Emergency Response Go-Kits

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Agenda

1. Overview
2. A few details
3. Show and tell

CARES mission

The mission of Cupertino ARES is to maintain and train Amateur Radio volunteers capable of providing professional emergency communications, increasing the City's emergency response effectiveness, and speeding the recovery effort.

You just were activated… now what!?!

In Cupertino, we may be responding to any of the following:

- Earthquakes
- Flooding by dam failure
- Flooding by rain
- Wild land or large urban fire
- Manmade disasters (BNICE)
- Missing Person(s)

Each of these events has a different communications needs and expectations on how we perform.

So, how do we prepare?

Types of Assignments

As an CARES Field Responder, you may be asked to assist with any of a number of assignments, from a variety of station operating locations, such as:

Base Station

- Emergency Operations Center
- County Fire Stations
- From Home (Message Net)

Field-Portable Station

- Incident Command Post (ARKs, Staging Areas, etc.)
- Search and Rescue Field support
- Shelter

Mobile Station

- Mobile Command Post
- Shadow
- Vehicle Ride-Along (Public Works, Transport, etc.)
- Cross-band Repeat Station Control Operator

Length of Assignments

The length of time you are asked to assist with emergency communications will depend on the type and size of the incident and the number of Field Responders available:

- One Operational Period – a few hours to less than a day
- Overnight
- Two to three days (Shifts over several days)
- Long-Duration – greater than 72 hours (Mutual Aid Responses)

The longer the assignment, the more we need to bring to the event.

What is a Go-Kit?

- A Go-Kit is a previously identified collection of equipment and personal gear that you will need to perform your duties as an Emergency Communicator in the event of an activation.
- Your Go-Kit should be tailored to your needs, your equipment, expected assignments, and expected length of assignments.

Think Modular

Basic Go-Kits

- 2 Hour Kit - kept nearby at all times for immediate (within minutes) communication of damage reports during an initial activation.
- 12-Hour Kit – For one operational period; for fully independent operation; unknown environment (heat, cold, wind, rain); unknown time (day, night, up to 12 hours). Return home to retrieve.
- Extended Kit – Additional items for fully independent operation over an extended period of time.

CARES Go-Kit Requirements

Minimum Field Deployment Equipment – 12 hours

Equipment – *REQUIRED!*	**Do I have this?**
1.2m or 2m/440 HT minimum	***Yes!***
2.Mobile antenna (mag mount or existing mobile antenna)	??
3.Ear bud or headphones	??
4.Radio user manual or cheat-sheet	Easy to get
5.Coax adaptors	??
6.Charged batteries or extra batteries for 12 hours operation	??
7.Power cord adaptors	??
8.Notepad, pens	Easy to get
9.Clipboard (covered recommended)	Easy to get
10.Cell phone and charger, cigarette lighter adaptor	Easy to get
Documentation – *REQUIRED!*	
11.CA driver's license or CA-issued ID card	***Yes!***
12.Amateur radio license	***Yes!***
13.City of Cupertino Photo ID	***Yes!***
Forms – *REQUIRED!* (http://www.cupertinoares.org/ccc/forms/)	
14.ICS 214 Unit Log	***Yes!***
15.ICS 309 Communications Log	***Yes!***
16.ICS 213 Message Forms	***Yes!***
17.COES 105 Preliminary Safety Assessment Form, Field	***Yes!***

CARES Go-Kit Requirements

(continued)

Minimum Field Deployment Equipment – 12 hours

Personal Gear – *REQUIRED!*

Do I have this?
Yes?

18. Watch or clock
19. Flashlight, headlamp, spare batteries for 12 hours — Easy to get
20. Safety vest, ANSI standard, City-issued — ??
21. Sturdy closed-toe shoes — ??

Documentation – Recommended

22. SCCo-issued ID badge; other city badges
23. Cupertino City Map, County Grid

Personal Gear – Recommended

24. Fueled vehicle (always keep your fuel tank at least ½ full)
25. Long pants
26. Hat (broad-brim recommended)
27. Seasonal jacket / rain gear
28. Food for 12 hours, Water for 12 hours
29. Leather Gloves, Eye Protection
30. First Aid Kit

Why Coax Adaptors?

Notes

1. Sooner or later, you will be required to connect to an antenna other than what is on your HT.
2. Most HT radios are built with one of 2 connectors:
   - BNC/Female
   - SMA/Female (!)
3. The most common antenna coax connector is a UHF/Male PL259 connector.
4. Sooner or later, you may need to connect your HT to an antenna other than your stock HT antenna.
5. Getting a collection of the coax adaptors now will ensure no surprises in the field later!

7. SMA Male to SMA Male

SMA Female to… ?

SMA Male Antenna

6. BNC Male to BNC Male
Or BNC M to M cable

5. UHF Male to BNC Female

BNC Male Antenna

4. UHF Male to N Male

N Female panel mount

3. UHF Male to N Female

N Male Antenna

1. SMA Male to UHF Female

UHF Male Antenna

2. UHF Male to UHF Male
Or UHF M to M cable

Radio with a SMA/Female Antenna Connector

Coax Adaptors

Radio with a SMA/Female Antenna Connector

	Item	Description	Mfgr	Price Each	Distributor
✓	1	**SMA Male** to UHF Female Cable, 0.5m	Comet	$ 11.99	HRO
✓	2	Coax adapter UHF Male to Male PL-259 connector	DHT LLC	$ 5.50	Amazon
✓	3	Coax adapter N Female to UHF Male	DHT LLC	$ 6.50	Amazon
	4	N Male to UHF Male Adapter	Pasternak	$ 25.71	Pasternak
✓	5	Coax adapter **BNC Female** to UHF Male	DHT LLC	$ 3.75	Amazon
	6	BNC Male to Male Coupler Adapter Connector	Generic	$ 1.00	Amazon
	7	SMA Male to Male Plug RF Coaxial Adapter	uxcell	$ 1.22	Amazon
		Total		**$ 55.67**	

7. BNC Male to BNC Male

BNC Male Antenna

6. SMA Male to SMA Male
Or SMA M to M cable

SMA Female to... ?

5. UHF Male to SMA Female

SMA Male Antenna

4. UHF Male to N Male

N Female panel mount

3. UHF Male to N Female

N Male Antenna

1. BNC Male to UHF Female

UHF Male Antenna

2. UHF Male to UHF Male
Or UHF M to M cable

Radio with a
BNC/Female Antenna Connector

Coax Adaptors

Radio with a BNC/Female Antenna Connector

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✓	1	**BNC Male** to UHF Female Cable, 0.5m	Comet	$ 11.99	HRO
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✓	3	Coax adapter N Female to UHF Male	DHT LLC	$ 6.50	Amazon
	4	N Male to UHF Male Adapter	Pasternak	$ 25.71	Pasternak
✓	5	Coax adapter **SMA Female** to UHF male	DHT LLC	$ 3.75	Amazon
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Coax Adaptors

Best way to build your kit?

Safety Vests

ANSI Class 2

Situation…

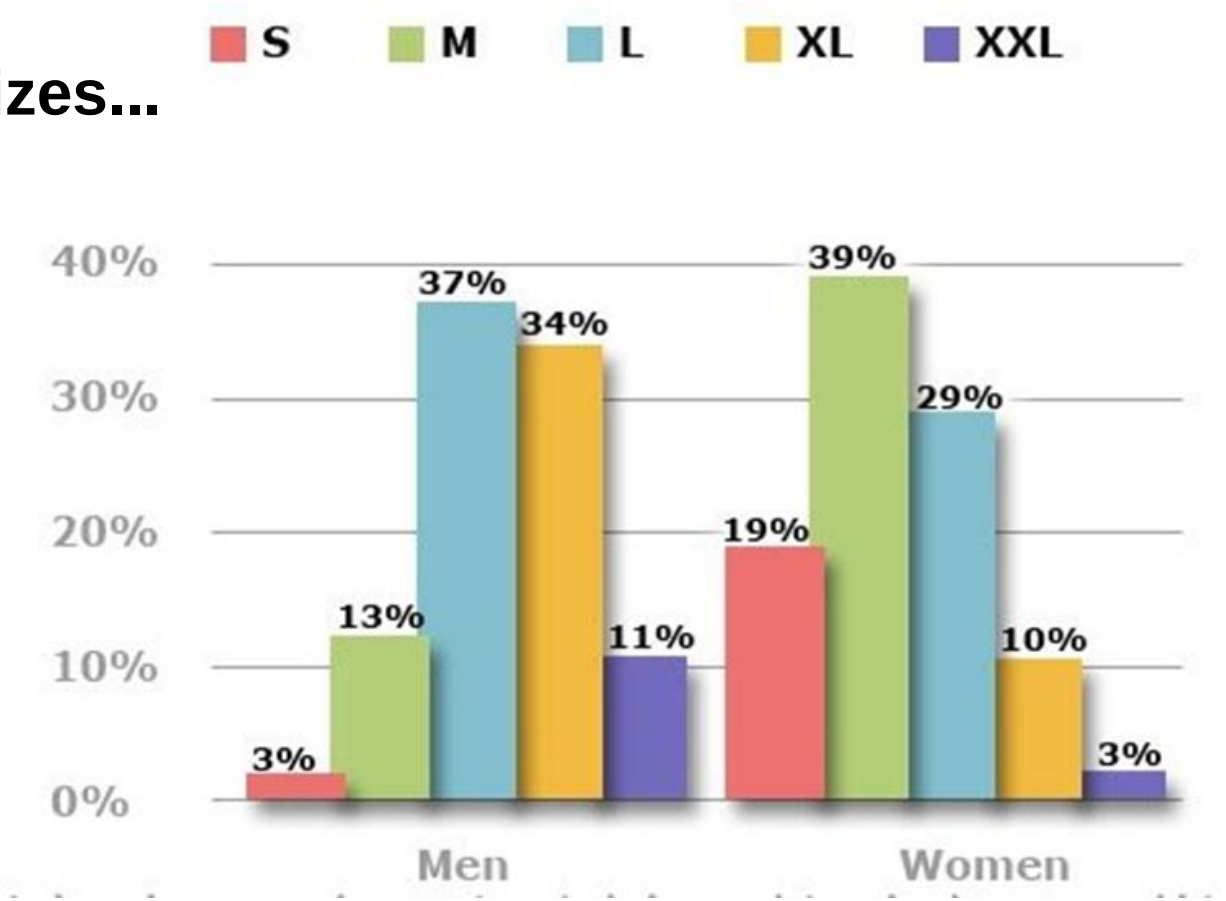
Description…

The Plan…

Safety Vests

Getting the right mix of sizes...

How *"typical"* are we?



Why Power Adaptors?

Notes

1. Operating in the field during an emergency is all about power management.
2. Batteries are important and important to any go-kit.
3. Ensuring you can **charge** your equipment is critical.
4. Battery power can come from different sources --- your Car, gel cell, someone else's deep cycle.
5. *Anderson Powerpoles* are the power interconnect standard we use for our 12vdc equipment.

Power Adaptors

Basics

Getting to the source… Car power plug

Car Accessory Plug
with radio power connector

Power Adaptors

Basics

Getting to the source – battery terminals

Battery clamps with Powerpoles

Car Accessory socket with Powerpoles

Car Accessory Plug with radio power connector

Cell Phone USB Charge connector

Power Adaptors

Basics

Best way to assemble your kit?

Buy versus build

SC County RACES Recommendation

2 Hour Carry Kit

Purpose: To be kept nearby at all times for immediate (within minutes) communication of damage reports during Initial Activation Operations. Also used to remain in contact with Resource Net while returning home to retrieve 12-hour Go-Kit.

12 Hour Go-Kit

Purpose: For fully independent operation; unknown environment (heat, cold, wind, rain); unknown time (day, night, up to 12 hours). Usually need to return home to retrieve.

References

1. Santa Clara County RACES Go-Kits
http://www.scc-ares-races.org/operations.html#Go_Kit

Go-Kit show and tell

Thank you

Any Questions?