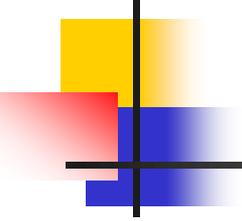


The FCC's Role in Ensuring Continuity of Communications During Emergencies and Catastrophic Events

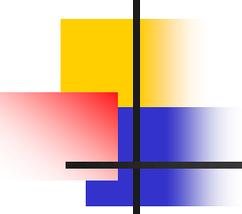
ANCOM Annual International Conference
Bucharest, Romania

Renée Roland
Special Counsel
Public Safety and Homeland Security Bureau, FCC
Renee.Roland@fcc.gov



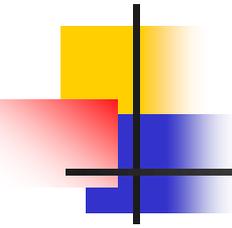
Disclaimer

- Opinions expressed in this presentation are those of the author and do not necessarily represent the views of the FCC or any other member of its staff



FCC: Independent Federal Agency

- Different from a Federal Executive (“Cabinet”-level) department
- Five Commissioners (no more than three of any political party), appointed by the President to 5-year terms and confirmed by the Senate
 - Chairman: Tom Wheeler (D)
 - Commissioners: Mignon Clyburn (D), Jessica Rosenworcel (D), Ajit Pai (R), Michael O’Rielly (R)

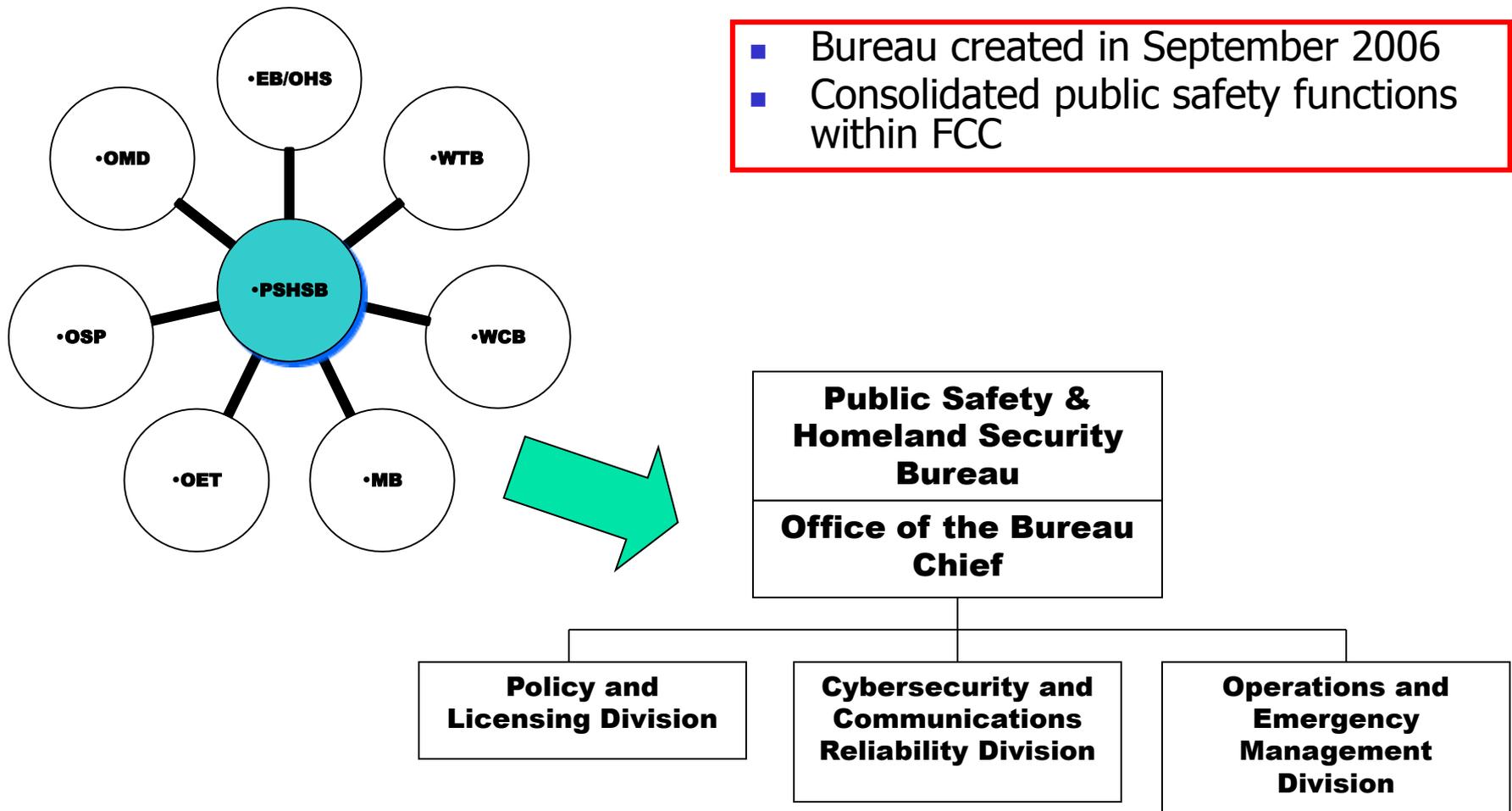


FCC Regulatory Authority Over Public Safety Communications

- To promote safety of life and property through the use of communications services, by:
- Identification and allocation of public safety spectrum
 - Licensing of all state, local, and tribal public safety radio systems
 - Technical rules to promote reliable, interoperable public safety radio communications
 - Regulation of interference to public safety operations, including from commercial systems
 - Supporting emergency preparedness and response activities
 - Serving as a resource and information clearinghouse on issues of public safety and homeland security

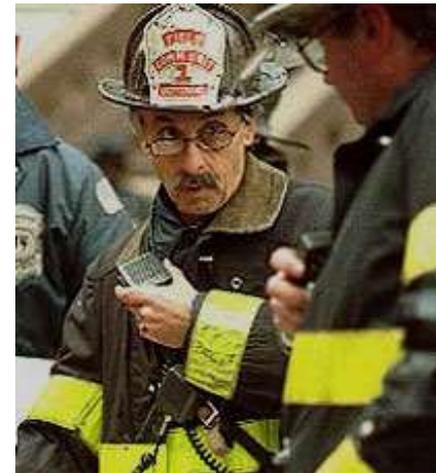
Public Safety and Homeland Security Bureau

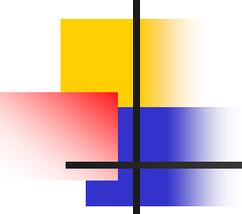
- Bureau created in September 2006
- Consolidated public safety functions within FCC



Outline

- **FCC Role in Catastrophic Events**
 - **Network and Power Outages**
 - **Emergency Calls**
 - **Emergency Alerts**
 - **Natural Disasters and Catastrophic Events: Lessons Learned**
 - **Super Storm Sandy**
 - **2012 Derecho**
 - **Hurricane Katrina**
 - **September 11th**





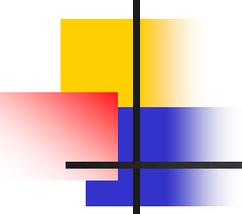
FCC's Role in Catastrophic Events

- Track how communications are impacted
- Issue Special Temporary Authority to allow companies to share existing services
- Encourage companies to make mutual aid and roaming agreements in case of disruptive events
- Encourage WiFi providers to open up their services during disasters
- Coordinate with other agencies to get fuel and generators into the field
- Provide necessary credentials for repair teams to enter disaster areas
- Encourage deployment of Cells on Light Trucks (COLTs) and Cells on Wheels (COWs)

Network and Power Outages

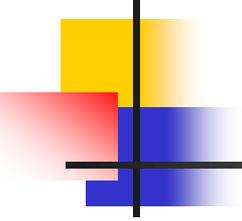
- FCC works closely with the communications sector to assess the operational status of essential communications systems and assist in the restoration of critical services
 - Network Outage Reporting System (NORS)
 - Disaster Information Reporting System (DIRS)





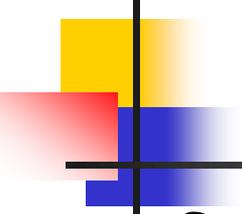
Network and Power Outages

- This past May, the FCC improved outage reporting.
 - Requires outage reporting for any facilities designated by state, local, tribal, and territorial governments through the Department of Homeland Security Telecommunications Service Priority (TSP) program as Level 2 or higher
 - Proposed enforced sharing of network service outage reporting with state, local, tribal, and territorial public safety entities in impacted areas



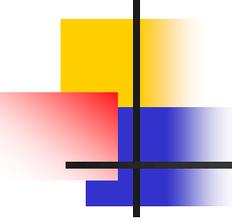
Emergency Calls

- In major public emergencies, the FCC's primary mission is to ensure continuous operations and restore critical communications systems and services.



Emergency Calls

- Some examples of what the FCC has done to improve communications systems and services
 - Streamlining collection of outage info during emergencies through the Disaster Information Reporting System (DIRS)
 - Ensuring that communications workers receive “essential personnel” credentials during emergencies
 - Working with federal agencies to improve interoperability among first responders
 - Promoting use of enhanced 911 best practices
 - Placing various new rules, such as making 911 calls more reliable and promoting the widespread availability of text-to-911

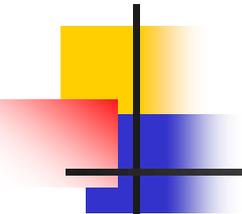


Emergency Alerts Via Broadcasting

Emergency Alert System (EAS)

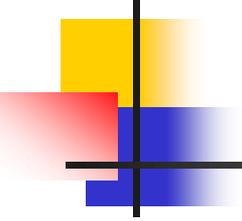
- National public warning system for broadcasting emergency alerts and information to the public
 - Designed for Presidential alerts
 - Used to deliver important emergency info such as AMBER alerts and emergency weather info targeted to a specific area
- Accessibility
 - Emergency info accessible to persons who are deaf, blind
 - Promote the delivery of EAS to as wide an audience as technically feasible, including those with a limited understanding of the English language

Emergency Alerts Via Wireless Phones



Wireless Emergency Alerts (WEA)

- Alerts delivered to mobile devices
 - Can reach public not accessible by EAS
 - Alerts can be geographically targeted
 - Push notifications used to disseminate info regarding recent NYC and NJ pressure cooker/pipe bombings
- The FCC currently proposes to adopt rules for WEA message content, delivery and testing.



FCC Operations Center

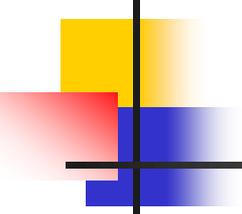
- Operations and Emergency Management Division (OEM)
- FCC's Public Safety and Homeland Security Bureau Operations Center

Natural Disasters and Terrorist Events: Lessons Learned

Hurricane Sandy (October 2012)

- Knocked out 25% of cable TV, broadband Internet, landline service and cell towers in 10 states
- The FCC activated the Disaster Information Reporting System (DIRS) to assist with situational awareness of communications.
- Stakeholder coordination efforts led to major wireless carriers voluntary framework and 5-prong approach to enhance industry coordination to facilitate networks and services:
 - (1) providing for reasonable roaming under disaster arrangements when technically feasible; (2) fostering mutual aid during emergencies;
 - (3) enhancing municipal preparedness and restoration;
 - (4) increasing consumer readiness and preparation; and
 - (5) improving public awareness and stakeholder communications on service and restoration status.

Natural Disasters and Terrorist Events: Lessons Learned



Derecho (2012)

- Disrupted 9-1-1 emergency communications for more than 2 million people
- The FCC reviewed outage reports, public comments and documents and found out there were many avoidable failures, such as a lack of functional back-up power in central offices.
- The FCC moved to require back up power in central offices, and clearer outage notifications for 9-1-1 communications. The FCC noted that NG9-1-1, which relies on Internet-protocol architecture, will have an advantage in reliability and performance.

Natural Disasters and Terrorist Events: Lessons Learned

Hurricane Katrina (August 2005)

Widespread destruction of communications facilities:

- **Three million phone lines out of service**
- **Wireline central offices, switches, and outside plant damaged or destroyed**
- **Over 1000 cell sites knocked out of service**
- **At hurricane's height, more than 25 E911 answering centers out of service**
- **Some Louisiana parishes without 911/E911 service for weeks**
- **Hurricane Katrina Panel Recommendations**



Natural Disasters and Terrorist Events: Lessons Learned

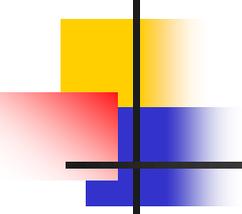
September 11 attacks (2001)

- Cell phone network of NY was overloaded
- Wireline services damaged
- Television and radio transmitters destroyed



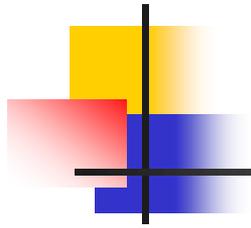
Ongoing efforts

- Since 9/11 attacks, the FCC has worked with industry on best practices that address physical security, backup power, and alternative communications strategies.
- In February, 2012, the Middle Class Tax Relief and Job Creation Act created the First Responder Network Authority (FirstNet), with the authority to build, operate and maintain the first nationwide wireless broadband network dedicated to public safety.



For More Information

- FCC Website – www.fcc.gov
- Public Safety and Homeland Security Bureau Website – www.fcc.gov/public-safety-and-homeland-security-bureau



Thank you!