

BEECN Test (06/13/2015)

After Action Report

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Overview

The June 13 BEECN test was the first of three BEECN tests intended for 2015. This particular test was intended to specifically include BEECNs that had a history of failure, or were not tested in 2014.

Usually, BEECNs are tested by city quadrant which makes the test simpler and requires only one or two roamers (radio technicians staged in vehicles to troubleshoot problems at BEECNs and fire stations). Since this test was spread out over the city with a relatively high number of locations, the Exercise Controller decided to make it a “radio only” test (no cache deployments). By doing so, the complexity of the exercise was reduced and only one volunteer per BEECN was required, as opposed to the usual pair.

As is usual in BEECN exercises, many of the volunteers who staffed the BEECN radios had no prior experience using the handheld UHF radios. This is done intentionally, to gauge how much prior training a BEECN volunteer needs in order to be successful (if any).

PBEM would test a total of 14 (of 48) BEECNs. Those BEECNs had the support of 10 fire stations (two volunteers each), a single roamer team, and amateur radio techs in the ECC and in the field for a total of 42 volunteers. The exercise was scheduled to begin with volunteers at station at 1000 hours, and conclude no later than 1200 hours.

Exercise Timeline

- 0930** Amateur radio technicians and NET Coordinator arrive at the ECC and prepare for the exercise to begin.
- 1000** Exercise commences, with fire stations beginning their check-ins.

- 1007** ECC radio room reports significant bleed between resource and tactical nets.
- 1028** BEECN operators at SE-35 and SE-37 report via phone to the ECC that there are no radios in the caches. They are given permission to secure and go home.
- 1044** Significant radio bleed-over on receiving in the ECC between tactical channels and the resource net leads radio techs to switch from TAC-1 to TAC-2.
- 1100** First fire station is given permission to secure (FS-24).
- 1109** The following fire stations report that they cannot reach TAC-1 or TAC-2: 20, 18, 22, 28, and 26. Exercise Controller advises radio room to cede tactical control to the resource net as soon as possible.
- 1121** K7TY (net control for TAC-2) completes moving all fire stations back to the resource net for tactical communications.
- 1151** Check ins completed. All BEECNs and fire stations remaining are advised to secure.
- 1159** Resource net secured, exercise concluded.

Exercise Results

The exercise was a success in the respect that it exposed many issues in the BEECN program regarding equipment and facilities. It also revealed that, generally speaking, BEECN radios are simple for volunteers to use and that volunteers require very little training to use them. What follows is a comprehensive list of the different stations tested during the BEECN drill:

ECC/radio room

ECC received an inhibitive amount of radio bleed between resource and tactical channels while receiving messages. Also, communication between radio room and Exercise Controller was poor; it was difficult for the Exercise Controller to discern which BEECNs and fire stations had successfully checked in and which had not. A significant reason for the poor communication was due to the Exercise Controller staffing the “help line” for volunteers at the same time attempting to work with the radio room.

**Net Control
(resource and
tactical)**

Several fire station radio techs could not reach TAC-1 or TAC-2. As a result, all tactical traffic was migrated back to the resource net.

Roamer Team

There was only one roamer team available to cover a large geographic area. Though the team was helpful when they arrived at a dispatch request, they found themselves travelling back and forth between North Portland and Southwest Portland.

Fire Station 22

Could not communicate on tactical channels. Checked in through resource net.

Fire Station 26

Could not communicate on tactical channels. Checked in through resource net.

Fire Station 17

Checked in.

Fire Station 28

Could not communicate on tactical channels. Checked in through resource net. Operators detected power issues for the radio (possible short).

Fire Station 16

Checked in, could not reach BEECN.

Fire Station 5

Checked in.

Fire Station 18

Could not communicate on tactical channels. Checked in through resource net. Could only hear BEECN SW-30 weakly.

Fire Station 21

Could not check in; they could hear the resource net but could not report. Volunteers and firefighters at the station could not locate the antenna mast (it is a new station). Volunteers attempted to use the mag-mount antenna in the kit to reach resource net, no go. However, they were able to communicate with their BEECN.

Fire Station 4

Checked in.

Fire Station 20

Could not communicate on tactical channels. Checked in through resource net.

BEECN N-5

Solid signal to FS-22. However, key to cache is missing.

BEECN N-6

Solid signal to FS-26.

BEECN N-7

Solid signal to FS-17. However, they never received the order to secure (it was later provided directly by the Exercise Controller.

BEECN NE-15

Removed from exercise because lock was broken.

BEECN NE-16

Solid signal to FS-28.

BEECN SW-26	Could not reach FS-16. BEECN relayed check-in through BEECN SW-27 to FS-5.
BEECN SW-27	Solid signal to FS-5.
BEECN SW-28	Solid signal to FS-5.
BEECN SW-29	Garbled and weak signal reached FS-5. Volunteer attempted to change location and use the pole antenna, no go.
BEECN SW-30	Could not reach FS-18. Volunteer changed location, no go. Volunteer could hear FS-18 trying to reach him faintly, but only when opening the squelch on the UHF radio.
BEECN SE-34	Solid signal to FS-21.
BEECN SE-35	Could not check in; no UHF radio in cache.
BEECN SE-36	Solid signal to FS-20. At the beginning of exercise, there were no batteries for the radio in the cache (volunteer purchased batteries to use).
BEECN SE-37	Could not check in; no radio in cache.

Improvement Plan

- In future exercises, the Exercise Controller will assign answering the volunteer help line to a separate person if the exercise involves over 25 volunteers.
- In future exercises, Exercise Controller will use the white boards in the ECC to track the fire stations and BEECNs checking in.
- Have more than one roamer available for an exercise that covers more than two quadrants of the city.
- Advise volunteers on the location of the mast outlet at fire station 21.
- Resolve key and lock issues at BEECNs N-7 and NE-15.
- At fire stations 20, 18, 22, 28, and 26, PBEM Operations will ensure that all UHF handhells are flashed with the most up to date template, and that VHF kits are on the correct template.
- PBEM Operations will investigate the cause of bleed over between the tactical channels and the resource net in the radio room and resolve.
- PBEM Operations will track the UHF handheld radios for BEECNs SE-35 and SE-37 and return them or replace them as needed.
- Resolve radio power issues for kit at fire station 28.