
Cupertino Amateur Radio Emergency Service

Topic: Infrastructure Safety Assessment, Part 1

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Event: Cupertino ARES meeting, Orientation Training

Infrastructure Safety Assessment



Background

- Public safety agencies will be overwhelmed during the initial stages of a response
- Stabilizing the situation is critical to supporting the recovery effort
- Understanding the extent of the problem is critical to help direct efforts to stabilize the situation, then speed the recovery
- CARES current response priorities are the Preliminary Safety Assessment, and supporting the Cupertino OES with field-based emergency communications support

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 1 st 8 hours of an event. Initial response will occur from the field.
Extended Response	Event will run for an extended time with multiple operational periods. Extended resource and staffing plans are developed.
Recovery  Cupertino ARES/RACES	As the immediate threat to life, property, and the environment subsides and standard communication systems are brought back on line, CARES may be deactivated in part or in its entirety.

The City's response priorities

Preliminary

- Address immediate Life Safety problems
- Assess the integrity and stabilize Cupertino's critical infrastructure (*initial list*)
 - Water
 - Access
 - Sanitary
- Perform Search and rescue; health and welfare, establish shelters
- Execute recovery operations

Initial Response Assignments

Preliminary

City Staff	<ul style="list-style-type: none">• Inspect City facilities
County Fire	<ul style="list-style-type: none">• Fire suppression• Search and Rescue
County Sheriff	<ul style="list-style-type: none">• Public Safety• Law and Order
CERT, MRC	<ul style="list-style-type: none">• CERT operations (SAR, medical, care and shelter, etc.) and support for:<ul style="list-style-type: none">– Organized neighborhoods– Area Ark activities
CARES	<ul style="list-style-type: none">• Preliminary Safety Assessment• Infrastructure Safety Assessment• Emergency communications support

New CARES Assignment

Assignment

- Perform a preliminary Infrastructure Safety Assessment (ISA) on infrastructure assets of interest to be reported to the Cupertino EOC.

Objective

- Develop a picture on the state of the city's infrastructure
- Help focus attention on problem areas that may only get worse or impede the recovery if not addressed quickly
- Provide an early report of asset status for Served Agencies

What is an ISA?

People: The CARES or CCC members responsible for performing an ISA

Infrastructure Assets: The list of things that the city wants to know about as soon as possible

ISA Process: The procedure that describes how CARES will collect and report information about the Infrastructure assets to the city after a city-wide emergency or disaster has occurred.

ISA and People

- There are ~75 registered CARES members
- Cupertino OES always recommends that City Emergency Response volunteers participate to the level they feel comfortable
- CARES has implemented the following:
 - (i) a Certification Program that gives members an opportunity to participate in different roles, and
 - (ii) response categories to capture interests in how CARES members want to participate during an emergency activation.

Response categories

ISA and People

1. CARES Certified Responder

- Members who pursue or have received a CARES certification
- Would accept a field assignment from the City
- Would act as the assignment's lead responder.
- May also start off in an organized neighborhood and, when it is secure, state their availability for a field assignment.
- DSW required.

2. CARES Volunteer Responder

- No CARES Certification, but intend to respond during activation
- Would accept a field assignment from the City.
- May also start off in an organized neighborhood and, when it is secure, state their availability for a field assignment.
- DSW required.

3. CARES Neighborhood Affiliated Volunteer

- Members that will respond to an organized neighborhood and use Amateur Radio to exchange information with the City.
- Would not receive a field assignment from the City.
- DSW required.

4. CARES Home Volunteer

- Members who choose to support CARES from home
- Perform a local Preliminary Damage Assessment about what they see.
- They would not receive a field assignment from the City.
- DSW not required.

0. No response category declared

Who signed up? (as of 2003)

ISA and People

Category 1	Category 2	Category 3
KR6CO	K6AB	KC6CYV
K6FUZ	AA6BT	KC6FGX
KG6HAG	KF6LDI	KD6FQB
WA2KDX	KG6NCB	KE6FZD
KG6KPB	KC6PJJ	K6ODK
KF6MCG	KF6PUQ	KG6OGA
KG6NVS	WA6VFD	KF6PUO
KN6PE	KE6ZOY	KG6QPT
KD6QPP		KD6WG
WB6S		KD6ALO
KF6RZR		
KA5TAA		
K6TEN		
KG6TEU		
N6TNQ		
KD6TQJ		
KD6US		
KE6YPK		

What is “infrastructure?”

Infrastructure Assets

Definitions

- **Infrastructure:** the system of public works of a country, state, or region.
- **public works:** works (as schools, highways, docks) constructed for public use or enjoyment especially when financed and owned by the government.

Cupertino Critical Facilities “100”

Infrastructure Assets

• City facilities	6	✓
• County Fire facilities	3	✓
• High density population areas	31	
• Medical facilities	2	
• Power	4	✓
• Sanitation	14	✓
• Schools	23	✓
• Stream conduits	9	✓
• Roads and bridges	12	✓
• <u>Water</u>	<u>9</u>	<u>✓</u>
• Total	113	

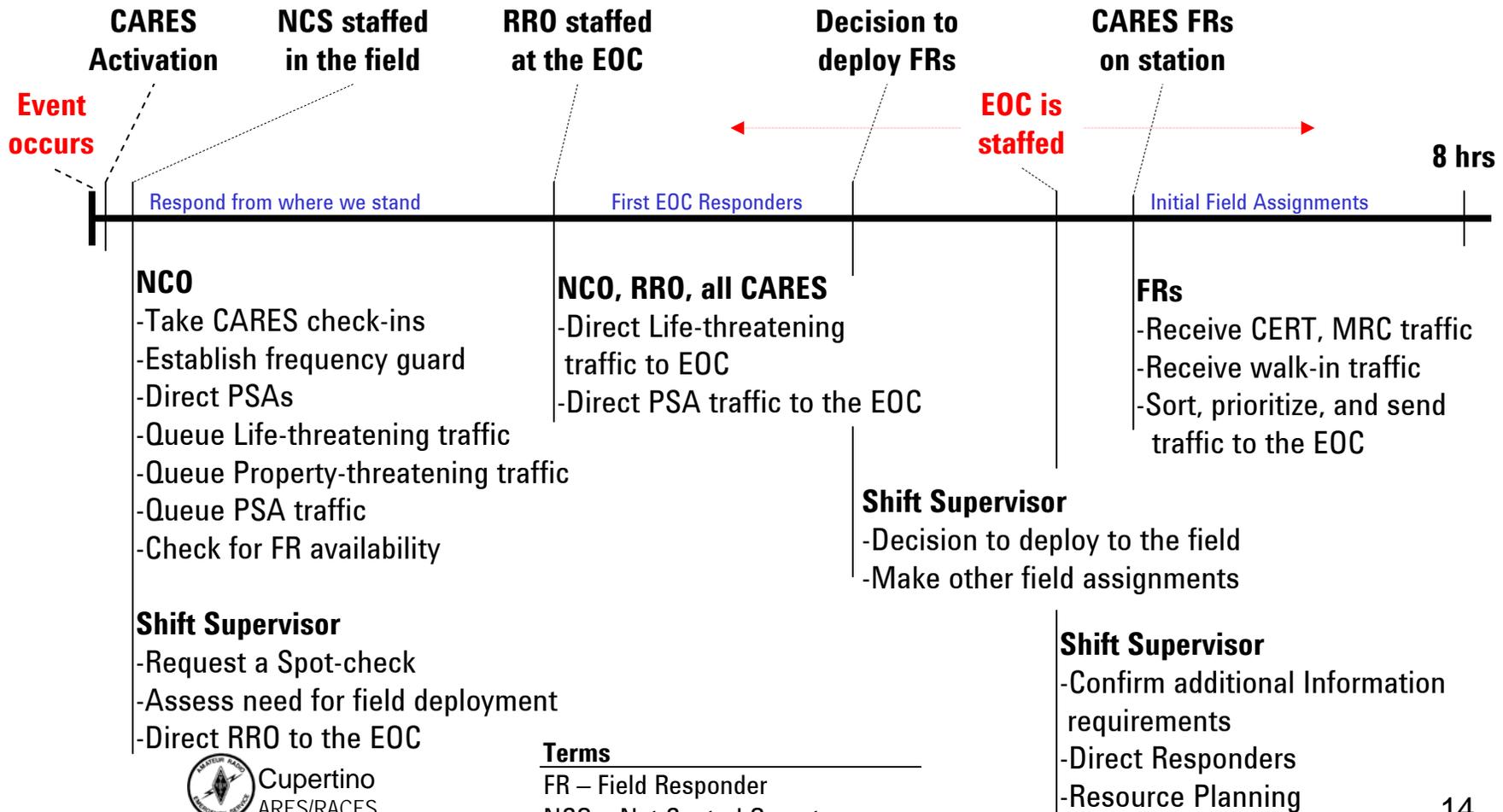
Who owns the Assets?

Infrastructure Assets

Description	Qty	Owner, MOU?
• City facilities	6	City of Cupertino, Yes!
• County Fire facilities	3	SCCFD, Yes!
• High density population areas	31	various
• Medical facilities	2	private corporations
• Power	4	PG&E
• Sanitation	14	CuSD, Yes!
• Schools	23	various school dists.
• Stream conduits	9	SCVWD
• Roads and bridges	12	CALTRANS
• <u>Water</u>	<u>9</u>	<u>SJ Water, Yes!</u>
• Total	113	

Field Operations

no Extended Operations

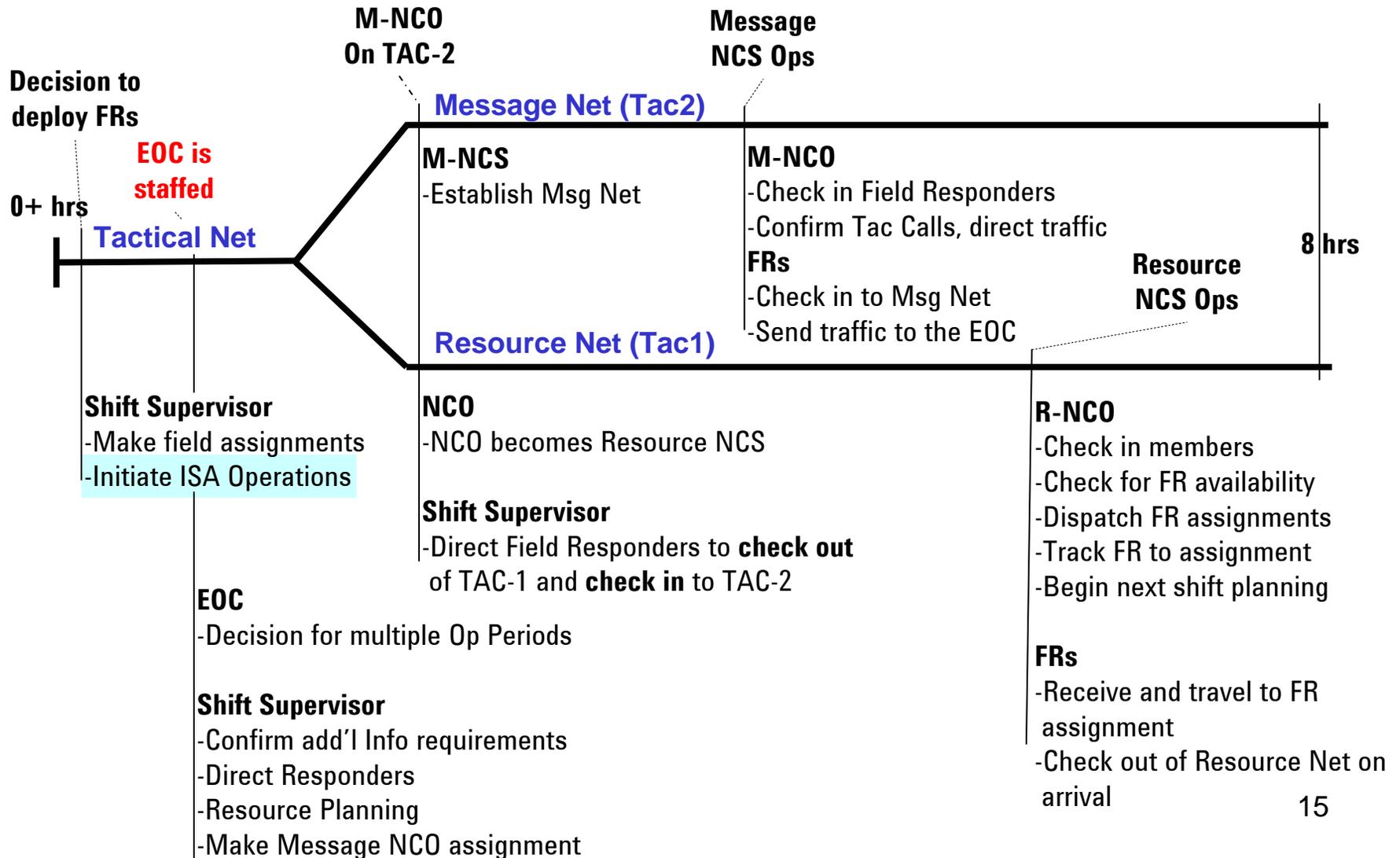


Terms

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

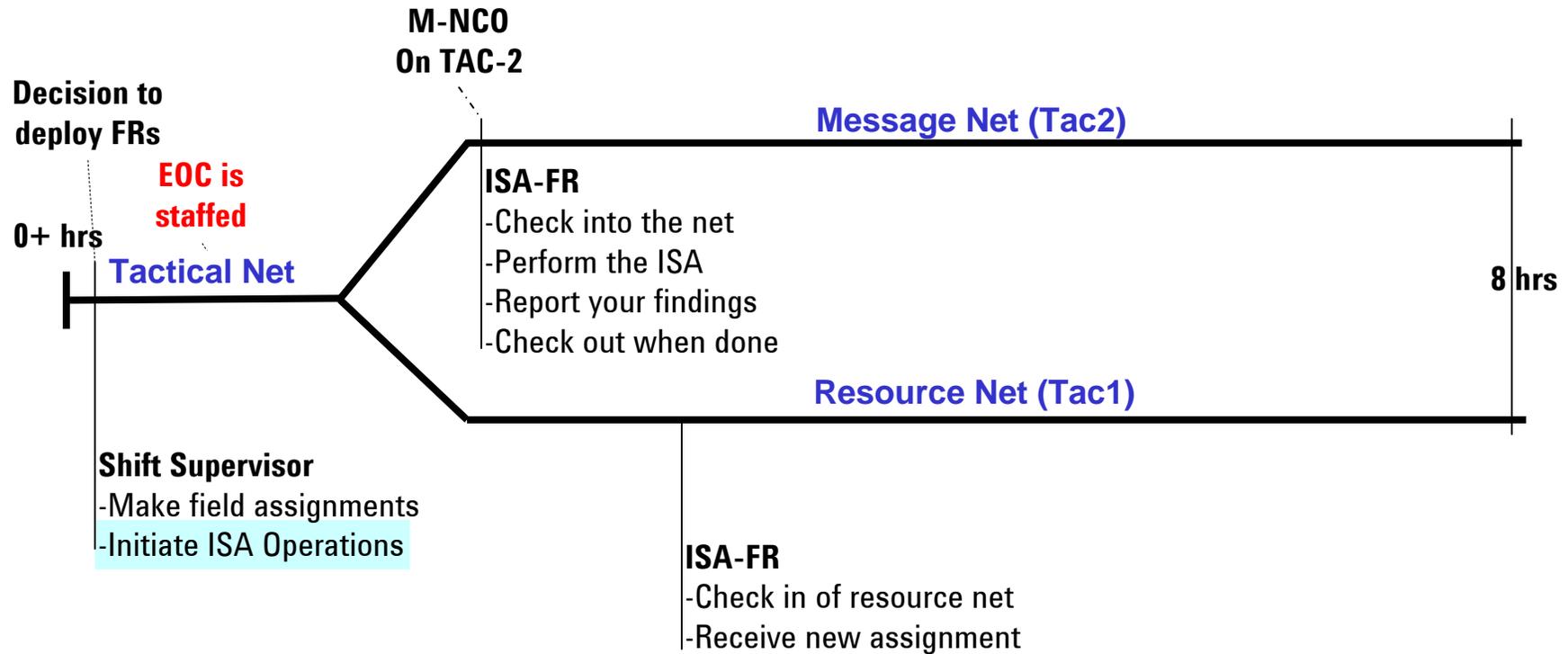
Field Operations

Extended Response Ops – Resource Management



Field Operations

Extended Response Ops – ISA Management



Criteria for making a CARES assignment

- Holds a valid DSW card
- Willing to accept a Field Assignment
- Understands the ISA process
- Ability to travel to the ISA assignments
- Has access to a Buddy (never travel alone)
- ...

Next Steps

- Confirm CARES' members response intentions
- Refine the set of critical ISAs to be performed
- Look at pre-defined response assignments
- Review the field assignment and reporting method
- Need to address the need for Information Security
- Develop, distribute ISA Assignment material

