Cupertino Amateur Radio Emergency Service

Topic: Infrastructure Safety Assessment, Part 2
Speaker: Jim Oberhofer KN6PE, EC Cupertino ARES
Date: Thursday, 6 May 2010, 19:30
Event: Cupertino ARES meeting, Orientation Training

Infrastructure Safety Assessment; Drill Prep

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The City's response priorities

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

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Initial Response Assignments

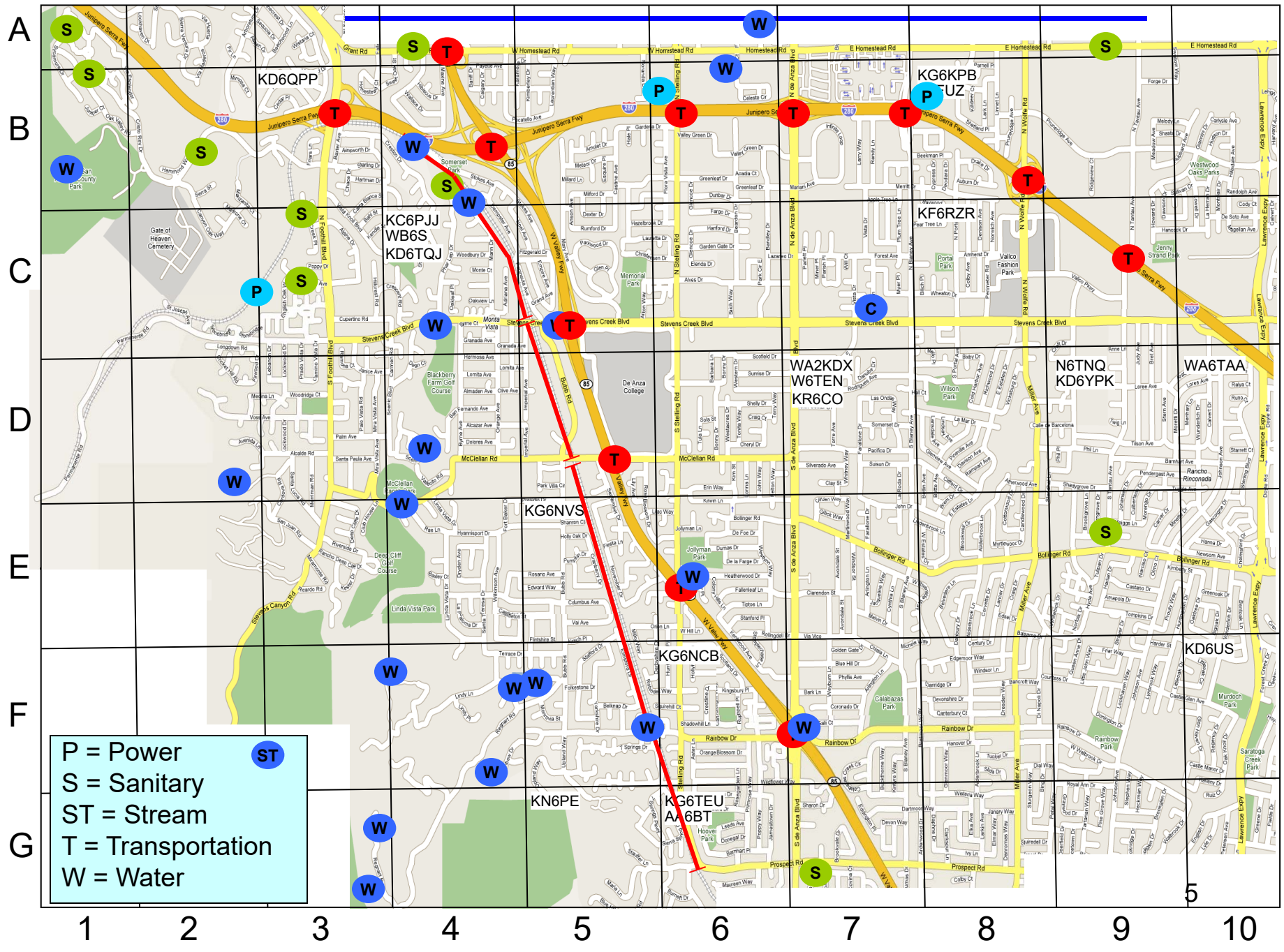|	
City Staff	• Inspect City facilities
County Fire	• Fire suppression • Search and Rescue
County Sheriff	• Public Safety • Law and Order

CERT, MRC	• CERT operations (SAR, medical, care and shelter, etc.) and support for:
	   – Regional Ark activations
	   – Organized neighborhoods

CARES	• Preliminary Safety Assessment • Ark communications support • Infrastructure Safety Assessment

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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 the EOC 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

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A B C D E F G

1 2 3 4 5 6 7 8 9 10

KD6QPP

KG6KPB
K6TUZ

KC6PJJ
WB6S
KD6TQJ

KF6RZR

WA2KDX
W6TEN
KR6CO

N6TNQ
KD6YPK

WA6TAA

KG6NVS

KG6NCB

KD6US

KN6PE

KG6TEU
AA6BT

P = Power
S = Sanitary
ST = Stream
T = Transportation
W = Water

What is required for an ISA?
Infrastructure Safety Assessment

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.

*** What do we do in the Field?

*** What do we do at the EOC?

ISA Management
Field and EOC View

Field	**ISA Assignment Sheet**	Description of one the infrastructure item to be assessed
	ISA Control Log	Field tracking log for ISA Assignments.
	ISA Field Assignment Checklist	Description of the steps to perform the ISA assignments in the field.
	Unit Log	ICS-214; records the activities that occur relating to addressing a specific ISA Assignment Set.
	ISA Assignment Set	A collection of ISA Assignments based on some logical grouping: geographical, skill, access methods, etc., and supporting documentation.
EOC	**ISA EOC Rollup Log**	Log used at the EOC to record the reports from Field ISA Assignment holders

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ISA Management
Field View

1. ISA Assignment Sheet

- Identifies the item or structure to be assessed.

- Detailed description (as best possible)

- Description of the Nominal conditions, and what to confirm and report.

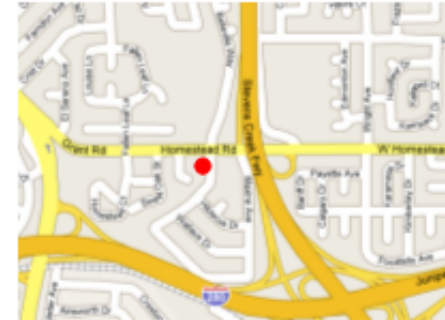- Map and pictures when available

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Infrastructure Safety Assessment

Infrastructure Safety Assessment

IDENTIFICATION

ISA ID:	SAN-53b
ISA Name:	Pump Station #16, Homestead 2
Description:	
Operator:	Cupertino Sanitary District
Contact:	(408) 253-7071, (408) 299-2507
Cupertino Grid:	A3
Address:	South side of Homestead Road just west of Belleville Way
Cross-street:	
Latitude:	
Longitude:	
Observation Point:	Next to the creek

DETAILED DESCRIPTION

Pump Station #16, Homestead 2, Wet Well, 4 Submersibles, Homestead Road, Cross Street: Belleville Way

This installation consists of the following:

1. Two Well Access ports (ground-level box with access lid)
2. Electrical Panel, contains the following markings: (408) 253-7071, (408) 299-2507
3. Generator, fixed installation. right of Electrical panel (vents on the structure)
4. vent pipe, 14 inch diameter
   …and no others

NOMINAL CONDITION – Confirm/What to Report

1. Electrical Panels and generator are in place.
2. No surrounding surface or structural cracks or deformations.
3. No spillage or discharge from the surrounding area.
4. Report if the generator is running.

ISA Management
Forms View
Infrastructure Safety Assessment

Infrastructure Safety Assessment

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ISA Management
Forms View

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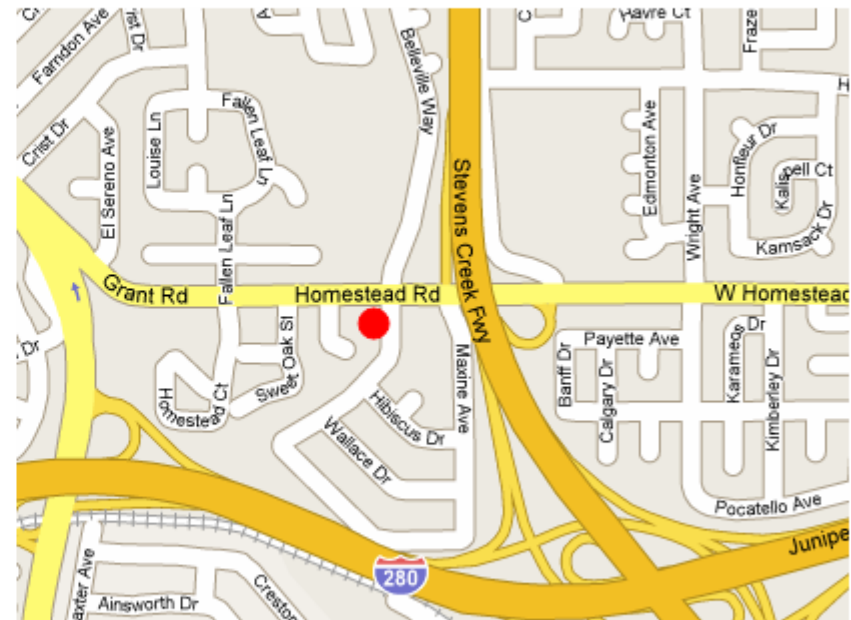4. Report if the generator is running.

ISA Management
Forms View

Infrastructure Safety Assessment

IDENTIFICATION

ISA ID:	SJW-T4
ISA Name:	Cristo Rey Station
Description:	Water storage tank
Operator:	San Jose Water
Contact:	
Cupertino Grid:	B1
Address:	Cristo Rey Drive service road
Cross-street:	Rancho San Antonio Park
Latitude:	
Longitude:	
Directions, Observation Point:	From the Parking lot, traverse the locked gate, and follow the trail for ½ mile.

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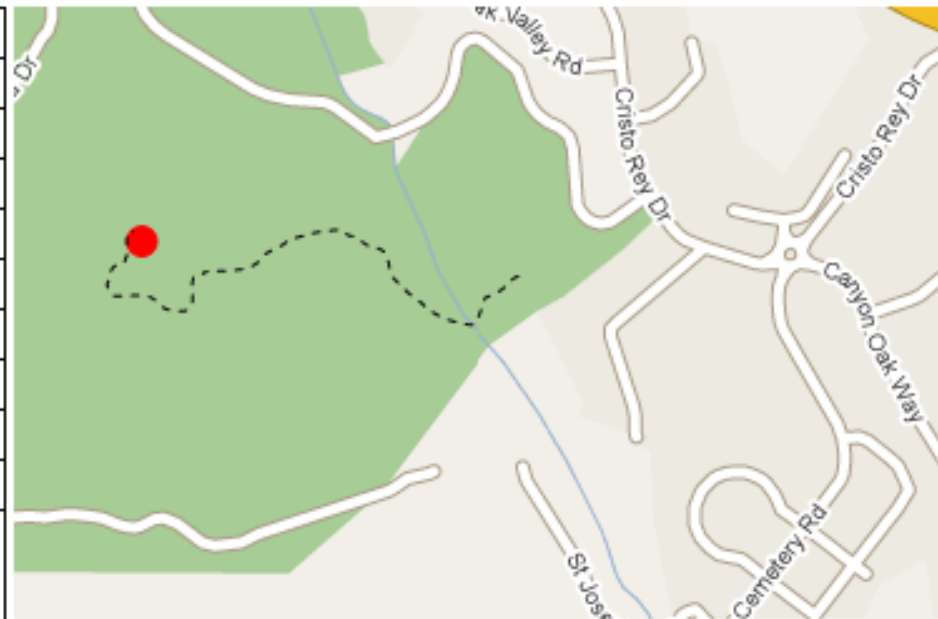
ISA Management
Forms View

DETAILED DESCRIPTION

This facility contains the following:
- 1 steel water storage tank

CAUTION: sloped grade; physical effort required.

NOMINAL CONDITION –Confirm/What to Report

- Free flowing water on ground, in culverts, in drainage inlets, or boiling up at particular point(s) in or around facility
- Evidence of recent erosion or muddy water in or around facility
- Visible damage to structures or above ground water pipes
- Evidence of electrical power failure (entire area/region or isolated to only the water facility)
- Potential contamination of water supply (broken pipe, etc.)
- Facility threatened by other hazards present (fire, flood, down electrical lines, fallen trees, etc.)

Revised: 090102

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ISA Management
Forms View

Infrastructure Safety Assessment

IDENTIFICATION

ISA ID:	SJW-T7
ISA Name:	Rainbow End Reservoir
Description:	Water storage tank
Operator:	San JoseWater
Contact:	
Cupertino Grid:	F4
Address:	21717 Rainbow Drive
Cross-street:	Rainbow Drive and Rainbow Court
Latitude:	N 37 17'54.7975"
Longitude:	W 122 03' 23.3844"
Directions, Observation Point:	Tank is at the end of a Private Road, gated entry. If the gate is locked, walk around the gate and walk to the top of the hill. The tank is on the left.
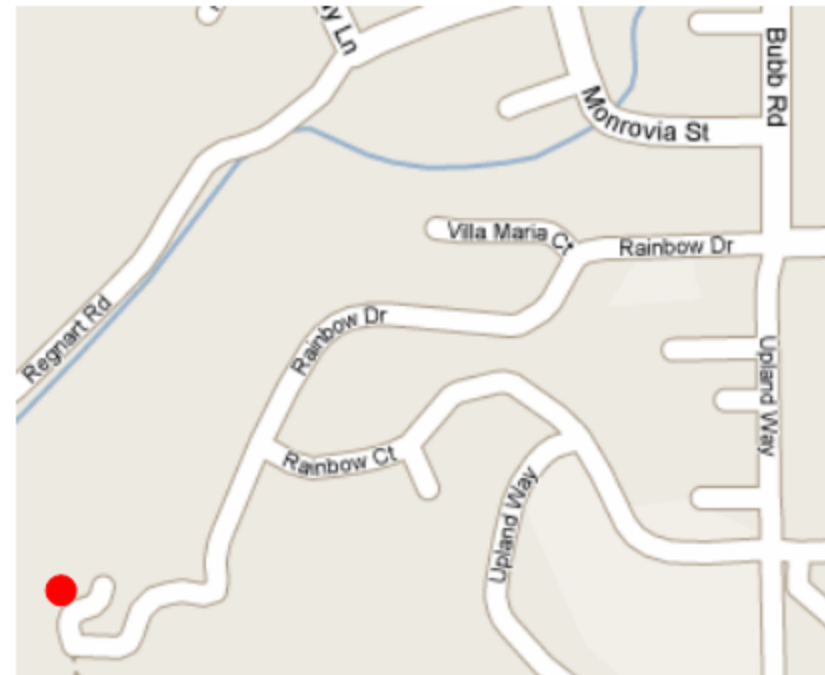
ISA Management
Forms View

DETAILED DESCRIPTION

This tank is located at the end of a private road.
- Redwood water storage tank

CAUTION: Steep Grade; slippery when wet.

NOMINAL CONDITION –Confirm/What to Report

- Free flowing water on ground, in culverts, in drainage inlets, or boiling up at particular point(s) in or around facility
- Evidence of recent erosion or muddy water in or around facility
- Visible damage to structures or above ground water pipes
- Evidence of electrical power failure (entire area/region or isolated to only the water facility)
- Potential contamination of water supply (broken pipe, etc.)
- Facility threatened by other hazards present (fire, flood, down electrical lines, fallen trees, etc.)

Revised: 100502

ISA Management
Field View

2. ISA Control Log

- Contains the IDs of the ISA Assignments included in this package.

- Checklist for assigning, marking completion and findings of the ISA.

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Cupertino Amateur Radio Emergency Service
PART 5 Checklists

Standard Operating Procedures

ICS xxx ISA CONTROL LOG

1. ISA Assignment Set:	2. Date Setup
5	November 1, 2006

ISA Assignment ID	3. Assigned to:	4. Assigned Date/Time	5. Condition (OK/Discrepancy)	6. Reported Date/Time
1. TRANS-93				
2. TRANS-94				
3. SAN-45				
4. WATER-120				
5.				
6.				
7.				
8.				
9.				
10.				

7. Discrepancy (List ISA Assignment, description of deviation)

ICS XXX	PREPARED BY	APPROVED BY	DATE	TIME

Rev x.x November 2006

1

ISA Management
Field View

3. ISA Assignment Checklist

- Describes the steps to perform before, during, and after an event.

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PART 5 Checklists

Standard Operating Procedures

xxxx ISA Field Assignment Checklist

1. Before the event

_____ 1. On a period not to exceed 6 months, audit each ISA Assignment Set.

_____ 2. Perform updates to ISA Assignment Sets as changes to selected infrastructure components occur.

2. During the event

_____ 3. First person at the scene, notify EOC that you have arrived.

_____ 4. Retrieve the ISA Assignment Set Envelope. Confirm the envelope has not been previously opened or tampered with. Notify the EOC if the envelope was previously opened or you detect signs of tampering.

_____ 5. Open the envelope; remove, and inventory the contents. The following should be included in each envelope
(i) ISA Control Log
(ii) ISA Field Assignment Checklist (this sheet)
(iii) ICS-214 Event Log
(iv) One or more ISA Assignment sheets. The number and ID of the forms included must match the ISA IDs on the ISA Control Log.
NOTE: Notify EOC of any content discrepancies with this ISA Assignment Set.

_____ 6. Begin and maintain a Unit Log (ICS-214).

_____ 7. Make ISA Assignments to responding staff, or begin performing the ISA (depends on the response team).

For each ISA Assignment

_____ 8. Review the ISA Assignment sheet for details on location, points for observation, and expected nominal conditions.

_____ 9. On arrival at the Assignment, inspect the item or structure, and general area for unusual conditions or other safety hazards.

_____ 10. When done with the inspection, update the ISA Control Log for this ISA ID.

_____ 11. Report the following to the EOC:
(i) The ISA Identifier just surveyed
(ii) State that either (a) All conditions normal, or (b) the problems or abnormal conditions that you observe.

_____ 12. Proceed to the next ISA Assignment, and repeat steps 8, 9, 10, and 11.

When done with all ISA Assignment

_____ 13. Collect all ISA Assignment sheets and return them to the Envelope.

_____ 14. Update and close-out the Unit Log. Insert the Unit Log into the envelope.

_____ 15. Return the ISA Assignment Set Envelope to the EOC when possible.

3. After the Event

_____ 16. Inspect all returned ISA Assignment Set Envelopes for completeness.

_____ 17. Collect all ISA Control Logs, ICS-214 Unit Logs, and ISA Assignment forms. Include them as part of the event documentation package.

_____ 18. Rebuild replacement ISA Assignment Set Envelopes for those opened during the

Rev x.x November 2006

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ISA Management
Field View

4. ICS-214

- Standard Unit Log
- Start the log as soon as the envelope is opened.
- Fill in Personnel info for all participating team members
- Complete Activity Log with specific assignments, dispatches, etc., for all members

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Cupertino Amateur Radio Emergency Service   Standard Operating Procedures
PART 6 Forms

ICS 214 UNIT LOG	1. INCIDENT NAME		2. DATE PREPARED	3. TIME PREPARED
4. UNIT NAME/DESIGNATOR	5. UNIT LEADER (NAME AND POSITION)		6. OPERATIONAL PERIOD	

7. PERSONNEL ROSTER ASSIGNED

NAME	ICS POSITION	TEAM/AGENCY

8. ACTIVITY LOG

TIME	MAJOR EVENTS

ICS 214	9. PREPARED BY

Rev 3.2 8/2/2003   13

ISA Management
EOC View

5. ISA EOC Rollup Log

- Captures the field ISA results.

COES 205A ISA CONTROL LOG

1. ISA Group: San Jose Water		2. Date Setup November 2, 2007			
ISA Assignment ID	3. Assigned to:	4. Assigned Date/Time	5. Condition (OK/Discrepancy)	6. Reported Date/Time	
1. SJW-01					
2. SJW-02					
3. SJW-03					
4. SJW-04					
5. SJW-05					
6. SJW-06					
7. SJW-07					
8. SJW-08					
9. SJW-09					
10. SJW-010					
11. SJW-011					
12. SJW-012.1					
13. SJW-012.2					
14. SJW-012.3					
15. SJW-012.4					

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ISA and Information Security

Why this approach?

- <u>Served Agencies</u> – Protects their information assets. We will need to demonstrate to our Served Agencies that we have methods, processes, and controls in place to manage information on their behalf.

- <u>ISA Sites</u> – City buildings (trusted sites, includes Fire Stations) are staffed and managed by local government employees.

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Requirements for an ISA assignment

Usual field deployment kit, plus…

- Binoculars
- GPS
- Digital Camera
- FRS
- What else?

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May 2010 Field Comm Drill

Drill Objectives:

- Foster coordination between CCC members.

- Test the Infrastructure Safety Assessment (ISA) Process.

- Test the Resource Net concepts and procedures.

- Test activating an Ark to support volunteer convergence, registration, and deployment.

- Test field responder tracking system.

- Use standard ICS and/or Cupertino OES documentation.

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May 2010 Field Comm Drill

Scenario:

- The Bay Area experienced a 7.5 earthquake 3 hours ago. moderate damage reported throughout the City.

- You have just finished your Preliminary Safety Assessment and sent your PSA reports to the EOC.

- CARES Radio Room is staffed. CARES Emergency Net has been staffed for 3 hours.

- Message NCO just came up on TAC-2.

- CARES Shift Supervisor just announced that ISAs need to be performed.

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Field Operations
Initial Response Operations

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
- Request a Spot-check
- 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 other 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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Field Operations
Extended Response Ops – Resource Management

M-NCO
On TAC-2

Message
NCS Ops

Decision to
deploy FRs

EOC is
staffed

Message Net (Tac2)

0+ hrs

Tactical Net
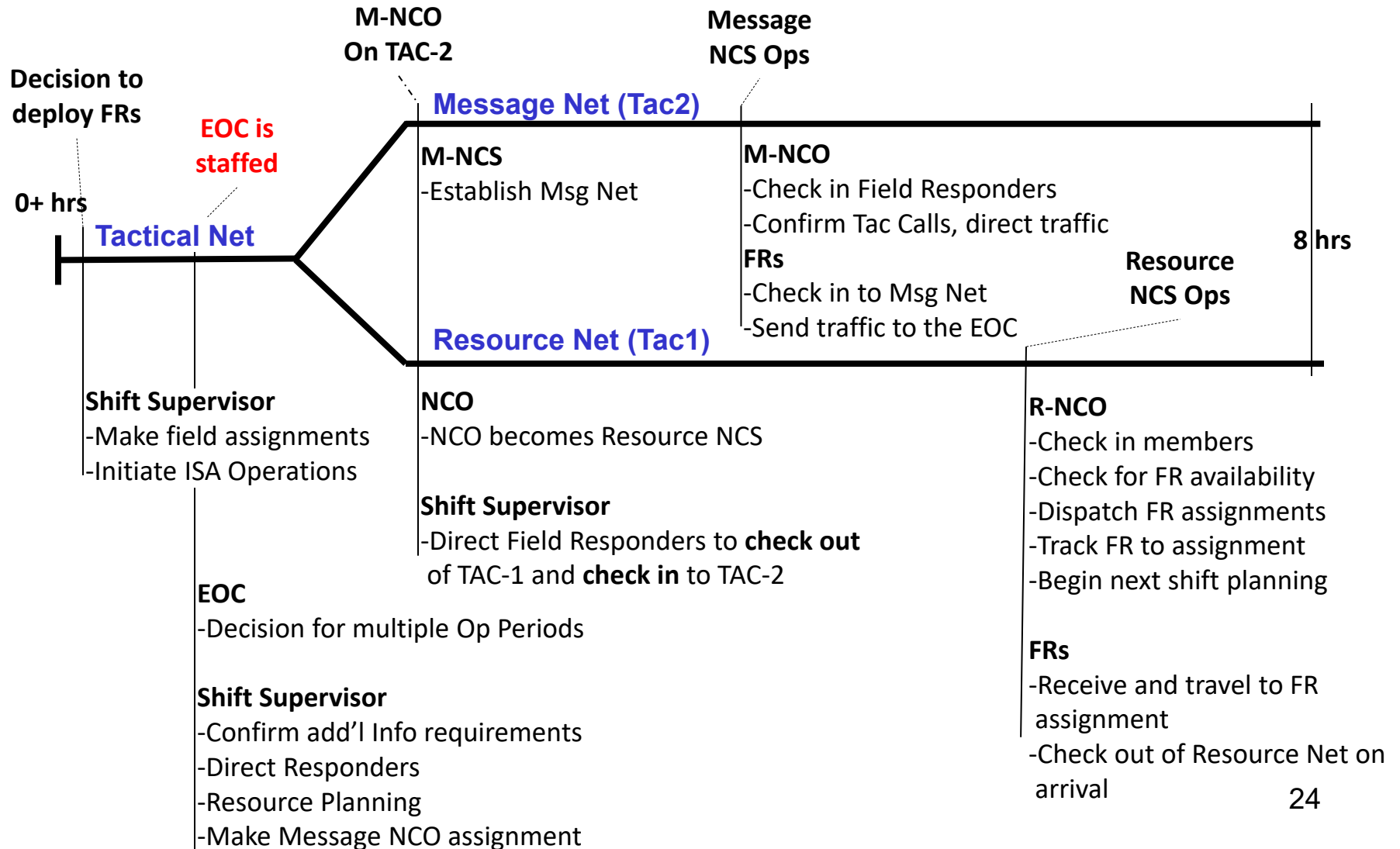
M-NCS
-Establish Msg Net

M-NCO
-Check in Field Responders
-Confirm Tac Calls, direct traffic

FRs
-Check in to Msg Net
-Send traffic to the EOC

8 hrs

Resource
NCS Ops

Resource Net (Tac1)

Shift Supervisor
-Make field assignments
-Initiate ISA Operations

NCO
-NCO becomes Resource NCS

Shift Supervisor
-Direct Field Responders to **check out**
 of TAC-1 and **check in** to TAC-2

R-NCO
-Check in members
-Check for FR availability
-Dispatch FR assignments
-Track FR to assignment
-Begin next shift planning

EOC
-Decision for multiple Op Periods

Shift Supervisor
-Confirm add'l Info requirements
-Direct Responders
-Resource Planning
-Make Message NCO assignment

FRs
-Receive and travel to FR
 assignment
-Check out of Resource Net on
 arrival

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Field Operations
Extended Response Ops – ISA Management

**M-NCO
On TAC-2**

**Decision to
deploy FRs**

**EOC is
staffed**

Message Net (Tac2)

0+ hrs

Tactical Net

ISA-FR
-Check into the net
-Perform the ISA
-Report your findings
-Check out when done

8 hrs

Resource Net (Tac1)

Shift Supervisor
-Make field assignments
-Initiate ISA Operations

ISA-FR
-Check in of resource net
-Receive new assignment

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