

Carpe Digitum Diem: Embracing Advancing Technology in EmComm

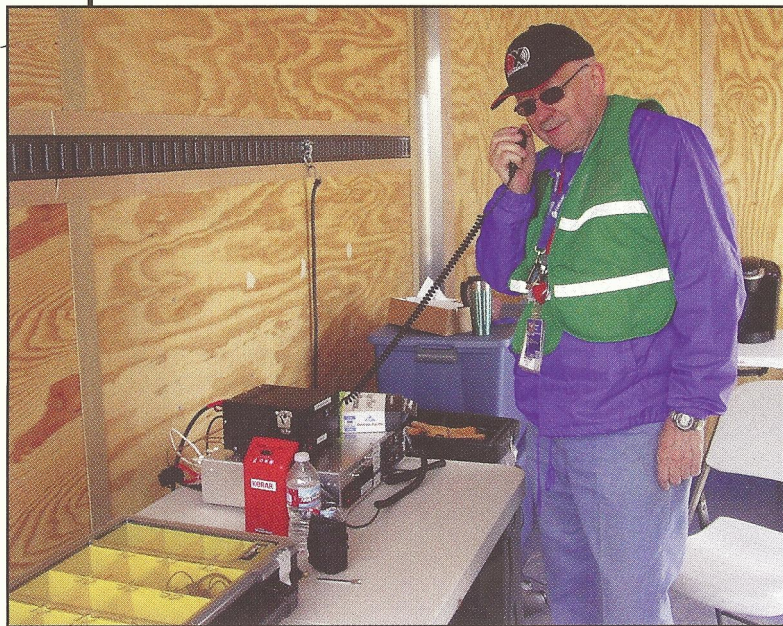
When looking into the fast-changing arena of digital technologies, emergency communications has been one of amateur radio's greatest beneficiaries demonstrated especially in those cases in which life literally hangs in the balance. Where is the need more urgent for fast, reliable, accurate, and easily obtainable data transfer while using equipment within economic reach and the skill set of most radio amateurs?

Two scenarios this month—one employing Winlink 2000 and the other using the Narrow Band Emergency Messaging System—serve as examples of how amateur ingenuity and dedication help build the bridge between computer keyboard and radio wave to execute our role as public servants and developers of ever-improving modes of communication. *Carpe digitum diem* . . . Sieze the digital day.

“Hamsters” and Winlink 2000 Solve a High-Sea Mystery

On a Saturday morning last fall, Perry Lundquist, W6AUN, got an e-mail from a Colorado woman deeply worried about the welfare of her husband

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Rob Rude, KØRAR, was a key player in putting Winklink 2000 into action to reunite a worried wife in Colorado with her sailor husband in the Sea of Cortez, Baja, California, Mexico after she lost contact with him for four days. Rude is shown here in a communications trailer during Douglas County, Colorado's 2010 Interface Drill. (Courtesy of W6AUN)

aboard the couple's sailboat *Allure* in the Sea of Cortez, between the Baja California Peninsula and mainland Mexico.

"They had been faithfully communicating every day via Skype [internet-based video messaging]," said Lundquist, Amateur Radio Emergency Service® Colorado District 24 Emergency Coordinator. The last time they had talked, her husband had been docked at Bahia de Los Angeles in Baja, but she hadn't heard from him in four days. It's an awfully long way from Castle Rock, Colorado to the Gulf of California.

Her husband was an experienced boat captain, she said, and while they weren't radio amateurs, during the past two years they had sailed together, they had listened to the 75-meter Sonrisa net (3.968 MHz) each morning to hear weather updates and for information about the Baja region (<http://sonrisanet.org>). They knew other sailors who were radio amateurs who regularly checked into the Sonrisa net and the Chubasco SSB net, as well.

Now stateside and woefully out of touch, the idea of calling on amateur radio operators to help contact her husband came to the worried wife because "a few years before, when they were in Astoria, Oregon, hurricane-force winds brought down all (communications) infrastructure. When this happened, it was the amateur radio operators who were able to communicate," Lundquist said. An American Red Cross internet posting has the details: <<http://redcrossnw.wordpress.com/2007/12/13/amateur-radio-provides-lifeline-during-disaster/>>.

"Remembering this, she decided to search the internet for any hams in the local area who might be able to assist her [in contacting her husband], and she came across the ARES® District 24 website" (<http://www.aresd24.org>).

In this Saturday morning's e-mail "she asked if us 'hamsters,' evidently that's what some sailors call ham radio operators, could provide any assistance," Lundquist said. "In her e-mail she provided a Castle Rock phone number and I was able to confirm her story and collect additional information. I also gained a real sense of the level of concern that she had for her husband."

Lundquist knew that high-frequency propagation wouldn't be favorable and that chances of "being able to check-in to the Sonrisa Net were slim to none. I did some quick web searching to find other Pacific amateur radio maritime nets—there are many—and decided to call an old Navy man for a few suggestions, D24's Rob Rude, KØRAR. He suggested we send a message via Winlink 2000, knowing that HF Winlink was originally created to provide sailors an e-mail option while on the high seas."

Running with that idea, Lundquist "shared the information I collected from the worried wife

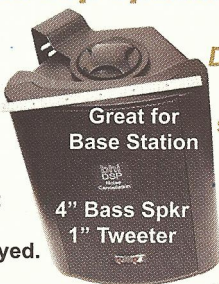
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with Rob and he sent the Winlink 2000 message. The next day I received a phone call from the Castle Rock woman saying she had just talked with her husband."

Evidently, the husband-captain had been contacted "by a sailing couple who heard about the *Allure* on the Amigo Net, a marine high-frequency net on 8.122-8.125 MHz.

As it turned out, "the reason (the couple wasn't) able to communicate via Skype was that while he was docked at Bahia de Los Angeles in the Sea of Cortez her husband was experiencing bad weather (50-60 knot winds) and the rough seas made it impossible to connect to the internet via their satellite-based internet service," Lundquist said.

"For the safety of the vessel, her husband decided to head out toward calmer seas. A fellow sailor heard via Winklink

2000 that the captain of the *Allure* was being sought and found Dennis (the husband), who then went back to port to contact his wife via landline phone."

The story and its happy ending were ultimately chronicled in the "Colorado ARES® D24 Newsletter."

Lundquist said Winlink 2000 "was born out of the Airmail software program, which was specifically developed to enable sailboat enthusiasts to send and receive e-mails over HF communications using Pactor3. With the advent of the Winlink 2000 system, Airmail has

Perry Lundquist, W6AUN, (background), who led the charge in helping a Colorado woman contact her out-of-touch husband, is shown with Ron Hranac, NØIVN, in the South Metro Fire and Rescue Authority's Emergency Operations Center during the 2008 Democratic National Convention in Denver. (Courtesy of W6AUN)



become just one of the programs that can be used to send and receive e-mails. Paclink is another popular program that allows you to use your own e-mail client software such as Microsoft Outlook and Outlook Express.

"Instead of just a software program and communications protocol, Winlink 2000 is a complete e-mail system. The system includes five redundant communications messaging servers placed around the world so that if any region of the internet should fail, the Winlink 2000 system will stay operative." One of the servers is in the Pentagon in Washington, DC, he said.

"The really interesting thing about Winklink 2000 is that gateways into the system exist both on HF amateur frequencies and on VHF/UHF frequencies," Lundquist noted. "Here in the Denver area there are at least four RMS [radio message server] nodes with 2-meter transceivers on packet radio frequencies.

"Not only does this usage breathe new life into packet radio, but it also means that anyone with a Technician class license or above can use Winlink 2000 and local amateur radio communications to send and receive e-mail over the internet," Lundquist said. "This capability really excites our served agency representatives because we are able to send and receive e-mails in the field when local infrastructure is down."

District 24 "maintains excellent served agency relationships with the Douglas County Office of Emergency Management, Elbert County Office of Emergency Management, South Metro Fire and Rescue Authority, The Salvation Army, and the local chapter of the American Red Cross," Lundquist said. "We've been organized for about 20 years and have assisted our served agencies with various local emergencies to include flooding, blizzards and severe snow storms, power

outages, 911 outages and wildland fires. In 2002, District 24 and other Colorado Front Range ARES® Districts provided communications support during the Hayman Fire, a 168,000-acre blaze that was the largest in Colorado history."

As D24 EC, Lundquist manages a group "of about 70 emergency com-munications-minded amateur radio volunteers."

"I was first licensed in 1977 and of all the amateur radio related activities I've done—DXing, 10-meter beacon hunting, severe-weather spotting, high-altitude balloon chasing, and so on—emergency communications is the facet I enjoy most. I've been a member of Colorado ARES® District 24 since 1996, and since that time I have met more people and been able to do more cool things than I could have ever imagined."

Lundquist said he has "worked in emergency operations centers during many events, been at the incident command post during several wildland fires, been a part of public safety emergency response planning, and more." In addition to being D24 EC, he is also "... the RACES Radio Officer for both Douglas and Elbert counties. I'm a Communications Unit Leader (COML) for the Douglas County Type 4 Incident Management Team, and an interim board member of the Colorado D-STAR Association."

Lundquist is also an acknowledged contributor to the ARRL's Amateur Radio Emergency Communications Course, Level 1.

Why EmComm on N-Beams is so Darned Good

As reported in the September edition of CQ's "Public Service" column, in 2009 the Hall County (Georgia) ARES® adopted use of the Narrow Band Emergency Messaging System for the transfer of digital data over radio. Now considered one of the leading EmComm groups in the state for digital commu-

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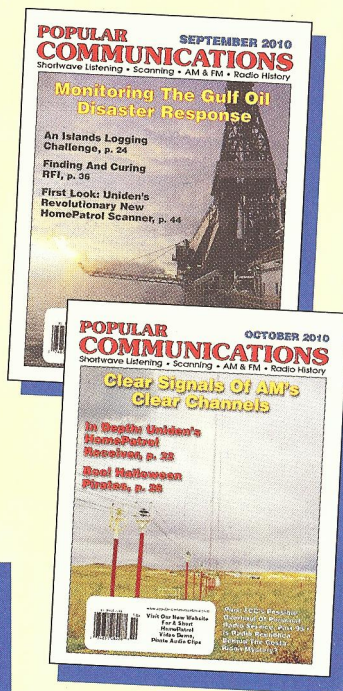
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