



FEDERAL COMMUNICATIONS COMMISSION

**CONSOLIDATED LICENSING SYSTEM**

# Consolidated Licensing System Workshop

May 6, 2010



Mary Beth Richards

Special Counsel to the Chairman for FCC Reform



**Andrew Martin**  
Chief Information Officer



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## John Garziglia

### Womble Carlyle Sandridge & Rice, PLLC

John F. Garziglia is a Member of the law firm of Womble Carlyle Sandridge & Rice, PLLC, Washington, DC, concentrating in radio and television broadcasting law. Earlier in his career, he served at the Federal Communications Commission as an attorney in the AM Branch and as a trial attorney in the Hearing Branch of the Mass Media Bureau, Prior to working at the FCC, John worked in the radio broadcasting industry in St. Louis, Washington, and several smaller markets. John has submitted hundreds of FCC filings through the FCC's CDBS for his broadcast station clients.



## Brian Higgins

### Wilkinson Barker Knauer, LLP, Partner

Brian Higgins is a partner in the law firm of Wilkinson Barker Knauer, LLP. He has been practicing telecommunications law since 1996, and has provided FCC regulatory compliance support and advice since 1990. He previously served on the Federal Communications Bar Association's Universal Licensing System Task Force, and is very familiar with the Commission's electronic licensing systems.



Mark Brennan

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## Joseph M. Davis, President Chesapeake RF Consultants LLC President; Member AFCCE

Joseph Davis is a consulting engineer, handling broadcast station FCC licensing matters. He is a Registered Professional Engineer, president of Chesapeake RF Consultants LLC, and works with commercial and noncommercial television and radio station clients nationwide. His practice includes application and exhibit preparation for submission via CDBS on FCC Forms such as 301, 302, 346, 347, 349, and 350. Joe is a member of the Association of Federal Communications Consulting Engineers (AFCCE), and has served as AFCCE's president as well as Chair of the AFCCE CDBS Technical Advisory Committee.



Thomas S. Dombrosky Jr.

Wiley Rein LLP

Engineering Consultant

Tom Dombrowsky is an Engineering Consultant with the law firm Wiley Rein LLP where he provides technical advice and guidance to clients concerning wireless matters. In particular, Tom specializes in spectrum policy matters, especially with respect to issues that affect commercial mobile service providers. Tom also has extensive experience with the Federal Communications Commission's licensing and auction processes and procedures. Prior to joining Wiley Rein, Tom held several positions within the Federal Communications Commission's Wireless Telecommunications and Private Radio Bureaus. During this time, Tom focused on commercial mobile spectrum policy and licensing matters. Tom has a Bachelor of Science in Electrical Engineering from Lehigh University.



## Troy Langham, Sr. FCC Engineer

### Clear Channel Communications/Radio Senior FCC Engineer

Troy Langham works for Clear Channel Radio, serving the past 10 years as the primary person interfacing with the FCC on technical matters on Clear Channel's behalf. Prior to becoming a broadcast engineer in 1982 he was an on air personality in several markets, including markets as large as Dallas, an airborne traffic reporter, program director, and news reporter. In the last decade at Clear Channel Troy has prepared over 500 Broadcast Minor Change applications, an even greater number of license applications, as well as a large number of ASR and ULS applications.



Peter Nordby

Sitesafe, Inc.

Representing APCO



Allison Ellis, Esq.

Ericsson

Director, Regulatory Policy

Allison Ellis has been advising Ericsson on regulatory matters both as in-house counsel for 5 years and as outside counsel for 4 years before that. Allison is responsible for all of Ericsson's Experimental licensing needs and often advises Ericsson's partners on STA and Experimental Licensing requirements.

# Experimental Licensing System Suggested Updates

## EXPERIMENTAL LICENSING SYSTEM SUGGESTED UPDATES



### ➤ Improve User-Friendliness

- › De-link pages so that you don't have to go sequentially
- › Create ability to view and edit full application
- › Add a "Submit" tab on each page to fast forward to submission

### ➤ Adapt Tools and Minimize Errors

- › Ability to handle Road Shows
  - Series of Locations over Different Dates with Same Specifications
- › Built-in address / coordinate cross check

### ➤ Make Information More Accessible

- › Confirmation Number look up
- › All Applications filed under a given FRN
- › Automatic Notification of Grant
- › Confirmation Page - Include dates and location



**Allison Ellis, Director Regulatory Policy**



## Chris Duffus

Spectrum Bridge, Inc.  
CFO

Mr. Duffus is currently the CFO for Spectrum Bridge, a developer of software-based solutions that improve the availability, access and allocation of radio spectrum. Previously he served as the deputy CEO of Finance and Administration for the 2008 Democratic National Convention Committee (DNCC). Prior to his role with the DNCC, Duffus was VP Finance for M2Z Networks, an innovative wireless services company focused on providing free, universal wireless broadband across the United States. Mr. Duffus has also held similar positions at other start-ups including Govolution, a leading provider of electronic payment software and services to the public sector and the banking industries.

# Company Overview

- Spectrum Bridge, Inc. (“SBI”) develops software-based solutions that improve the availability, access and allocation of radio spectrum
- Largest neutral marketplace for licensed spectrum in the United States
- Significant “greenfield” market demand
- Unique solutions that address the global spectrum scarcity problem

# The Challenge for Wireless Growth

“...smartphones use **50 times more bandwidth...**”

“...the **demand** for wireless spectrum has **increased 30-fold...**”

“...there is a **10 to 1 gap...**”

– Julius Genachowski • Chairman, FCC • January 2010

“iPhone users have downloaded at least 140,000 different apps a total of 3 billion times. Watching broadcasts of Major League Baseball games and studying the globe via Google Earth on a palm-size device **feels like a promise of the future, but the networks delivering all this data are still just catching up with the present.**”

– Apple, Inc. • April 2010

“...We need to explore new ways to **get spectrum into the market...** we need to identify ways we can **drive more efficient users of spectrum** (software, cognitive radio). We need to **think big about ways to allocate spectrum...**”

– Julius Genachowski • Chairman, FCC • August 2009

“...We need a more vibrant **secondary market.** We need to **leverage the spectrum that exists more efficiently,** and we need to encourage new technologies and innovation... **a more thorough database** that can be used on an hour-to-hour, minute-to-minute basis.”

– Meredith Attwell Baker • Commissioner, FCC • November 2009

# SBI Established to Solve the Problem

## Organization

- Established Q1 2007
- Leading provider of spectrum access solutions and technology
- Headquartered in Lake Mary, FL with offices in Washington DC and San Francisco, CA

## Leadership

- 100+ years combined telecom experience
- Track-record of success and innovation; multiple startups with 7 successful exits
- Motorola, Alcatel-Lucent, Mesh Networks, Abovenet

## Credentials

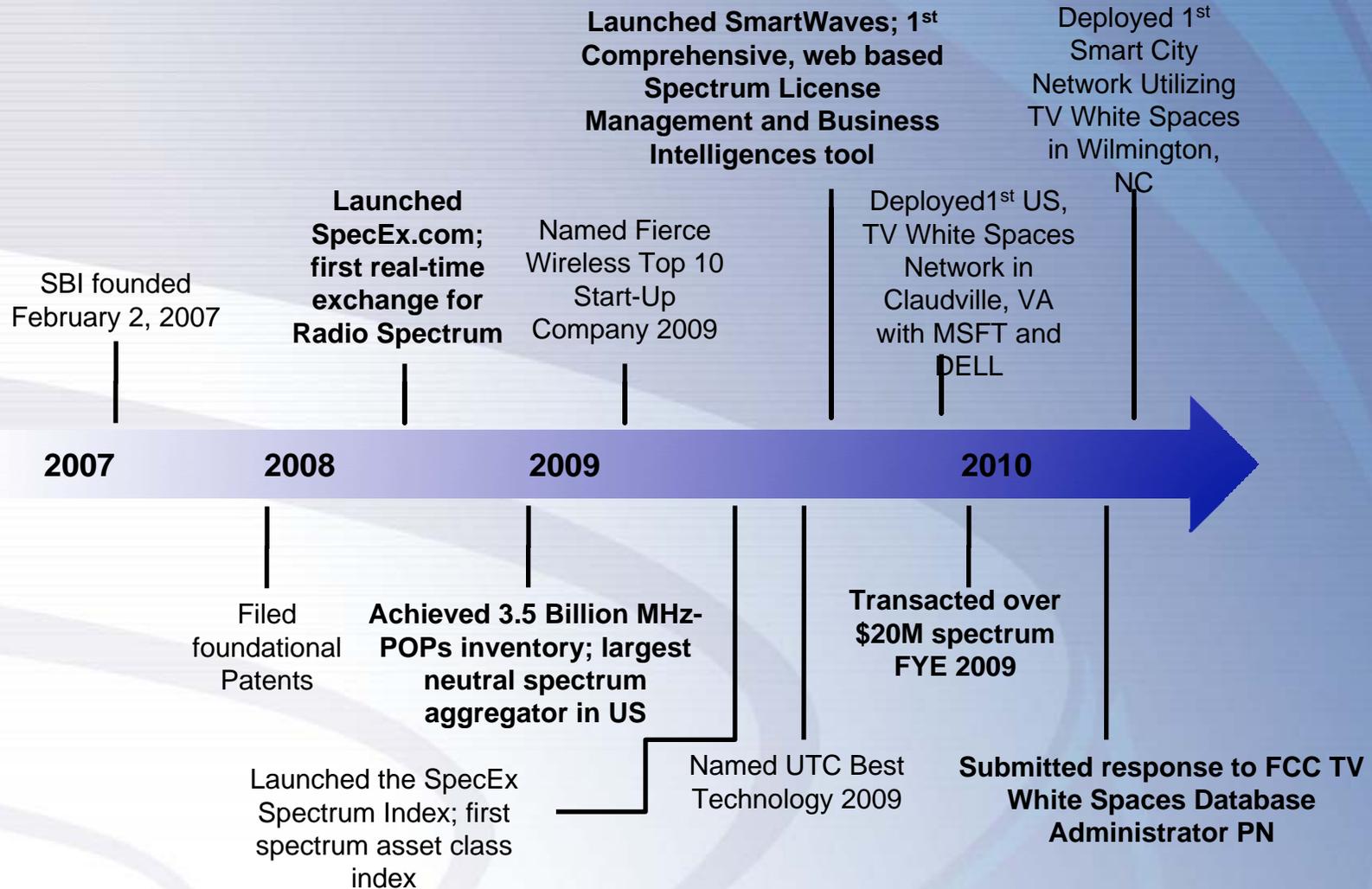
- Largest neutral spectrum aggregator in US
- Deployed first US, TV White Space Network

## Cientele

- Technology: Dell, Microsoft, Motorola
- Telecommunications: Alpha Wireless, Atlantic Communications, BRK Wireless, ESP Wireless, Repeater Networks, The Rural Telecommunications Group, VantagePoint
- Utilities: General Electric, MidAmerican Energy, Progress Energy
- Transportation: BNSF- Burlington Northern & Santa Fe Railway, Union Pacific
- Government and NGO: FCC; Wilmington, NC; Plumas County, CA; TDF Foundation

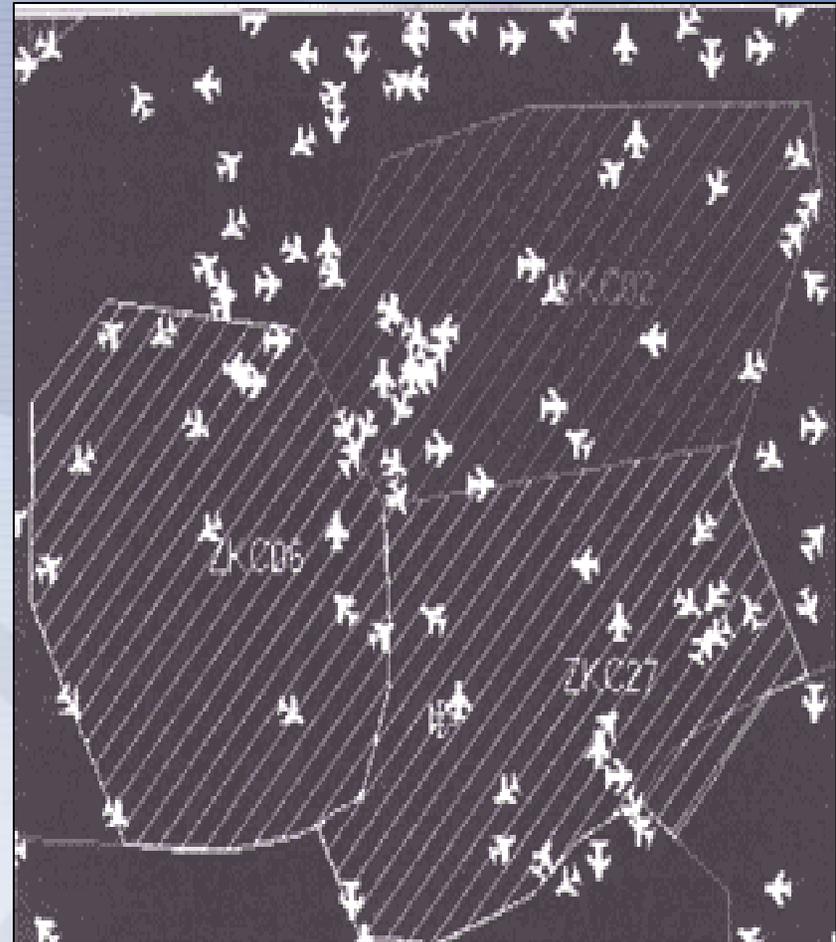


# Our Progress-To-Date

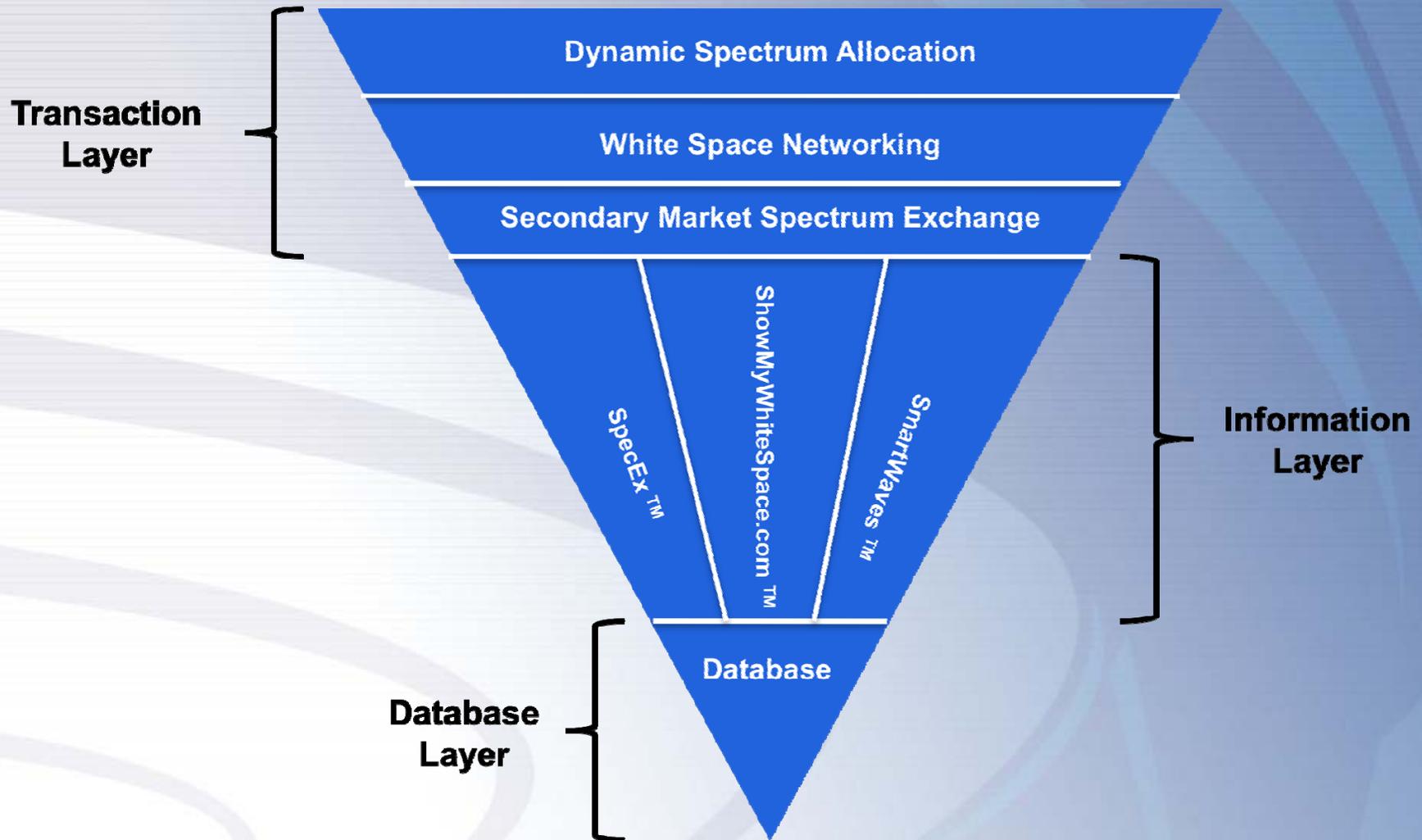


# The Future of Spectrum Databases

- Once the concept of Spectrum Allocation by a database has been established (through TV White Spaces) the next step is to the more generalized use cases
- Secondary Markets will play a major role in additional spectrum availability
- Global regulators driven by the FCC, can ultimately drive greater spectrum allocation; in the order of several GHz



# SBI Database Product Vision



# Benefits of Database Implementation

**Consumer:**

Mobile OS



Gaming/Media/Home Networking



Set-Top Box



**Enterprise:**

LAN/WAN/WiFi on Steroids



Telemedicine



eLearning



**Carrier:**

Last Mile/Backhaul



Smart City/Smart Grid

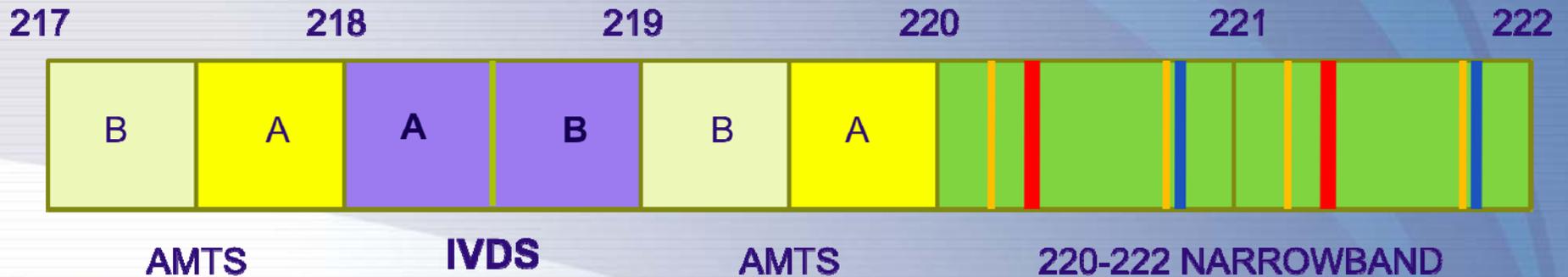


Rural Broadband



# Database Architecture Example

## Frequency Band Reference



- **1MHz IVDS** spectrum that lays between bands that are currently in use by many Railroads and Utilities
- **75% of the IVDS licenses on a MHz-POPs basis have been returned** to the FCC or were not purchased at auction



- Rather than re-auction directly, **re-allocate orphaned IVDS spectrum** under a database mechanism like TV White Spaces
- **Allow private sector to utilize fallow spectrum** for current and future business requirements

# Panel Take-Aways

- More and better data availability is good for the market
- Improved quality control provides integrity of information
- Database driven networks are an elegant and pragmatic solution for spectrum allocation
- Promote innovation through trials and test-beds
- **Alignment among policy, technology and industry is a requirement for adoption and success**

# Thank You!

[www.spectrumbridge.com](http://www.spectrumbridge.com)





Mark Gibson

Comsearch

Director, Regulatory Policy

# FCC Workshop on Development of the Consolidated Licensing System

May 6, 2010

Mark Gibson, Directory of Regulatory Policy

# Background

- Comsearch has been in business and interacting with the Commission for over 30 years
- Work with most Radio Services in these Service Groups
  - Paging
  - Land Mobile
  - Microwave
  - Aux Broadcast
- Do just about everything from Amendments to Withdrawals
- Have processed
  - Over 100k transactions since ULS was launched
  - Over 16k last year
  - Over 5k so far this year

## Comments – Data Accuracy

- Use this as an opportunity to clean up errors in existing data
  - Allow (require) licensees/applicants to review and verify their data
  - Require licensees to review/verify/update their data at license renewal
  - Analyze records for invalid entries (e.g., 99999s, invalid ASRs, coordinates outside US, etc.) and notify licensee. Give licensee xx days to make corrections.
- Use data-checking, validation, and pre-population where applicable
- Never truncate – please round instead!

## Comments – General

- Assign a single FRN to an entity and allow sub-accounts
  - Consolidate existing entities under a single FRN w/sub-accounts
- Need to better connect applications and licenses
  - Is there a need to maintain an application when it's been licensed?
- Need to better perform other “connected validations”
  - e.g., Receive site Call Sign changes
- Connect the CLS better with the ASR database
  - Any changes in ASR that would affect CLS need to happen automatically in CLS (e.g., coordinate changes)



## Comments – General

- Need to improve batch processes
  - Data (rows) sometimes missing from batch downloads
  - Posting times vary...no consistency for uploads and downloads
- Put a higher priority on applications not subject to conditional authorization
- Need consistent notification on Experimentals of need to coordinate with existing services



## Comments – Development

- Need 60 – 90 days to incorporate ULS/CLS changes into our software lifecycle processes
- We'd like to see SLAs from the FCC on performance and reliability
- We'd also like to have closer coordination with FCC on testing

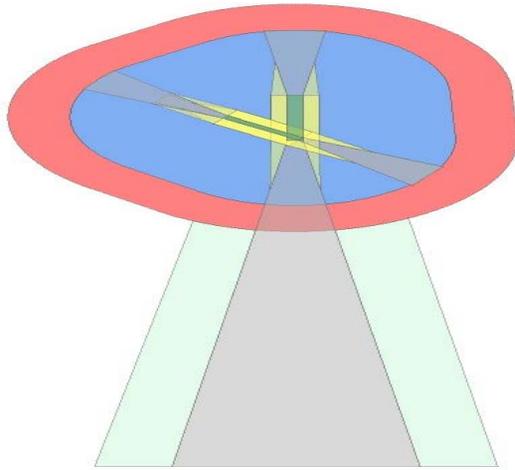


## Katie Venticinque

FAA

Aeronautical Information Specialist

Mrs. Katie Venticinque has been employed by the Federal Aviation Administration (FAA)'s Air Traffic Service for 14 years. In support of both the FAA's internal and external Obstruction Evaluation Airport Airspace Analysis (OE/AAA) programs, Mrs. Venticinque serves as an operational design subject matter expert (SME). Mrs. Venticinque has played a significant role in designing enhancements that the OE/AAA Programs now deliver to internal and external users nationwide. Mrs. Venticinque continues to have an active role in the ongoing design of enhancements implemented to these programs.



# FAA and FCC Common Concerns for Construction of Antenna Towers

Presented to: **FCC Consolidated Licensing  
System Workshop**

By: **Katie Venticinque  
FAA Obstruction Evaluation Service**

Date: **May 6, 2010**



# The FAA's Role

- **To conduct aeronautical studies and identify the effect of construction or alteration on operational procedures, determine possible hazardous effect on air navigation, identify the aviation need for obstruction marking and lighting, determine measures to ensure continued safety of air navigation and accomplish charting and other notification to airmen of obstructions in the navigable airspace.**



# The FCC's Role

- **To issue licenses to radio stations when it is found that the public interest, convenience and necessity would be served thereby, and to require the painting, and/or illumination of antenna structures if and when in its judgment such structures constitute, or there is reasonable possibility that they may constitute, a menace to air navigation.**



# Code of Federal Regulations

## FAA Title 14 CFR Part 77

§ 77.17 Form and time of notice

§ 77.13 Construction or alteration requiring notice

14 CFR Part 77 Subpart F-Establishment of Antenna Farm Areas

§ 77.73 General provisions

§ 77.15 Construction or alteration not requiring notice

FAA Advisory Circular 707460-1K, Obstruction Marking and Lighting

## FCC Title 47 CFR Part 17

§ 17.4 Antenna Structure Registration

§ 17.7 Antenna Structures requiring notification to the FAA

§ 17.8 Establishment of antenna farm areas

§ 17.14 Certain antenna structures exempt from notification to the FAA

Title 47 CFR Part 17 Subpart C- Specifications for Obstruction Marking and Lighting of Antenna Structures



# FAA Notice Criteria Tool

## Notice Criteria Tool

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.13](#).

You must file with the FAA at least 30 days prior to construction if:

- \* your structure will exceed 200ft above ground level
- \* your structure will be in proximity to an airport and will exceed the slope ratio
- \* your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...)
- \* your structure will emit frequencies, and does not meet the conditions of the [FAA Co-Location Policy](#)
- \* your structure will be in an instrument approach area and might exceed part 77 Subpart C
- \* your structure will be on an airport or heliport

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Areas of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction.

The tool below will assist in applying the appropriate slope calculations per Part 77 Notice Criteria.

Latitude:	<input type="text"/> Deg <input type="text"/> M <input type="text"/> S <input type="button" value="N"/>
Longitude:	<input type="text"/> Deg <input type="text"/> M <input type="text"/> S <input type="button" value="W"/>
Horizontal Datum:	<input type="button" value="NAD83"/>
Site Elevation (SE):	<input type="text"/> (nearest foot)
Structure Height (AGL):	<input type="text"/> (nearest foot)
Traverseway:	<input type="button" value="No Traverseway"/> (Additional height is added to certain structures under 77.13(a)(3))
Is structure on airport:	<input checked="" type="radio"/> No <input type="radio"/> Yes
	<input type="button" value="Submit"/>

- The requirements for filing with the FAA for proposed structures vary based on a number of factors; height, proximity to an airport, location and frequencies emitted from the structure. The tool will assist in applying the appropriate notice criteria

# FCC's TOWAIR Tool

## TOWAIR Determination

[HELP](#)

The FCC does not require each antenna structure to be registered. This screen enables the user to enter and submit key information about their antenna structure in order to determine whether or not registration with the FCC is necessary. After submitting the form, you receive one of two reply messages:

- The antenna structure requires registration. A list of reasons is provided. Or
- The antenna structure does not require registration. A list of reasons is provided.

For more details on the FCC rules on antenna structure registration see the [Code of Federal Regulations \(CFR\) 47 Part 17.7](#) (Revision 10/01/1996).

### [Tower Construction Notifications](#)

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

DETERMINE if Registration is Necessary	
NAD83 Coordinates ( <a href="#">Convert from NAD27</a> )	
Latitude	<input type="text"/> ° <input type="text"/> ' <input type="text"/> " N (+) ▾
Longitude	<input type="text"/> ° <input type="text"/> ' <input type="text"/> " W (+) ▾
Measurements	
Measurement System	Meters ▾
Overall Structure Height (AGL)	<input type="text"/>
Support Structure Height (AGL)	<input type="text"/>
Site Elevation (AMSL)	<input type="text"/>
Structure Type	
TOWER - Free standing or Guyed Structur ▾	
<input type="button" value="SUBMIT"/> <input type="button" value="RESET"/>	

- The FCC does not require each antenna structure to be registered. This screen enables the user to enter and submit key information about their antenna structure in order to determine whether or not registration with FCC is necessary

# Both FAA and FCC Tools

- **Will provide results indicating if the structure requires filing and the reason(s)**
- **Will provide results indicating when the structure does not require filing**
- **Both tools calculate the same criteria set out in 47 CFR Section 17.7 and 14 CFR Section 77.13**



# Concerns

- **The FCC TOWAIR tool uses a download from the FAA for airport data. This download is obtained by the FCC every 56 days**
- **Providing Airport Master Record data to the FAA is mandatory in order to have the airport on file with the FAA and entered into the National Airspace System**
- **The FAA Notice Criteria Tool uses an active FAA database that can access updated airport data provided to the FAA immediately**



# Summary

- **FCC TOWAIR results state, in pertinent part, that a finding by TOWAIR is not conclusive and it is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA**
- **The FAA supports this finding and provides the Notice Criteria Tool to determine if an aeronautical study is required**



# Proposal

- **The FAA proposes that the FCC TOWAIR tool point to the FAA's Notice Criteria Tool. Determining notice requirements based on criteria described in 14 CFR Part 77.13, and incorporated into 47 CFR Part 17.7, could then be deemed definitive if provided by the FAA**



**Please visit the FAA's  
Obstruction  
Evaluation Service at:  
<https://oeaaa.faa.gov>**

Presented to: **FCC Consolidated Licensing  
System Workshop**  
By: **Katie Venticinque**  
**Obstruction Evaluation Service**

Date: **April 7, 2010**



**Federal Aviation  
Administration**





Connie Durcsak

PCIA

Senior Director, Industry Services



# Federal Communications Commission Workshop: Development of the Consolidated Licensing System May 6, 2010

**Working for Wireless  
Everywhere**

# PCIA – The Wireless Infrastructure Association

*Working for wireless everywhere*

- PCIA is the principal trade association representing the companies that comprise the wireless telecommunications infrastructure industry. Our members include licensees, infrastructure providers, and services firms. PCIA supports the infrastructure necessary to make wireless communications available at all times and places.
- Founded in 1949, PCIA has a distinguished history of helping build the industries that comprise the wireless telecommunications sector and facilitating the emergence and growth of core wireless services.
  - **Frequency Coordination Services** – One of the first FCC-certified frequency advisory committees. PCIA has processed hundreds of thousands of applications for licenses and coordinated more of the nation’s spectrum than virtually any other FAC.
  - **AWS Clearinghouse** – FCC-authorized cost-sharing clearinghouse to facilitate spectrum clearing and deployment of advanced wireless services. PCIA helped conceive the cost-sharing concept in the early 1990s to pave the way for PCS. Recognized as a global leader, PCIA’s processes have been benchmarked by 7 countries [www.awsclearinghouse.com](http://www.awsclearinghouse.com)
  - **The DAS Forum** – a broad-based organization dedicated to the development of the distributed antenna systems (DAS) component of the wireless network ([www.thedasforum.org](http://www.thedasforum.org))
  - **The State Wireless Association Program (SWAP)**– a network of 26 state associations, involving 37 states ([www.swapprogram.net](http://www.swapprogram.net))
  - **Women in Wireless Leadership Forum (WWLF)** – an organization of professional women in the wireless communications industry ([www.wwlf.org](http://www.wwlf.org))

# General CLS Migration Considerations

## *Electronic Filing, Correspondence, and Notifications*

- Electronic Filing Mandates. Approximately 15 – 25% of PCIA’s frequency coordination customers (usually small scale land mobile licensees) do not use a computer or have access to the Internet. However, electronic filing is generally not problematic as third parties file electronically on their behalf. *Significant* problems exist, however, with FRN passwords. Many licensees simply do not know their FRN password. Accordingly, many simple renewals/administrative updates that could be done via the Internet are, in fact, prepared using paper. FRN passwords are especially problematic in large, fluid corporations, very small-scale licensees who rarely use their FRN, and M&A situations. PCIA recommends that the Commission pay specific attention to this key issue.
- “New Media.” As pointed out in the FCC’s National Broadband Plan, wireless devices will play an increasingly important role in consumers’ interaction with the Internet. PCIA recommends that, notwithstanding security concerns, the Commission allow maximum use of these devices where practicable for certain applications (STAs, renewals, administrative updates, etc.) and eventually for all interactions with the FCC.
- Electronic Authorizations. PCIA believes that electronic versions of authorizations should be deemed official authorizations and that records should be allowed to be stored electronically.

# General CLS Migration Considerations

## *Application Process*

- Communications to Applicants. Because so many applicants do not have access to computers or the Internet, because of applicant login challenges with FRN passwords, and because email addresses change frequently, PCIA recommends that applicants retain the option to receive official communications (notifications and authorizations) via paper and regular mail. In addition, notices should be issued to the applicant, contact of record, *and the frequency advisory committee* where applicable.
- Embedded Performance Support Systems (EPSS). PCIA strongly encourages maximum use of EPSS and integrated help tools as contemplated in the CLS manager to make applications as simple and error free as possible and to help users interact with and navigate the database more efficiently and effectively., i.e., pre-filling/auto-populating fields, previewing an application before filing out all of the required data fields, allowing third-party access to “draft” applications, performing live “error checks,” enabling copy/paste of data fields and the creation of templates, not requiring the form to be completed sequentially, allowing applicants to “over-ride” certain fields if there is a good reason, provided they file a waiver request or justify with comments, etc.
- Consolidating the Commission's Registration System (CORES) and CLS. PCIA recommends that the CORES be fully integrated with CLS. CORES should serve as the user profile portion of CLS with contact information should be mapped to all relevant aspects of CLS, thereby enabling any updates to be automatically updated in all other areas of CLS. The FCC should also focus on the challenges with FRN passwords. Creating sub-accounts for a single FRN as well as an intuitive password reset process may help.

# General CLS Migration Considerations

## *Application Process (continued)*

- Application Procedural Rules. Irrespective of specific application procedure rules, PCIA advocates that applications be as streamlined and user friendly as possible.
  - Batch Filing. PCIA does strongly recommend that the Commission continue to allow batch filing of applications. However, with the ULS EBF system, if the EBF file fails edit checks (i.e., contains an invalid character), the entire file is rejected. PCIA recommends that the process be changed to allow all applications passing the edit checks to be accepted and processed, rejecting only those containing errors. Also, currently, there is no way to easily locate the invalid character. PCIA recommends that the error/rejection message highlight the problem character so that it the issue can be quickly resolved and application re-filed.
  - Application Withdrawal. Currently, the ULS does not allow users to withdraw pending applications. PCIA recommends that this feature be added.

# General CLS Migration Considerations

## *Application Process (continued)*

- Terminology. PCIA does not necessarily advocate the use of one term over another but notes that each term should have a distinct and consistent meaning across the Commission and that terms should be defined in a glossary housed on the CLS site. Additionally, legacy database users should be notified of any changes in terminology or definitions.
- Preservation of Features. PCIA recommends that the ULS Search Features on the General Menu be preserved and taken into consideration as the basis for search features for other aspects of the CLS.

# General CLS Migration Considerations

## *Access to CLS Data*

- Application and Licensing Data. PCIA and our member companies and customers use the data in the legacy ULS to search for individual applications or licenses, to verify licensing data, to conduct radius searches and apply for licenses, and to monitor status of licenses.
- Tower Siting and Tower Registration Data. PCIA's members use the tower siting/registration data in the legacy ASR to register structures and locate prospective transmit sites in a specific geographic location.
- Data to Support Public Access. PCIA believes that the appropriate amount of data currently exists in the legacy databases; however, some of the legacy databases are difficult to navigate for the casual user. Creating more intuitive and user-friendly graphical interfaces, like the spectrum dashboard, would be beneficial. In addition, PCIA imports the ULS database on a regular basis to support its frequency coordination services function. The Commission should continue to make this data available via text files or a standard spreadsheet.

# General CLS Migration Considerations

## *Access to CLS Data (continued)*

- Historical Data. PCIA urges the Commission to migrate all existing data into the CLS. In the case of the ULS migration, large amounts of pre-ULS data were not migrated to ULS, which meant that vital information used to make frequency assignments or research existing licenses was no longer available. PCIA urges the Commission to migrate all existing data.
- Data Conversion. In the past there were two different formats for coordinates – Datum 27 and Datum 83. The Commission should only accept Datum 83 going forward and allow authorized users to covert current data. In addition, authorized representatives (contact of record or frequency advisory committees) should have the ability to change FRN information in pending applications. Also, as a general matter, pre-populating and auto-filling fields will help preserve data integrity and, ultimately, data accuracy.
- Mapping Capabilities. PCIA recommends that the CLS combine map data available for market areas with site-specific data available from the (ULS) licensee database. Doing so would allow users to plot where specific licensees are located in relation to the maps.

# General CLS Migration Considerations

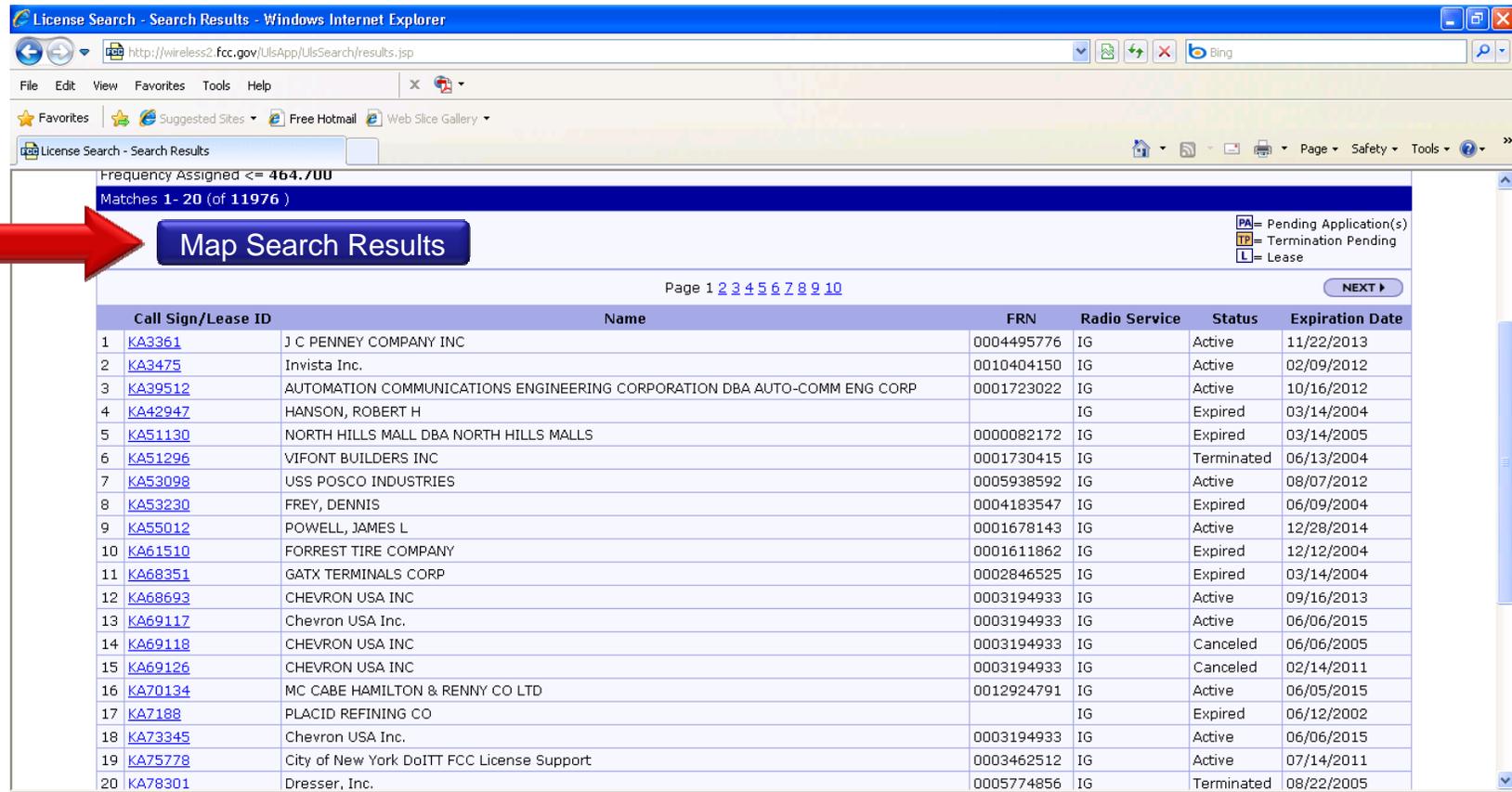
## *Access to CLS Data (Continued)*

- Mapping Capabilities (continued). The following is a list of map schemes the FCC has for all of its different licenses. Having the ability to overlay ULS search results over any of these boundary maps would be very helpful:
  - **Automated Maritime Telecommunications System**
  - **BTA** - Basic Trading Areas
  - **BRS** - Broadband Radio Service
  - **CEA** – Component Econ Areas
  - **CMA (Or MSA & RSA)** – Cellular Market Areas
  - **EA** Economic Areas
  - **EA (GOM)** Economic Areas including Gulf of Mexico
  - **EAG** Economic Area Groupings
  - **EA & EAG** 220 MHz Economic Area Groupings
  - **MEA** Major Economic Areas (Basic)
  - **MEA** Major Economic Areas
  - **MTA** Major Trading Areas
  - **REAG** Regional Economic Area Groupings
  - **RPC** Regional PCS Areas
  - **GSA** – Geographic Service Area
  - **Radius of Operation/Area of Operation** – Most PCIA Coordination licensees will have this operation area.

# General CLS Migration Considerations

## Access to CLS Data (Continued)

- Mapping Capabilities (continued). For example, a ULS search yields the following tabular results. PCIA recommends placing a button on the search result page to map the results. This would then open a new window.



Frequency Assigned <= 464.700  
Matches 1- 20 (of 11976)

Map Search Results

PA = Pending Application(s)  
TP = Termination Pending  
L = Lease

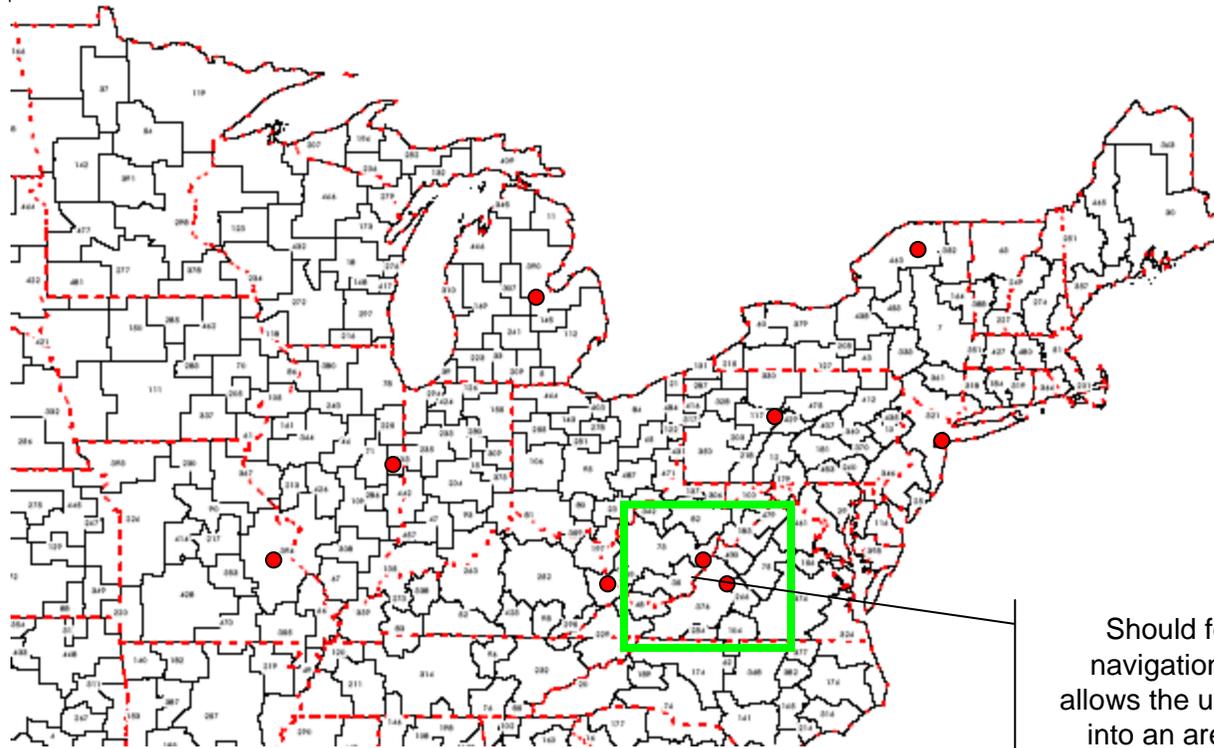
Page 1 2 3 4 5 6 7 8 9 10

Call Sign/Lease ID	Name	FRN	Radio Service	Status	Expiration Date
1 KA3361	J C PENNEY COMPANY INC	0004495776	IG	Active	11/22/2013
2 KA3475	Invista Inc.	0010404150	IG	Active	02/09/2012
3 KA39512	AUTOMATION COMMUNICATIONS ENGINEERING CORPORATION DBA AUTO-COMM ENG CORP	0001723022	IG	Active	10/16/2012
4 KA42947	HANSON, ROBERT H		IG	Expired	03/14/2004
5 KA51130	NORTH HILLS MALL DBA NORTH HILLS MALLS	0000082172	IG	Expired	03/14/2005
6 KA51296	VIFONT BUILDERS INC	0001730415	IG	Terminated	06/13/2004
7 KA53098	USS POSCO INDUSTRIES	0005938592	IG	Active	08/07/2012
8 KA53230	FREY, DENNIS	0004183547	IG	Expired	06/09/2004
9 KA55012	POWELL, JAMES L	0001678143	IG	Active	12/28/2014
10 KA61510	FORREST TIRE COMPANY	0001611862	IG	Expired	12/12/2004
11 KA68351	GATX TERMINALS CORP	0002846525	IG	Expired	03/14/2004
12 KA68693	CHEVRON USA INC	0003194933	IG	Active	09/16/2013
13 KA69117	Chevron USA Inc.	0003194933	IG	Active	06/06/2015
14 KA69118	CHEVRON USA INC	0003194933	IG	Canceled	06/06/2005
15 KA69126	CHEVRON USA INC	0003194933	IG	Canceled	02/14/2011
16 KA70134	MC CABE HAMILTON & RENNY CO LTD	0012924791	IG	Active	06/05/2015
17 KA7188	PLACID REFINING CO		IG	Expired	06/12/2002
18 KA73345	Chevron USA Inc.	0003194933	IG	Active	06/06/2015
19 KA75778	City of New York DoITT FCC License Support	0003462512	IG	Active	07/14/2011
20 KA78301	Dresser, Inc.	0005774856	IG	Terminated	08/22/2005

# General CLS Migration Considerations

## *Access to CLS Data (Continued)*

- Mapping Capabilities (continued). The new window then displays the map. It can be nationwide or allow the user to zoom. This example depicts a BTA boundary map.

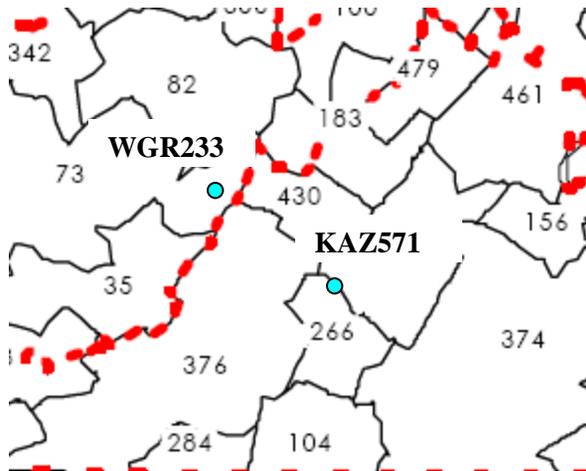


Should feature a navigation tool that allows the user to zoom into an area of map

# General CLS Migration Considerations

## *Access to CLS Data (Continued)*

- Mapping Capabilities (continued). The user can zoom in for more detail or choose to display the map with the operating radius or area of operation of the call sign locations marked on the map.



# General CLS Migration Considerations

## *Phased-in Implementation*

- Establish User Groups for Requirements Gathering and Beta Testing. PCIA strongly urges the FCC to establish *ad hoc* user groups (at least one user group per legacy database, drawn from a representative cross section of stakeholders and users) to furnish specific requirements, serve as testers, and even perform independent verification and validation roles. These groups should meet in person/virtually/via webinar on a regular basis until their portion of the migration and implementation is completed.
- Perform a Soft Launch and Operate Parallel Systems Until Bugs are Worked Out. The scale and nature of this type of transformation will require potentially substantial business process re-engineering, overhauling specific procedures, and undertaking an extensive and intricate mapping of a complex, mission-critical database. All of these activities invite the potential for error. PCIA recommends that a hard cut-over occurs only after there is certainty that a large majority of the inevitable problems have been identified and resolved.
- Develop a Robust and Comprehensive Communication Strategy. One of the keys to success in any major change effort is a solid communication plan to keep stakeholder groups apprised of the status of the impending change and how the change will directly or indirectly impact them and their constituents. PCIA recommends that the Commission leverage multiple communication channels to ensure stakeholders are adequately informed.

## Specific Recommendations: Antenna Structure Registration (ASR) Database

- Applications:
  - Determining whether a tower requires registration
  - Registering a tower
  - Searching for registered towers/ASR #
- Average Application Processing Time:
  - Automatic with an FAA Determination Number
  - FAA Determination Number takes an average of 2-3 weeks
- Recommendations:
  - Provide Form 854R Electronically. The form is currently a paper copy form that the FCC mails to the tower owner. The tower owner then provides copies to tenants (licensees/permittees). PCIA filed a petition for rulemaking on this issue, requesting the form be made available electronically. We urge the FCC to act on the request.
  - Include Threshold Question to Minimize Duplicity. Currently, there are several duplicate records in the system. At one time, each licensee filed for registration. Part 17 Rules, revised in 1995, placed the filing burden on the tower owners, which eliminated most but not all of the duplication. Including a threshold question on Form 854R to determine if the applicant is the structure owner would help mitigate further duplication.

## Specific Recommendations: Antenna Structure Registration (ASR) Database

- Recommendations (continued):
  - Link ASR Data to Other Data. PCIA recommends linking ASR information to other data to make it more usable. For example, users should be able to use an ASR# to locate site-based licensees (i.e., microwave) that are on that tower. This would also allow users to renew licenses by entering an ASR# and accessing site-based licensing information that way.
  - Enable Improperly Registered Towers to be Deleted from ASR. There are instances in which the original owner of the tower registered a tower even though registration was not required. For example, when the FCC revised Part 17 rules, a number of companies registered their towers in an abundance of caution. Doing so obligated them to a host of regulatory requirements, including maintaining marking and lighting. In a transfer of ownership, the acquiring company would like to delete that improperly registered site. Currently, there is no process for that except to file a notice of dismantlement .
  - Link ASR to the FAA Database. Once the user enters the FAA Determination Number into ASR, the remaining fields should populate automatically. Doing so would preserve data integrity and save time as most of the fields are duplicative.

## Specific Recommendations: Antenna Structure Registration (ASR) Database

- Recommendations (continued):
  - Revise Form 854 to Allow Parties to Seek a Waiver. There are many instances in which certain pieces of information are not known. Currently, the ASR requires applicants to “make up” information in order to get past the field and complete the process. PCIA recommends that Form 854 be revised to allow parties to seek a waiver if the information is unknown or include a comment if the answer to a question is not clear or requires explanation.
  - Expand Search Results. Currently, users are limited to 10 search results. However, many tower owners have large portfolios. PCIA recommends that this search limitation be removed or greatly expanded. PCIA further recommends that users be able to sort search results, i.e., by coordinates, tower owner names, name of a town, etc. Finally, PCIA recommends that the FCC employ data validations to flag incorrect or incomplete information. For example, if a town name were to be entered incorrectly (i.e., misspelled), the system should perform edit checks to validate the data and flag incorrect or incomplete information.
  - Add County to ASR. Currently, ASR does not require county, but other databases (e.g., ULS) do. PCIA recommends adding County information to ASR so that when ASR data is imported to ULS, it will auto-populate the county field.

## Specific Recommendations: Universal Licensing System (ULS)

- Applications:
  - Gathering information to use in the assignment of frequencies or resolution of related issues
  - File applications for licenses with the FCC
- Average Application Processing Time:
  - Two weeks
  - One to four months if Canadian concurrence is required
  - Others that are out for review.....????
- Recommendations:
  - Improve Speed of the Database. Numerous users complained about the speed of ULS, particularly during the mid afternoon timeframe. For example, one customer recently spent 4.75 hours performing a function that should have taken 1.5 hours. There is concern that if the sluggish performance is due to volume that a consolidated database with exponentially more users will lead to even more delays. PCIA urges the FCC to investigate this problem and resolve any issues/optimize systems before migrating to CLS.

## Specific Recommendations: Universal Licensing System (ULS)

- Recommendations (continued):
  - Increase Visibility of Where an Application is in the Process. Currently, if an application is “out for review” the licensee or their third-party representatives have no visibility as to what the review concerns or when the application is expected to be finalized. A typical example is petitions (i.e., construction notifications). The matter is assigned a number, but there is no place for the petitioner to see where it is in the process. Improved visibility and allowing third party representatives access to this information would be a great improvement. PCIA further recommends that in the case of license assignments/transfers that the assignee/transferee should have visibility of where the application is in the process – not only when they fill out Form 603.
  - Implement an Intuitive FRN Password Reset Procedure. The FRN is a good idea, but PCIA recommends that the Commission institute procedures similar to those in other web environments to reset passwords.
  - Minimize Drill-Down. Currently, considerable drill down is required to access certain key data. For example, after a call sign is entered in the license search box, it takes three additional steps to view the emission designator, construction date, or an attachment.
  - Allow FRN Amendments for Pending Applications. Currently, frequency advisory committees are unable to file applications in certain radio services using the coordinator login credentials. PCIA has encountered several situations in which the applicant informed PCIA that they had provided the wrong FRN, but PCIA had no way of amending the FRN in the pending application.

## Specific Recommendations: Universal Licensing System (ULS)

- Recommendations (continued):
  - Make the Database More “User-Centric.” ULS is challenging to navigate for casual or novice users.
  - Enable Licenses to be Consolidated. The CLS should enable a user to consolidate all licenses for each licensee.
  - Modify the Pay Fee Feature to Correctly Identify Actual Payer. Currently, with Assignments and Transfers, Form 159 identifies the Assignor/Transferor as the payer. However, the actual payer is the Assignee/Transferee. PCIA recommends that ULS be changed to reflect this standard arrangement.
  - Preserve the features of the ULS General Menu. PCIA suggests that the planned CLS search features should take their cues from the ULS General Menu as it provides a comprehensive view of the status of the license as well as important details concerning the license.



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