆ 50 to 100 ft. (4)
- ◆ 100 to 200 ft. (24)
- ◆ 200 to 300 ft. (28)
- ◆ 300 to 400 ft. (2)
- ◆ 400 to 500 ft. (1)
- ◆ Above 500 ft. (2)

Total FCC Sites: (61)

FCC sites approved since 9/7/2005.
(45 days ago)

CANTOR Telecom
A CANTOR FITZGERALD COMPANY

Telecom Home

Analysis & Research

Legal & Regulatory Documents

Business Solutions by Frequency

CANTOR Telecom
A CANTOR FITZGERALD COMPANY

Telecom Home

Analysis & Research

Legal & Regulatory Documents

Business Solutions by Frequency



Telecom Home



Analysis & Research



CREATE LISTING: EXISTING ASSETS

Config

My Spectrum

My Towers

My Search Rings

My Backhaul

Asset Management

<input type="checkbox"/>	ASR Number	Height	Address	Licen
<input type="checkbox"/>	1243243 ?	36.6 m.	4711 Business Park Blvd. -- Anchorage, AK	L00:
<input type="checkbox"/>	1015012 ?	87 m.	3930 SUNSET BLVD. -- YOUNGSTOWN, OH	L00:
<input type="checkbox"/>	1066152 ?	24.7 m.	US 131 1.6 KM SSW -- BOYNE FALLS, MI	L00:
<input type="checkbox"/>	1241504 ?	30.5 m.	18740 KURICK ROAD NORTH -- THOMPSONVILLE, MI	L00:
<input type="checkbox"/>	1250113 ?	24.4 m.	Building 969 B - First Street -- Fort Richardson, AK	L00:
<input type="checkbox"/>	1020974 ?	88.4 m.	8330 OLIVER ROAD -- ERIE, PA	L00:
<input type="checkbox"/>	1036894 ?	91.4 m.	3528 KRAUSE RD -- PETOSKEY, MI	L00:
<input type="checkbox"/>	1059115 ?	22.8 m.	1133 HASTINGS ST -- TRAVERSE CITY, MI	L00:

Post

Tower Assets Are Automatically Listed By Entity Name & ASR Number

Info for Registration Number 1066152 - Microsoft Internet Explorer

Search Nearby FCC Records

Reg. Number:	Latitude:	Longitude:	NAD 83	NAD 27
1066152			45° 9' 38" N 84° 56' 29" W	45° 9' 37.97" N 84° 56' 28.83" W

File #: AD461686 Entity Type:

Site Address: US 131 1.6 KM SSW [View Map](#)

City, State: BOYNE FALLS, MI

Struct. Height: 24.7 M / 81.04 Ft Ground Elevation: 352 M / 1154.86 Ft

Overall Height: 24.7 M / 81.04 Ft AMSL: 376.7 M / 1235.89 Ft

Licensee ID: L00127930

Owner Name: Dobson Cellular Systems, Inc. FAA Determination: 10/07/1996

Contact Name: FAA Study #: 96-AGL-1690-OE

Contact Addr: 14201 Wireless Way FAA Circular #: 70/7460-1J

PO Box: Spec. Option: 1

City, St: Oklahoma City, OK Paint & Lighting: 3, 4, 5, 13

Zip Code: 73134 FAA EMI Flag: N

Attention: Scott Jones NEPA Flag: N

Phone #: 4055298500

App. Purpose: OC Input Source Code: I

Prev. Purpose: OC Date Entered: 8/18/2005

Status Code: C Date Issued: 8/18/2005

Date Received: 8/18/2005 Date Dismantled:

Date Constructed: 06/11/1996 Archive Flag Code: C

Date Action: 12/31/2005 Invalid Signature: Y

Version:

Signature: Timothy J Duffy Signature Title: Senior VP & Chief Technical Officer

**More Pertinent Data Is
Automatically Provided In The
Detail Page**

Info for Registration Number 1020974 - Microsoft Internet Explorer

[Back To Info](#)

<u>Reg. Number:</u>		<u>NAD 83</u>	<u>NAD 27</u>
1020974	Latitude:	42° 2' 15" N	42° 2' 14.79" N
	Longitude:	80° 5' 33.6" W	80° 5' 34.39" W

File #:	A0354621	Entity Type:	0
Site Address:	8330 OLIVER ROAD		
City, State:	ERIE, PA		
Struct. Height:	88.4 M / 290.03 Ft	Ground Elevation:	379.2 M / 1244.09 Ft
Overall Height:	93 M / 305.12 Ft	AMSL:	472.2 M / 1549.21 Ft

The map displays the Erie, Pennsylvania area with various landmarks and roads. A green dot marks the location of the tower asset at Five Points. Other labeled locations include Charter Oaks, Westminster, Chestnut Hill, Glenwood, Belview, Pleasant Hill, Godard, Jackson, Middleboro, Sterrettville, Swarville, Asbury, West Millcreek, Weis Library, Kearsarge, Weber Hill, and Glanmar Gardens. Major roads are shown in red and green, and water bodies are in blue.

**The Tower Assets Are
Posted On A Map**



Telecom Home



Analysis & Research

CREATE LISTING: EXISTING ASSETS

Config

My Spectrum

My Towers

My Search Rings

My Backhaul

Here is what your post will look like.



Back

Analyze

Post

Now That You Have Identified Your Tower Assets, You Can Post (Offer) Them To The Marketplace

- View Existing Licenses
- Pick & Post Quickly Without Entry Redundancy

CANTOR Spectrum & Tower Exchange
 CREATE LISTING SEARCH MY TRADES PROFILE DEMOS LOGOFF

CANTOR Telecom
 A CANTOR FITZGERALD COMPANY

Telecom Home

Analysis & Research

Legal & Regulatory Documents

Business Solutions by Frequency

CREATE LISTING: EXISTING ASSETS

Config Spectrum Towers Search Rings Backhaul

Asset Management

Customer Information
 CN - PCS Narrowband

Call Sign	Status	Type	Name	Address
WPUH515	A	L	MacIntyre, Scott C	0004921219
	<input type="checkbox"/>	940.4 - 940.45	?	
WPUH516	A	L	MacIntyre, Scott C	0004921219
	<input type="checkbox"/>	940.4 - 940.45	?	
WPXN803	A	L	MacIntyre, Scott C	0004921219
	<input type="checkbox"/>	940.4 - 940.45	?	
WPXN804	A	L	MacIntyre, Scott C	0004921219
	<input type="checkbox"/>	901.95 - 902	?	
	<input type="checkbox"/>	930.8 - 930.85	?	
WPXN805	A	L	MacIntyre, Scott C	0004921219
	<input type="checkbox"/>	901.8375 - 901.85	?	
	<input type="checkbox"/>	940.9 - 941	?	
WPXN806	A	L	MacIntyre, Scott C	0004921219

CANTOR Spectrum & Tower Exchange
 CREATE LISTING SEARCH MY TRADES PROFILE DEMOS LOGOFF

CANTOR Telecom
 A CANTOR FITZGERALD COMPANY

Telecom Home

Analysis & Research

Legal & Regulatory Documents

Business Solutions by Frequency

CREATE LISTING: EXISTING ASSETS

Config Spectrum Towers Search Rings Backhaul

CWBLEH

Here is a sample of what your preview will look like.



Back Analyze Post

See Your Automated Map or Gather More Analysis & Then Post Your Asset To The Marketplace!

The screenshot displays the Cantor Spectrum Exchange web application. The main window shows a map of the Harrison, AR area with a zoom level of 443 miles. The map is surrounded by a toolbar with various navigation and map controls. To the right of the map, there are two panels: one with 'No Map Available At This Zoom' messages and another with a list of area codes (AMT, BEA, BTA, CEA, CMA, EAG, MEA, MTA, Nationwide, PSR, REA, RPC, VPC) and selection options (County, State, Radius). Below the map, there is a navigation bar with 'PICKLIST', 'FILES', and 'POST' buttons. A form below that includes fields for 'Address', 'City', 'St.', and 'Zip', along with a 'GO' button. The main content area shows 'Area Pending' for 'BTA: 182 - Harrison, AR' with a dropdown for 'Service Group' (Personal Communication Services - PCS) and a dropdown for 'Radio Service Code' (CW - PCS Broadband). There are 'APPEND' and 'PARTITION' buttons. To the right, a 'List Builder' panel shows 'Spectrum_Post_3074 Areas' with a list containing 'BTA - 182 Harrison, AR' and a yellow instruction box: 'When you have completed your Spectrum List, Click the POST button to complete your Geo Pick Selection.'

Since We Are Capable
 Of Describing These
 Multi-Dimensional Assets,
 Participants Can More Easily
 Buy, Sell & Lease These Assets
 In The Marketplace



Telecom Home



Analysis & Research



Trading Name:
Asset Type:
Transaction Type:
Entry Date:
Desired Acquisition Date:

Spectrum/Boundary:

Price(\$):
Legal Regulatory:

Upload Category Documents:

Transaction Title:

Listing Comments:

Trade Type:

Current Exchange Time:
Transaction RELEASE Date:
Transaction ENDING Date:

Anita
Spectrum
Buy
4 February 2006
Open or **Firm**



Already Defined

PCS Broadband

\$1,650,000 or **Negotiable**

Upload **Executive Summary.pdf**
and/or **Legal Assistant**

Upload
demographics_cma066_dob_1_.pdf

Great PCS property in Upper NW

15Mhz PCS frequency
available, firm offers only

Indication
 Firm Request (Requires Escrow)

12:18:52 PM

12 15 PM 04 Feb 2006

4 February 2006 or **Open**

**For The First Time, Participants
Can Now Send Out And Respond
To Spectrum & Tower Asset
Bids/Offeres In A Trading Format**



Telecom Home



Analysis & Research



Legal & Regulatory Documents



Business Solutions by Frequency

Spectrum
 Tower Structures
 Tower/Rooftop Space
 Type: For Sale For Lease
 Indication ID:
 Area:
 Spectrum: Personal Communication Ser...
 Search

Indication ID	Owner	Entry Date	SpectrumType Geography	Bid Price	Status Type	Graphical Illustration
004035	Anita Phreq none	9/5/2005		\$.00	Sell	



- Ownership**
CW-Personal
Communication Services
- PCS
- A
 - B
 - C
 - D
 - E**
 - F

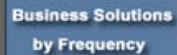
Routine Spectrum Ownership & Mapping For Most All FCC Licensed Frequencies For Advanced Analysis



Telecom Home



Analysis & Research



Would Like To Buy Spectrum	
Trading Name:	Anita
Asset Type:	Spectrum
Transaction Type:	Buy
Entry Date:	4 February 2006
Desired Acquisition Date:	Open or <input type="button" value="Firm"/>
Spectrum/Boundary:	<input type="button" value="Define"/>
Price(\$):	\$ <input type="text"/> or <input type="button" value="Negotiable"/>
Legal Regulatory:	<input type="button" value="Upload"/> <input type="button" value="Legal Assistant"/>
Upload Category Documents:	<input type="button" value="Upload"/>
Transaction Title:	<input type="text"/>
Listing Comments:	<input type="text"/>
Trade Type:	<input checked="" type="radio"/> Indication <input type="radio"/> Firm Request (Requires Escrow)
Current Exchange Time:	12:11:39 PM
Transaction RELEASE Date:	12 15 PM 04 Feb 2006
Transaction ENDING Date:	4 February 2006 <input type="button" value="Open"/>

**Easy To Use Trade Screens
Allow Participants To Add The
Additional Information Beyond
Maps & Analysis For Bids &
Offers**



Telecom Home



Analysis & Research



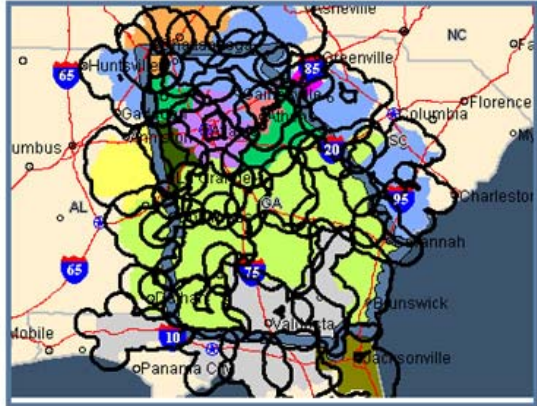
Legal & Regulatory Documents



Business Solutions by Frequency

Spectrum
 Tower Structures
 Tower/Rooftop Space
 Type: For Sale For Lease
 Indication ID:
 Area:
 Spectrum: Cellular
 Code: CL
 Band: A

Indication ID	Owner	Entry Date	SpectrumType Geography	Bid Price	Status Type	Graphical Illustration
004035	Anita Phreq	9/5/2005		\$.00	Sell	
	none					



Ownership
 CL-Cellular
 A
 B

**Routine PCS, Cellular, BRS-EBS, 700MHz, etc.
 Spectrum Contour Ownership & Pop Counts**

CANTOR Telecom
A CANTOR FITZGERALD COMPANY

Wireless Spectrum Brokerage Services

Cantor Spectrum Exchange Powered By WAC™ - Geo Pick Spectrum - Microsoft Internet Explorer

CREA

CANTOR Telecom
Telecom Home

Analysis & Research

Legal & Regulatory Documents

Vendor Solutions by Frequency

Powered by **eSpeed**

Map Resolution

No Map Available At This Zoom

No Map Available At This Zoom

You have not built or selected a Spectrum File yet.

Build List Select from File

UNLOAD List Builder

Spectrum_Post_5672 Areas

CallSign - 240
WWWI-FM

Map Resolution

12.50 miles

WWWI-FM

C F Engine Pick Spectrum

PICKLIST FILES POST

Results for Market ,

Population Density (Pop/Sq. Mile)	58.33	Area (Sq. Miles)	656.45
Area	636 2.48%	Population	25,619
Mean_Age	18	Male	12,769 49.84%
White	25,012 97.63%	Female	12,850 50.16%

Posting Analysis To Assist Users In Demographics & Valuation Analysis

CANTOR Telecom
A CANTOR FITZGERALD COMPANY

Wireless Spectrum Brokerage Services
Cantor Spectrum Exchange Powered By WAC™ - Geo Pick Spectrum - Microsoft Internet Explorer

Click [RETURN](#) to return to the application.

Please Choose the Spectrum List to POST

You Are Currently Viewing Spectrum List "[Spectrum_Post_5672](#)".

Click [HERE](#) to Post this Picklist.

[Spectrum_Post_5672](#)

[Spectrum_Post_2197](#)

[Spectrum_Post_4488](#)

Telecom Home

Analysis & Research

Legal & Regulatory Documents

Vendor Solutions by Frequency

Powered by **eSpeed**

CREA

Custom

Legal Nan

Transacti

Entry Dat

Spectrum,

Desired A

Time Fran

Price(\$):

Terms and

Listing Co

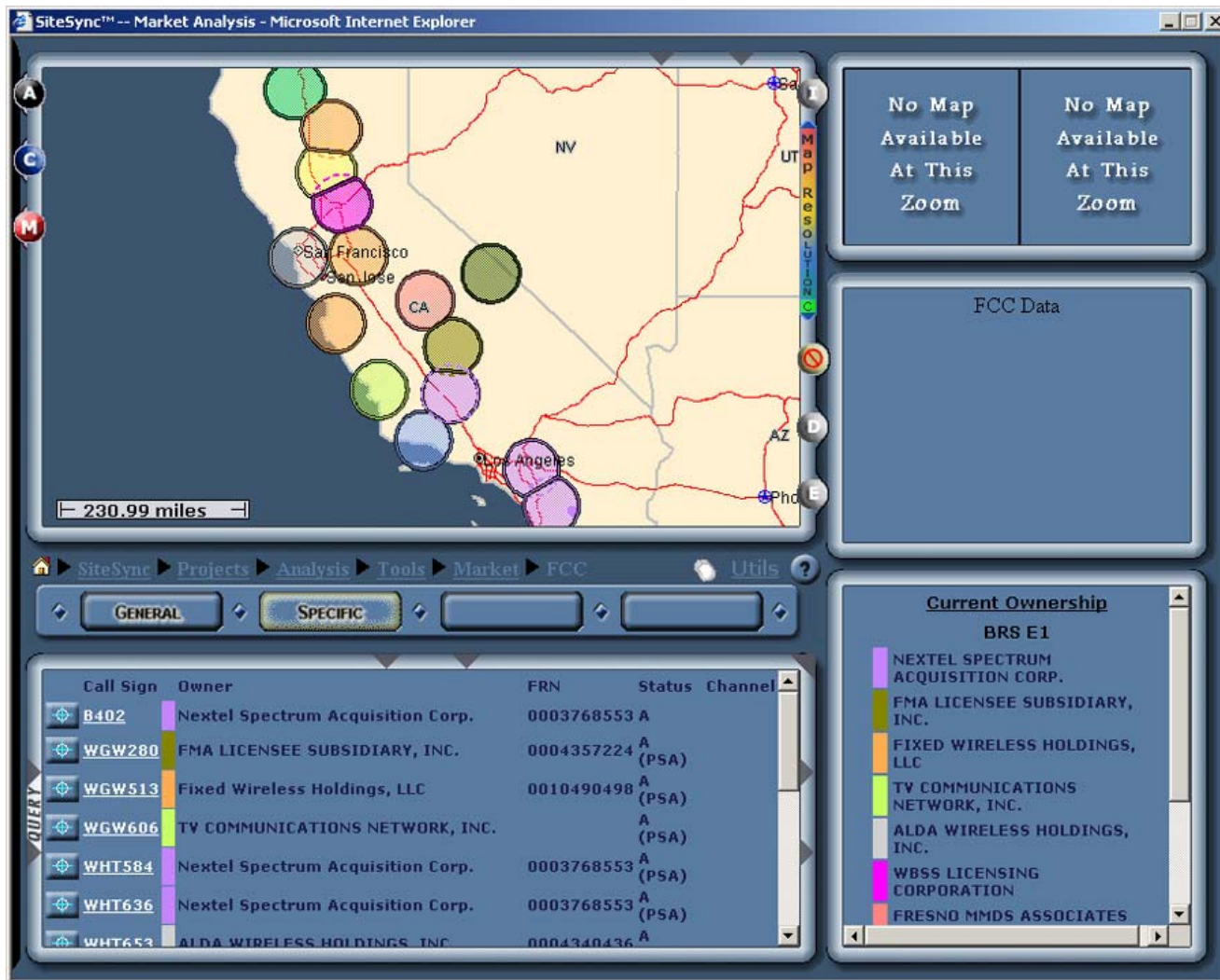
Trade Typ

Server Tir

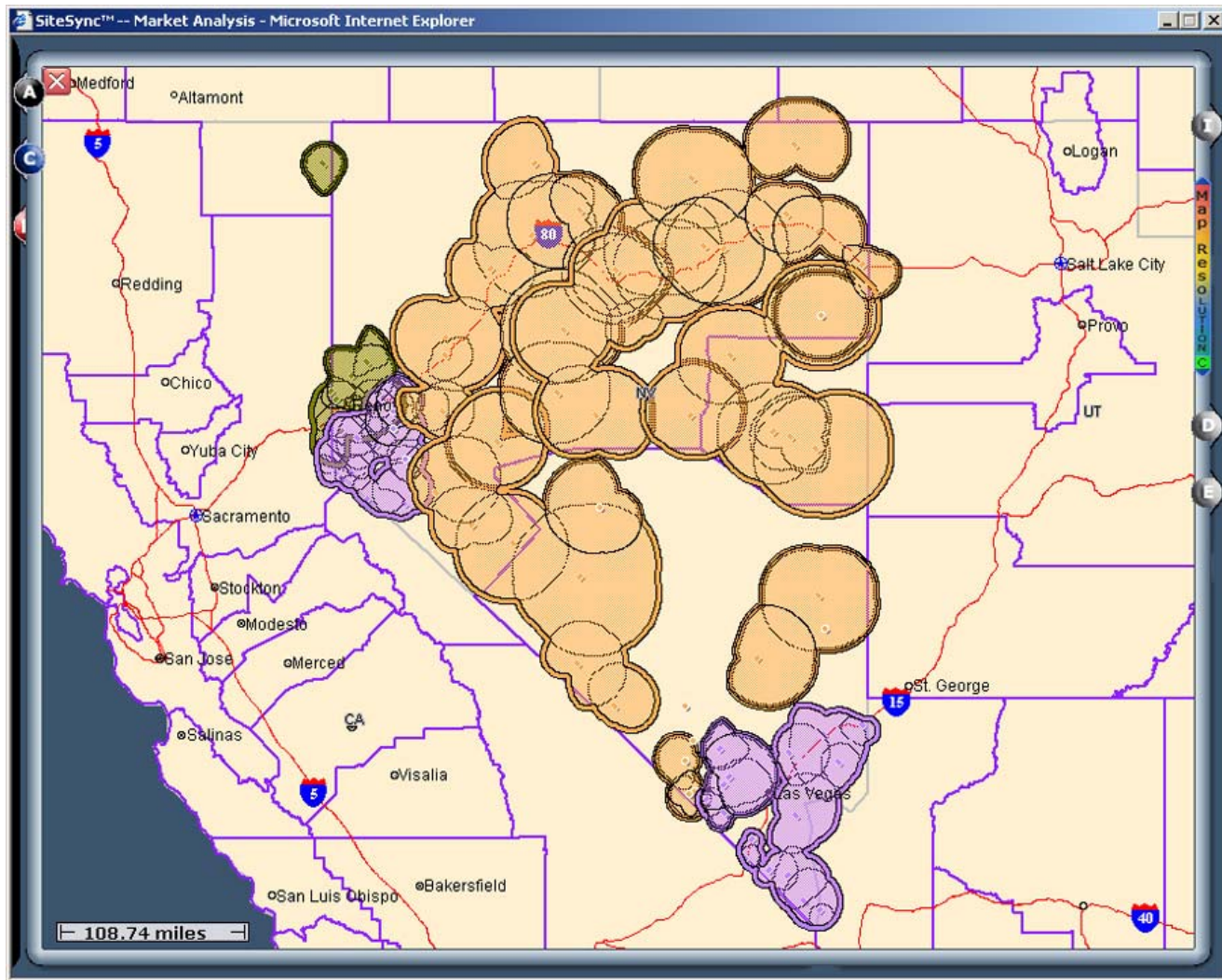
Release T

Trade End

**Store, Manage & Post Assets To The Marketplace
From Your Files Inside The Exchange**



Powerful Analysis Of Existing FCC License Frequencies.



Ownership Of Cellular With True Contours & Territories

SiteSync™ -- Market Analysis - Microsoft Internet Explorer

The screenshot displays the SiteSync software interface. The main window shows a map of Iowa with various colored regions (purple, green, yellow, orange, blue) and a central cluster of red and purple circles representing microwave paths. The map is titled "South Florida" and has a zoom level of 362 miles. The interface includes a navigation pane on the left with icons for Home, Search, and Favorites. The top navigation bar includes "SiteSync", "Projects", "Analysis", "Tools", "Market", "FCC", and "Utils". Below the map is a search bar with fields for "Address:", "City:", "St:", and "Zip:", followed by a "GO" button. The bottom section contains a table of call signs and owner names, and a legend for "Current Ownership" with color-coded entries.

Call Sign **Owner Name** **Market #** **Market Name**

KNLH741	Iowa Wireless Services Holding Corporation	BTA061	Burlington, IA
KNLG860	BLUE LICENSES HOLDING, LLC	BTA070	Cedar Rapids, IA
KNLH743	Iowa Wireless Services Holding Corporation	BTA086	Clinton, IA-Sterling, IL
KNLG408	New Cingular Wireless PCS, LLC	BTA105	Davenport, IA-Moline, IL
KNLG871	USCOC of Greater Iowa, Inc.	BTA111	Des Moines, IA
KNLG861	Midwest Wireless Iowa L.L.C.	BTA118	Dubuque, IA
KNLG432	BLUE LICENSES HOLDING, LLC	BTA150	Ft. Dodge, IA
KNLG862	BLUE LICENSES HOLDING, LLC	BTA205	Iowa City, IA

Current Ownership
PCS D

- IOWA WIRELESS SERVICES HOLDING CORPORATION
- BLUE LICENSES HOLDING, LLC
- NEW CINGULAR WIRELESS PCS, LLC
- USCOC OF GREATER IOWA, INC.
- MIDWEST WIRELESS IOWA L.L.C.
- CRICKET LICENSEE (REACTION), INC.
- SIouxLAND PCS, INC.
- CELLCO PARTNERSHIP

Address: _____ City: _____ St: _____ Zip: _____ GO

Zoom: 362 miles

No Map Available At This Zoom

No Map Available At This Zoom

FCC Data

SiteSync Projects Analysis Tools Market FCC Utils

GENERAL SPECIFIC

QUERY

D-Link AirPlus

**Spectrum, Microwave Paths, Details,
& More, Much More...**

Cantor Exchange Powered By WAC™ - Spectrum Analysis - Microsoft Internet Explorer

No Map Available At This Zoom

No Map Available At This Zoom

BTA: 303 - Modesto, CA

BACK GO

C F Engine Analysis Spectrum

DEMOGRAPHICS COVERAGES ADVANCED

Address: City: St: Zip: GO

Results for Market 303, bta

Population Density (Pop/Sq. Mile)	134.49	Area (Sq. Miles)	3,728.80
Area	3,729	0.74%	Population 501,498
Mean_Age	35	Male	248,650 49.58%

W A

Sellers Can Check Their Property Boundaries, Demographics & Adjacent Owners.

Cantor Exchange Powered By WAC™ - Spectrum Analysis - Microsoft Internet Explorer

The screenshot displays a web application interface for spectrum analysis. The main map shows California with various coverage areas overlaid in different colors (shades of purple, pink, and brown). Major highways like I-5, I-805, I-880, I-580, and I-680 are visible. A scale bar at the bottom left of the map indicates 30.81 miles. To the right of the map, there are two boxes with the text "No Map Available At This Zoom". Below these is a "Marketed Coverage" section with instructions to click the map or enter coordinates, followed by a "Tower Location" form with input fields for latitude and longitude, and "Pick" and "Go" buttons. At the bottom, there are navigation tabs for "DEMOGRAPHICS", "COVERAGES", and "ADVANCED". A data table is visible below the tabs, showing coordinates for NAD83 and NAD27. Below the table, there is a section for "Marketed Coverage Data (1 mile radius)" with fields for Marketing Name, Entity Name, and Protocol, along with "LOAD", "STYLE", and "UN-LOAD" buttons.

	NAD83	NAD27
Lat:	37° 37' 44.47"	37° 37' 44.72"
Lon:	121° 0' 27.84"	121° 0' 24.09"

Marketed Coverage Data (1 mile radius)

Marketing Name: Sprint

Entity Name: Sprint Nextel (fmr Nextel Communications)

Protocol: IDEN

Query And/Or Just Overlay Nearly 200 Existing (Carrier Marketed) Coverage Patterns

Google | Search | L | ZUS Disabled | Check | Autolink | Ucoons

Address: http://exchar Cantor Tower Exchange Powered By WAC™ - Tower Analysis Advanced - Microsoft Internet Explorer

CANTOR
Spectrum & Telecom

CANTOR
Telecom
A CANTOR FITZGERALD COMPANY

Telecom Home

Analysis & Research

Legal & Regulatory Documents

Business Solutions by Frequency

Map Resources

C.F. Engine | Analysis | Towers | PowerSearch | Utils

FCC | FAA | MICROWAVE | TOWER Co.

Address: City: Beaverton St: OR Zip: GO

Search Tower Company Records

Dec NAD83 NAD27 City

Address X-Street Market Poly

Lat: 45 29 25 N
Lon: 122 49 18.57 W

Ring: 4.74 mile radius

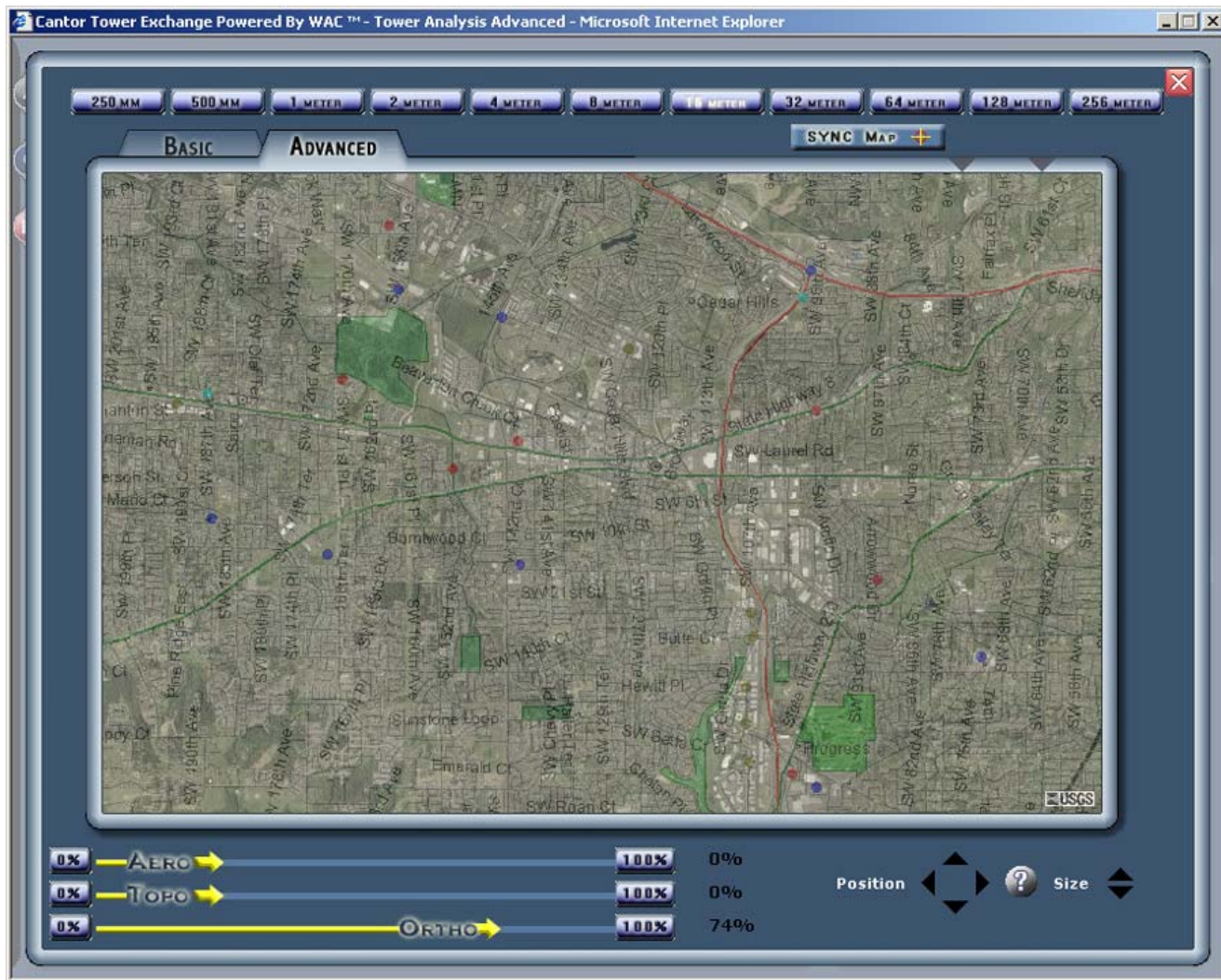
Company: All Companies
State: ...
Zip: ...
Height: >= 0 ft m

RESET SEARCH

Tower Company Summary

- ATC (4)
- GlobalSignal (17)
- KGI (4)
- Spectra_Site (20)
- TRM (13)
- Total Tower Company Sites: (58)**

Structures, Locations, Analysis, Topos, Competitive Data



**Unique Blending Method For Aerial,
Topos and Orthos.**

Cantor Tower Exchange Powered By WAC™ - Tower Analysis Advanced - Microsoft Internet Explorer

9.75 miles

C F Engine Analysis Towers PowerSearch Utils

FCC FAA MICROWAVE TOWER Co.

Address: City: State: Zip: GO

Search Tower Company Records

Dec NAD83 NAD27 City
 Address X-Street Market Poly
 :Map Pick :Draw :Cancel

Company: All Companies
 State: ...
 Zip: ...
 Height: >= 0 ft m

RESET SEARCH



Tower Company Summary

- ◆ AAT (3)
- ◆ ATC (31)
- ◆ Crown (40)

City, State	Height
OLD TOWN, NC	199 ft./ 652.9 m.
WINSTON SALEM, NC	48 ft./ 157.5 m.
WINSTON-SALEM, NC	200 ft./ 656.2 m.

**Search Structures Multiple Ways,
Multiple Boundaries.**

Info for ID 3010522 - Microsoft Internet Explorer

Site ID: 3010522

Geographical Data [Print](#)

NAD 83 Lat: 35° 53' 16.69" N Long: 79° 55' 10.20" W	NAD 27 Lat: 35° 53' 16.14" N Long: 79° 55' 11.07" W
---	---

Latitude/Longitude (83) Latitude/Longitude (27)
 GPS: 35° 53.2772/-79° 55.1700' GPS: 35° 53.2690/-79° 55.1845'
 DEC: 35.887953° /-79.919500° DEC: 35.887817° /-79.919742°

Search Ring 35° 56' 44.57" N / 80° 5' 32.22" W
 Distance : 0.00
 Azimuth : 0

GIS 90 Meter Ground Elevation:
221.01 m / 725.10 ft
Discrepancy



Nearest City : Archdale Zip Code : 27263
 State : NC (North Carolina) County : Randolph

FCC Market Boundaries - Smallest to Largest:

CMA: 47 / Greensboro	MEA: 7 / Charlotte-Greensboro- Greenville-Raleigh
BEA: 18 / Greensboro-Winston-Salem-High Point, NC-VA	VPC: 2 / Mid-Atlantic
CEA: 144 / Data Not Supplied	REA: 2 / Southeast
BTA: 174 / Greensboro--Winston-Salem--High Point, NC	EAG: 2 / Mid-Atlantic
MTA: 6 / Charlotte-Greensboro-Greenville-Raleigh	RPC: 2 / South
PSR: 31 / North Carolina	AMT: 144 / Data Not Supplied

Regulatory Info

FAA Number: Data Not Supplied
 FCC ASR Number: Data Not Supplied
 Built: Data Not Supplied


Supplied Address / Location Info
 5862 Trotter County Road, ARCHDALE, NC

Supplied Structure Info

Overall Height (Tip): 194 m.
 Structure Height: 59 m. / 194 ft.


Ground Elevation: 283 m. / 929 ft.


Propagation Type: T



Tower Company Info

Global Signal Inc.
 Site Name: High Point
 Tenant Count: Data Not Supplied Contact: Data Not Supplied
 Shelter: Data Not Supplied Phone: Data Not Supplied
 Pad Size: Data Not Supplied Email: Data Not Supplied
 Company URL: <http://www.pinnacleltowers.com/>



a product of  WIRELESS APPLICATIONS, CORP.
©2005 Wireless Applications, Corp., All rights reserved.

Enhanced Tower Company Portfolio
 Details Mixed With GIS Data &
 Propagation Results.