

Emergency Response Go-Kits

7 March 2019

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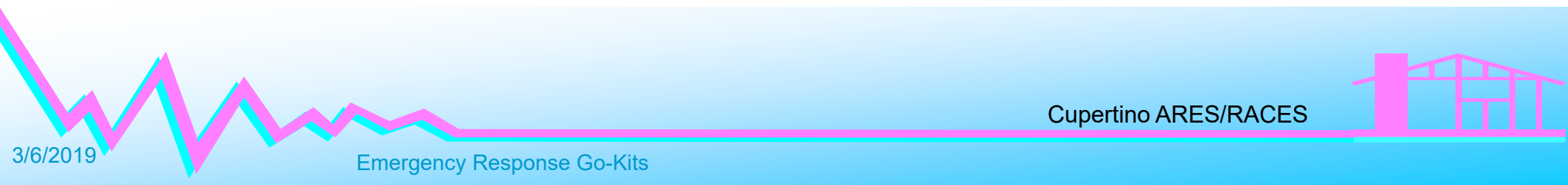
Agenda

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

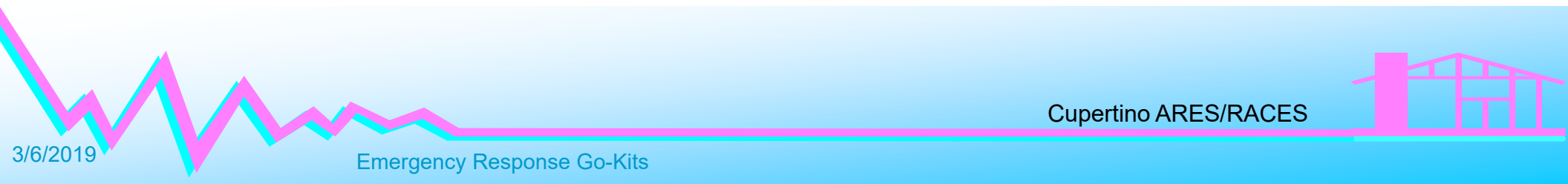


Length of Assignments

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.



Why do you need one?

Adapted with permission from Dan O'Connor, KE7HLR

Some reasons why you need a Go-Kit:

- In the event of a major disaster, your assignment location will probably be without power, heat, water, and telephone service. Most businesses in the area will probably not be open due to the emergency.
- As a Field Responder, YOU must provide your own equipment and gear.
- You are responsible for your own safety, and you must provide for your own welfare and comfort.

Building your Go-Kit now ensures:

- The items you need are available when you need them.
- The items you need are where you expect them to be.
- When the Activation Call comes, you won't have time to hunt for things!



Types of Go-Kits

Adapted with permission from Dan O'Connor, KE7HLR

Your Go-Kit should be tailored to your needs, your equipment, your expected assignments, and the expected length of assignments. Go-Kits should be broken-up into different types of kits, depending on function and location:

Go-Kits by Function

- Types of Incident
- Type of Assignment or Mission
- Length of Assignment

Go-Kits by Location

- Carried on Person
- Carried in Vehicle
- Stored at Fixed Location (Home, Office, Shop, etc.)
- Non-Cached Equipment—gathered as needed (Home, Office, Shop, etc.)



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!**

1. 2m/440 HT
2. Mobile antenna (mag mount or existing mobile antenna)
3. Ear bud or headphones
4. Radio user manual or cheat-sheet
5. Coax adaptors
6. Charged batteries or extra batteries for 12 hours operation
7. Power cord adaptors
8. Notepad, pens
9. Clipboard (covered recommended)
10. Cell phone and charger, cigarette lighter adaptor

Do I have this?

Yes!

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Easy to get

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Easy to get

Easy to get

Easy to get

Documentation – **REQUIRED!**

11. CA driver's license or CA-issued ID card
12. Amateur radio license
13. City of Cupertino Photo ID

Yes!

Yes!

Yes!

Forms – **REQUIRED!** (<http://www.cupertinoares.org/ccc/forms/>)

14. ICS 214 Unit Log
15. ICS 309 Communications Log
16. ICS 213 Message Forms
17. COES 105 Preliminary Safety Assessment Form, Field

Yes!

Yes!

Yes!

Yes!



CARES Go-Kit Requirements

(continued)

Minimum Field Deployment Equipment – 12 hours

Personal Gear – **REQUIRED!**

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

Do I have this?

Yes?

Easy to get

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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

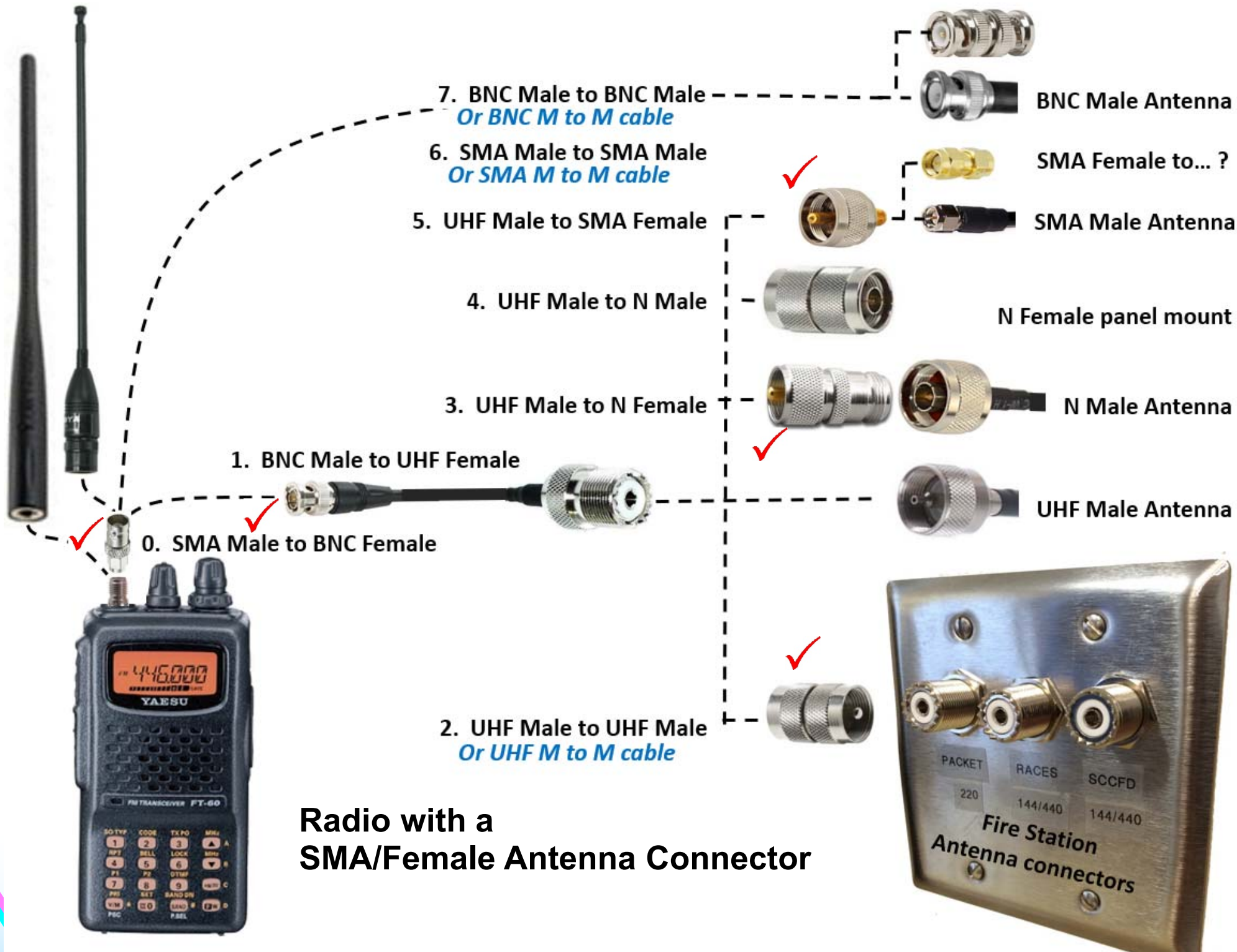


Why Coax Adaptors?

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!





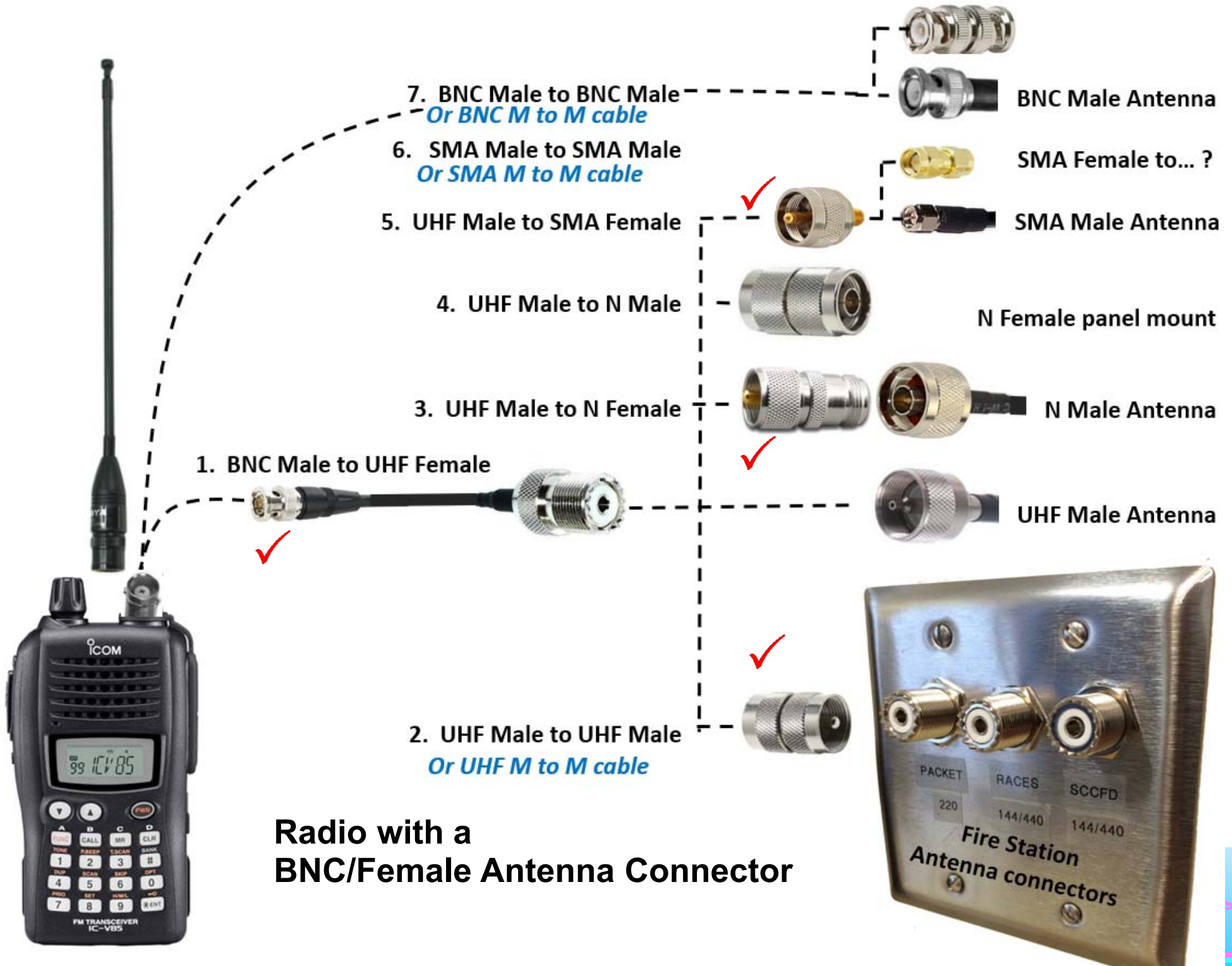
Radio with a SMA/Female Antenna Connector

Coax Adaptors

Radio with a SMA/Female Antenna Connector

Item Description	Mfgr	Price Ea	Distributor
✓ 0 SMA Male to BNC Female Adaptor	SMC	\$ 5.05	ShowMe Cables
✓ 1 BNC male to UHF Female cable, 0.5m	Comet	\$ 11.99	HRO
✓ 2 UHF male to male PL-259 connector	DHT LLC	\$ 5.50	Amazon
✓ 3 N female to UHF male PL-259 adaptor	DHT LLC	\$ 6.50	Amazon
4 N Male to UHF Male adapter	Pasternak	\$ 25.71	Pasternak
✓ 5 SMA female to UHF male PL-259 adaptor	DHT LLC	\$ 5.50	Amazon
6 SMA Male to Male adapter	uxcell	\$ 1.22	Amazon
7 BNC Male to Male Adapter	Generic	\$ 1.00	Amazon
Total		\$ 62.47	





Radio with a BNC/Female Antenna Connector

Coax Adaptors

Radio with a BNC/Female Antenna Connector

Item Description	Mfgr	Price Ea	Distributor
✓ 1 BNC male to UHF Female cable, 0.5m	Comet	\$ 11.99	HRO
✓ 2 UHF male to male PL-259 connector	DHT LLC	\$ 5.50	Amazon
✓ 3 N female to UHF male PL-259 adaptor	DHT LLC	\$ 6.50	Amazon
4 N Male to UHF Male adapter	Pasternak	\$ 25.71	Pasternak
✓ 5 SMA female to UHF male PL-259 adaptor	DHT LLC	\$ 5.50	Amazon
6 SMA Male to Male adapter	uxcell	\$ 1.22	Amazon
7 BNC Male to Male adapter	Generic	\$ 1.00	Amazon
Total		\$ 57.42	



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



Power Adaptors

Basics

Getting to the source – battery terminals

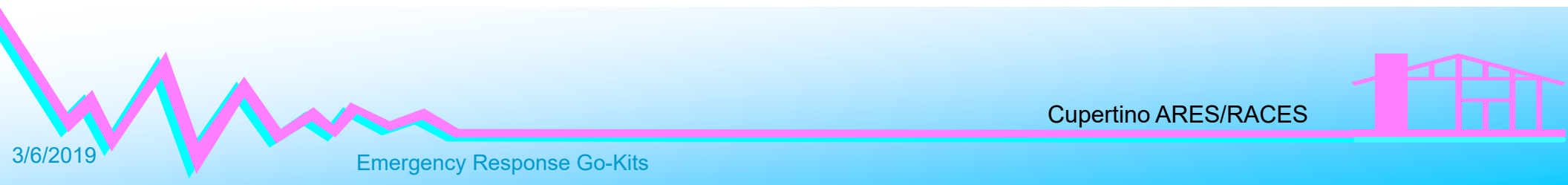


Power Adaptors

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.

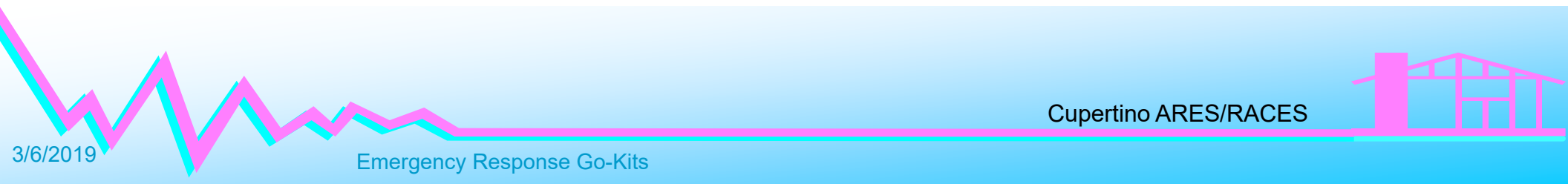
12 Hour Go-Kit

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.

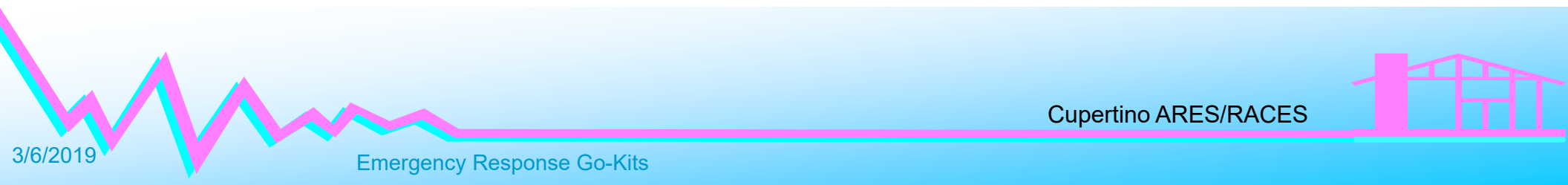


References

1. CARES Go-Kits
<https://www.cupertinoares.org/docs/FOH-1601v1-ebook.pdf#page=26>
2. Santa Clara County RACES Go-Kits
https://www.scc-ares-races.org/gokit/SCCo_Go_Kit_rev180603.pdf



Go-Kit show and tell



Thank you

Any Questions?



Cupertino ARES/RACES



3/6/2019

Emergency Response Go-Kits