

Portland Basic Earthquake Emergency Communications Node (BEECN) Guidelines

The Portland Basic Earthquake Emergency Communications Node program is managed by the City of Portland Bureau of Emergency Management (PBEM)



PORTLAND BUREAU OF EMERGENCY MANAGEMENT

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Instructions for Use

For the *Electronic Version*

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Bookmarks

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Find

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Links and Buttons

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Button example:

Help

For additional help using Acrobat Reader, and for first time Acrobat Reader users, select "Help" from the main menu bar.

Questions and comments to

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Introduction

In the event of a major earthquake in Portland, the communications systems that Portlanders rely on are unlikely to function. Cell phones, land lines, texting, and internet service are not resilient enough to endure the damage anticipated from a Cascadia Subduction Zone earthquake.

Therefore, a major earthquake means that residents in Portland neighborhoods will find it difficult, if not impossible, to receive information and request help from local government in the aftermath. Damaged roads and infrastructure will also cut off many Portland neighborhoods from emergency responders.

A Basic Earthquake Emergency Communications Node (BEECN) is a place to go in Portland neighborhoods after a major earthquake to ask for emergency assistance, or to report severe damage or injury. BEECNs rely on the amateur radio system ("HAM"), a relatively durable communications system, to help neighborhoods and local government reach each other.

In the aftermath of an earthquake, volunteers or city employees will proceed to one of 48 BEECN sites spread throughout the city. Each BEECN has

an equipment cache associated with it which the volunteers will deploy. BEECN volunteers use a handheld radio in the cache to talk with an amateur radio operator at the nearest fire station who will relay those messages to the city's Emergency Coordination Center (ECC). Message traffic is intended to be two-way. This means that the ECC can send response and resource information to neighborhoods through BEECNs, while neighborhoods can talk with local government to report damage or injuries and request help.

Portlanders should not think of a BEECN as a place where people will find emergency supplies or resources, nor should they consider it a staging area for medical professionals and emergency medical services. BEECNs are intended as communication points only.

Above all else, the BEECN program relies on the help of volunteers to succeed. Volunteers and community partners keep the BEECN caches secure, periodically test the equipment, offer program feedback to PBEM, and will be the neighbors their communities rely on to help facilitate effective communication following an earthquake.





SECTION 000 - PROGRAM ORGANIZATION

000.05

Section Numbers

This BEECN Manual is organized into the following sections, divided by general subject area:

| | |
|-----|--------------------------------------|
| 000 | Program Organization |
| 100 | BEECN Volunteers |
| 200 | Equipment Caches and Equipment |
| 300 | Concept of Operations: BEECN Sites |
| 400 | Concept of Operations: Fire Stations |

000.10

BEECN and PBEM

- The BEECN program is sited in, supervised and managed by PBEM with participation from Portland Fire & Rescue.
- PBEM has sole authority to determine BEECN volunteer membership and who is responsible for maintaining and deploying a BEECN.
- When activated, BEECN volunteers defer to any present emergency response personnel (such as

police, fire, or EMS personnel); members of the military; emergency managers associated with a City of Portland bureau (e.g. the Portland Water Bureau); or staff from PBEM.

- d. The PBEM Bureau Director may delegate responsibilities for the BEECN program to a designee (in most cases, the NET Coordinator).
- e. All routine communications regarding BEECN program business between volunteers, city employees, and PBEM will be directed to the NET Coordinator.

000.15

City Employees and BEECNs

The City of Portland may assign a City of Portland employee to a BEECN for drills and/or deployment. A city employee is still considered a city employee while undertaking responsibilities to the BEECN program, and the city employee is at no time considered a “BEECN volunteer”.

000.20

Elements to a BEECN

A BEECN consists of three essential elements: the site, the equipment cache, and the assigned volunteers.

- a. The **BEECN site** is the geographical location where Portlanders are encouraged to go 24 to 48 hours following an earthquake. It may be school grounds, or a park, or a parking lot.
- b. The **BEECN equipment cache** is associated with the site and located within a five block radius of the BEECN site. It contains all the equipment that volunteers need to deploy the BEECN.
- c. **BEECN volunteers** are the personnel associated either with a BEECN or a fire station, and are trained to deploy the BEECN program 24 to 48 hours following an earthquake. It takes at least two volunteers to operate a BEECN, and at least two volunteers to carry out BEECN responsibilities at a fire station.

000.25

Responsibilities of PBEM to the BEECN Program

PBEM has many responsibilities to the BEECN program and they are woven throughout these Guidelines. The following subsection does not include all of PBEM’s responsibilities to the BEECN program, but indicates those most general and salient to it. PBEM will:

- a. Provide training to designated BEECN volunteers that will instruct them on safe and effective practices and procedures to deploy the BEECN following an earthquake.
- b. Provide BEECN exercise and drill opportunities to keep volunteers confident and competent in the skills needed to deploy in the event of a disaster.
- c. Provide a point of contact at PBEM (e.g., the NET Coordinator) who responds to the needs and inquiries of BEECN volunteers in a reasonably timely, professional, and relevant manner.
- d. Ensure that volunteers are appropriately indemnified for their service to the community.
- e. Ensure that caches and cache supplies and equipment are replenished and replaced as needed and as resources permit; and, ensure that caches receive maintenance as required.
- f. Be responsible for and maintain Memorandums of Understanding (MOUs) with property owners who host BEECN caches.

000.30

Location of BEECN Sites

- a. At minimum, there will be a total of 48 BEECN sites located throughout the City of Portland.
- b. BEECNs will be evenly distributed throughout the city and are generally sited with the goal of placing approximately two BEECNs within each of the Portland Plan's neighborhood hub boundaries. (see **Appendix X**)
- c. PBEM has complete discretion over the exact location of each BEECN site. However, PBEM will thoroughly consider the input of property owners, community partners, city employees, and volunteers when deciding on BEECN site locations.
- d. Though moving a BEECN site should be avoided, PBEM will consider moving a site if a more appropriate one is found in the immediate neighborhood of the BEECN.
- e. The ideal BEECN site is:
 1. An open area large enough to hold a crowd of at least 100 people;
 2. A safe distance from unreinforced masonry structures (such as older brick structures);
 3. Is not on a steep gradient or near landslide hazards, and not easily subject to flooding;
 4. Is not in the vicinity of tall trees or overhead power lines;
 5. Is familiar to the community and following a disaster might be intuited by neighbors as a community gathering point, and is geographically central to the immediate community.

BEECN Volunteers set up the communications tent



SECTION 100 - BEECN VOLUNTEERS

100.05

Role of BEECN Volunteers

- a. BEECN volunteers are unpaid volunteers with the City of Portland and any responsibilities undertaken as a BEECN volunteer are voluntary. Volunteers are not employees of PBEM or any other city bureau while acting as a BEECN volunteer.
- b. Any time a BEECN volunteer engages in authorized BEECN activities, that member is a representative of the City of Portland and will comport him or herself in a manner consistent with these BEECN Guidelines and **Code of Conduct**.

100.10

Persons with Disabilities

Everyone has a part in emergency preparedness and response, and no volunteer interest in the BEECN program will be discouraged or denied on the basis of any physical or cognitive disability. In order to ensure equal access to volunteer programs, PBEM will reasonably modify policies and procedures and provide auxiliary aids and services to persons with disabilities.

100.15

Volunteer Qualifications

Each BEECN volunteer must:

- a. Reside within walking or biking distance of the BEECN or fire station the volunteer is responsible for, and be prepared to transport self to the BEECN or fire station in the event of a BEECN deployment without relying on motorized transportation (such as a car). BEECN volunteers do this within the deployment timeframe of 24 to 48 hours following a disaster.
- b. Pass a criminal background check at PBEM's expense.
 1. A volunteer may not be considered for BEECN service if she or he has been convicted of a crime classified as: a Class A Felony; a Class B Felony; any sex crime requiring registration; or stalking.
 2. All rules governing background checks for BEECN volunteers are identical to the rules governing background checks for NET volunteers. **See NET Guidelines, Sections 200.20 and 300.15.a.**
- c. Be willing and capable of fulfilling the BEECN volunteer responsibilities indicated in **Section 100.40: BEECN Cohort Responsibilities**.
- d. Sign the Code of Conduct applicable to BEECN volunteers (XXXX), and follow the procedures indicated in this Guidelines manual.

100.20

Relevant BEECN Volunteer Experience and Prior Training

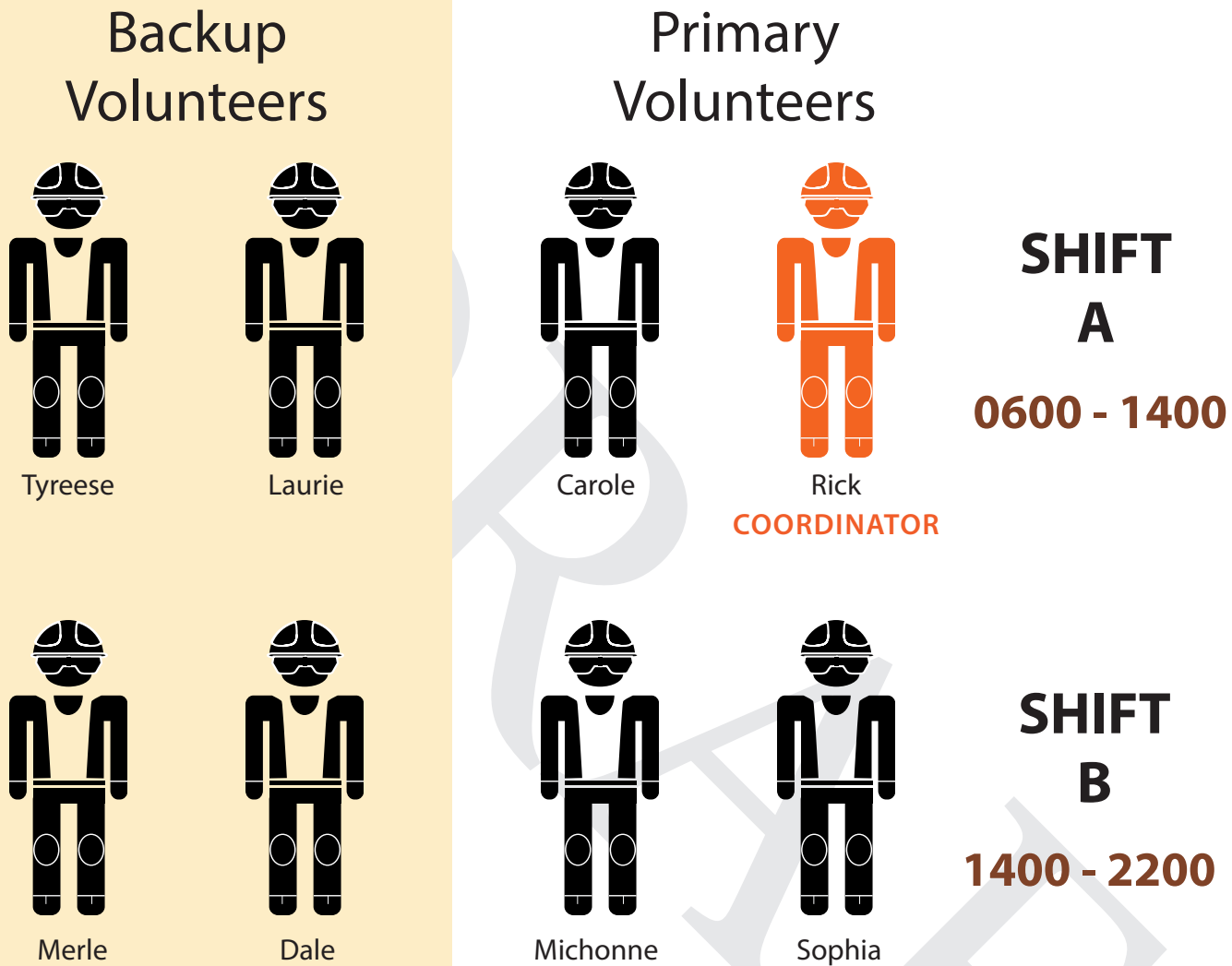
- a. Only volunteers staffing fire station Go-Kits in the BEECN program need to have an Amateur Radio license and experience with amateur radio operations. Volunteers staffing BEECN sites use a push-to-talk radio and **do not require an Amateur Radio license**.
- b. BEECN volunteers do not need to be First Aid certified, as they are not expected to provide medical treatment. However, each BEECN cache is stocked with First Aid supplies and PBEM encourages BEECN volunteers to have or receive First Aid certification. PBEM will endeavor to obtain this training for BEECN volunteers.
- c. BEECN volunteers can also have a background in CERT/NET training, but this is not required. If a BEECN volunteer would like to receive NET training, Portland NET will expedite that individual's application into the NET program.
- d. Other skill competencies relevant to volunteering for the BEECN program include: public speaking, leadership/personnel management, and mental health/crisis counseling.

100.25

BEECN Training

PBEM will provide training to designated BEECN volunteers instructing on the deployment and use of BEECN equipment on an as-needed basis. PBEM encourages members of a BEECN Cohort to teach each other in the use of equipment if possible.

Cohort Organization



100

100.30

BEECN Volunteer Cohorts

- Each BEECN should have a cohort of no fewer than eight volunteers who are trained and familiar with the BEECN cache.
- One of the eight in a cohort will be the Cohort Coordinator for that BEECN cohort. The responsibilities of the Coordinator are described in **100.35: BEECN Cohort Coordinators**.
- A cohort is divided into two shifts (Shift A and Shift B) of four volunteers each. The intention is that in an actual emergency deployment, each shift will work for eight hours maximum and switch to the other shift at the end of eight hours. See **Section 300.10** on operational periods and shifts.
- Shift A and Shift B are further divided between two Primary Volunteers and two Backup Volunteers. If a Primary Volunteer is injured or for some other reason cannot deploy the BEECN, Backup Volunteers are available to fill in or take over deployment responsibilities. See **Figure 1: Cohort Organization**.

100.35

BEECN Cohort Coordinators

Cohort Coordinators have no field authority greater than other BEECN volunteers, but are responsible for organizing their cohort. Responsibilities of the Cohort Coordinator include:

- a. Serving as PBEM's point of contact for a BEECN's cohort. PBEM will contact this individual to inform of BEECN drills or exercises, policy changes, or any other information relevant to the BEECN program. The Cohort Coordinator is responsible for relaying this information to cohort members.
- b. Serving as the point of contact for the owner/manager of the property hosting the cache. The Coordinator should contact the property owner/manager when BEECN exercises are scheduled.
- c. Working with cohort members to plan out shift and primary/backup volunteer designations for operations.
- d. Ensuring that cohort volunteers feel comfortable with using the cache equipment, can deploy the BEECN competently, and that all volunteers understand their role and responsibilities in the event of a BEECN deployment.
- e. Ensuring that the cohort has no fewer than eight members, and recruiting new members from the immediate neighborhood as needed.
- f. Providing PBEM with program feedback, recommendations, and resource requests as appropriate.
- g. Ensuring that the cohort responsibilities described in **100.40: BEECN Cohort Responsibilities** are carried out, and the results of audits and exercises are relayed to PBEM.

100.40

BEECN Cohort Responsibilities

Each BEECN Cohort has the following responsibilities:

- a. No less than **monthly**, do a sight check of the cache to ensure it is secure and has not been damaged or significantly tampered with, and that the tarp over it is still on tight (if the cache is outdoors). There is no need to inform PBEM of this check *unless* there is damage or other issues to report.
- b. No less than **quarterly**, inventory the contents of the cache using the **inventory forms** included inside the cache. The completed inventory form should be scanned and emailed to the PBEM NET Coordinator, or mailed using self-addressed stamped envelopes stored inside the cache.
- c. No less than **annually**, participate in a BEECN activation exercise. PBEM will coordinate an exercise in the area of the BEECN once a year, but will coordinate more activation exercises at the request of a cohort as resources allow.
- d. In the event of a major earthquake, proceed with BEECN operations as described in **Section 300**.

100.45

Fire Station Cohorts

A Fire Station volunteer ("FS volunteer") is a specialized Amateur Radio Operator (ARO), OR a non-licensed volunteer assisting the ARO, who works independently of BEECN cohorts and communicates with the Portland Emergency Coordination Center (ECC).

Fire Station volunteers also form a cohort of eight for each fire station. Each shift requires one primary and one backup ARO.

Fire Station Volunteers are responsible for relaying messages from BEECNs to the ECC during deployments and exercises and are fundamental to BEECN operations. Therefore, a BEECN cohort should know who the Fire Station Volunteer is who will be relaying their messages. The responsibilities of Fire Station Volunteers are described in **Section 400**.

100.50

BEECN Volunteers and Portland Neighborhood Emergency Teams (NETs)

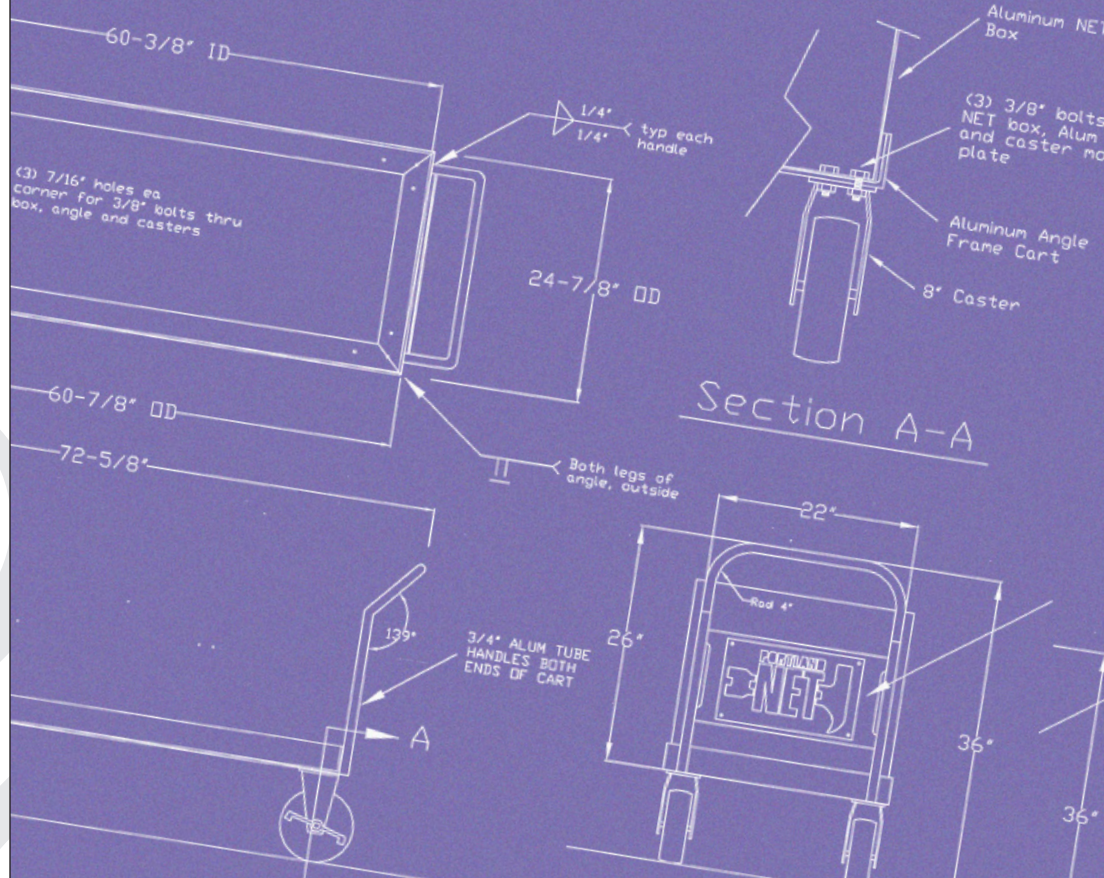
- a. BEECN volunteers and NETs operate independent of each other's authority and are not under each other's chain of command.
- b. PBEM encourages BEECN cohorts to meet with regularly with their local NETs, and to be familiar with their Operations Plans.
- c. One person may be both a NET and BEECN volunteer. NETs respond immediately following a major disaster, while BEECN volunteers operate 24 to 48 hours following an earthquake. Therefore, a volunteer can plausibly be part of both programs, and PBEM encourages volunteer participation in both.

100.55

Indemnification

Subject to the conditions and limitations of the Oregon Constitution and Oregon Tort Claims Act, **ORS 30.260 through 30.300**, the City shall indemnify, defend and hold harmless BEECN or FS volunteers for any tort claim arising out of a BEECN/FS volunteer's act or omission within the course and scope of the volunteer's duties while the volunteer is performing emergency service activities under the direction of PBEM in connection with a state of emergency declared under **ORS 401.309**, or during a state of public health emergency proclaimed under **ORS 433.441**, or while the volunteer is engaged in training being conducted or approved by PBEM for the purpose of preparing the volunteer to perform emergency services, or while a volunteer is participating in non-emergency deployment activities with PBEM's prior approval.

Original BEECN cache design



SECTION 200 - EQUIPMENT CACHES AND EQUIPMENT

200.05

Equipment Caches - General

PBEM is ultimately responsible for, and has complete discretion over, the design, purchase, placement, content, and security of BEECN caches.

200.10

Equipment Caches - Placement

- The location of a BEECN cache is NOT public information. It is information that should be known only to PBEM, a hosting property owner, and volunteers responsible for the cache. All persons who know the location of a cache or have possession of a **BEECN profile** should treat the information as confidential.
- Optimally, a BEECN cache is secured in an indoor location that volunteers have access to in the event of a deployment. An indoor location's structure should be reasonably expected to endure a major earthquake sufficiently that volunteers can recover the cache safely.
- The property on which a BEECN cache is stowed may be a school, a business, a place of worship, or a private residence. In any situation for deployments and exercises, volunteers should act as guests and take care not to damage the premises or (during drills and exercises) interrupt other activities on the site. Volunteers will defer to the authority of a property owner, or the owner's representative.
- The agreement between a property owner who hosts a cache and PBEM is written into a Memorandum of Understanding (MOU).

200.15

Supplementary Equipment in BEECN Caches

- a. If there is space available, members of a BEECN cohort or nearby NET may place their own equipment in the cache to supplement the PBEM provided equipment..
- b. PBEM is not responsible for the loss, theft, recovery, or replacement of supplementary equipment placed in a BEECN cache.

200.20

BEECN Cache Inventory

A complete BEECN cache consists of the following:

- ☐ Aluminum rolling cart/storage container
- ☐ Pop-up tent/shelter with 4 sidewalls
- ☐ ICOM IC f4001 UHF handheld radio
- ☐ SKED roll-up stretcher
- ☐ AA batteries (qty. 18)
- ☐ BEECN Guidelines (binder)
- ☐ Eton CRC FRX 1 Survival Radio
- ☐ UCO Lumora LED Lantern
- ☐ Grease pencils/dry erase markers (2 each in binder pencil pouch)
- ☐ Extremity splints, 12" (qty. 6)
- ☐ Extremity splints, 18" (qty. 6)
- ☐ Extremity splints, 24" (qty. 3)
- ☐ Extremity splints, 36" (qty. 3)
- ☐ Small duffel for First Aid Kit 1
- ☐ Large duffel for First Aid Kit 2

Two first aid kits consisting of:

| First Aid Kit 1 (small duffel) | QTY |
|--|-----|
| <input type="checkbox"/> Waterless hand sanitizer (12 oz bottle) | 4 |
| <input type="checkbox"/> Bandage shears | 2 |
| <input type="checkbox"/> Cleaning agent/soap (12 oz bottle) | 2 |
| <input type="checkbox"/> N95 face masks (case of 20) | 1 |
| <input type="checkbox"/> Infectious waste disposal bags | 10 |
| <input type="checkbox"/> Protective eyewear | 4 |
| <input type="checkbox"/> Forceps | 2 |
| <input type="checkbox"/> CPR mask with one-way valve (adult) | 4 |
| <input type="checkbox"/> CPR mask with one-way valve (child) | 2 |
| <input type="checkbox"/> Duct tape | 2 |

| First Aid Kit 2 (large duffel) | QTY |
|---|-----|
| <input type="checkbox"/> Disinfecting wipes | 25 |
| <input type="checkbox"/> Triple antibiotic ointment | 25 |
| <input type="checkbox"/> Roll surgical tape (.5") | 4 |
| <input type="checkbox"/> Roll surgical tape (1") | 4 |
| <input type="checkbox"/> Roll surgical tape (2") | 2 |
| <input type="checkbox"/> Chemical cold packs | 10 |
| <input type="checkbox"/> Chemical hot packs | 12 |
| <input type="checkbox"/> 4" x 4" nonsterile gauze sponges (100 count package) | 1 |
| <input type="checkbox"/> 4" sterile roller bandages | 12 |
| <input type="checkbox"/> Non-latex exam gloves (small), box | 2 |
| <input type="checkbox"/> Non-latex exam gloves (large), box | 2 |
| <input type="checkbox"/> Sterile adhesive bandages 1" (box of 50) | 2 |
| <input type="checkbox"/> Sterile adhesive bandages 2" (box of 50) | 1 |
| <input type="checkbox"/> Sterile bulk dressings 5x9" (box of 25) | 2 |
| <input type="checkbox"/> Sterile bulk dressings 8x10" (box of 20) | 1 |
| <input type="checkbox"/> 4" emergency compression bandage | 4 |
| <input type="checkbox"/> Triangular bandages | 24 |
| <input type="checkbox"/> Ace bandage, 4" | 5 |
| <input type="checkbox"/> Thermal blanket | 100 |
| <input type="checkbox"/> Feminine pads, pack of 12 | 2 |

| | |
|----------------------------|----------------------|
| Length (including handles) | 81" |
| Length (box alone) | 61" |
| Width | 25" |
| Height | 34" |
| Weight (fully loaded) | ≈ 250 lbs. |
| Volume | ≈ 30 ft ³ |

The cache box is a diamond-plated aluminum toolbox (the type that mounts to a pickup truck) bolted to a wheeled cart. All wheels are affixed with a castor to enable better maneuverability.



Each box has a locking latch near the left-hand handle. When the lock is turned horizontally, it is in the locked position.



The number of each BEECN is die stamped on the front



Foot brakes make the cache easier to park



The key to unlock the latch is generally found in a key safe (Master Lock #5400D). It is affixed to the cache box, or a chain that secures the box in place.

When the combination is entered, you can flip open the key safe to retrieve the key. You can also open the lock by sliding the latch inside to the left.



Slide tab to open

The shelter is a 10' x 10' pop-up canopy that will keep volunteers protected from the elements while conducting operations. They are easily and quickly deployed.



Step 1

Unzip the case and pull it down. Pull the frame out by the legs. The canopy may still be affixed.



Step 2

Expand the frame outward about halfway.



Step 3

Drape the canopy over the frame. At each corner, secure the canopy using the velcro tabs.



Step 4

Now with the canopy affixed, pull out the frame the rest of the way.



The tent frame and canopy are stored in a long bag with wheels



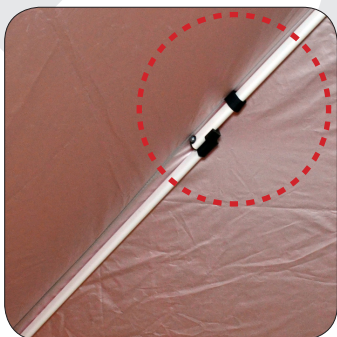
The legs lock when fully extended and can be unlocked by pulling on the rings

Continued next page



Step 5

Push upward on the canopy so that the legs extend out, clicking and locking into place.



Step 6

If you can safely reach them, close the velcro loops along the top of the frame to help keep the canopy secure.



The shelter is now ready for BEECN operations.

Stakes

You will find tent stakes in a pocket on the side of the shelter bag in cases they are needed to stabilize the tent in high winds.



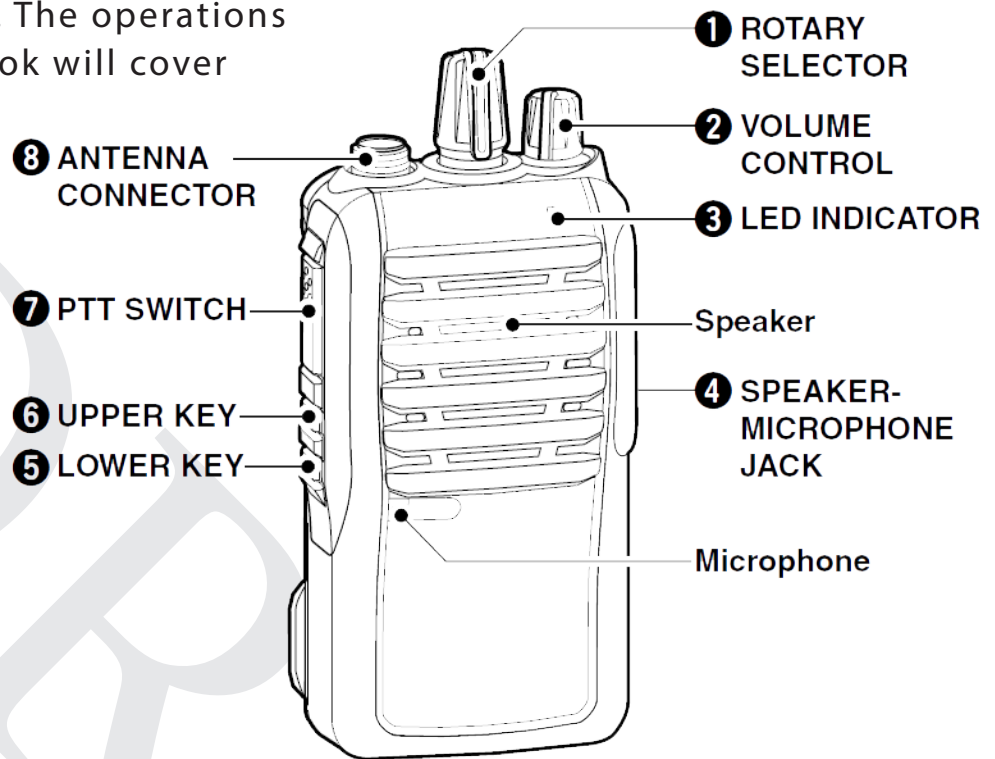
Optional

Each cache also has a set of white sidewalls you can attach if needed.



They are fastened to the frame with ties and velcro tabs.

Each cache includes an **Icom F4001 series UHF transceiver**. The operations section of this guidebook will cover which BEECNs use which channels. This section will cover basic operation of the radio.



1. Rotary Selector

Rotate to select the pre-programmed memory channels

2. Volume Control

Rotate to turn the power ON/OFF, and adjust the audio level.

3. LED Indicator

See sidebar

4. Speaker-Microphone Jack

Connect the optional speaker-microphone or VOX adapter cable.

5. Lower Key

6. Upper Key

7. PTT Switch

Push and hold to transmit; release to receive.

8. Antenna Connector

Connect the antenna. **NEVER** operate radio without the antenna attached.

Radio Specifications

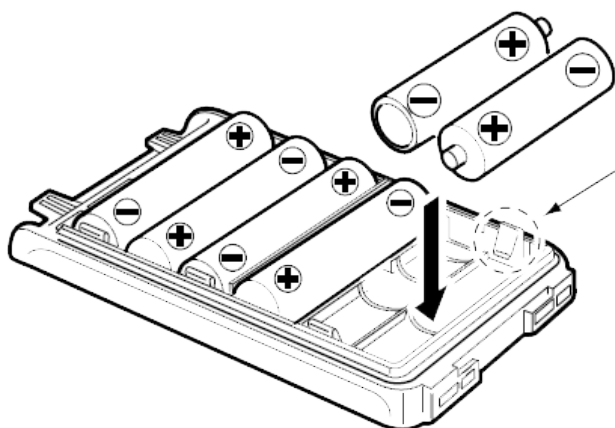
- Powered on 6 AA batteries
- Operates on 400 - 470 MHz UHF frequencies
- 4 Watts transmit power

Preparing the radio

The radio should be in a cardboard box marked "Icom". When you open the box, you will find the radio disassembled in three pieces: radio, battery pack, and antenna.

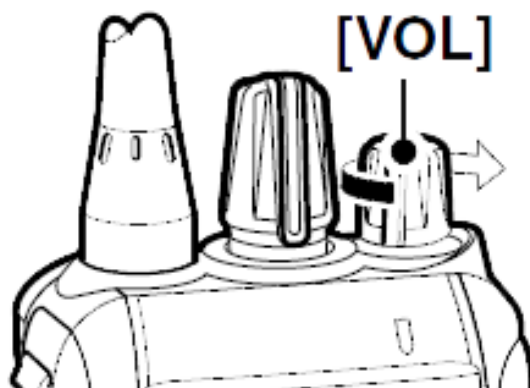


You will also find AA batteries in the box with the radio. Load batteries into the battery pack and affix the pack to the back of the radio. Screw the antenna on. Power the radio on to test the batteries.



Turning power ON

Rotate [VOL] to turn power ON.



Channel selection

Rotate [ROTARY SELECTOR] to desired operating channel.

Receiving

1. Rotate [VOL] to turn power ON.
2. Rotate [ROTARY SELECTOR] to operating channel.
3. When receiving a call, adjust audio output to a comfortable listening level.

Transmitting

1. Wait for the channel to clear to avoid interference.
2. Hold the radio 2 to 4 inches from your mouth.
3. Push and hold [PTT] and wait two seconds, then speak into the microphone at a normal voice level.

IMPORTANT!

After using the radio, remove batteries and disassemble.

LED Indicator

Generally, the LED indicator will be lit red (transmitting), green (receiving signal), or orange (receiving a matched 2/5 tone). Use the guide below to interpret LED color and activity.

LED indicator

The LED indicator indicates the status of various parameters of the radio as follows:

◇ TX: Lights red while transmitting signal



◇ RX: Lights green while receiving a signal



◇ Call LED (ON): Turns ON while receiving a matched 2/5 tone



◇ Call LED (Blink): Blinks while receiving a matched 2/5 tone



◇ Fast/Slow scan: Blinks when the Fast/Slow scan is activated



◇ Low Battery 1: batteries should be changed (blinks slowly)



◇ Low Battery 2: batteries must be changed (blinks fast)



◇ TX Low Battery 1: Low battery detected during TX mode



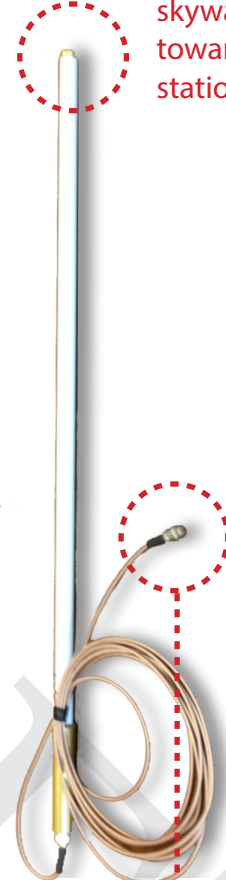
◇ TX Low Battery 2: Very low battery detected during TX mode



◇ Channel Error: A non-programmed channel is selected



Point this end skyward and towards fire station.



Handheld UHF Radio

Pole Antenna

Most of the handheld radios include a standard “rubber ducky” antenna. BEECN caches sited in topography that inhibits radio signals (particularly SW Portland) may include a fiberglass pole antenna. To boost the radio signal, simply screw the cable onto the radio’s antenna connector.



What is a SKED?

A rescue system that performs the functions of a stretcher, yet is much more compact, light weight, and versatile.

| | |
|------------------------|--|
| Size (laid out flat) | 3' x 8' |
| Size (rolled up) | 9"d x 36"l |
| Weight | 17 lbs. (w/ accessories) |
| Material | Medium density polyethylene plastic ** Nylon webbing ** Solid brass grommets ** Steel buckles |
| Temperature Range | Usability to 120°F without becoming brittle |
| Horizontal Lift Slings | Webbing tensile strength 9,000 lbs. |
| Vertical Lift Slings | Rope tensile strength 6,000 lbs. |

Vertical lift sling
(PMI E-Z bend
3/8" rope)

Large steel carabiner

Tow strap

Webbing handles

Horizontal lift slings

Cordura backpack

SKED stretcher
model SK200

Repacking the SKED



Step 1

Lay stretcher out and place retainer strap, buckle side down under foot end of SKED.



Step 2

Starting at the head end, roll the SKED up as tight as possible.



Step 3

Continue to roll the SKED up using knee to keep stretcher from unrolling.



Step 4

Fasten pre-placed retainer strap to buckle and place SKED stretcher in backpack.



Set of four removable webbing handles enables up to eight rescuers to carry the SKED. Insert through unused grommets on the side of the SKED.



Tow strap is attached to carry handles enabling three or four rescuers to drag the SKED.



Eton CRC FRX 1 Survival Radio

All-purpose rechargeable weather radio with hand turbine power generator. Receives AM/FM/NOAA weather bands (one minute of cranking will power the radio for 15 to 20 minutes). Includes LED flashlight.



UCO Lumora LED Lantern

Compact and collapsible LED lantern/flashlight that provides 110 lumens. Hold down the on/off switch to adjust brightness. Includes a hook for hanging. It takes AA batteries. 15 hours of light on highest setting, 200 hours of light on lowest setting.



Cardboard Extremity Splints

Splinting material in four sizes: 12", 18", 24", and 36".



First Aid Kits (2)

Each cache includes two first aid kits - a small one and a large one. The following pages inventory their contents.

Small First Aid Kit

The smaller kit primarily contains durable medical supplies and items intended to keep volunteers safe from infection.



Bandage shears (2)



In some kits, the shears and forceps have been replaced with a single EMT holster.



Forceps (2)



Protective eyewear (4)



Waterless hand sanitizer - 12 oz bottle (4)



Cleaning agent/soap - 12 oz bottle (2)



Duct tape (2)



CPR masks (4)



Pediatric CPR masks (2)



Infectious waste disposal bags (10)



N95 masks - carton of 20 (1)



Items not to scale

First Aid Kit (Large)



Disinfecting
wipes (25)



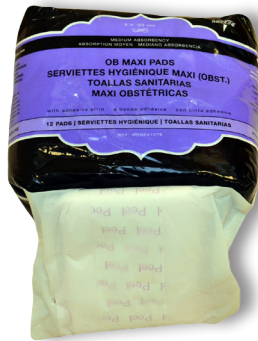
Triple antibiotic
ointment (25)



Chemical cold
packs (10)



Chemical hot
packs (12)



Feminine pads,
pack of 12 (2)



4" compression
bandage (4)



4" Ace
bandage (5)



Box 1" adhesive
bandages (2)

Box 2" adhesive
bandages (1)

Large First Aid Kit

The large kit
contains mostly
bandages and
other disposables.



Triangular
bandages (24)

Items not to scale



Surgical tape - .5" (4)
Surgical tape - 1" (4)
Surgical tape - 2" (2)



4" sterile roller bandages (12)



Box non-latex exam gloves - small (2)

Box non-latex exam gloves - large (2)



Thermal blankets (100)



Sterile bulk dressings - 5"x9", 25 count (2)

Sterile bulk dressings - 8"x10", 20 count (1)

Large First Aid Kit (continued)

The large kit contains mostly bandages and other disposables.



Gauze sponges - 4"x4" 100 count (1)

Items not to scale

Every fire station in Portland is equipped with a VHF amateur radio called an “orange go-kit” and an external antenna. This is the radio that an operator at a fire station uses to communicate with Portland’s ECC.

Each kit includes a notebook with setup and operations instructions, so that information will not be covered here. Portland Fire & Rescue has also posted a film covering kit setup and operation at: <http://bit.ly/1nuikxP>.



Each go-kit kit includes:

| | |
|---|--|
| VHF radio (Icom IC-2100H/IC-2200H) | J-pole roll-up VHF antenna |
| Microphone | AC ground adapter plug |
| AC power supply (Astron SS-25M) | Extension cord, 50' (qty 2) |
| Coax cable, 25' | Pencils |
| Coax cable, 100' | Pencil sharpeners |
| BNC to SO-239 adapter (for J-pole roll-up antenna) | Zippered pouch (container for small items) |
| SO-239 female-to-female barrel adapter (for combining coax cables) | Small screwdrivers (1 flat, 1 Phillips) |
| AC power cable (black) | Radio operation manual |
| DC power cable (links power supply to radio) | 20 amp fuse (for radio power cables) |
| Car battery power cable (w/clips for powering radio from a car battery) | Notebook with inventory, operations instructions, frequency list, city map |
| Cigarette lighter adapter (to install the radio in a car) | Magnetic mount whip antenna |

*PF&R Lt. Shon Christensen
demonstrates the SKED*



300

SECTION 300 - CONCEPT OF OPERATIONS: BEECN SITES

This section steps volunteers through what to do when deployed to a BEECN in an emergency or during an exercise. Operations for volunteers who deploy to fire stations to support BEECNs are covered in **Section 400**.

300.05 Deployment Planning

Have a plan. Cohorts must consider that an earthquake knocking out communications systems means volunteers will be unable to check in with each other. Therefore, cohorts must plan ahead on who deploys for Shift A, and who for Shift B.

Furthermore, all four volunteers (Primary and Backup) assigned to a shift should deploy for that shift if they can. If one or both Primary volunteers cannot deploy, the Backup volunteers are still present to carry out BEECN responsibilities and/or assist the Primary Volunteers if needed. Backup volunteers can also rotate Primary Volunteers out of their shift for breaks to eat, use the bathroom, etc.

PBEM recommends that the Cohort Coordinator inform the closest Fire Station and local NETs of the Cohort's deployment plan.

300.10

BEECN Operational Periods and Shifts

- a. The operational period for a BEECN is from 0600 to 2200, and BEECNs will not operate from 2200 to 0600 (with the next operational period starting at 0600); unless otherwise specified by PBEM.
- b. Each operational period is divided into two shifts: Shift A and Shift B. Shift A runs from 0600 to 1400, and Shift B runs from 1400 to 2200.

300.15

Deployment Protocols

The radio network for BEECNs is activated 24 to 48 hours following a catastrophic earthquake that has shut down communications systems such as cell phones and landlines. Therefore, BEECN volunteers must expect to **self deploy** without a direct request from PBEM or other government authority. Volunteers should self-deploy to the BEECN cache and set up at the BEECN site if, and only if, the following conditions are met:

- a. A major earthquake has occurred in the Portland area.
- b. The volunteer and his or her family are not in any immediate danger, and are not injured.
- c. Communication systems (such as land lines) are inoperative.
- d. Volunteers have received no direct instructions from PBEM or other government authority.

300.20

Responsibilities Prior to Deployment

Immediately following an earthquake, BEECN volunteers:

- a. Check themselves for injuries and ensure personal safety.
- b. Check in with household members, ensure their safety, and treat any injuries.
- c. Deploy to BEECN cache if it is safe to do so, and set it up at the BEECN site.

300.25

Self Determination to Deploy

Individual volunteers maintain personal discretion to deploy when the self- deployment protocols are met as described in **300.10**. The decision to deploy following a disaster is a volunteer's own, and a volunteer may never be coerced into deploying. A volunteer who chooses not to deploy will not be subject to any consequences related to his or her standing in the BEECN program.

300.30

Deployment Guiding Principles

During the course of any deployment or exercise, BEECN volunteers must ensure that all chosen actions conform to the following guiding principles:

- a. Safety is always the top priority.

- b. Always use the buddy system and always work in pairs. It takes at least two volunteers to operate a BEECN.
- c. If you see something unsafe, say so. Everyone has permission to say, "That does not seem safe" or "I do not feel safe."
- d. If someone points out an unsafe condition, stop and correct it right away.
- e. The loaded cache carts weigh more than 250 pounds. Always use two people to move them.

300.35

Conduct at the BEECN Cache and Site

When moving the BEECN cache and setting up at the site, volunteers should act as guests on the property. Please be respectful and avoid damaging the grounds or any property at the location. If a property owner is present, or a representative of the property owner, volunteers should follow instructions given by that person. Please represent Portland professionally and respectfully.

300.40

Personal Security

- a. Volunteers must never carry firearms or other weapons when volunteering at a BEECN. A folding knife or knife with less than a twelve-inch blade is acceptable as a tool.
- b. If confronted by a person at any time who intends to take the equipment and/or harm the volunteers, volunteers must not engage physically or verbally. Leave the equipment and walk away, and call out for help. Do not attempt to confront any threatening person.

300.45

BEECN Set Up

- a. Push the cache to a set up location at the BEECN site that is:
 - 1. At least 12' x 12' in area
 - 2. Level
 - 3. Not under trees or power lines
 - 4. Away from tall buildings and any brick or block structures
- b. Unlock/open cache and do a brief inventory of the contents (except for inside the First Aid bags).
- c. Set up the tent using the Tent Instructions on **page 17**.
- d. Load batteries into the radio and turn the radio on. See **page 19** for instructions.
- e. Turn the radio to your assigned radio channel according to **300.50: Channel Guide**.
- f. Use the script in **Section 300.55** to check in with your station and begin passing radio traffic.
- g. Record the messages you receive in the **RADIO LOG**.

300.50 BEECN Channel Guide

| BEECN | BEECN Site | Primary Fire Station | Primary UHF Channel | Secondary Fire Station | Secondary UHF Channel |
|-------|---|----------------------|---------------------|------------------------|-----------------------|
| NW-1 | Linnton Community Center | 22 | 2 | 26 | 2 |
| NW-2 | Forest Park Elementary School | 27 | 2 | 16 | 1 |
| NW-3 | Chapman Elementary School | 3 | 2 | 6 | 2 |
| NW-4 | The Fields Neighborhood Park | 3 | 2 | 6 | 2 |
| N-5 | St. Johns Park and Community Center | 22 | 2 | 26 | 2 |
| N-6 | University of Portland Public Safety Building Parking Lot | 26 | 2 | 22 | 2 |
| N-7 | Jantzen Beach Mall at Sleep Country Parking Lot | 17 | 2 | 8 | 2 |
| N-8 | Arbor Lodge Park | 8 | 2 | 24 | 2 |
| N-9 | Jefferson High School | 24 | 2 | 8 | 2 |
| NE-10 | Columbia Site Field | 17 | 2 | 8 | 2 |
| NE-11 | Woodlawn Park | 14 | 3 | 8 | 2 |
| NE-12 | Alberta Park | 14 | 3 | 8 | 2 |
| NE-13 | Irvington Elementary School | 13 | 3 | 14 | 3 |
| NE-14 | All Saints School | 28 | 3 | 13 | 3 |
| NE-15 | Rigler Elementary School | 28 | 3 | 14 | 3 |
| NE-16 | Roseway Heights School | 28 | 3 | 12 | 3 |
| NE-17 | Montavilla Park and Community Center | 19 | 3 | 28 | 3 |
| NE-18 | Knott City Park | 30 | 4 | 2 | 4 |
| NE-19 | Parkrose High School | 2 | 4 | 30 | 4 |
| NE-20 | Wilkes Park | 2 | 4 | 30 | 4 |
| NE-21 | Glenfair Park | 7 | 2 | 30 | 2 |
| SW-22 | Lincoln High School | 1 | 5 | 4 | 5 |
| SW-23 | Portland State University | 4 | 5 | 1 | 5 |
| SW-24 | Ainsworth Elementary School | 15 | 5 | 4 | 5 |
| SW-25 | Lair Hill Park | 4 | 5 | 21 | 5 |
| SW-26 | Hamilton Park | 16 | 1 | 15 | 5 |
| SW-27 | Gabriel Park | 5 | 1 | SW-28 | 1 |

| BEECN | BEECN Site | Primary Fire Station | Primary UHF Channel | Secondary Fire Station | Secondary UHF Channel |
|-------|-----------------------------------|----------------------|---------------------|------------------------|-----------------------|
| SW-28 | Wilson High School | 5 | 1 | 10 | 4 |
| SW-29 | Sunstone Montessori School | 5 | 1 | 20 | 1 |
| SW-30 | Smith Elementary School | 18 | 4 | 10 | 4 |
| SW-31 | Holly Farm Park | 18 | 4 | 10 | 4 |
| SW-32 | Stephenson Elementary School | 18 | 4 | 10 | 4 |
| SW-33 | Riverdale High School | 18 | 4 | 10 | 4 |
| SE-34 | Colonel Summers Park | 21 | 5 | 9 | 5 |
| SE-35 | Brooklyn Park | 4 | 5 | 21 | 5 |
| SE-36 | Sellwood Middle School | 20 | 1 | SE-37 | 1 |
| SE-37 | Duniway Elementary School | 20 | 1 | SE-36 | 1 |
| SE-38 | Woodstock Park | 25 | 3 | 20 | 1 |
| SE-39 | Clinton City Park | 25 | 3 | 19 | 3 |
| SE-40 | Harrison Park | 19 | 3 | SE-39 | 3 |
| SE-41 | Lents Park | 11 | 2 | 25 | 3 |
| SE-42 | Flavel Park | 11 | 2 | SE-38 | 3 |
| SE-43 | Lincoln Memorial Cemetery | 29 | 2 | 11 | 2 |
| SE-44 | Ventura Park | 7 | 2 | 30 | 4 |
| SE-45 | Mill Park | 7 | 2 | 7 | 2 |
| SE-46 | Gilbert Heights Elementary School | 7 | 2 | 29 | 2 |
| SE-47 | Clatsop Butte Park | 29 | 2 | SE-46 | 2 |
| SE-48 | Oliver Elementary School | 7 | 2 | 31 | 2 |

300.55

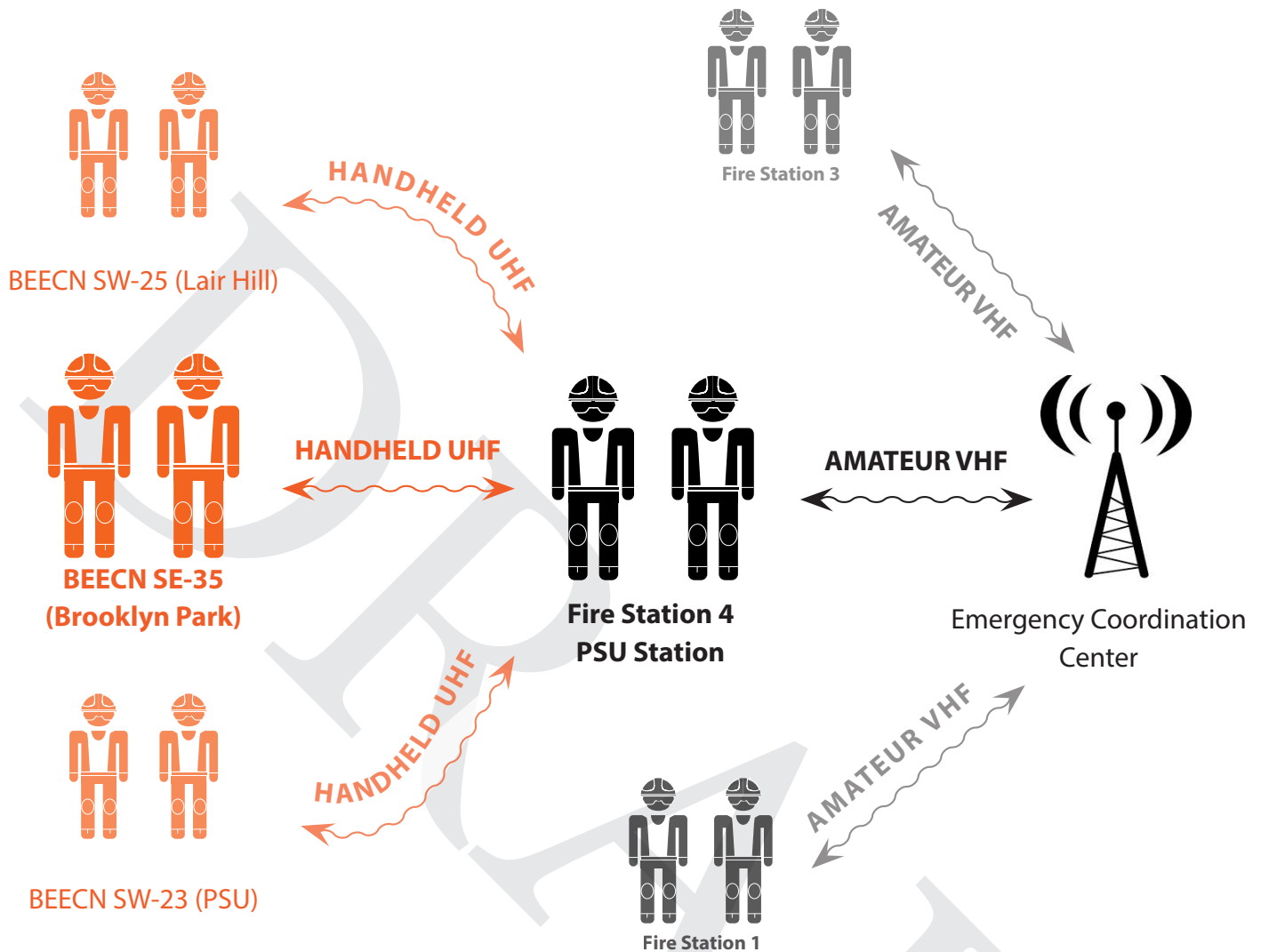
Radio Script for BEECN Check In

Script legend:

Comments are in *{bracketed italics}*, stations in bold and spoken words in plain text. Amateur radio scripts for FMA to Net Control (ECC)

Follow this script to notify your nearby Fire Station that you are set up and ready to communicate.

- ☐ **BEECN VOLUNTEER:** *{FIRE STATION NUMBER}* this is *{BEECN NUMBER and BEECN NAME}* checking in.
- ☐ **FIRE STATION:** Roger *{BEECN NUMBER and BEECN NAME}*. Are you at BEECN and ready to operate?



- ☐ **BEECN VOLUNTEER:** I am on station at {BEECN NAME} near {give visual landmark} and ready to operate. I have {#} operators at this location: {List all participants at that location by name}.
- ☐ **FIRE STATION:** Roger, {#} operators at your BEECN. Please continue to monitor this channel and inform me of staffing changes.

300.60

Basic BEECN Operations

- a. If there is no response from the Primary Fire Station, wait five minutes, then repeat the check in message. Continue transmitting every five minutes until the Primary Fire Station responds.
- b. BEECN volunteers should also attempt to reach their Secondary Fire Station if they cannot immediately reach the Primary Fire Station. There is no need to contact the Secondary Fire Station if the BEECN volunteer reaches the Primary Fire Station.
- c. If transmission quality is poor, volunteers should look at the map inside the cache and consider what objects (hills, buildings) are between them and the fire station. If possible, volunteers will move away from/out from behind those obstructions. Additionally, volunteers may have to look for higher ground to get a clear signal.

Some BEECNs that are far from their FMA have a white external antenna in their kit. Volunteers can attach this antenna to the UHF handheld radio if they experience trouble communicating. The external antenna is attached by unscrewing the small flexible antenna from the radio and attaching the external antenna cable in its place.

- d. Volunteers will record the time of the first transmission and the time when Fire Station is reached in the **radio log**. A **radio log** is included in the BEECN cache.
- e. After checking in, volunteers request permission to pass radio traffic if there are messages to relay. Otherwise, volunteers wait and listen on channel for further instructions/messages.
- f. As much as possible, volunteers should keep radio traffic minimal, avoiding transmitting non-essential radio traffic. Volunteers may hear other BEECN sites talking on the same channel as well.
- g. Best operating practices suggest that one volunteer is in charge of the radio and actively talking with the fire station. The other volunteer is interacting with the public and gathering radio messages to relay.
- h. Volunteers shall record all radio traffic from the fire station and the time received in the **RADIO LOG**.

300.65

Radio Traffic Priorities

Members of the public will have many different purposes for relaying messages through the BEECN network. If messages compete for priority, volunteers should use this guide to decide which messages get relayed soonest:



1. **Fire/Life Safety:** these are, essentially, 9-1-1 calls. If a BEECN receives one of these messages it takes priority over and interrupts all other radio traffic.
2. **Damage Assessments and Casualty Reports:** members of the public reporting significant damage to property and infrastructure, or reports of injuries and casualties.
3. **Person Location:** this is a request from someone to help find a missing loved one.
4. **Other:** Any traffic that does not fall into the above categories (such as media requests).

300.70

Message Posting

BEECNs act not only as a way for local government to receive information from the public in the wake of an earthquake, but also as a means to get information to the public. BEECN volunteers may receive direction from the fire station to use the **roll-up whiteboard** and post a general message.

300.75

Custody of BEECN Equipment

- a. The BEECN volunteers operating a BEECN are custodians of its associated equipment.
- b. BEECN equipment (such as First Aid supplies) may only be taken from the BEECN site with the permission of the BEECN volunteers or professional emergency response personnel. No volunteer group or private citizen can "commandeer" or legally take BEECN supplies without the approval of BEECN volunteers on site. BEECN equipment taken without permission from present BEECN

volunteers is considered stolen and should be reported as such to PBEM.

- c. City or Multnomah County employees may use BEECN equipment if needed.

300.80

Media Requests

It is **critical** that public messaging be kept consistent and only government representatives should talk with the press during an emergency.

All requests from the media to speak on the record about an emergency must be relayed to PBEM for approval. Unless authorized by PBEM, BEECN volunteers may not interview with media representatives or answer media questions about the emergency.

300.85

BEECN Demobilization and Tear Down

- a. Volunteers should not cease BEECN operations until authorized by PBEM **unless**:
 - 1. The personal safety of the volunteers is threatened (in which case, volunteers should immediately leave the area and not follow other demobilization protocols).
 - 2. An urgent life/safety issue emerges for a volunteer's loved one.
 - 3. It is the end of a shift, and there are no volunteers available to take over the next shift.
 - 4. A Public Safety official in the field (such as PBEM staff, a police officer, or firefighter) orders the BEECN to demobilize.
- b. Once the decision or order to demobilize is made, BEECN volunteers will sign off from the radio with the fire station:
 - ☐ **BEECN VOLUNTEER:** *[FIRE STATION NUMBER] this is [BEECN NUMBER and BEECN NAME]. We are demobilizing and tearing down. [give reason for demobilization]*
 - ☐ **FIRE STATION:** Roger *[BEECN NUMBER and BEECN NAME]*. You are now marked as inactive. Please turn off your radio, remove the batteries and proceed with BEECN tear down.
- c. Volunteers shall take down the tent according to the tent instructions. If there was precipitation and the canopy is wet, *please do not fold it up*. Instead, volunteers should leave it loosely on top of the rest of the equipment inside the cache. This will help guard against mold.
- d. Volunteers must remove the batteries from the radio, since they may leak after time and render the radio inoperable. Batteries can be left inside the box with the radio.
- e. Re-pack all equipment inside the box. If any equipment is missing, volunteers should indicate that at the end of the log along with any explanation as to why the equipment is missing. Volunteers may then leave the log inside the BEECN cache, for PBEM to pick up later.
- f. Volunteers should next push the box back to its secure location. Once there, the volunteers should position it and lock it up the way it was found, and double-check the lock to make sure everything is secured.



SECTION 400 - CONCEPT OF OPERATIONS: FIRE STATIONS

This section steps volunteers through what to do when deployed to a fire station to support BEECNs in an emergency or during an exercise. Operations for volunteers who deploy to BEECN sites are covered in **Section 300**.

400.05

Fire Station Volunteers: General Objectives

In the event of a deployment, Fire Station cohorts:

- a. Stay safe, and will abort their deployment if they feel unsafe.
- b. Deploy to their assigned fire station to access the orange VHF Go-Kit (see **Section XX** for equipment details).
- c. Set up the Go-Kit at the fire station, as well as the handheld UHF radio.
- d. Pass radio traffic between nearby BEECNs and net control at the city's ECC.

400.10

Deployment Planning

Have a plan. Cohorts must consider that an earthquake knocking out communications systems means volunteers will be unable to check in with each other. Therefore, cohorts must plan ahead on who deploys for the first 12-hour shift, and who for the second.

Furthermore, **all** four volunteers (Primary and Backup) assigned to a shift should deploy for that shift if they can. If one or both Primary volunteers cannot deploy, the Backup volunteers are still present to carry out fire station responsibilities and/or assist the Primary Volunteers if needed. Backup volunteers can also rotate Primary Volunteers out of their shift for breaks to eat, use the bathroom, etc.

PBEM recommends that the Cohort Coordinator inform local NETs of the cohort's deployment plan. The Team ARO for a local NET may need to access the orange Go-Kit in the event of a disaster.

400.15

Responsibilities Prior to Deployment

Immediately following an earthquake, FS volunteers:

- a. Check themselves for injuries and ensure personal safety.
- b. Check in with household members, ensure their safety, and treat any injuries.
- c. Deploy to fire station if it is safe to do so and commence operations.

400.20

Deployment Protocols

BEECNs are deployed 24 to 48 hours following a catastrophic earthquake that has shut down communications systems such as cell phones and land lines. Therefore, FS volunteers must expect to **self deploy** without a direct request from PBEM or other government authority. FS volunteers deploy to their assigned fire station and set up the Go-Kit if, and only if, the following conditions are met:

- a. No less than 24 hours have passed since a catastrophic earthquake.
- b. The volunteer and his or her family are not in any immediate danger, and are not injured.
- c. Communication systems (such as land lines) are inoperative.
- d. Volunteers have received no direct instructions from PBEM or other government authority.

400.25

Self Determination to Deploy

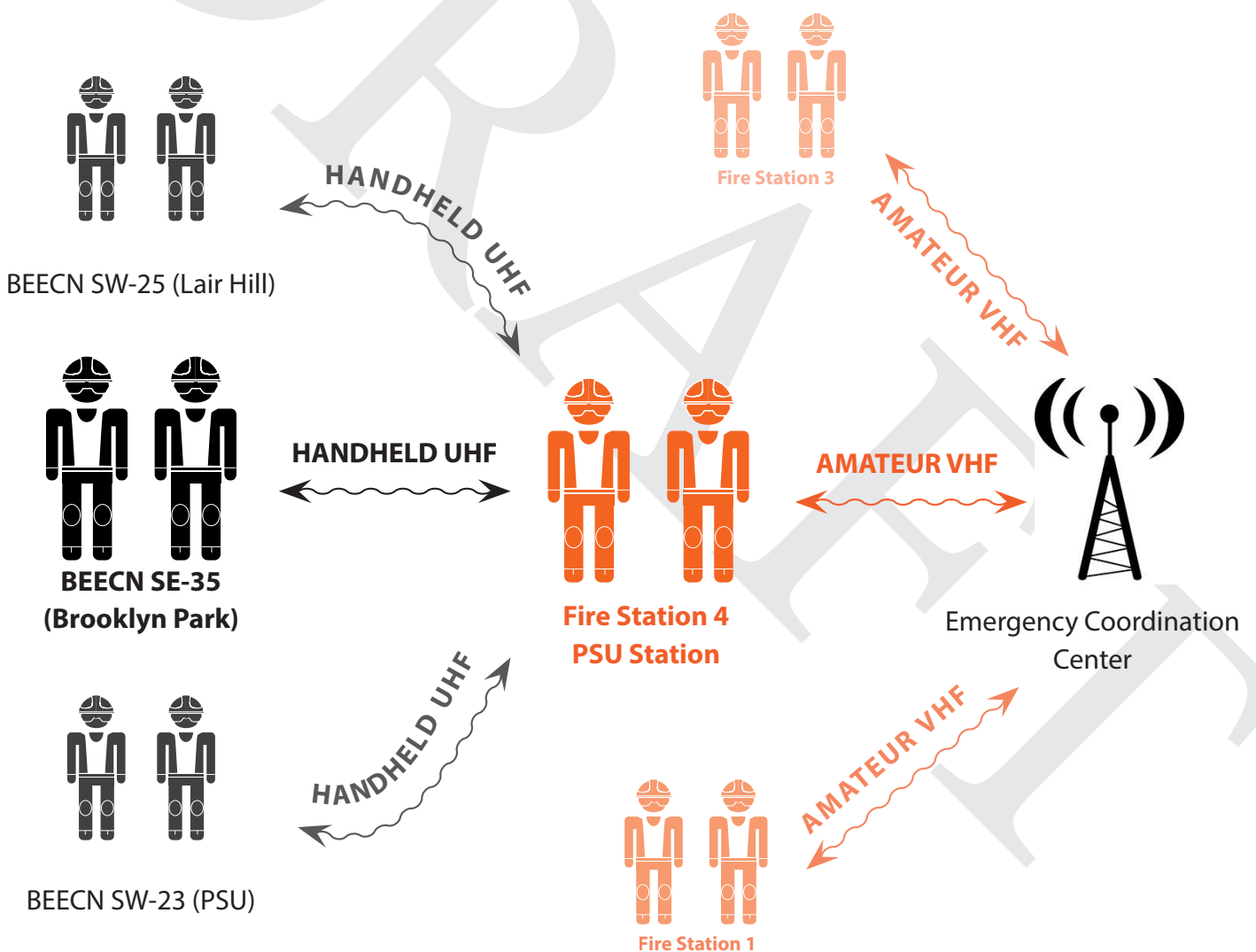
Individual volunteers maintain personal discretion to deploy when the self- deployment protocols are met as described in **400.20**. The decision to deploy following a disaster is a volunteer's own, and a volunteer may never be coerced into deploying. A volunteer who chooses not to deploy will not be subject to any consequences related to his or her standing in the BEECN program.

400.30

Deployment Guiding Principles

During the course of any deployment or exercise, FS volunteers must ensure that all chosen actions conform to the following guiding principles:

- Safety is always the top priority.
- Use the buddy system and always work in pairs. It takes at least two volunteers to relay radio traffic from the fire station.
- If you see something unsafe, say so. Everyone has permission to say, "That does not seem safe" or "I do not feel safe."
- If someone points out an unsafe condition, stop and correct it right away.



400.35

Conduct at the Fire Station

- a. When arriving at the fire station, volunteers should act as guests on the property. Please be respectful and avoid damaging equipment or property at the station.
- b. Credentials are required in order to access to the VHF kit. Fire station staff are instructed NOT to give volunteers access unless they possess an official PBEM volunteer badge.
- c. Except in highly unusual circumstances, the Go-Kit should never leave the premises of the fire station.

400.40

Basic Fire Station Operations

- a. Community residents go to their nearest BEECN to send information to the Portland ECC. To accomplish this, BEECN operators send messages via a UHF handheld radio to the volunteer team at the nearest fire station, and the fire station re-broadcasts BEECN messages via amateur radio to the Portland ECC. There are at least two team members at the fire station:
 1. Amateur Radio Operator (FCC licensed): responsible for setup and operation of the amateur radio and communicating with the ECC. All amateur radio use and transmission must be in compliance with Federal Communications Commission (FCC) rules and regulations.
 2. UHF Radio Operator (no license necessary): Responsible for setup and operation of the UHF handheld radio and communicating with nearby BEECN sites.
- b. FS volunteers should maintain a written log of communications to and from their station using the ICS-309 form, which is included as **Appendix X**.
- c. The ARO next checks in with the ECC. The procedure for checking in with the ECC via amateur radio is as follows:
 1. The ARO checks in with the Multnomah County Amateur Radio Emergency Service (ARES) Resource Net Controller on the Multnomah County Secondary Repeater MC-2 (see Table 1).

Checking in with MC-2, the ARO gives his or her FCC call sign and waits for acknowledgement from the net control operator. Once recognized, the ARO then provides the following information:

- Name
 - Location
 - Available equipment, including communications and transportation resources
 - NET affiliation
 - Any other information deemed necessary by the ARO or requested by net control
- d. If no contact is possible on the Multnomah County ARES Resource Net via the Multnomah County Secondary Repeater (MC-2), AROs should attempt to make contact with a Multnomah County ARES Net Controller via the following channels in the order listed on the following frequencies table:

Multnomah County Frequencies

| Channel | Alias | Freq | Offset | Tone | Description |
|---------|-------|---------|---------|-------|------------------------------|
| 2 | MC 2 | 147.280 | + 0.600 | 167.9 | Multnomah Secondary Repeater |
| 5 | MC 5 | 146.460 | -- | -- | Multnomah Secondary Simplex |
| 4 | MC 4 | 146.480 | -- | -- | Multnomah Primary Simplex |

- e. After checking in with the Resource Net Controller (or attempting to check in) the ARO switches over to **PBEM Tactical 1 at MC 8, frequency 147.580 (simplex)**. If no contact is possible on that channel, AROs should attempt contact on PBEM Tactical 2 at MC 9, frequency 147.540 (simplex).

The ARO will check in with the PBEM Tactical Net Controller, sited at the ECC, and repeat the same information given for the Multnomah County Resource Net check in.

- f. Regular radio traffic and monitoring commences. BEECNs will request permission from the fire station to begin passing traffic. The PBEM Tactical Net Controller will contact each fire station periodically for status reports.

ARO will handle life threat radio traffic on a different tactical net: TBA. This is the only circumstance under which an ARO should communicate on a frequency other than the PBEM Tactical Net or Multnomah ARES Resource Net unless directed differently by the Net Controller.

- g. The operator of the UHF handheld is responsible for regularly checking in with the BEECNs on his or her channel. This includes BEECNs on the channel not normally associated with the fire station (e.g. a BEECN whose operators cannot reach their normally assigned fire station may reach and need assistance from another).

400.45

Radio Traffic Priorities

Members of the public will have many different purposes for relaying messages through the BEECN network. If messages compete for priority, volunteers should use this guide to decide which messages get relayed soonest:



- 1. Fire/Life Safety:** these are, essentially, 9-1-1 calls. If a BEECN receives one of these messages it takes priority over and interrupts all other radio traffic. **Amateur radio operator should switch to the life threat reporting frequency.**
- 2. Damage Assessments and Casualty Reports:** members of the public reporting significant damage to property and infrastructure, or reports of injuries and casualties. Report on PBEM Tactical 1.
- 3. Person Location:** this is a request from someone to help find a missing loved one. Report on PBEM Tactical 1.
- 4. Other:** Any traffic that does not fall into the above categories (such as media requests). Report on PBEM Tactical 1.

400.50**BEECN Station List**

The following table indicates which BEECNs each fire station will communicate with and the UHF channel to use:

| FS | FS Location | BEECN | Location | UHF Channel |
|-----------|------------------------------|--------------|-----------------------------------|--------------------|
| 1 | 55 SW Ash Street | SW-22 | Lincoln High School | 5 |
| 2 | 4800 NE 122nd Avenue | NE-19 | Parkrose High School | 4 |
| 2 | | NE-20 | Wilkes Park | 4 |
| 3 | 1715 NW Johnson Street | NW-3 | Chapman Elementary School | 2 |
| 3 | | NW-4 | The Fields City Park | 2 |
| 4 | 511 SW College Street | SW-23 | Portland State University | 5 |
| 4 | | SW-25 | Lair Hill Park | 5 |
| 4 | | SE-35 | Brooklyn Park | 5 |
| 5 | 1505 SW Dewitt Street | SW-27 | Gabriel Park | 1 |
| 5 | | SW-28 | Wilson High School | 1 |
| 5 | | SW-29 | Sunstone Montessori School | 1 |
| 7 | 3660 NW Front Avenue | NE-21 | Glenfair Park | 2 |
| 7 | | SE-44 | Ventura Park | 2 |
| 7 | | SE-45 | Mill Park | 2 |
| 7 | | SE-46 | Gilbert Heights Elementary School | 2 |
| 7 | | SE-48 | Oliver Elementary School | 2 |
| 8 | 7134 N Maryland Avenue | N-8 | Arbor Lodge Park | 2 |
| 11 | 5707 SE 92nd Avenue | SE-41 | Lents Park | 2 |
| 11 | | SE-42 | Flavel Park | 2 |
| 13 | 8645 NE Sandy Boulevard | NE-13 | Irvington Elementary School | 3 |
| 14 | 1905 NE Killingsworth Street | NE-11 | Woodlawn Park | 3 |
| 14 | | NE-12 | Alberta Park | 3 |
| 15 | 1920 SW Spring Street | SW-24 | Ainsworth Elementary School | 5 |
| 16 | 1715 SW Skyline Boulevard | SW-26 | Hamilton Park | 1 |
| 17 | 848 N Tomahawk Island | N-7 | Jantzen Beach Mall | 2 |
| 17 | Drive | NE-10 | Columbia Site Field | 2 |
| 18 | 8720 SW 30th Avenue | SW-30 | Smith Elementary School | 4 |
| 18 | | SW-31 | Holly Farm Park | 4 |
| 18 | | SW-32 | Stephenson Elementary School | 4 |
| 18 | | SW-33 | Riverdale High School | 4 |
| 19 | 7301 E Burnside Street | NE-17 | Montavilla Park | 3 |
| 19 | | SE-40 | Harrison Park | 3 |
| 20 | 2235 SE Bybee Boulevard | SE-36 | Sellwood Middle School | 1 |
| 20 | | SE-37 | Duniway | 1 |

| FS | FS Location | BEECN | Location | UHF Channel |
|----|----------------------------|-------|--|-------------|
| 21 | 5 SE Madison Street | SE-34 | Colonel Summers Park | 5 |
| 22 | 7205 N Alta Avenue | NW-1 | Linnton Community Center | 2 |
| 22 | | N-5 | St. Johns Park | 2 |
| 24 | 4515 N Maryland Avenue | N-9 | Jefferson High School | 2 |
| 25 | 5211 SE Mall Street | SE-38 | Woodstock Park | 3 |
| 25 | 5211 SE Mall Street | SE-39 | Clinton City Park | 3 |
| 26 | 5247 N Lombard Street | N-6 | University of Portland Public Safety Parking Lot | 2 |
| 27 | 3130 NW Skyline Boulevard | NW-2 | Forest Park Elementary School | 2 |
| 28 | 5540 NE Sandy Boulevard | NE-14 | All Saints School | 3 |
| 28 | | NE-15 | Rigler Elementary School | 3 |
| 28 | | NE-16 | Roseway Heights School | 3 |
| 29 | 13310 SE Foster Road | SE-43 | Lincoln Memorial Cemetery | 2 |
| 29 | | SE-47 | Clatsop Butte Park | 2 |
| 30 | 13313 NE San Rafael Street | NE-18 | Knott City Park | 4 |

400.55

Amateur radio script for fire station ARO to Net Control (ECC)

Script legend:

Comments are in *{bracketed italics}*, stations in bold and spoken words in plain text. Amateur radio scripts for FMA to Net Control (ECC)

- **NET CONTROL:** This is *{actual amateur call sign}* as *{ECC Tactical Net call sign}*, City of Portland Emergency Coordination Center establishing net control for the NETs and Basic Earthquake Emergency Communication Nodes.

This is a directed net and all stations are asked to remain on frequency until excused by net control.

NETs and fire stations are asked to check in with their tactical call sign, amateur operator call signs at their location, BEECNs that have already checked in with fire stations, and power source. Please only respond after net control has called your fire station or NET.

Fire station 1?

FIRE STATION 1: This is fire station 1, *{actual amateur call sign}*. Operating on battery power *{or 120V mains, generator or other as appropriate}*. The following BEECNs are on station and ready: *{list BEECNs that have checked in}*.

{Continue for each fire station, followed by each NET}

NET CONTROL: Are there any other fire stations or NETs that haven't checked in yet? Please come in now.

{stations and NETs finish checking in}

Net Control: All stations, please monitor your UHF radio and be ready to receive check ins from your assigned BEECNs and monitor this frequency for further instructions from Net Control.

400.60

Fire Station BEECN Activity Demobilization

- a. Volunteers should not cease operations until authorized by the ECC **unless**:
 1. The personal safety of the volunteers is threatened (in which case, volunteers should immediately leave the area and not follow other demobilization protocols)
 2. An urgent life/safety issue emerges for a volunteer's loved one
 3. It is the end of a 12-hour shift, and there are no volunteers available to take over the next shift
 4. The radio is no longer functioning
 5. A Public Safety official in the field (such as PBEM staff, a police officer, or firefighter) orders BEECN activities to demobilize.
- b. Once the decision or order to demobilize is made, FS volunteers will sign off from the radio with the ECC:
 - ☐ **FS VOLUNTEER:** Net Control this is [FIRE STATION NUMBER]. We are demobilizing and tearing down. *[give reason for demobilization]*
 - ☐ **NET CONTROL:** Roger [FIRE STATION NUMBER]. You are now marked as inactive. Please turn off your radio and proceed with packing up the Go-Kit.
- c. Re-pack all equipment inside the orange Pelican case. If any equipment is missing, volunteers should indicate that at the end of the log along with any explanation as to why the equipment is missing. Volunteers may then leave the log inside the orange Pelican case, for PBEM to pick up later.
- d. Volunteers should next return the Go-Kit to its storage area at the fire station and let PF&R staff at the station know that BEECN activities have ceased.



APPENDIX X: BEECN INVENTORY SHEET

Each BEECN includes a laminated 8.5" x 14" inventory sheet to aid in taking the quarterly inventory for a BEECN cache. For each quarterly inventory, a volunteer should:

- ☐ Use the laminated sheet in the cache to note any needed replacement equipment or equipment maintenance. Use a grease pencil or dry erase marker included in the cache.
- ☐ Take the completed sheet home and go online to URL www.portlandoregon.gov/pbem/65758, which is the online form. Use the completed inventory sheet to transfer information into the online form and click "submit" to send it to PBEM.
- ☐ Use mild soap, warm water, and a paper towel to clean the writing off of the inventory sheet.
- ☐ Return the sheet to the equipment cache at earliest convenience.

The two pages following is an image of the inventory sheet in each cache, but shrunk down so the pages can fit in this document. Because they are shrunk down, the pages here are somewhat distorted from what you would find in the cache.

Please transfer info from this form to the log at:
www.portlandoregon.gov/pbem/xxxxxxxxxxxxxx

| | | | |
|--|-------------|-----------------------|------------------|
| BEECN RADIO LOG RECORD COMMS & MAJOR EVENTS | | DATE: | TIME FROM: _____ |
| | | | TIME TO: _____ |
| FOR OP. PERIOD # | | BEECN or FIRE STATION | |
| RADIO OPERATOR: | LOG KEEPER: | STATION CALLSIGN: | |
| TASK # | TASK NAME: | | |

| TIME | STATION I.D. | | SUBJECT |
|------|--------------|---------|---------|
| | STN. CALLED | THIS IS | |
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PAGE ____ OF ____

Portland Bureau of Emergency Management
9911 SE Bush Street, Portland, OR 97266



BEECN EXERCISE EVALUATION

Please transfer info from this form to the log at:
www.portlandoregon.gov/pbem/xxxxxxxxxxxxx

| | |
|---|---------------------------|
| BEECN | FIRE STATION REPORTING TO |
| UHF RADIO OPERATOR: | LOG KEEPER: |
| BEECN setup start: _____ (time) | |
| BEECN setup completed: _____ (time) | |
| DATE: _____ | |
| Arrival of both volunteers (time): _____ | |

| For each question, please indicate Yes, No, or Not Applicable. | Y | N | N/A | Comments/Follow up |
|---|-----------------------|-----------------------|-----------------------|--|
| Did you locate the kit in a safe but functional area according to provided guidance? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Comments: |
| Did you inventory the kit? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Comments: |
| Were the kit instructions useful? a. Site location b. Shelter setup c. Radio operations/use d. Messaging instructions | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Comments: |
| Were you able to use the radio according to instructions? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Which channel was used? What time did you check in with the fire station? |
| Were you able to reach the Emergency Coordination Center (ECC)? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | What time did you check in? |

| For each question, please indicate Yes , No , or Not Applicable . | Y | N | N/A | Comments/Follow up |
|--|-----------------------|-----------------------|-----------------------|---|
| What was the message received? Record message here: | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| Could you hear messages over the radio clearly? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Please circle the quality of communications: Loud and clear Scratchy Broken-up No contact |
| Did all equipment perform as designed? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Comments: |

Please identify any additional issues in the space below:

- | | |
|--------------------------|-------------------|
| ■ Equipment malfunctions | ■ Location issues |
| ■ Resource shortages | ■ Training issues |
| ■ Process issues | ■ Other issues |

DRAFT

**Portland Bureau of
Emergency Management**

**9911 SE Bush Street
Portland, OR 97266-2562
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