

# After Action Report Packet Drill Segment

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SCCo County-wide Communications Exercise XSC-15-04T April 18, 2014

## Contents

1	Drill Summary.....	2
1.1	Activity Summary .....	2
1.2	Preparation Summary .....	2
2	Participation.....	2
2.1	Field Packet .....	2
2.2	Packet MAC Evaluation .....	2
3	Assessment .....	3
3.1	Field Assignments .....	3
3.2	Packet Evaluations .....	3
4	Recommendations/Lessons Learned.....	4
4.1	Replace the “hand me down” laptops.....	4
4.2	Staffing – Three People, Minimum .....	4
4.3	Evaluation Process Improvements.....	4
4.4	Paperwork.....	5
4.5	Laptops and Sunshine .....	5

# 1 Drill Summary

## 1.1 Activity Summary

The Drill consisted of two packet activities: a field packet assignment and Type III and Type II packet operator evaluation. The W5XSC BBS was set up and operated on three frequencies. In addition, a mesh node was configured to support the W5XSC BBS. An additional mesh node was set up for use with a VOIP telephone.

The packet evaluation positions, with black out boxes were set up with a mesh node supplying four LAN connections. A baseline packet station was set up for Type III candidates to use to assemble a packet station. Two additional black out boxes were available for the Type II evaluation candidates.

## 1.2 Preparation Summary

Instructions and message scenarios for two field assignments were prepared to provide opportunities for packet operators to set up in the field and generate message traffic. Participant packages were assembled.

Evaluation process instructions and message texts were prepared for the Packet Evaluations. The Training BBS mail area was cleaned and tactical calls loaded. Participant packages were assembled.

Outpost profiles were prepared for the Drill EOC and the Evaluation EOC and mail trays cleaned out. Draft text messages were loaded for the evaluation process to be finalized and sent when required by the process.

Drill laptops were powered up, software updated, and overall condition assessed. Black out boxes were prepared. A site layout was developed and required equipment staged.

The Training BBS was tested on all frequencies and a mesh node configured with NAT on the LAN ports to expose the Training BBS to the mesh. A mesh node for the VOIP phone was configured and the phone preloaded with the VOIP server info.

All systems were tested prior to the drill.

# 2 Participation

## 2.1 Field Packet

Two participants signed up for a Field Packet assignment and sent a total of 8 messages. One participant was a first time drill participant and required some basic tutoring.

## 2.2 Packet MAC Evaluation

Four Type III candidates were evaluated and passed the on site drill activities.

- D. Platt, AE6EO Completed Type III

- H. Lewis, AF6HL Completed Type III
- N. Katin, AI6FI Completed drill activities, needs to complete Field Operator Type III
- P. Hansen, KZ6DM Completed drill activities, needs to complete Field Operator Type III

A fifth participant started the evaluation process but the drill ended before the evaluation could be completed.

S. Chapski, WE6ST Completed baseline station and knowledge test

Two Type II evaluations were started but the drill ended before the evaluations could be completed.

A total of 141 messages (includes delivery receipts) were processed.

## 3 Assessment

### 3.1 Field Assignments

The Field Packet assignments were deemed by the participants as worthwhile and useful in a face to face discussion. They appreciated the opportunity to use their packet stations in a real world environment. The participants needed more than expected assistance in getting started with their assignments.

### 3.2 Packet Evaluations

Conducting multiple, concurrent evaluations proved to be very challenging. The real time interactive messaging process that was used was labor intensive and the associated paperwork was difficult to manage in a field environment. It was deemed too difficult to inject assistance into the on-going process with disrupting the concurrent evaluations. Several recommendations are noted below.

The length of time needed to complete an evaluation proved to be several hours and only one level of evaluation could be conducted during the drill period.

Evaluation candidates were asked to bring their personal laptops to support their evaluations. The mesh node connection to the BBS proved to be very useful.

The assembly of the baseline station proved to be a “choke point” in the evaluation process. Candidates were instructed to skip that step until such time that it became available.

The training BBS system worked well and the mesh VOIP phone proved to be very useful. A high level of background noise on 2m due to the nearby Mesh set up was noted.

## 4 Recommendations/Lessons Learned

### 4.1 Replace the “hand me down” laptops

The packet activity requires multiple laptops and these have been obtained for surplus inventory from the County. Nearly all of the laptops previously obtained have failed and only one was available to support the baseline packet station assembled by the evaluation candidate. All evaluation participants were asked to bring their personal laptops to the drill.

Note: this is the second, successive drill that this deficiency has been noted.

Replacement laptops have been requested for the 2015 Grant activity.

### 4.2 Staffing – Three People, Minimum

The Packet Field assignment portion of the drill requires a separate supervisor to allow the Packet Evaluator to focus on the evaluation process

The Packet Evaluator needs a Packet Evaluator Assistant to assist with the paperwork and BBS operations.

Thus, the minimum staffing for the packet portion of a drill is three people.

### 4.3 Evaluation Process Improvements

As a result of follow up discussions, it was suggested that multiple tactical call signs be used to automate the interactive nature of the message process. Thus, the messages for each stage can be preloaded and are only delivered to the candidate when the associated tactical call is used. For example,

- |                |                          |                       |                  |
|----------------|--------------------------|-----------------------|------------------|
| 1. FCC call -> | Check In message->       | Receive message #1->  | switch to EVLxxA |
| 2. EVLxxA ->   | Respond to message #1 -> | Receive message #2 -> | switch to EVLxxB |
| 3. EVLxxB ->   | Respond to message #2 -> | Receive message #3 -> | switch to EVLxxC |

The evaluation candidate instructions should be shortened so that the participant cannot “jump ahead” without receiving the message(s) associated with that step.

Due to the length of the evaluation, only one level can be conducted during a typical drill. Evaluations must begin early in the drill.

Evaluations should be limited to no more than four per evaluation team (Evaluator and Assistant).

Evaluation candidates should be scheduled prior to the drill with at least 15 minutes per time slot.

The assembly of the baseline station should be done on an “as available” basis. That is, it should be separate from the interactive messaging process so that it can be completed at any point in the evaluation process.

The local mesh should be used for the interactive messaging process to facilitate the thru put of the messages.

Set up instructions/menus for the baseline station radio should be included in the box.

A printer for the Packet Evaluator would be helpful, if feasible for the drill environment.

#### **4.4 Paperwork**

Managing the multiple forms, messages, etc. in a field environment is difficult. Regular and slash cut folders have been tried, however, as the pace of activity increases, loose sheets become separated from their folder. It is suggested that all evaluation materials be placed in a three ring binder, with a separate tab for each evaluation candidate.

A dedicated “clip board” for each candidate’s evaluation process checklist works well.

#### **4.5 Laptops and Sunshine**

Using an LCD screen in the sunlight remains a challenge. Black-out boxes help but they are bulky and hard to transport. Multiple black out boxes were provided along with pop-up style shelters.