The member organizations of the National Public Safety Telecommunications Council are grateful to the Department of Homeland Security's Science and Technology Directorate, Office for Interoperability and Compatibility (OIC) and the National Protection and Programs Directorate, Office of Emergency Communications (OEC) Points of view or opinions expressed are those of the originators and do not necessarily represent the official position or policies of the U.S. Department of Homeland Security.

NPSTC UPDATE for IACP Communications and Technology Committee

Don Root
Chair, NPSTC Spectrum Management Committee
San Diego, CA
October 16, 2016
NPSTC Organization

Please Refer to Brochure Handout “What is NPSTC?”

IACP is one of 16 NPSTC Governing Board Members

IACP Voting Representative:
- Deputy Chief Eddie Reyes (primary)
- Chief Tom Roche (secondary)
Key Areas of Focus

• Spectrum

• Broadband and Technology

• Interoperability

• These areas encompass a wide range of issues and topics
NPSTC is a federation of organizations whose mission is to improve public safety communications and interoperability through collaborative leadership.

Spectrum

• NPSTC Position Paper issued October 3, 2016: 
  *Maintaining Public Safety Communications Reliability and Interoperability in the 700 MHz Band*

• Current 700 MHz plan designates separate spectrum for broadband and narrowband operations

• Two states have raised possibility of placing broadband operations in the narrowband spectrum

• Paper recommends against mixing broadband and narrowband operations in same spectrum
Spectrum

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- Found minimal changes in T-Band licenses since 2013
- Counted 90M people in 11 T-Band areas public safety serves
- Catalogued 325 full power & Class A TV stations in T-Band
- Reaffirmed conclusions from March 15, 2013 NPSTC T-Band Report
Spectrum

- 4.9 GHz Public Safety Band (50 MHz Total)
- FCC Opened Proceeding in 2012 to Modify Rules
- NPSTC 4.9 GHz National Plan Recommendations October 2013
- APCO 4.9 Task Force Report: September 2015
- We Expect FCC Further Proposal
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Spectrum

- 5.9 GHz Dedicated Short Range Communications (DSRC)
- Vehicle-to-Vehicle & Vehicle-to-Roadside Communications
- WiFi Proponents Pressing to Share DSRC Spectrum
- FCC is Testing Spectrum Sharing

DSRC: 75 MHz of Spectrum

Current WiFi: 580 MHz of 5 GHz Spectrum
Spectrum

• Reconsideration Order and Further NPRM, PS Docket No. 13-87, released 8/22/2016

• Comments Due 10/26/2016; reply comments due 11/10/2016
  – P25 CAP compliance must now be completed before 700 MHz LMR equipment is marketed or sold (decision)
  – States may delegate administration of 700 MHz air-ground channels to 700 MHz RPCs (decision)
  – P25 CAP feature sets for conventional operation (for comment)
  – 700 MHz rules needed to help enable vehicular repeaters (for comment)
  – NPSTC developing comments
Spectrum

• NPRM, WP Docket No. 16-261, released 8/18/2016
• Comments due 11/22/2016; reply comments due 12/22/2016
  – Proposes to extend “conditional licensing” to 700, 800 and 900 MHz bands- get on the air faster when regular licensing bogs down
  – Proposes that existing licensees be allowed to apply prior to new applicants for 800 MHz band expansion and guard band channels
  – NPSTC plans to support both proposals
    • 700 and 800 MHz band public safety applications would receive RPC approval before submission to FCC
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<tr>
<th>Date Filed</th>
<th>Topic</th>
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<tr>
<td>10/3/16</td>
<td>700 MHz Position Paper</td>
<td>Letter</td>
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<td>9/12/16</td>
<td>Outage Reporting</td>
<td>Reply Comments</td>
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<tr>
<td>8/11/16</td>
<td>Noise Floor</td>
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<td>5.9 GHz DSRC</td>
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<td>Interference Portal</td>
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<td>6/21/16</td>
<td>Ligado 1675-1680 MHz</td>
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<td>T-Band Update Report</td>
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<td>5/23/16</td>
<td>Ligado 1545-1555 MHz</td>
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<td>4.9 GHz</td>
<td>Ex Parte (#1)</td>
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<td>1/13/16</td>
<td>Wireless Emergency Alerts</td>
<td>Comments</td>
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## Technology and Broadband

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<tr>
<th>Group</th>
<th>Chair</th>
<th>Meeting Sched (if standing call)</th>
<th>Comment</th>
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<tbody>
<tr>
<td>UAS Robotics WG</td>
<td>Michael Britt</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Wed. @ Noon ET</td>
<td>See Detail Slides</td>
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<tr>
<td>LMR/LTE Integration &amp; IO</td>
<td>Chris Kindelspire</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; &amp; 3&lt;sup&gt;rd&lt;/sup&gt; Wed. @ Noon ET</td>
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<td>Broadband Deployable Systems WG</td>
<td>Claudio Lucente</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; &amp; 4&lt;sup&gt;th&lt;/sup&gt; Tues. @ 11 AM ET</td>
<td>Joint WG with Canada</td>
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<tr>
<td>Broadband Emerging Technology WG</td>
<td>Kim Coleman-Madsen</td>
<td>4&lt;sup&gt;th&lt;/sup&gt; Wed @ Noon ET</td>
<td>Working issues not covered by other groups</td>
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<tr>
<td>Video Technology Advisory Group</td>
<td>John Contestable</td>
<td>Meets Quarterly</td>
<td>Supports DHS S&amp;T/ VQiPS</td>
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<tr>
<td>Radio Program Compatibility Requirements</td>
<td>Dan Robinson &amp; Ken Link Co-Chairs</td>
<td>Meets Quarterly</td>
<td>Beta testing w/ Colorado and Michigan</td>
</tr>
</tbody>
</table>

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Unmanned Aircraft Systems (UAS) and Robotics

- Heard presentations on the following topics
  - Larimer County UAS Program (accident scene reconstruction)
  - Use of UAS for SAR, Texas A&M University
  - Regulatory guidance on UAS, FAA
  - Michigan State Police Aviation UAS program
  - Persistent Close Air Support, State of Arizona
  - Meets on the 2\textsuperscript{nd} Wednesday of month at 12:00 noon ET
Unmanned Aircraft Systems (UAS) and Robotics

• Working on three outreach documents
  1. Considerations for public safety agencies when implementing a UAS program
  2. Overview of current operational uses of UAS/Robotics by Public Safety
  3. Public Safety communications aerial platforms via UAS
Broadband Emerging Technologies Working Group

• Developing Report on PS Requirements for an Agency Status Page on Nationwide PS BB Network (FirstNet)

• Network status and incident information

• Example use for Status Page:

A police officer can view a list of high priority emergencies among all agencies in the area (his/her city, adjacent city, sheriff, and state patrol).

This would allow a state patrol trooper to maintain situational awareness on major incidents occurring in all jurisdictions.
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Broadband Emerging Technologies Working Group

• Hosted several presentations on current topics.
  – NIST overview of sensors and connected systems
  – NIST Smart Cities Project
  – State Alternative Planning Approaches Panel Discussion
  – NG911 and Broadband Data

• Upcoming Presentations
  Public Safety LTE deployment in the United Kingdom (October)
<table>
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<th>Comment</th>
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<td>EMS WG</td>
<td>Paul Patrick</td>
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<td>Report on EMS Telemedicine Completed 2/16</td>
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<td>NPSTC-CITIG Cross-Border Communications WG</td>
<td>Steve Mallory</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; Tues @ Noon ET</td>
<td>Multiple Operational Issues</td>
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<tr>
<td>Common Channel Naming WG</td>
<td>Don Root</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Thurs. @ 3 PM ET</td>
<td>2016 Update in Process</td>
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<td>Radio Interoperability Best Practices WG</td>
<td>Mark Schroeder</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; &amp; 4&lt;sup&gt;th&lt;/sup&gt; Thurs. @ 3 PM ET</td>
<td>Working on 13 Best Practices</td>
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</tbody>
</table>

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Cross Border Working Group

• Regulatory Update on Cross Border Base Stations
  – FCC and ISED in Canada released guidance on cross border base station placement on June 30th
    See Handout
  – NPSTC and CITIG have conducted outreach activities

FCC/ISED also discussing 700 MHz PS air/ground operations
Number of channels, power levels, and aircraft height key issues

NPSTC needs input from agencies near U.S./Canadian border

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Cross Border Working Group (Continued)

- Cross Border 911 Call Routing
  - Mexico is currently implementing 911 to replace its “006” emergency line.
  - The States of Texas & California have identified problems with 911 calls from Mexico being routed to its PSAPs
    - Citizens in Mexico are dialing 911 and reaching TX or CA PSAPs
    - Mexico reports 911 callers in Texas are reaching their PSAPs
  - Texas is working with US and Mexico wireless carriers to address routing.
  - California also starting to address issue
• NPSTC Relies on Volunteers
• Signup is Simple

Go to www.NPSTC.org
Click on “Participate-Volunteer” tab

Questions: Contact support@npstc.org