Amateur Radio

It's a hobby…

And an opportunity to serve.

Agenda

- Introductions
- What is ARES®
- Working with Served Agencies
- Our Capabilities
- Communications Operations
- Your Personal Readiness

Your Presenter

- Colin Whitmore, AC0S
  - District 23, Assistant Emergency Coordinator

ARES – Who Are We?

- The Amateur Radio Emergency Service
- Organized in 1935 by ARRL
- We are a nationwide volunteer organization that is administrated at state and county levels
- We are licensed amateur radio operators who register our capabilities and equipment for community service during emergencies and disasters

ARES – What do we do?

- We train our members to be emergency communicators.
- We hold weekly radio nets.
- We meet once a month as a group.
- We participate in exercises and trainings.
- We respond to served agency requests for assistance.

ARES – Who are our Served Agencies?

- Offices of Emergency Management
- Sheriffs and Police Departments
- Fire Departments
- American Red Cross
- The Salvation Army
- None Profit Organizations

ARES – Why do we do it?

- To serve our communities.
- To use our talents and tools for a purpose.
- To help others during times of need.
- To contribute and to be a part of something bigger than ourselves.

ARES – Why do we exist?

FCC REGULATION 97.1
THE ROLE OF AMATEUR RADIO IN EMERGENCIES

Subpart A General Provisions
97.1 Basis and purpose. The rules and regulations in this part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles:

(a) Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.

Amateur Radio Emergency Service (ARES)

- ARES is an ARRL Field Organization
  - Qualification
    - ✓ Desire to serve the community
    - ✓ Only licensed amateurs are eligible for membership
    - ✓ Ownership of emergency-powered radio equipment is desirable, but is not a requirement for membership
  - Participation
    - ✓ Be active in training and exercises
    - ✓ Maintain a personal state of readiness

How does ARES assist the community?

- By providing auxiliary communications capabilities during:
  - Wide area power outages
  - Wide area telephone outages
  - Restricted travel during severe weather
  - When served agencies need to augment large manpower incidents with additional communications or observation points

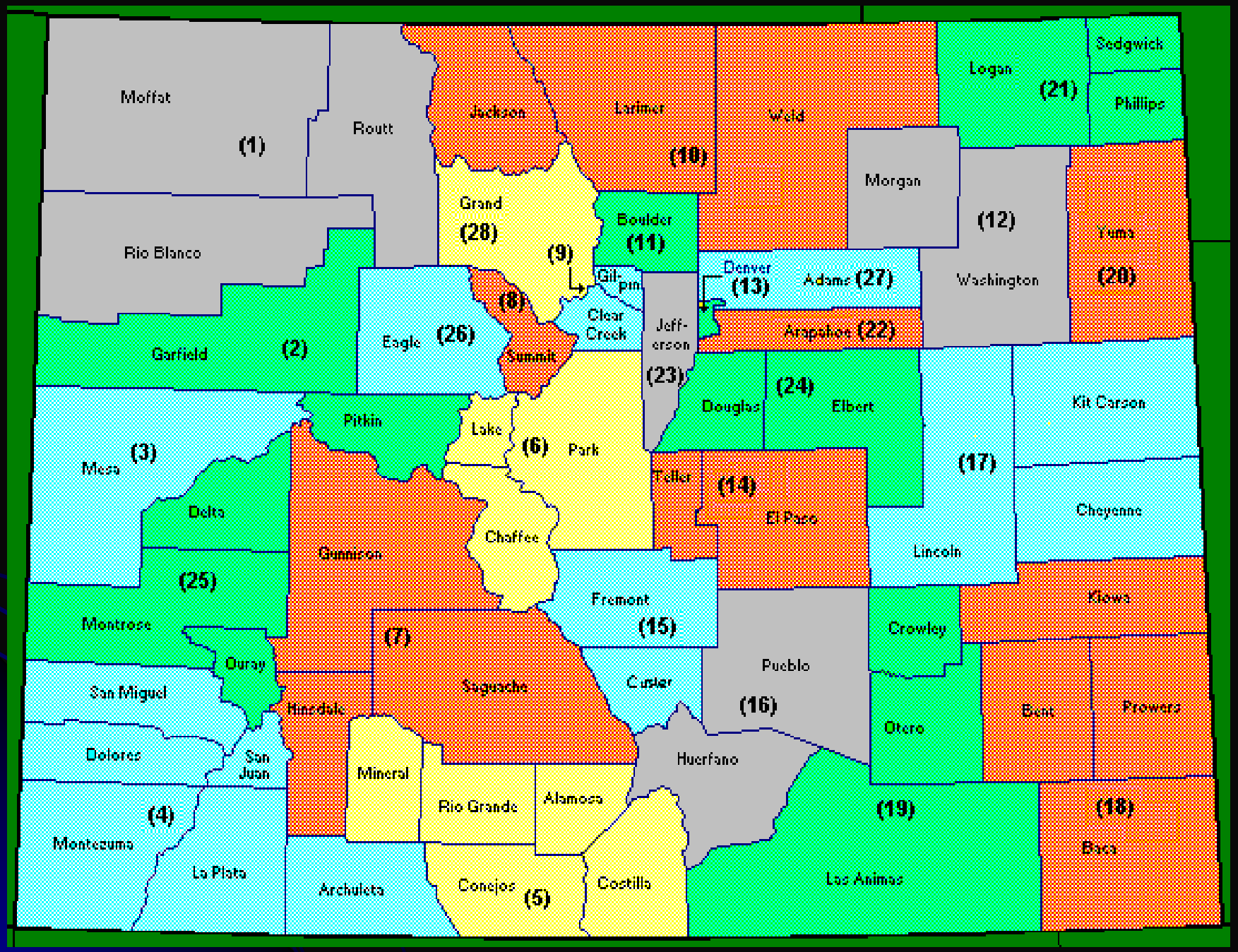
Four levels of Colorado ARES

- National
- Section (Colorado)
- Regional (adopted in Colorado)
- District

ARES National Level

- Under the supervision of the ARRL Field and Educational Services Manager
- Responsible for
  - Advising all ARES officials
  - Maintaining contact with federal government and other national officials
  - Carrying out the League's policies regarding emergency communications

Colorado ARES



Section Organization

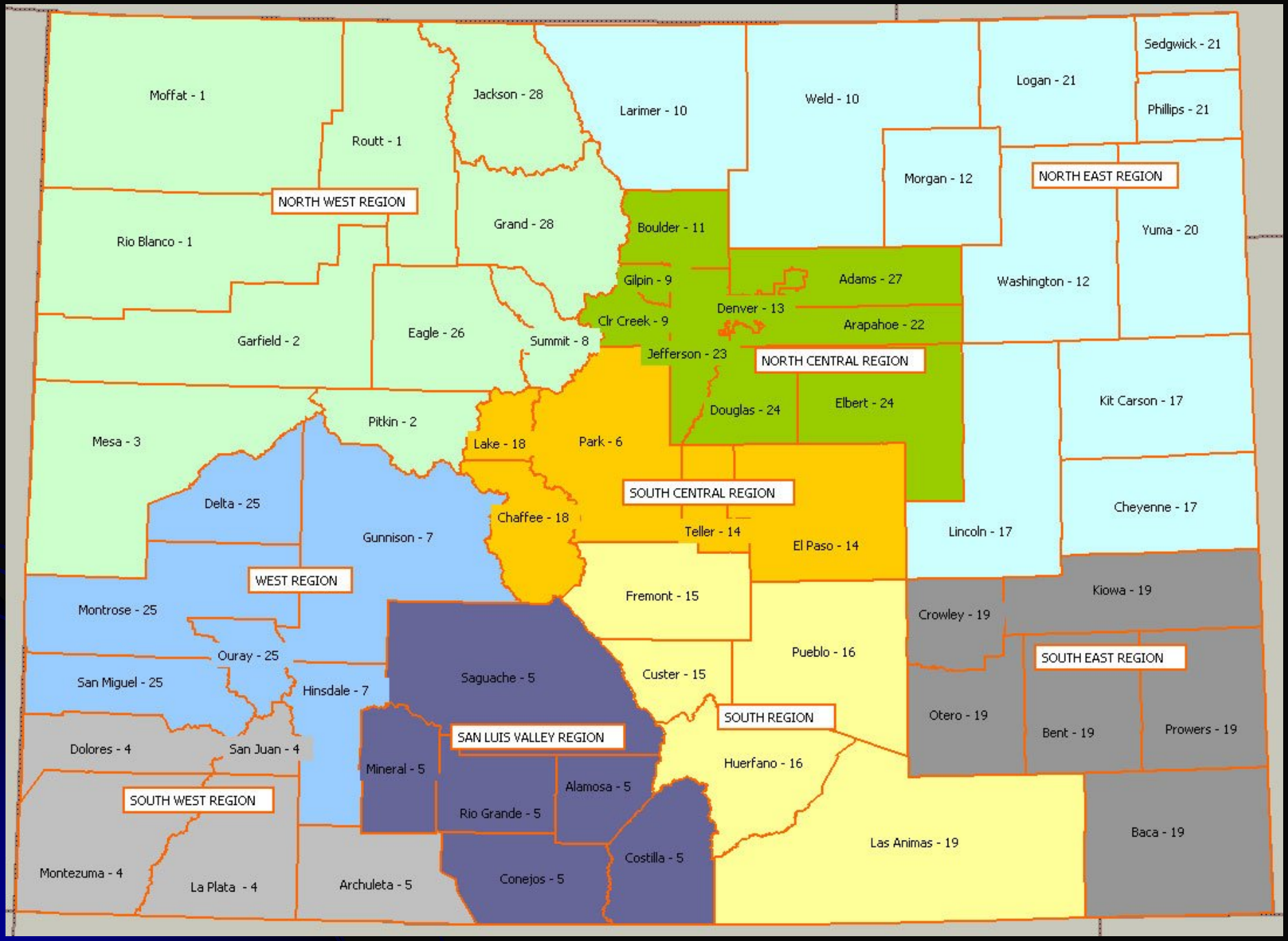
Section Emergency Coordinator

- Appointed by the Section Manager
- Administers section emergency plans
- Appoints Regional and District ECs
- Responsible for the Colorado Emergency Radio Plan "CoPlan"
  - ✓ Plan is available at: http://www.coloradoares.org/
- Must be an ARRL member

Section Recommended Training

- ARRL EC-001
- ICS-100, ICS-200, IS-700, IS-800
  - ✓ http://training.fema.gov
- AuxComm

Colorado ARES



Regional Organization

- Regional Emergency Coordinator
  - A resource for District ECs and their staff
  - Responsible for the leadership of the districts below them
  - Participates in section level planning
  - Find mutual aid resources during incidents
  - Must be an ARRL member

District Organization

- Emergency Coordinator
  - Primary Point of Contact
  - “Chief Volunteer” for the District
  - Mission Coordinator for District response
  - Develops plans along with AECs and District Officers
  - Must be an ARRL Member
- Assistant EC
  - Shares responsibility for district governance
  - Has the same ability to lead missions
  - ARRL Membership recommended

Membership Requirements

- Amateur radio license
  - Tech, General, Extra
- Pass a basic background check
  - Valid from any public safety agency
- Belong to one district
  - Be an active contributor
- Need a positive attitude
  - Attitude can be our weakest point
- No radio equipment is required
  - But it's a really good idea
- ARRL membership isn't required
  - But it is recommended

Three Cardinal Rules of ARES

1. Never give up your personal safety
2. Never self deploy
3. Never become part of the incident

ARES Operations

- What Happens When We're Needed?
  - Someone on the contact list receives a call from a served agency
  - This person takes responsibility for notifications
- Members receive a call based on the callout roster
  - *Check your personal safety*
  - Check your family
  - Check your property
  - Monitor your district's primary frequency
  - When appropriate, check into the district net
- *SAFETY IS TOP PRIORITY*

During an Emergency

- What is a call-out or activation?
  - A served agency request for assistance
- How does it work?
  - E-mail/SMS Text Messaging
  - Phone activation
- What do I do?
  - Follow instructions
- How do I prepare?
  - That's what's on the next set of slides

How Do I Prepare?

- Perform my personal safety check!
- Am I available?
- How soon can I be ready to leave?
- Check into to the net
- Where is my equipment?
- What condition is my equipment in?
- What about my personal needs?
  - Plan to be assigned
    - Between 6 hours to 12 hours
    - Perhaps 24 hours or more

KBUG Form (Know Before yoU Go)

Colorado Section ARES - Douglas & Elbert Counties, CO

KNOW BEFORE YOU GO

Date: _____ Operation: _____

Operator Call_____ Operator Name: _____ ARES: _____ RACES: _____

1. What is the nature of the Emergency? _____

2. What do you want me to do? _____

3. Where should I go? _____

4. To whom do I report? _____

5. At what time? _____: _____ Hrs. (Local Time)

6. Do they know I am coming? YES _____ NO _____

7. How do I get into the area? _____

(Directions to location and information about Road blocks or building access)

8. What is the NET Freq.? _____ Mhz.
What is the BACK-UP NET Freq.? _____ Mhz.

9. What is my TACTICAL CALLSIGN? _____

10. What capabilities do I need? 144 MHz. _____ 220 Mhz. _____ 440 Mhz. _____
HF. _____ Packet _____ ATV _____ Other _____
Describe: _____

11. Is 110 V.AC. available at the site? YES _____ NO _____ UNKNOWN _____

12. Are antennas available at this site? YES _____ NO _____ Types: _____

13. How long will I be on duty? _____

14. Additional information or comments: _____

Please complete this form before leaving for an assignment.
Take the completed form with you to your assignment.

Appearance is Important

- Dress professionally
- Look good
- Smell good too

Looking good as ever…Richard Bush, WBØEVA at Douglas County EOC

Demeanor

- I am a professional
- I am positive and accommodating
- I am a resource
- I *support* my served agency any way I can
- I am courteous
- I am grateful to serve

LASTING IMPRESSIONS

After deployment, ask yourself …

- Was I courteous?
- Did I get in the way?
- Did I contribute?
- Was I friendly and/or business like?
- Did I thank those who helped me?
- Did I thank those in charge for the opportunity to be of assistance?

Personal Readiness - Go Kits

- A "Go Kit" is a container of some kind that you can easily take with you at a moment's notice
  - It contains all of the supplies that you'll need in order to be an effective emergency communicator
- The following are suggestions for items that you might want to include in your "Go Kit"

Go Kit - Personal Gear

- Clothing appropriate for the weather and conditions
- Driver's License and copy of Amateur Radio license
- Money and change for phone
- ARES/AuxComm ID badge
- Orange vest and boundary marking tape to flag wires
- Maps and compass, pocket knife, whistle
- Logbook, notebook, paper, pens, pencils, erasers
- Copies of ARES standard forms
- Cardboard for signs, markers, electrical & duct tape
- Portable table and chair
- Watch or clock, binoculars
- Flashlight, lantern, or portable area lighting with spare bulbs
- Transistor radio or battery operated TV with spare batteries

Go Kit – Transport, Food, and Shelter

- Reliable transportation with a full tank of gas
- Automobile jumper cables and spare fuses
- Automobile jack, tire chains, flares, gas can, siphon pump
- Drinking water, food, personal medications for at least 24 hours
- Thermos, cup, bowl, utensils, matches, stove
- Toothbrush, toothpaste, soap, deodorant, razor, towel
- Toilet paper, small shovel, garbage bags
- Tent, sleeping bag, backpack, rain gear, tarp, space blanket
- Sturdy boots, gloves, sunglasses, hat
- First aid kit, insect repellent, sun screen
- Other personal comfort items

Go Kit - Radio Gear

- Repeater Directory and Emergency Frequency List
- Handheld radio with extra batteries
  - 2m, 220, 440...
- Mobile radio with power cables/batteries
  - HF, 2m, 220, 440...
- HF antenna tuner and SWR bridge
- Radio amplifier
- Spare power cables and fuses for all radios
- Earphone or headset, speaker/microphone
- Public Service band scanner
- Packet radio equipment
  - TNC, terminal, printer, computer

Go Kit - Antenna equipment

- Tower / Mast
  - Spare guy wire
  - Insulators
  - Guy Stakes
- 50 feet of nylon cord, fishing line, weights, stakes, ground rods
- One 10 foot, 15 foot and 25 foot coax sections each interconnected using barrel connectors. One 50 foot section of coax cable with PL-259 connectors.
- Adapters
  - BNC-to-PL-259
  - N-to-PL-259
  - Others as applicable to your radios
  - Double-male PL-259
  - Double-female SO-239

Go Kit – Power, etc.

- AC generator with fuel (and Fire Extinguisher)
- Extension cords, power strips, AC plug adapters
- Battery charger and spare battery packs for handheld radios
- 12 volt power supply for mobile radios
- RigRunner™ DC distribution box
- Spare Powerpole™ Connectors and Crimper
- Cigarette lighter plug adapters and alligator clips
- GPS receiver
- Volt-ohm-meter or digital multimeter
- Portable soldering iron, solder, and tool kit

Anderson Powerpole®

- The Anderson Powerpole® is the ARES national standard connector and are designated 15, 30, and 45 amps.
  - The rating range is a function of which connector pins are inserted in to the housings.
  - The most commonly used Powerpole® is the 30 amp.

- Click to edit the
  - Fourth Outline Level
    - Fifth

AMATEUR RADIO EMERGENCY SERVICE®