



Emergency Communications

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Agenda

- Why This Presentation?
- The Big Picture on Emergency Communications
- Where Does Amateur Radio Fit?
- Local Organization Structures and Threats
- Where Do We Go From Here?
- Q & A

Why This Presentation?

- A need to level-set everyone on the topic. Many new people/turnover in both GCEC and LETARC organizations
- A need to supplement limited resources in GCEC, but not turn LETARC into another Emcomm group... still GCEC's role
- A need for more defined Emcomm requirements and procedures for those desiring to participate in Emcomm activities
- A need for some foundational education on Emcomm concepts and Amateur Radio's role
- A need for a structured way forward for both organizations

The Big Picture

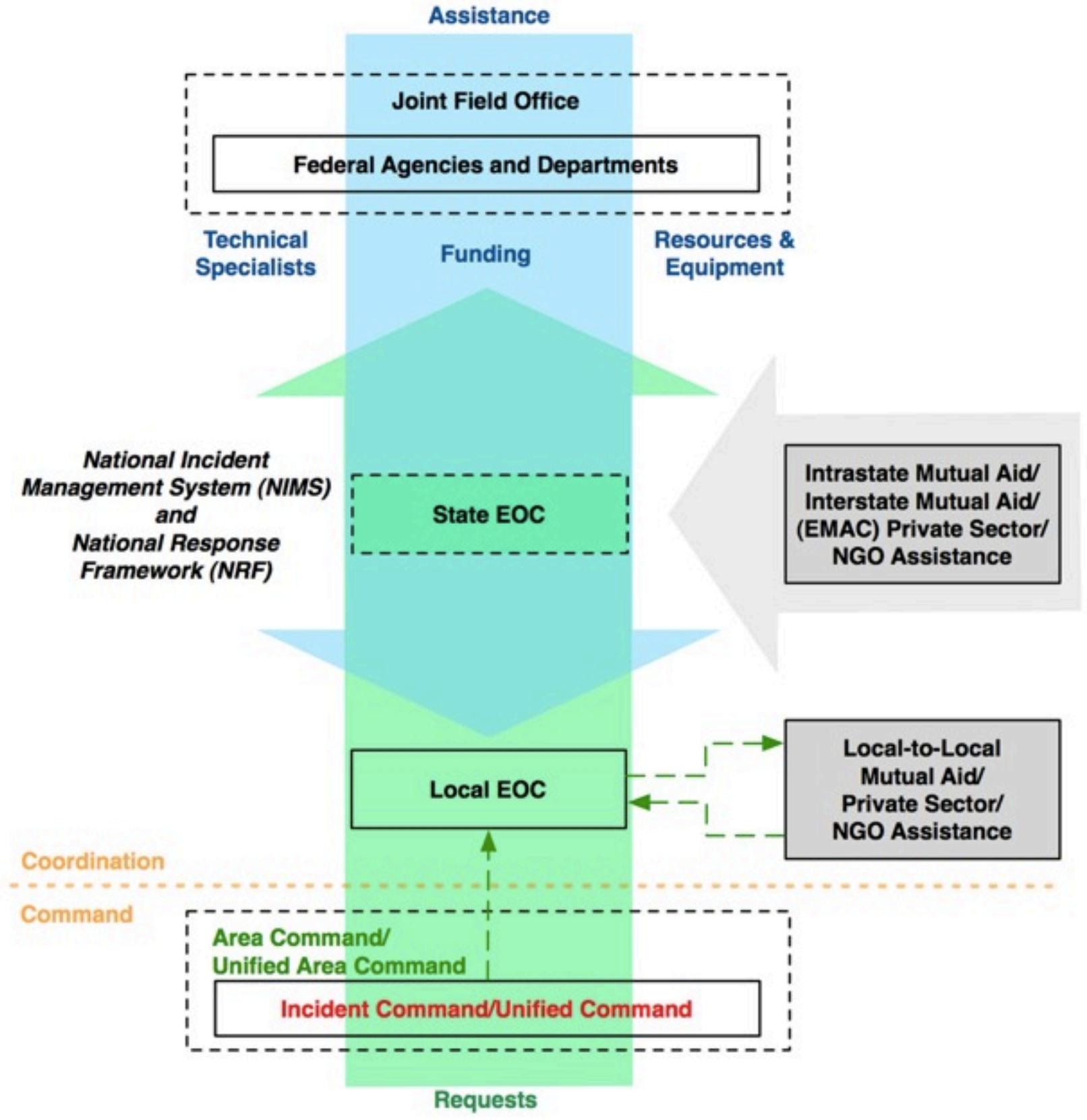
Emcomm - Past and Present

- Pre 9/11 and Katrina
 - ★ Many government agencies could not cross-communicate
 - ★ Some government units self-deployed causing more problems
 - ★ Volunteers inadequately trained
 - ★ Agencies (both public and private) unable to adequately handle crush of volunteers
- Post 9/11 and Katrina
 - ★ More government agencies can now cross-communicate
 - ★ More structured response protocols with adoption of NIMS and NRF
 - ★ Increase in training at volunteer agencies, but little or no communications background

Incident Management: NIMS and NRF

- Most failures in response are not from a lack of resource, but from a lack of proper management
- NIMS: National Incident Management System
 - ★ Originated in the 1970's from lessons learned from the California Wildfires
 - ★ One Boss: The Incident Commander
 - ★ Unified Command Across All Deployed Resources
 - ★ Structured Management System and Set of Protocols
 - ★ Utilization mandatory for all State & Local governments in order to obtain federal funding
- NRF: National Response Framework
 - ★ Defines Federal-level agency response
 - ★ Utilizes NIMS

NIMS and NRF Flow



Key Terminology

- Declared Disaster
 - ★ Usually more wide-spread and larger in scope
 - ★ Usually initiated by State Governor
 - ★ Required for Federal resources
- Non-Declared Disaster or Emergency
 - ★ Usually more localized, but can be just as serious
 - ★ Can request resources beyond local availability
- Mutual Aid
 - ★ Reciprocal agreements between parties
 - ★ Can be between governments or EMCOMM groups
- Served Agencies/Partners
 - ★ ARRL term
 - ★ Specific ARRL Memos of Understanding (MOUs)
 - ★ Examples: Red Cross, Salvation Army, CERT, CAP, others
- Local MOU - Local Memorandum of Understanding
 - ★ Documents agreed-to rules of engagement between local EMCOMM group and local served agencies

Where Does Amateur Radio Fit?

Agencies Everywhere! Where's Amateur Radio?



Emergency Communications in Amateur Radio



- Radio Amateur Civil Emergency Service
- Dates back to 1950's as part of the Civil Defense
- Specifically defined/restricted by FCC Part 97
- Overseen by FEMA



- Amateur Radio Emergency Service (ARES)
- Part of ARRL Field Organization
- Not restricted by FCC Part 97 in terms of drills



- National Traffic System (NTS)
- Part of ARRL Field Organization
- Used to pass Radiogram traffic during emergencies
- Can be utilized as extension of local EMCOMM nets



- Overseen/sponsored by National Weather Service
- Usually part of local Amateur Radio EMCOMM group
- Spotters report observations to supplement Radar
- Provide data during weather-related disasters

RACES vs. ARES



- Interacts with State or Local governments
- Activated by request of State or Local governments
- Can be a State-Level or Local organization
- Drills/Nets restricted by FCC Part 97
- RACES stations limited to RACES-authorized stations
- Follows NIMS procedures



- Interacts with government AND “served” agencies
- Activated by ARES Emergency Coordinator (EC)
- Network of Local-based organizations
- Drills/Nets not restricted by FCC Part 97
- ARES stations can communicate with any Amateur
- Follows NIMS procedures

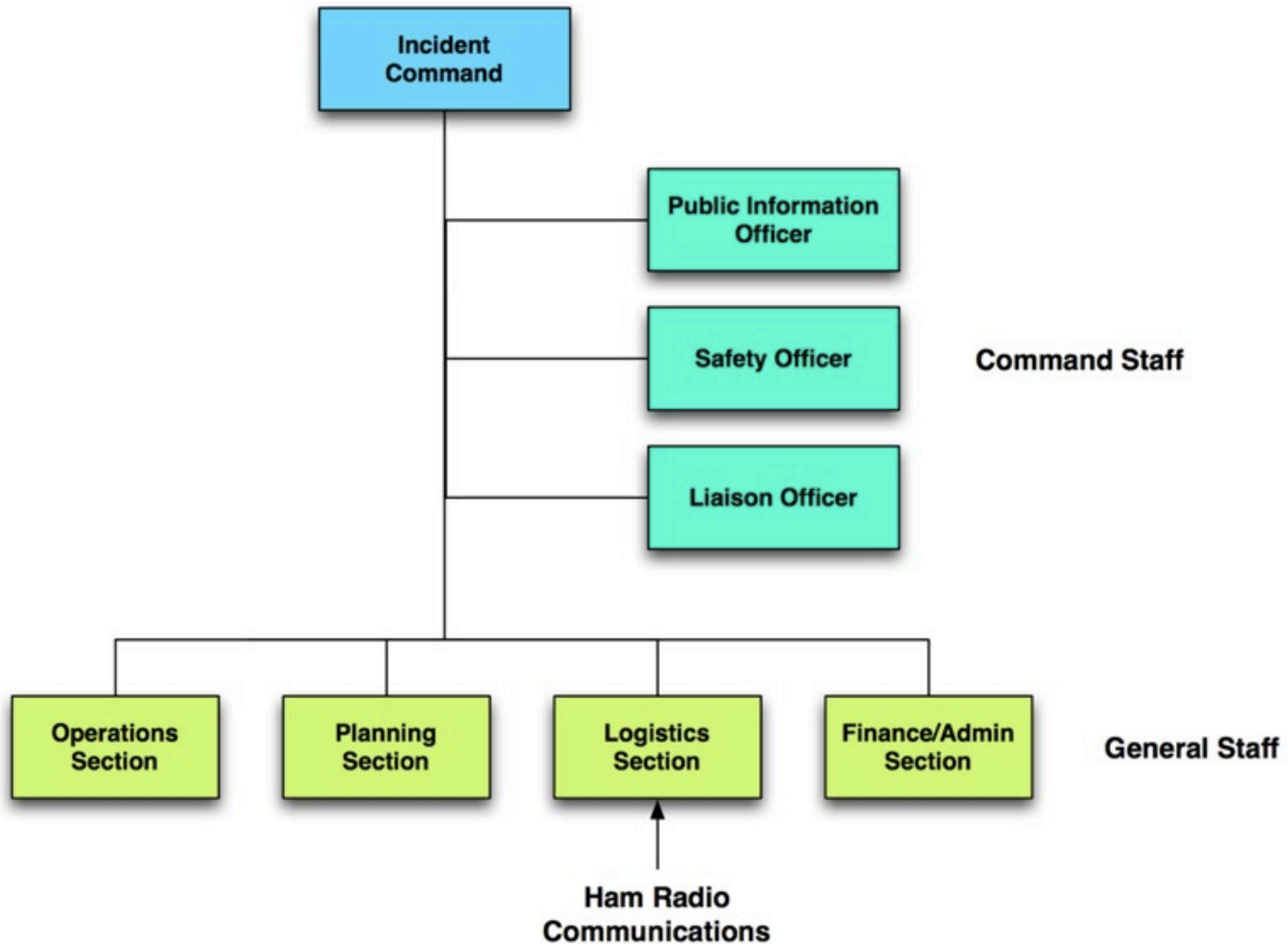


- Recommends EMCOMM groups have dual affiliation
- Usually same people used for both in most locales
- ARES can allow drills/nets when RACES cannot
- Complimentary, but mostly common practices

Primary Mission, Roles, and Placement

- Primary Mission
 - ★ Provide an alternate or supplemental communications infrastructure and message traffic handling capability utilizing local amateur radio resources, to serve government or private “served” agencies when asked to do so.
- Primary Roles
 - ★ Supplementary and/or Backup Incident Communications
 - * Available in case main incident communications fail
 - * Shadowing Key Incident Officer personnel
 - ★ Assigned to provide communications for another volunteer group, like: Red Cross, CERT, or Hospital
- Placement in ICS (Incident Command System)
 - ★ Amateur Radio resources usually report to the Communications Unit Leader under the Logistics Section Chief

Incident Command System Structure and Typical Amateur Radio Placement



Utilization: A Delicate Balance

- Key Concepts Regarding Utilization and Activation
 - ★ We are invited and requested to participate in the rodeo... we do not run or administer the rodeo
 - ★ We do not tell public or private agencies what they should or should not do regarding Emcomm operations
 - ★ We do maintain and document our preparedness
 - ★ We do make our capability known discretely through appropriate channels utilizing the
 - * Local RACES Officer or
 - * ARES County Emergency Coordinator

Local Organization Structures and Threats

Current Local/State RACES/ARES Structure



State RACES Officer (SRO)

District RACES Officer (DRO)
John Newman - N9JN

Local RACES Officer (RO)
Darrell Toland - N5REO



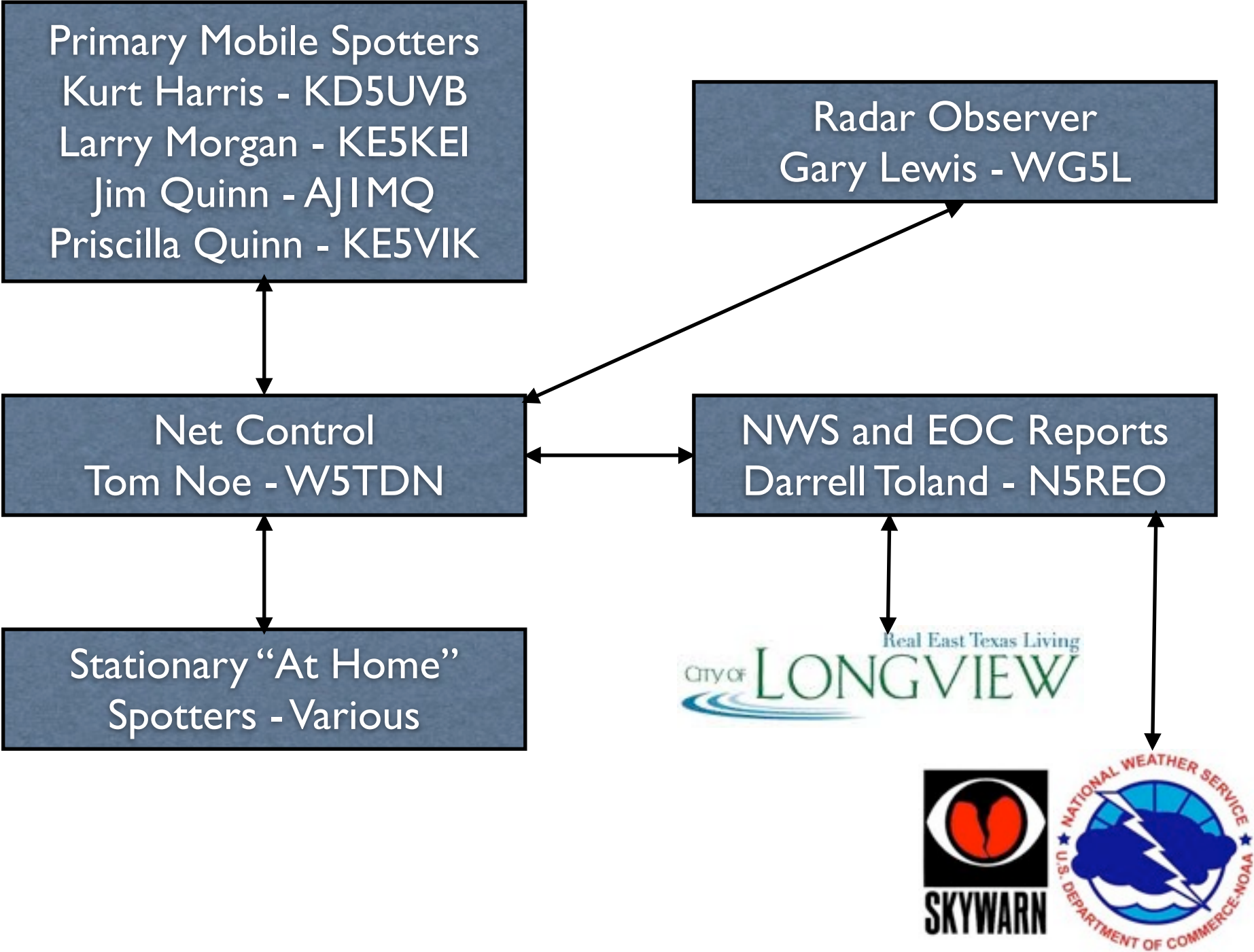
North Texas ARES Section EC (SEC)
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District 10 ARES District EC (DEC)
Gary Lewis - WG5L

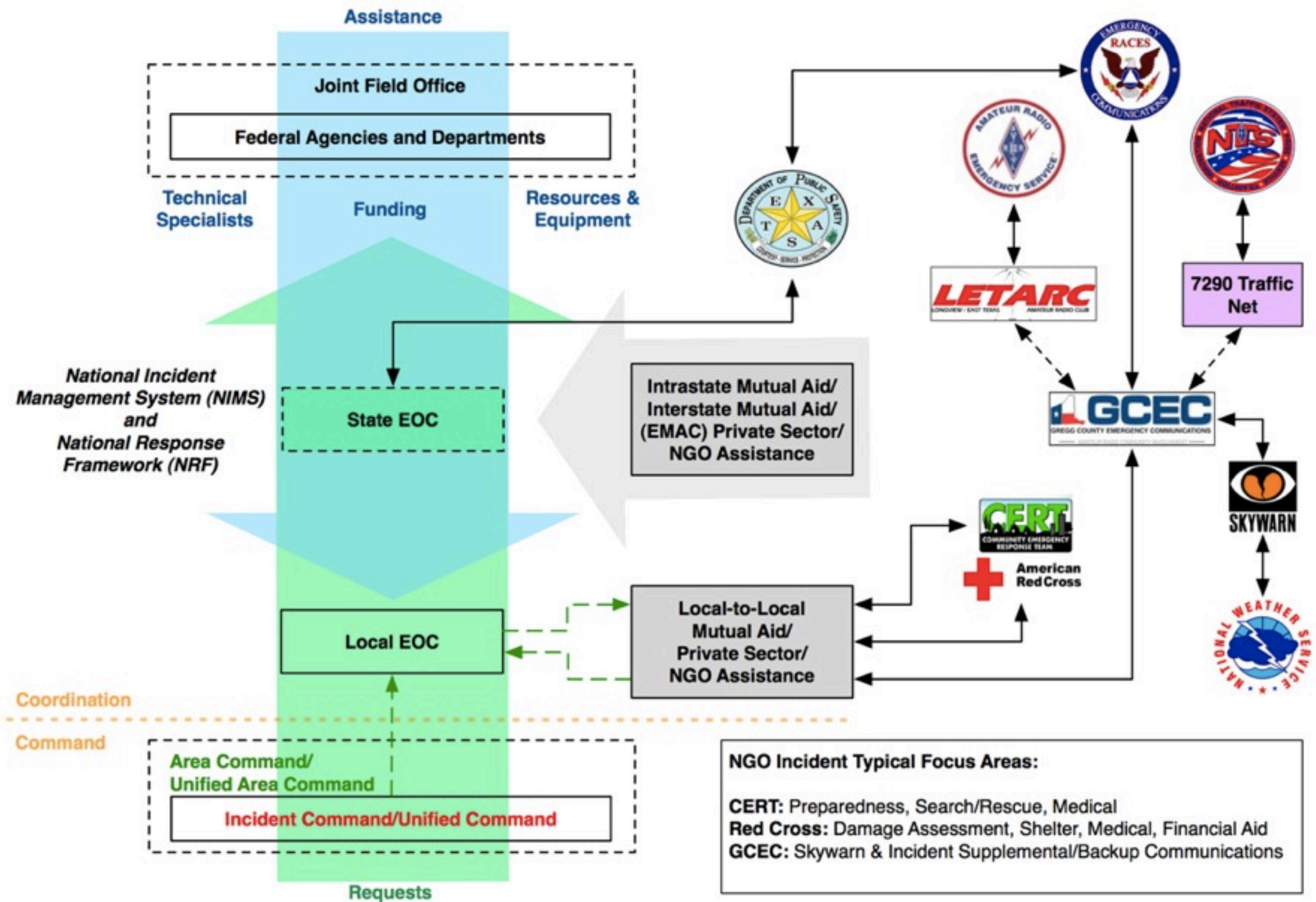
Gregg County ARES Emergency Coordinator (EC)
Gary Lewis - WG5L



Current Local Skywarn Structure



How Local Organizations Fit Into NIMS and a Declared Emergency/Disaster



Potential Gregg County Threats

- Weather-Related
 - ★ Tornadoes, Hail, Flash Floods
 - ★ Hurricane-spawned tornadoes, flash floods
 - ★ Hurricane coastal or interstate evacuations
- Hazard Material Events
 - ★ Railcar or trailer incident
 - ★ Chemical or power plant incident
- Medical-Related Events
 - ★ Epidemic
- Terrorism
 - ★ IED incident
 - ★ WMD incident

Where Do We Go From Here?

Recommendations

- Organizational
 - ★ GCEC will become dually-aligned with RACES & ARES
 - ★ GCEC to remain emergency communications and Skywarn focal point for government agencies
 - ★ LETARC will become ARES-affiliated and focus on training and providing resources for GCEC
 - ★ Form steering committee to report to both GCEC and LETARC boards and direct/review activities of other contributors for procedures/activities artifacts
- Procedures and Activities
 - ★ Develop framework and local operational documentation for RACES, ARES, and Skywarn
 - ★ Develop and execute activities/drills to exercise flexible infrastructure in various scenarios
 - ★ Develop relationships/scenarios with served agencies and neighboring counties, as needed

Steering Committee and Projects



Boards of Directors

Steering Committee

Gary Lewis - WG5L
Jim Quinn - AJIMQ
Priscilla Quinn - KE5VIK

Defines Framework
Defines Projects & Requirements
Recruits Project Participants

Reviews/Approves Project Artifacts
Incorporates Artifacts into Framework
Publishes Framework Contents

Project 1
Participants

Project 2
Participants

Project ...N
Participants

Initial Starter Framework and Basis for Projects

- Common Elements
 - ★ Registration and Skill/Capability Inventory
 - ★ Training Requirements
 - ★ Area Infrastructure Operations
- Skywarn
 - ★ Response procedures
 - ★ Net, radar, and spotter operations
- ARES/RACES
 - ★ Activation/Deactivation
 - ★ Simplex and Crossband Repeat Local Zoning
 - ★ APRS and EchoLink Messaging Operations Strategy
 - ★ Local net operations and traffic handling procedures
 - ★ Operational Integration with 7290 net
 - ★ Local MOUs and operational scenarios with local served agencies

Example: Training and Operational Requirements

- Skywarn Spotters
 - ★ Basic and Advanced Skywarn Spotter Classes
 - ★ Classes at least every two years
 - ★ Pass SpotterNetwork Exam
 - ★ New mobile spotters ride with experienced spotters for at least one season
 - ★ Mobile spotters equipped with APRS and/or GPS enabled-phone for SpotterNetwork for Radar overlay
- RACES and ARES Participants
 - ★ FEMA Self-Study IS-100b and IS-700 and pass exams
 - ★ ARRL EC-001 - Introduction to EMCOMM within one year
 - ★ Minimum of dual-band VHF/UHF handheld and/or mobile radio
 - ★ Complete background checks that may be required by government or served agencies



We Need Your Participation
for this to Work!



Please Volunteer Your Expertise and Time
When the Steering Committee Calls

Q & A