Cupertino Amateur Radio Emergency Service

Topic: Operating Changes & PSA Message Handling
Speaker: Jim Oberhofer KN6PE, EC Cupertino ARES
Date: Thursday, 06-January-2005, 19:30
Event: Cupertino ARES meeting, Orientation Training

Operating Changes & PSA Message Handling

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Overview of Operations

Operations Phase	Description
Preparedness	CARES members will spend the bulk of their time and is characterized as a period when no emergency situation exists or none is imminent.
Increased readiness	On receiving a warning, or observing that an emergency situation is imminent, or at the request of the City, the CARES can increase its readiness.
Initial Response	CARES is activated by a local declaration of an emergency, or in the event of a self-announcing natural disaster. Usually characterized as the 1st 8 hours of an event. Initial response will be from the field.
Extended Response	Event will run for an extended time, multiple operational periods. Extended resource and staffing plans are developed.
Recovery	As the immediate threat to life, property, and the environment subsides and standard comm systems are brought back on line, CARES may be deactivated in part or in its entirety.

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Overview of Operations

Initial Response Operations – Overview (SOP 5.1.3)

Initial Response Ops – Objectives

- CARES is formally activated.
- The City EOC management team receives a preliminary safety assessment.
- The Communications Action Plan is developed and approved.

Activities

- CARES members are notified of the emergency
- Cupertino Emergency Net is activated
- Check into the Cupertino Emergency Net; pass traffic when requested
- Individual responders determine their availability to take field assignments
- Report preliminary damage or casualty assessments from your immediate area

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Overview of Operations
Conclusions from the 13-Nov-04 S.E.T.

- What information does the EOC need?

- How do we manage the net prior to the EOC coming on-line?

- How does CERT, MRC, and the rest of the community find us?

- How do we handle CERT, MRC, and other walk-in traffic?
  - Collecting
  - Sorting
  - Prioritizing
  - Organizing
  - Transmitting

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EOC Operations
Information Management

What we can expect from the Community…

- Requests for assistance will be greater than the City's ability to respond
- Everyone's individual problem will be perceived as their most critical
- We will encounter a range of emotions including: stress, anxiety, anger

What we can expect from the EOC…

- Initial EOC activities will be focused on getting set up, staffed, and developing a situation assessment
- EOC will develop action plans for each operational period…
  - What do they need to know?
  - What needs to get done?
  - What resources do they have or need?
- The focus will be on providing the most good for the most people

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EOC Operations
Information Management

Plan…

1. Marsha to work with County Fire, Cupertino Disaster Council to define information requirements

2. CARES, CERT, MRC to integrate requirements into their respective operations plans and drills
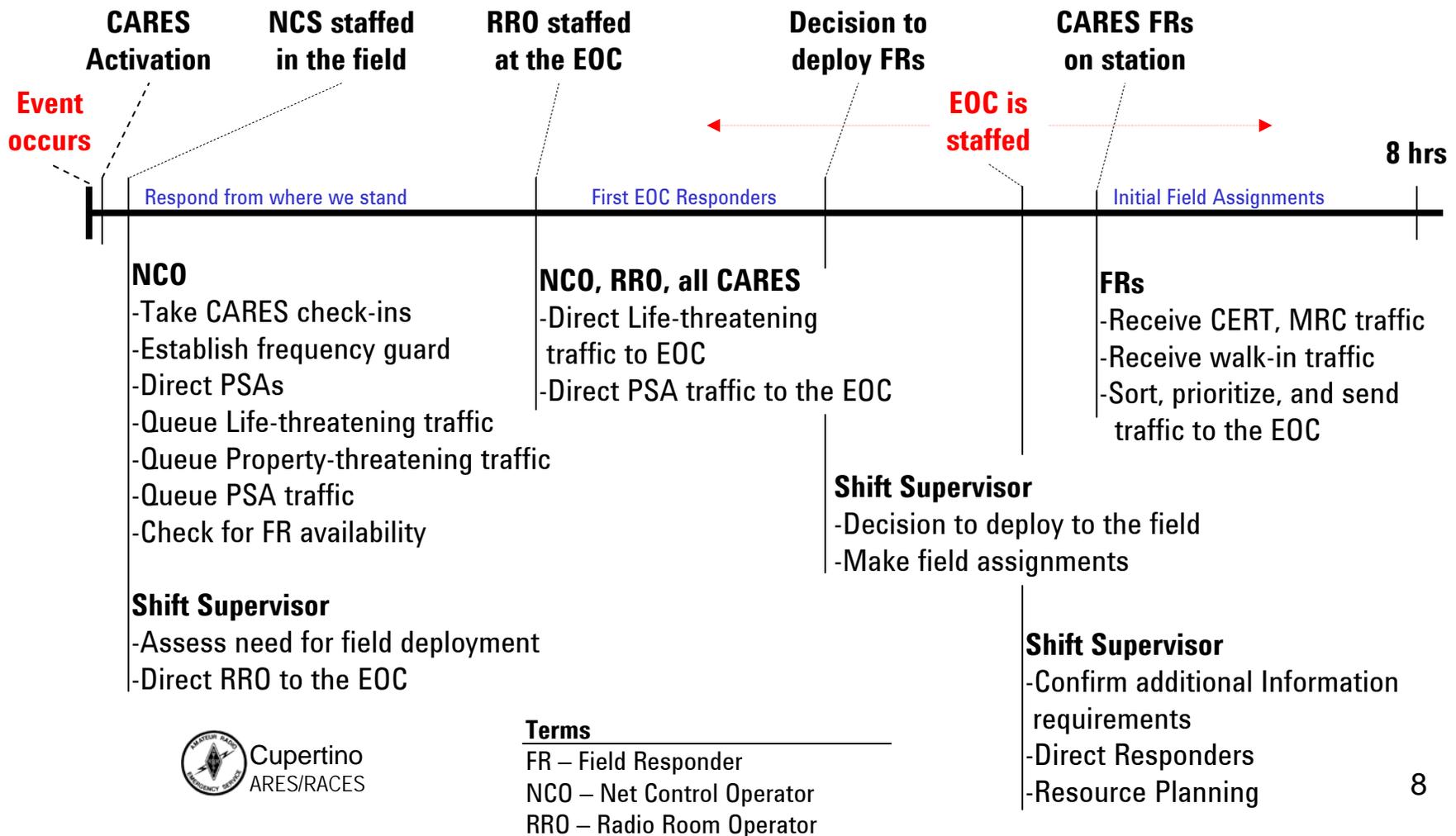
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Message Handling
Refining Initial Response Operations – Self-Evident Event Scenario

CARES Activation

NCS staffed in the field

RRO staffed at the EOC

Decision to deploy FRs

CARES FRs on station

Event occurs

EOC is staffed

8 hrs

Respond from where we stand

First EOC Responders

Initial Field Assignments

NCO
-Take CARES check-ins
-Establish frequency guard
-Direct PSAs
-Queue Life-threatening traffic
-Queue Property-threatening traffic
-Queue PSA traffic
-Check for FR availability

Shift Supervisor
-Assess need for field deployment
-Direct RRO to the EOC

NCO, RRO, all CARES
-Direct Life-threatening traffic to EOC
-Direct PSA traffic to the EOC

Shift Supervisor
-Decision to deploy to the field
-Make field assignments

FRs
-Receive CERT, MRC traffic
-Receive walk-in traffic
-Sort, prioritize, and send traffic to the EOC

Shift Supervisor
-Confirm additional Information requirements
-Direct Responders
-Resource Planning

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Terms
FR – Field Responder
NCO – Net Control Operator
RRO – Radio Room Operator

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Message Handling
1. Activation Authorization

- "During self-announcing natural disasters, CARES members may self-dispatch and commence windshield surveys to provide situation status and preliminary damage assessments provided it is safe to do so.

- "CARES members may also respond to Mutual Aid requests and may become part of the Santa Clara County Operational Area ARES/RACES team.

- "For all other events (natural and man-made), requests for DSWs will be announced via telephone, courier, radio, and television.

- "Volunteers will not respond to any act of terrorism unless specifically requested by the EOC or their City contact person."

-- Emergency Operations Plan, Part I, Section XI, City of Cupertino

Message Handling

2. Queueing up the traffic

Cupertino Amateur Radio Emergency Service
PART 6 Forms

Standard Operating Procedures

0200F NCS LOG		1. INCIDENT NAME SET			2. DATE 11/13/04	
(3) Msg ID	(4) Priority	(5) Time in	(6) Originating Station	(7) Receiving Station	(8) Time Ack
01	E	9 40	k66 PHO	EOC	
02	U	10:10	k66 PHO	EOC	
03	U	10:11	"	EOC	
04	U	10:13	K6 ODK	EOC	
05	U	10:35	K6 TWF	EOC	
06	U	10:27	K6 ODK	EOC	
07	E	10:32	K6 TWF	EOC	
08	E	10:36	W2 KDX	EOC	
09	E	10:45	kc6 PJJ	EOC	
10	E	10:47	SZD	EO	
11	E	10:48	W2 KDX	EOC	
12	E	10.50	W6 TWF	EOC	
13	E	10:5	K6 FUZ	EOC	
14	E	10.56	K6 TWF	EOC	
15	E	10:58	W2 KDX	EOC	
16	E	11:03	K66 QST	EOC	
17	E	11:08	K6 TWF	EOC	

Message Handling
Initial Response Operations – From where we stand

NCO
- Check-ins
- Establish frequency guard
- Direct PSAs
- Queue Life-threatening traffic
- Queue Property-threatening traffic
- Queue PSA Traffic
- Check for FR availability

Shift Supervisor
- Assess need for field deployment
- Direct RRO to the EOC

EOC
Radio Room

County
ARES/
RACES
NCO

EC-CARES

NCO

CARES members

(1) Check-ins, Availability
(2) Initiate PDAs
(3) Results; has Life/Property Threatening Traffic

(2) Initiate PDAs

CARES members

General Traffic

General Traffic

CARES members
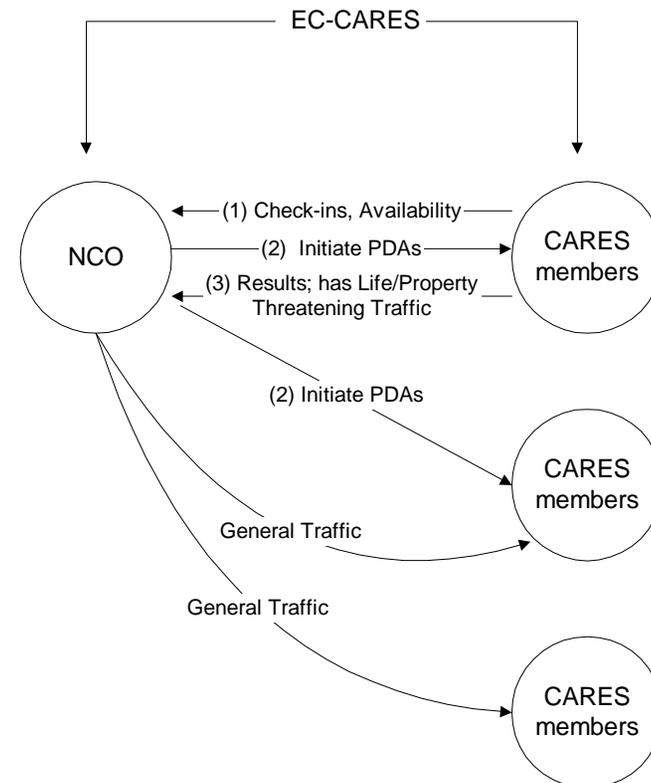
Message Handling

Initial Response Operations
– First EOC Responders, Initial Field Assignments
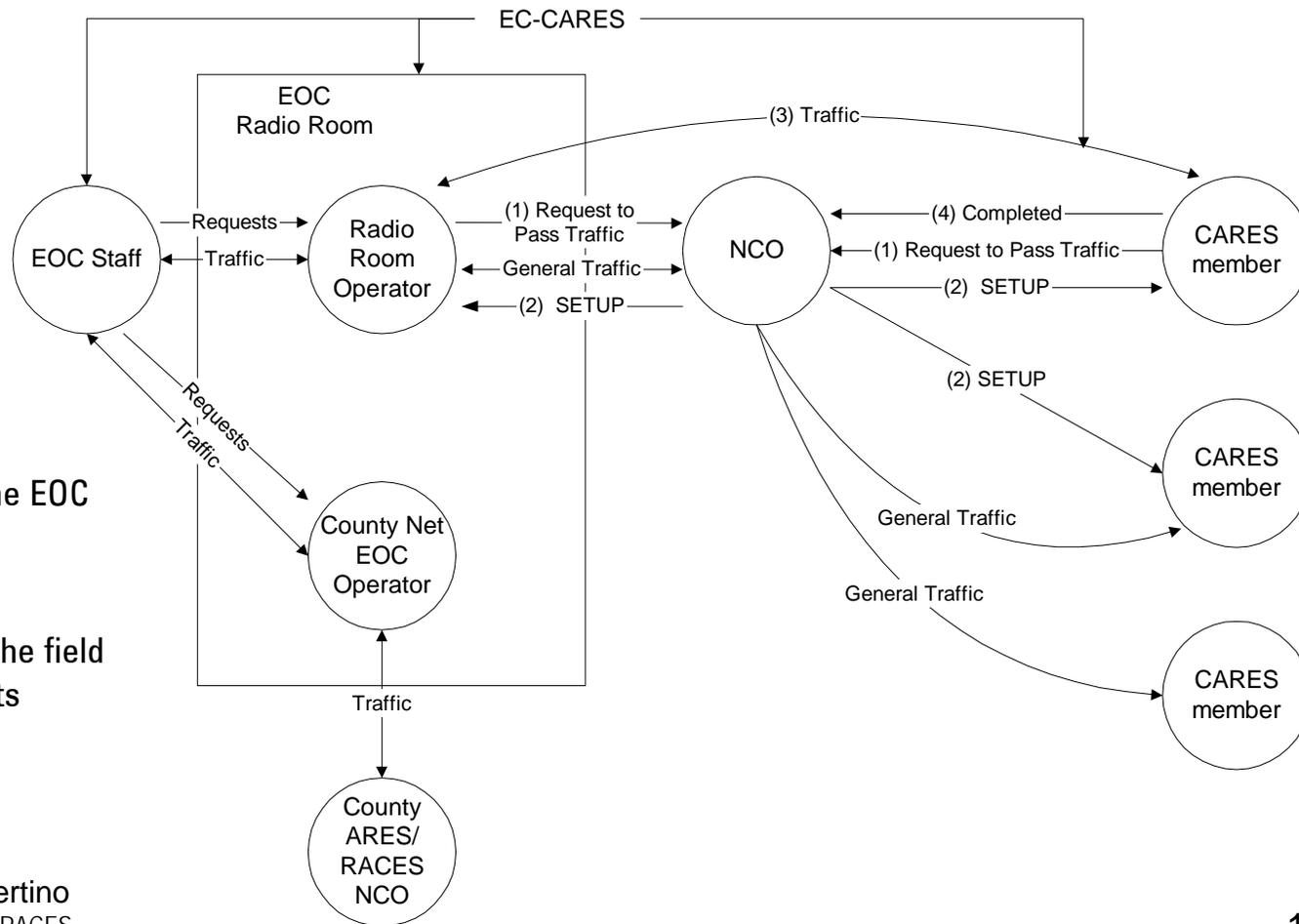
NCO, RRO, all CARES
-Direct Life-threatening
 traffic to EOC
-Direct PSA traffic to the EOC

Shift Supervisor
-Decision to deploy to the field
-Make field assignments

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Message Handling
Initial Response Operations – High Traffic Volume
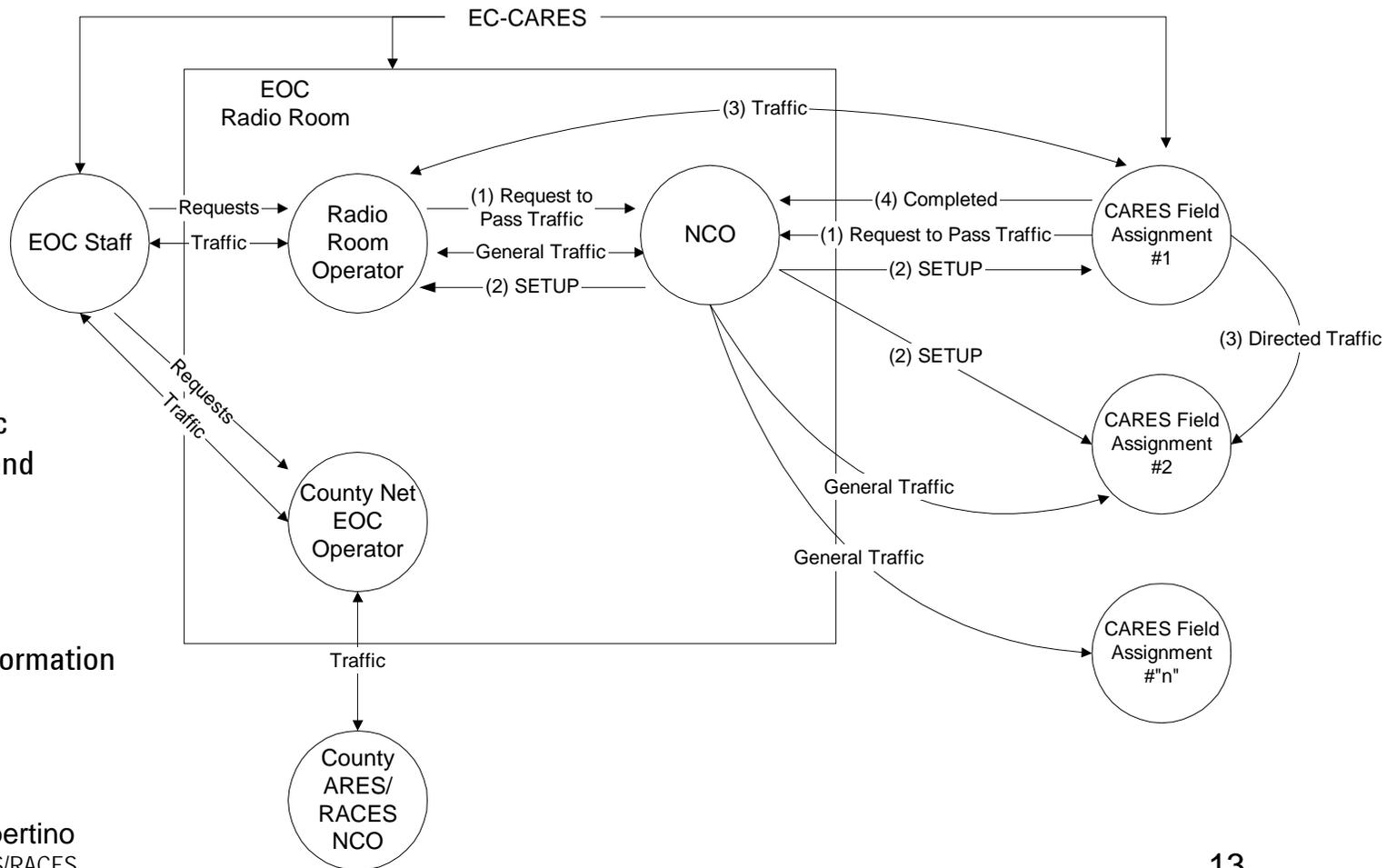
Field Responders
- Receive CERT traffic
- Receive walk-in traffic
- Sort, prioritize, and send traffic to the EOC

Shift Supervisor
- Confirm additional Information requirements
- Direct Responders
- Resource Planning

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Message Handling
Extended Response Operations – Low Traffic Volume
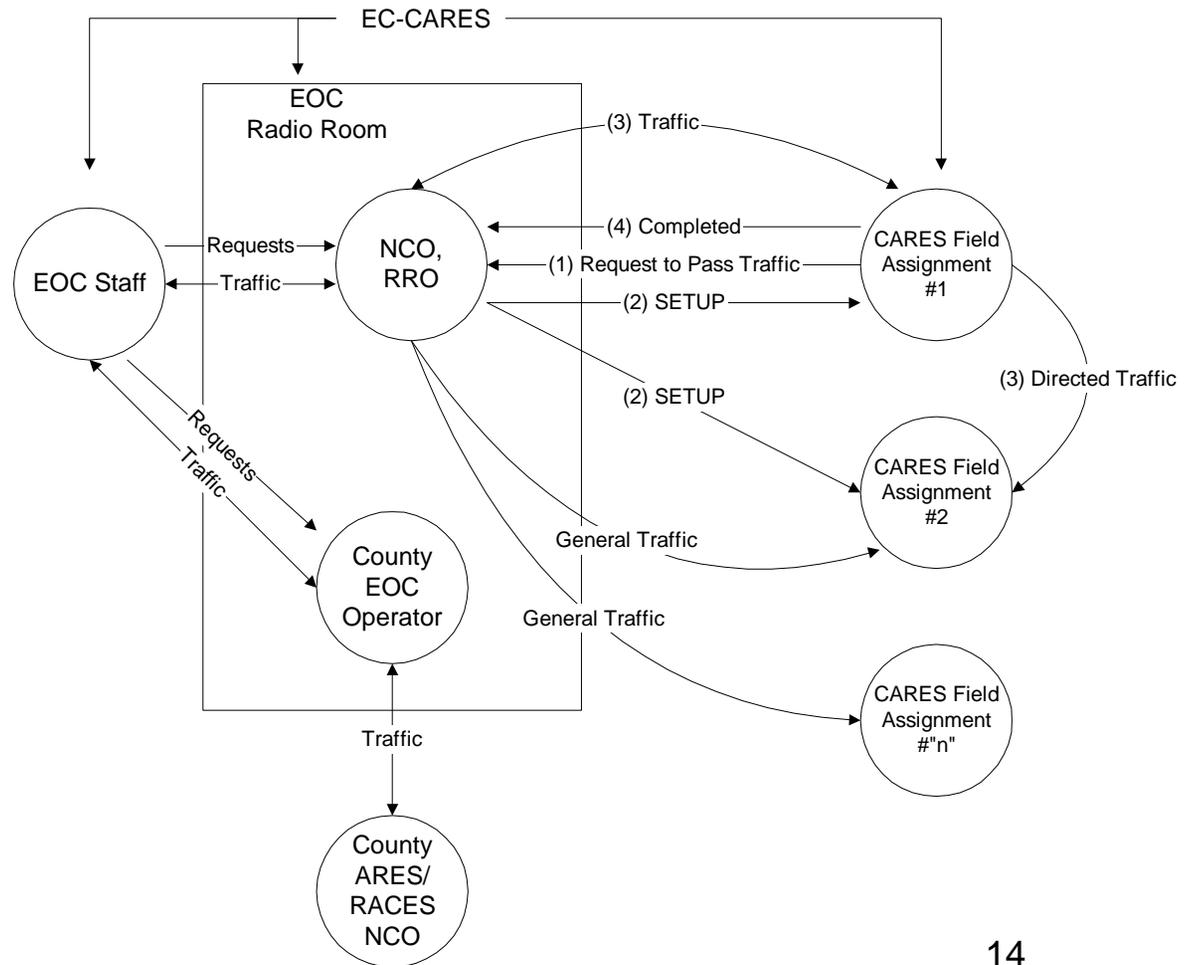
Shift Supervisor, RRO, FRs
- Maintain staffing levels
- Respond to new requests from EOC, Served Agencies
- Pass traffic as required
- Health & Welfare checks with field responders

EC-CARES

EOC Radio Room

NCO, RRO

EOC Staff
- Requests
- Traffic

(3) Traffic
(4) Completed
(1) Request to Pass Traffic
(2) SETUP

CARES Field Assignment #1

(3) Directed Traffic

(2) SETUP

CARES Field Assignment #2

General Traffic

General Traffic

CARES Field Assignment #"n"

Requests
Traffic

County EOC Operator

Traffic

County ARES/ RACES NCO

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    - Collecting
    - Sorting
    - Prioritizing
    - Organizing
    - Transmitting

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Field Responder Locations
Initial CARES and CERT Convergence Locations

Purpose
- Support city-wide data collection from CERT, MRC, community walk-ups
- Identify specific locations known by all Cupertino volunteers

ARK Locations
- Valco Shopping Center, behind JCPenny
- Hyde Junior High School
- Garden Gate Elementary School
- Business Location (PENDING – NW corner Bubb and McClellan)

Other Locations
- Seven Springs Fire Station
- Monta Vista Fire Station

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Monta Vista Planning Area

Commercial "Store Front"/Residential/Industrial
Light Industrial/Residential
Neighborhood Commercial / Residential
Neighborhood Comm. / Residential / Quasi-Public
Residential 0-4.4 DU/Gr Ac
Residential 4.4-7.7 DU/Gr Ac
Residential 4.4-12 DU/Gr Ac
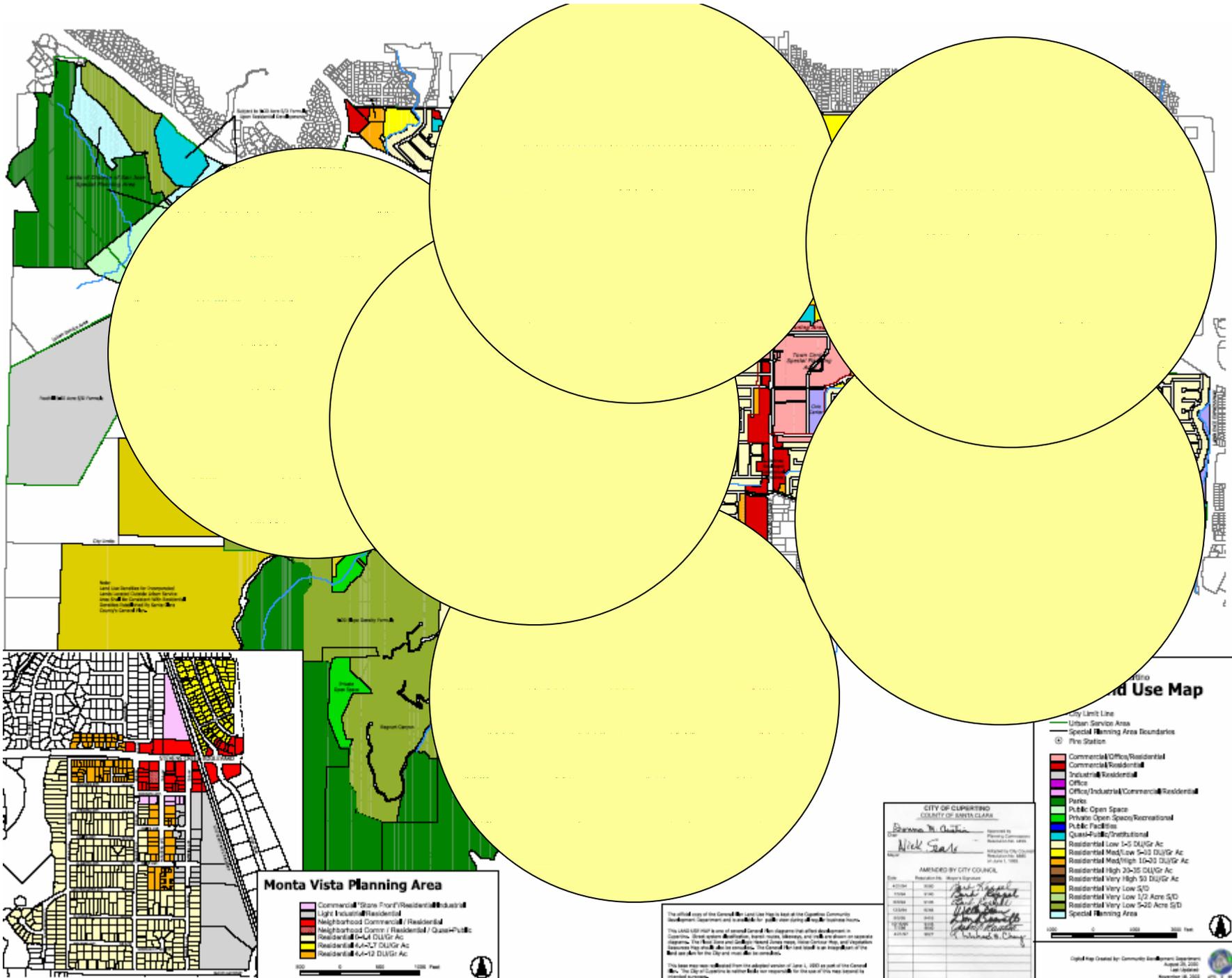
...d Use Map

City Limit Line
Urban Service Area
Special Planning Area Boundaries
Fire Station

Commercial/Office/Residential
Commercial/Residential
Industrial/Residential
Office
Office/Industrial/Commercial/Residential
Parks
Public Open Space
Private Open Space/Recreational
Public Facilities
Quasi-Public/Institutional
Residential Low 1-5 DU/Gr Ac
Residential Med/Low 5-10 DU/Gr Ac
Residential Med/High 10-20 DU/Gr Ac
Residential High 20-35 DU/Gr Ac
Residential Very High 50 DU/Gr Ac
Residential Very Low S/D
Residential Very Low 1/2 Acre S/D
Residential Very Low 5-20 Acre S/D
Special Planning Area

CITY OF CUPERTINO
COUNTY OF SANTA CLARA

AMENDED BY CITY COUNCIL

Field Responder Locations

Extended Response Operations, other CARES Locations

Purpose

- Support specific requirements of Served Agencies

Resources may be re-deployed as the needs change

- Quinlan Center Shelter
- NovaCare Medical Center
- Cupertino Fire Station
- Seven Springs Fire Station
- Monta Vista Fire Station
- Cupertino Sanitary District
- Various Rover Assignments

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Data Collection

CARES Preliminary Safety Assessment Form

Purpose of the Form
- Preliminary Safety Assessment
- Supports the initial information roll-up for the EOC

Approach
- One report submitted by each member
- Aligns with the CERT terminology
- Covers…
  - Medical
  - Structure
  - Hazards, and
  - Access

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Cupertino Amateur Radio Emergency Service
PART 6 Forms

Standard Operating Procedures

Preliminary Safety Assessment Form – Field

Assessment Date/time:
Performed by:

Neighborhood/Street:
Map Coordinates:
Number of Units Surveyed:

Ref	Category	Subcategory	Count	Notes
1.1	Injuries, Minor	Able to walk away from the incident		
1.2	Injuries, Delayed	Regular breathing, and Capillary refill <2 sec, and Answers questions, responds to commands		
1.3	Injuries, Immediate	Rapid Breathing >30/min, or capillary refill >2 sec, or Confused, disoriented		
1.4	Injuries, Presumed Dead	Unconscious, no respiration		
2.1	Structure, Light Damage	• Superficial Damage • Broken Windows • Cracked or fallen plaster • Main damage is to contents		
2.2	Structure, Moderate Damage	• Large amount of cracking on exterior • Small cracks around doors and foundations • No outward sign of structural damage		
2.3	Structure, Heavy Damage	• Partial or full collapse • Building is off foundation • Structural damage to the building		
3.1	Hazards	Fire, Any situation		
3.2	Hazards	Gas Leaks		
3.3	Hazards	Sewer Leaks		
3.4	Hazards	Water Main Breaks		
3.5	Hazards	Electrical Power, Lines Down. Power in the neighborhood?		
4.1	Access	Roads blocked Other Obstructions		

Rev 3.2 8/2/2003

Data Collection
Cupertino City Scan Form (Draft)

Purpose of the Form
- Used by CERT members for damage and injury reporting

Approach
- Piloted during the 13-Nov-04 S.E.T.
- Covers…
  - Medical
  - Structure
  - Hazards

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Cupertino City Scan (Draft)

Street name(s) and addresses surveyed

Is the power out?	Do you have water pressure?

Walk down the street and identify as much information as possible:

Number of Immediate Injuries

Addresses of collapsed buildings

Addresses of fires

Addresses of Hazards (Gas, electrical, sewer)

Do you have anyone who can volunteer outside the neighborhood?
_____CERT
_____Ham Radio
_____Translator
_____Other skill

* List any special needs on the back

Reported by_____

Address_____ Date/Time_____

Cupertino Fire   Stevens Creek / Vista
Monta Vista Fire Stevens Creek / Foothill
Seven Springs Fire Stelling / Seven Springs Pkwy
City Hall Torre Ave / Rodrigues

Data Collection

Plan to align, converge

Plan

- Develop a common understanding of data collection requirements
- Develop and converge on a common set of data collection tools (forms), i.e.:
  - Summary data collection (for CARES/CERT)
  - Individual data collection (from walk-ins)
- Need alignment of expectations with organized neighborhoods
- Incorporate into existing training plans

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Preliminary Safety Assessment
What is it?

Situation

- The Cupertino EOC needs a rapid assessment of the state of the city so that response resources can be assigned to have the maximum impact.

- During city-wide disasters, regular communications channels may be disrupted, leaving EOC decision-makers with little information to go on.

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Preliminary Safety Assessment
What is it?

Response

- CARES is chartered to provide Preliminary Safety Assessment information when a disaster occurs.

Definition

- A Preliminary Safety Assessment report occurs early during an emergency. While information will be fragmented and incomplete, it will provide the City with a a preliminary assessment of the damage so the EOC can determine the type of response that must be made to save lives and protect property.

- Early damage assessment reports should not be delayed by getting mired in detail in an effort to obtain more extensive Damage Assessment information.

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Preliminary Safety Assessment
When do we use it?

Self-evident Events

- Earthquakes… These events have the potential significant damage throughout the Bay Area.

Non-evident Events

- Flooding… May be localized to a specific area
- Man-made disasters…
- Others?

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The PSA Process
1. Once the shaking stops…

Take care of yourself…

… your family…

- Determine the condition of your family; apply first aid if necessary.
- Determine the structural soundness of your home; evacuate if necessary.

… your neighborhood…

- Perform the Preliminary Safety Assessment…
  - What you do depends on your situation.
  - Do not put your personal safety at risk.
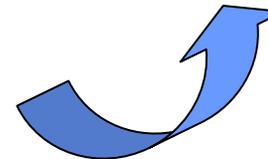 - Do not exceed your physical ability to perform the assessment.

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The PSA Process
2. Collecting the data…

Collect information on…

- **Injuries**
- **Structure damage**
- **Hazards**
- **Access**
- **Number of houses surveyed**

Using…

- **Preliminary Safety Assessment Form**

Assessment Date/Time:			Neighborhood/Street:	
Performed by:			Map Coordinates:	
			Number Units Surveyed:	

Ref	Category	Subcategory	Count	Comments, Locations, Details
1.1	Injuries, Minor	Able to walk away from the incident		
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2.3	Structure, Heavy Damage	- Partial or full collapse - Building is off foundation - Structural damage to the building		
3.1	Hazards	Fire: Any fire situation		
3.2	Hazards	Gas Leaks		
3.3	Hazards	Sewer Leaks		
3.4	Hazards	Water main breaks		
3.5	Hazards	Electrical Power; Lines down Power in neighborhood?		
4.1	Access	Roads Blocked Other Obstructions		

	Assessment Date/Time:		Neighborhood/Street:
	Performed by:		Map Coordinates:
			Number Units Surveyed:

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The PSA Process
3. Check into the Net

- Turn on your radio and listen.

- If you are the first person on the frequency and have the capability to perform as an NCS Operator, establish the CARES Emergency Net.

- Check in to the net when check-ins are requested.

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The PSA Process
4. Prepare your Message

- *Message ID* -- Assigned by the NCS Operator

- **Precedence** -- determines the urgency of the message (Life-Threatening, Property-Threatening, Priority, Routine)

- **Destination** -- If omitted, deliver to EOC Planning or Ops Section

- **Date/Time** -- Time the message was created. If omitted, receiving station enters the Date/Time the message was received.

- **Subject** -- Short Title

- **The Message** -- Description of the situation. Includes:

   » **Report Status** -- (initial, follow-up, final, correction)
   » **Location** -- Include the neighborhood or street name; Include major cross-street

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Message Handling
4a. Precedence (Urgency)

- **Life-threatening:** Situations, reports, and updates that might directly result in deploying or prioritizing resources for an incident involving life-saving efforts. When in doubt, **DO NOT** use this designation.

- **Property threatening:** Situations and reports of new threats, revised flood projections, wind direction changes in a major fire, and reports of additional damage from an earthquake aftershock suggesting additional rescue efforts or surveillance.

- *Priority* -- Includes information such as damage reports, correspondence between agency representatives, material and logistics messages, etc.

- *Routine* -- Includes all other information such as welfare inquiries, routine resource requests, shift planning, requests for relief, etc.

Message Handling
4b. Precedence (Urgency)

Handling Mixed Urgency Messages

- If you have a mix of different message priorities, deliver the specific message priority (Life-Threatening and Property-Threatening) when called.

- Deliver the balance of the report (PRIORITY and ROUTINE) when called.

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Message Handling
Preliminary Safety Assessment Drill

- When: Saturday, 5-Feb, 9:00am to 11:00am

- Where: Operate from your home location

- Who: All CARES members, one NCS, one SS

- What:
  1. Pick 4 messages that you think would be typical of your neighborhood.

- How:
  1. Net is called at 9:00a, take check-ins
  2. Simulate going through the assessment process; Use the PSA data collection form.
  3. Over the next hour, CARES members send messages to EOC based on the precedence
  4. On-air critique at about 10:45am
  5. Secure the net by 11:00am

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Message Handling
Report Status

- ***Initial*** -- This is the first message you send when making a situation report. If you have **EMERGENCY** traffic, then pass this traffic as your first message. If you only have PRIORITY traffic, wait for all **EMERGENCY** traffic to be passed.

- ***Follow-up*** -- This is the second and subsequent messages you send. Pass your PRIORITY traffic when NCS calls for it. Reference the Message ID assigned to your *Initial* message.

- ***Final*** -- Let NCS know this is your final message because you are going off-line, being relieved, etc.

- ***Correction*** -- Use this status when you are amending a previously sent message. Reference the original by *Report ID.*

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Message Handling
Who does what?

Sending Station

- Creates the message with minimally the (i) Message number, (ii) Precedence, (iii) Subject, and (iv) Text.
- Delivers the message slowly, with breaks.

Receiving Station

- Records the message as sent.
- Acknowledges receipt of the message. May ask for fills or repeats.
- Keeps related messages together.
- Routes the message as directed.

NCS Operator

- Acknowledges stations with traffic and prioritizes by precedence.
- Ensures both sending and receiving station are ready to exchange traffic.
- Assigns the Message ID.

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Message Handling
Sending an Emergency Report

KN6PE: "Net Control, this is KN6PE with EMERGENCY Traffic for EOC"

NCS: *KN6PE, acknowledged. EOC, are you ready to copy traffic?*

EOC: "EOC is ready"

NCS: *KN6PE, your message ID is CD-29. Send your traffic to the EOC.*

KN6PE: "EOC, This is Message CD-29.
    Subject is: House Fire.
    Messages is: House fire at 12345 Woodhill Court. Cross-street
    is Prospect and Stelling. Break."

EOC: "OK, Continue (with the message)"

KN6PE: "One person is trapped inside. Area water pressure
    appears to be low. End of Message. This is KN6PE"

EOC: "Acknowledged. This is W9BJX, EOC, back to net."

NCS: *Other stations with emergency traffic, please identify now.*

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Message Handling
Sending an <u>initial</u> Situation Report

KN6PE: "Net Control, this is KN6PE with Priority Traffic for the EOC"

NCS: *KN6PE, acknowledged. EOC, are you ready to copy traffic?*

EOC: "EOC is ready"

NCS: *KN6PE, your message ID is CD-30. Send your traffic to the EOC.*

KN6PE: "EOC, This is Message CD-30.
   Subject is: Initial Preliminary Damage Assessment Report.
   Location is: Pinebrook Neighborhood.
   Message is: No Injuries. 6 houses with Light Damage. 1 house
   with Heavy Damage. Power is out in the neighborhood.   Break."

EOC: "OK, Continue (with the message)"

KN6PE: "Road the East end of Pinebrook Court. 45 houses surveyed. End
    of Message. This is KN6PE"

EOC: "Acknowledged. This is W9BJX, EOC, back to net."

NCS: *Other stations with priority traffic, please identify now.*

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Message Handling
Guidelines

As the Sender…

- During an emergency, say as little as possible, yet convey all of the meaning

- Send as fast as you can write it

- Insert Breaks to confirm the message is getting through

As the Receiver...

- Its OK to ask for a "repeat" if you miss any part of a message

- Its OK to ask the sender to slow down

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