CAPRAD – Overview

Stephen Devine, APCO Chief
Technology Officer

Sponsored by

Computer Assisted and Pre-Coordination Resource and Database (CAPRAD)

Primarily used by 700 and 800 MHz Regional Planning Committees (RPCs) to assign nationwide interoperability and general category channels
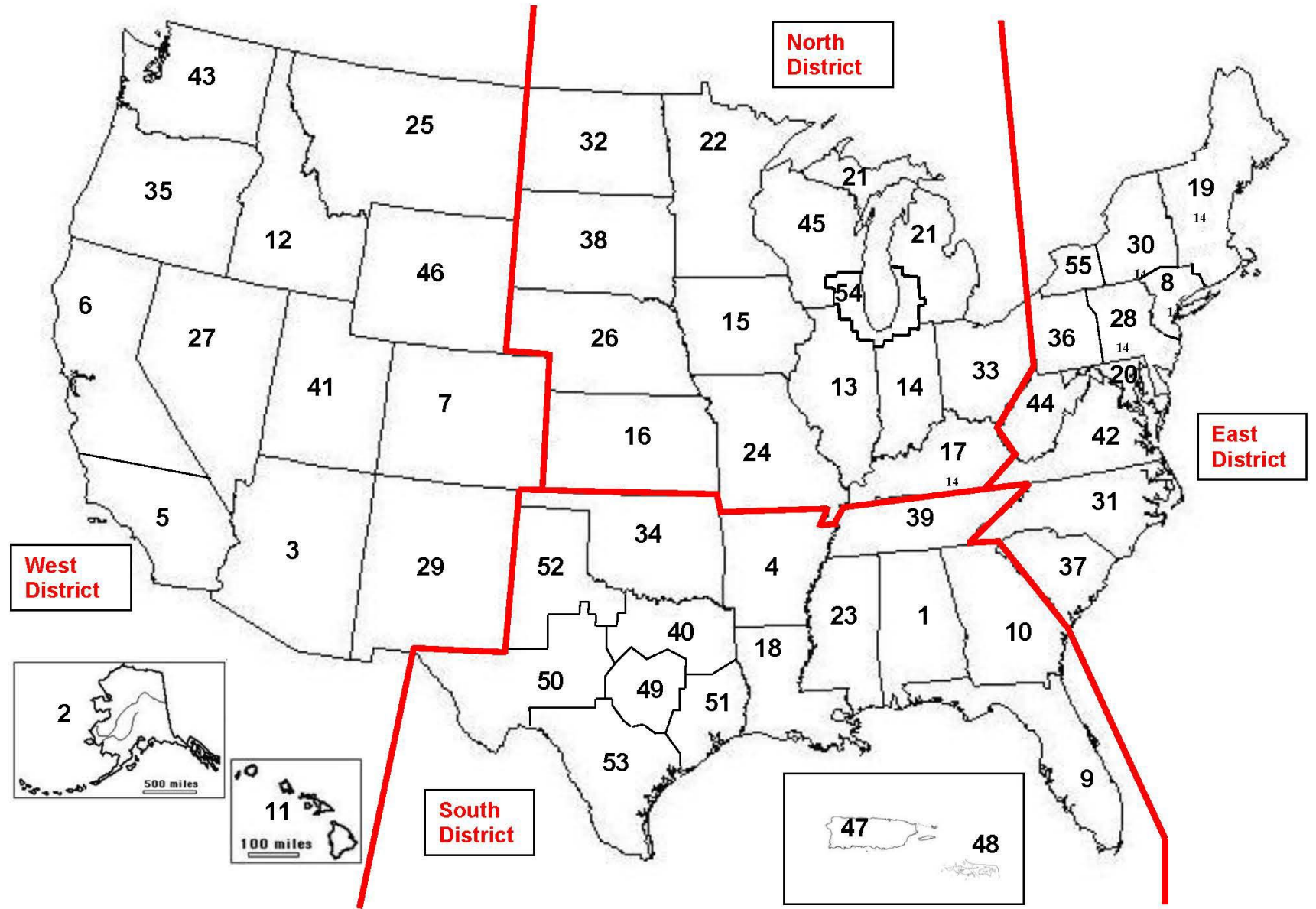
- Fifty-five RPCs across the country (totaling 110 volunteers)
- Also utilized by State Interoperability Executive Committees (SIECs)

The CAPRAD software equips regions with the tools to properly assign scarce spectrum resources without causing undue interference to new or incumbent users.
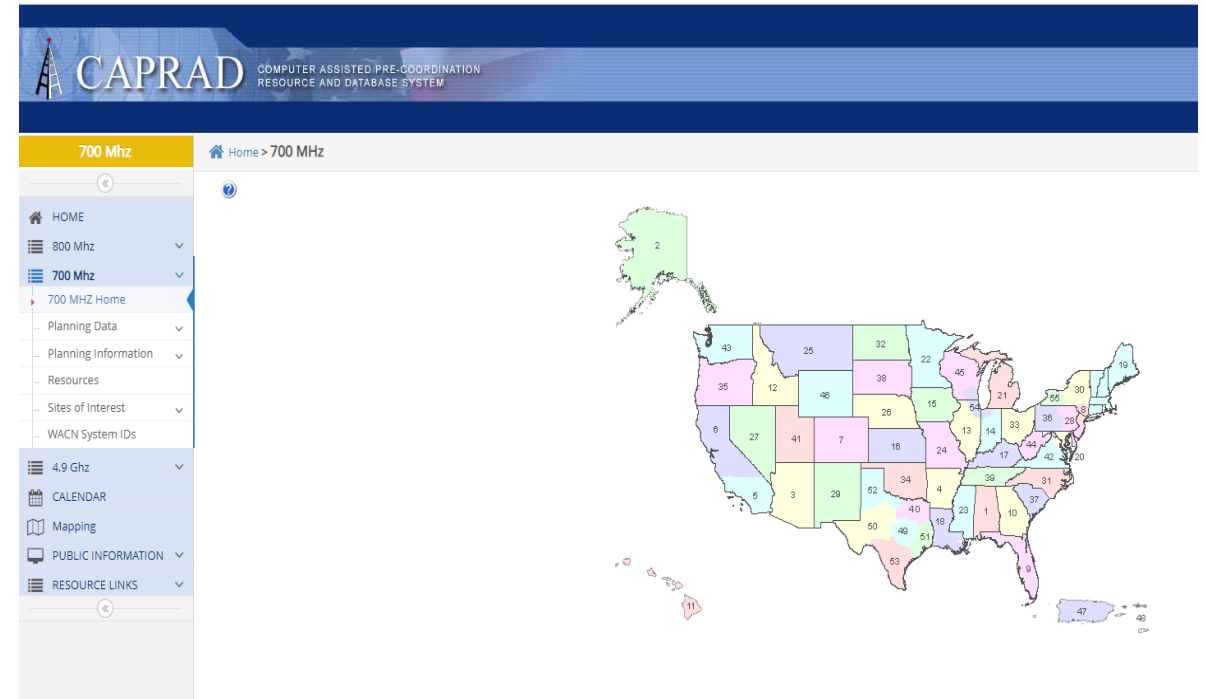
History of CAPRAD

1) Adoption by the FCC in 1987 of a National Plan for public safety frequencies led to developing a regional planning structure.

2) FCC rules established 55 RPCs and APCO assisted RPCs with the original submission of regional plans.

3) CAPRAD was the outgrowth of meetings in 1999 between APCO and other public safety coordinators to create a software platform for utilization by 700 MHz RPCs.

4) NIJ/NLECTC funded the creation of CAPRAD to *initially* assist RPCs with *700 MHz* frequency planning and applications processing.

5) In 2007, 800 MHz RPCs were added to CAPRAD.

FCC rules established 55 RPCs

North District

East District

West District

South District

APCO International
Leaders in Public Safety Communications®

CAPRAD Platform (www.caprad.org)

- CAPRAD is used by RPCs to review applications, keep important documents, and coordinate 700/800 MHZ NPSPAC frequencies.

- There are two modules under CAPRAD:
  1. The **application** module is used for public safety agencies to submit applications to the RPCs for review.
  2. The **planning** module is used for the RPCs to house information about their region's plan to include channel allotments.
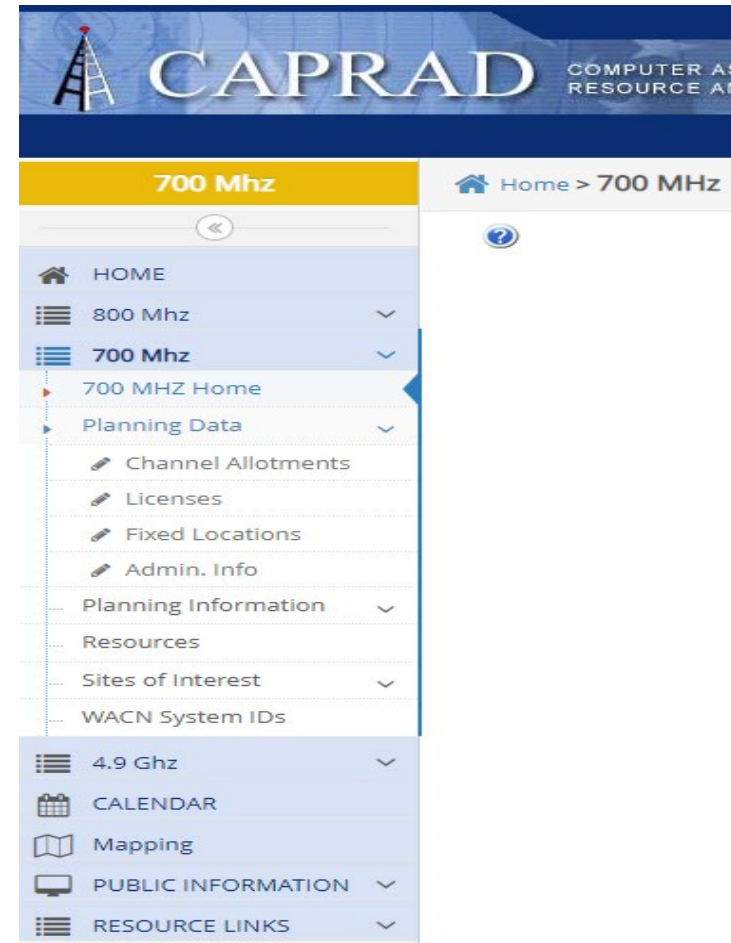
CAPRAD Application Module

- CAPRADs application module not only allows RPCs to review applications, but they can also send applications and notifications to their adjacent RPC regions for review.

- The RPC can send the applications back to applicants for more information, if needed. They can also submit the applications to the assigned Part 90 frequency coordinator.
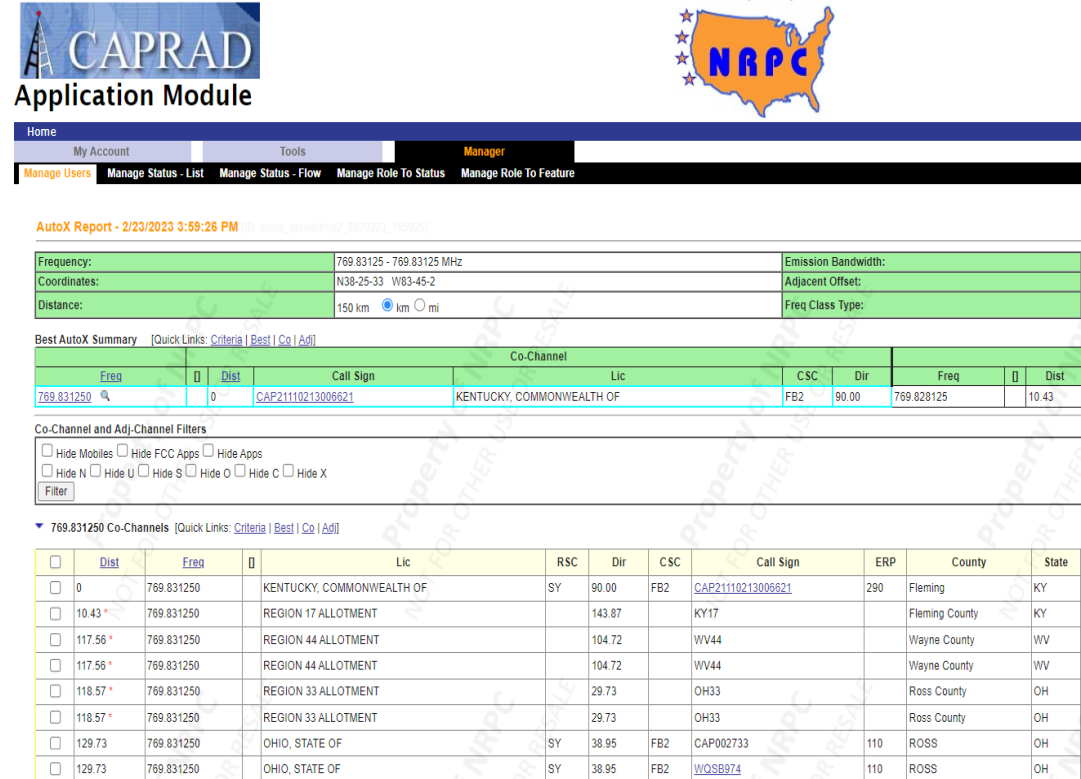
CAPRAD Planning Module

- CAPRAD Planning is a great tool for RPCs to keep important information handy regarding their plan.

- Common items found in CAPRAD are frequency allotments, plan documents, the FCC status of the plan, etc

- The mapping feature allows RPCs an easy view of licensees and frequency allotments for not only their region but surrounding regions.

CAPRAD Frequency Search Capabilities

- The application module houses the frequency search tool. This tool give RPCs an easy view of licensed incumbents and700 MHz allotments for requested frequencies.

- A CSV file can be created that allows RPCs to easily enter the selected information into an engineering system for coordination.

APCO International
Leaders in Public Safety Communications®

CAPRAD enables …

- Regional RPC collaboration without the need for in-person meetings;

- Adjacent regional concurrence by simultaneously sharing FCC Form 601 among several regions (states);

- Automatic user notification via internally generated emails/notices;

- RPCs & SIECs to equitably manage licensee requests for 800 and 700 MHz interoperability and NPSPAC channels; and

- Essential storing of planning documents and agreed upon standards.

DHS funding supports …

- Maintaining 24/7/365 the CAPRAD software with tools to equip regions to properly assign scarce spectrum resources without causing undue interference to new or incumbent users;

- Keeping CAPRAD up to date and adding features based on user feedback through the National Regional Planning Council (NRPC); and

- Training in the use of CAPRAD and spectrum management techniques via quarterly webinars and an annual in-person technical seminar.

   The in-person seminar yields the level of regional participation and peer-to-peer interaction that results in improved productivity of the RPCs in fulfilling their regional planning duties.

Why APCO involvement?

- APCO has been a FCC certified public safety frequency coordinator for Part 90 land mobile radio licensing since 1986;

- APCO has been instrumental in guiding RPCs through the submission of their original regional plans and has been of support to RPCs ever since;

- APCO has been either the lead subcontractor (2009-2014) or prime contractor (2014-present) on DHS contracts and grants to support the RPCs in effectively using and updating the CAPRAD platform; and

- Without national coordination from a knowledgeable entity like APCO, most regions would work in isolation and without qualified RF support.

Q&A and Thank You!

Thank you to our sponsor

Https://www.anritsu.com/en-us/

www.apcointl.org/afc