Date: Jan. 4, 2010

Subject: Upcoming changes to SCCo packet network

Attention: All ECs, AECs, MACs and other Santa Clara County Packet Users:

As most of you are aware, the Santa Clara County packet network has been in need of improvement. People have often been unable to connect or, when connected, their messages took a very long time to get through.

A solution to the problem has been in the works for some time and we are ready to transition to the new network. This email outlines the near term schedule of events, including the use of the new network for the upcoming county drill on January 23rd.

This network change directly affects your city's packet connectivity. Please read this information thoroughly. There are several action items at the end.

Background:

Frequency contention, throughput and other issues were studied during various drills and load testing sessions. Those experiences provided insight into usage patterns and traffic handling requirements. Jim Oberhofer, KN6PE, EC of Cupertino, laid out a plan for a new packet network that will improve performance, reliability and survivability. He presented the plan to various group meetings over the last year. A copy of his presentation to the SVECS breakfast on Oct. 24, 2009 can be found at: http://www.scc-ares-races.org/packet.html.

A series of BBS nodes will be networked together to form a backbone. Users (city EOCs, other agencies, and individual field communicators) will connect to the nearest backbone node and their traffic will be routed to its destination across the backbone. Performance is improved because users are distributed across several backbone nodes on different frequencies and optimized links are used between backbone nodes. Reliability is improved through upgraded BBS hardware and software. And survivability is improved because users will be able to reach more than one backbone node. If any node fails, all users, including the county EOC, will be able to switch to a new node.

A network supporting so many cities, agencies, and other end users must be well developed and tested before deployment. The new network has been built and has undergone months of testing. Various parameters have been evaluated, tested, tweaked and standardized. Testing and troubleshooting methodologies have been developed. Operating methodologies have evolved. Radio coverage and signal levels have been evaluated. As everyone knows, this type of work is never completely done and it will continue to evolve over time. But, at this point, the system is ready for cities and agencies to cut-over.

Initial cut-over to new network:

A phased cut-over is planned. The first phase will be completed prior to the upcoming county drill on January 23rd. This means that the drill will be run over the new network.

The schedule is as follows:

Friday, Dec 18	Notice to all ECs, AECs, MACs and other SCCo packet users • Upgrade Outpost to at least v2.3.0 c30 (v2.4.0 is o.k. too)
Monday, Jan 4	Notice to all ECs, AECs, MACs and other SCCo packet users (this notice) • Upcoming changes • Schedule of events
Monday, Jan 11	Notice to all ECs, AECs, MACs and other SCCo packet users • One week until cut-over • Instructions for reconfiguring Outpost • Do not reconfigure until Jan 18th
Monday, Jan 18	Notice to all ECs, AECs, MACs and other SCCo packet users • First two nodes available for use • All cities make a small change to their Outpost configuration • A few cities change frequencies • All cities begin using the new nodes and mail addresses • Practice sending and receiving messages prior to the drill • Seek technical support for any problems prior to drill
Saturday, Jan 23	County Quarterly Drill • All drill traffic to use the new nodes
Feedback	Gather feedback from the drill
Evaluate	Evaluate feedback and experience
Continue	Adjust plan accordingly and continue

Technical Support:

A technical support Yahoo group has been created for Santa Clara County packet users. All persons who use or are responsible for packet communications are encouraged to join. The Yahoo group is called **scc-packet** and is located at: http://groups.yahoo.com/group/scc-packet. The group is closed to prevent SPAM, so you must first request to sign up.

The Yahoo group allows sharing of hints and tricks. You can search for previous answers to questions similar to yours. You can also submit your own questions to the group. The more members we have, the faster your question will be answered.

If you want to stay informed but are concerned about email volume, you can select “Daily Digest” instead of “Individual Emails”. If you don’t want email at all, you can select “No Email,” but you’ll need to log in via the website to check for answers to your questions.

Webpage changes:

Information about Santa Clara County packet radio is located at: http://www.scc-ares-races.org/packet.html. This webpage will be updated with new frequency lists and other useful information as the cut-over progresses. A copy of these network upgrade notices can also be found on that page.

What you need to do:

1. Ensure that you have upgraded Outpost to at least v2.3.0 c30. Jim Oberhofer has recently released Outpost version 2.4.0 which has some nice additional features. Either version should work fine.
2. Ensure that all of the packet users in your city are aware of the upcoming changes. Forward this information to them. Help spread the word.
3. Join the scc-packet Yahoo group: http://groups.yahoo.com/group/scc-packet.
4. Stay tuned for specific Outpost configuration instructions to be released on Jan 11th.
5. Plan to change your Outpost configuration on or shortly after Jan 18th and to test sending and receiving packet messages prior to the county drill on Jan 23rd.

Questions / Comments / Concerns

If you have any questions, comments or concerns, it is likely that someone else does, too. So it would be helpful if you direct them to the scc-packet Yahoo group. That way, everyone can see the answer.

Michael - N6MEF
Santa Clara County ARES/RACES Packet Committee