

It's Taps For U.S. Telegraph - Last Dots Dashed Out

By Andrew Quinn

SAN FRANCISCO (Reuters) - It's finally taps for U.S. ship-to-shore telegraph, drowned out by the high-speed chattering of satellite communications, high frequency radios, and e-mail.

Globe Wireless, an 89-year-old California communications company, Monday sent out what it billed as the last commercial maritime Morse Code message from North America, a terse sign-off that repeated the first words transmitted by the telegraph's inventor, Samuel F.B. Morse, 155 years ago: "What hath God wrought?"

The message, sent from Globe Wireless' KFS Marine station at Half Moon Bay south of San Francisco, marked a muffled end to the U.S. tradition of commercial radio telegraphy, famous for the dots and dashes of Morse Code, company official Tim Gorman said Tuesday.

"The satellite started coming in in the early 1980s, and there were great advances in voice radio and radio telex," Gorman told Reuters. "But there was nothing over all those years that could replace Morse Code for its simplicity and reliability."

Globe Wireless gathered several old-time telegraph operators for a small ceremony marking the event, the gleaming telegraph key now surrounded by banks of computers and video screens used for more modern forms of communications.

"It's a sad event for me, but I know it's for the best," said Dalton Bergstedt, 92, a one-time manager of the Half Moon Bay facility. "It will improve maritime communications (to be) much better than they ever were." Perhaps the most famous single Morse Code message was the distress call sent by the foundering Titanic in 1912 -- "Come at once. We have struck an iceberg."

As maritime traffic rose and through two World Wars, the simple telegraph, known as "continuous wave" or "CW" transmission to the experts, remained a spare, cheap and effective means of communicating across vast distances.

Nevertheless, the last three decades have seen a major shift in maritime communication, and the radio telegraph's fate was sealed when the International Marine Organization, a U.N. agency, ordered commercial ships to replace the telegraph with new technology dubbed the Global Marine Distress and Safety System by February 1, 2000.

Instead of typing out the dots and dashes of the famous "SOS" signal, communications officers on modern ships can simply push a button indicating a specific problem: sinking, capsizing, dead in the water.

The Globe Wireless station at Half Moon Bay, as well as other former commercial radio telegraph facilities already taken off line, will now be used for the company's new communications product -- GlobeEmail, company officials said.

Gorman said that before the final sign-off, KFS Marine did relay one last telegram from the National Liberty Ship Memorial, the SS Jeremiah O'Brien, in San Francisco Bay to President Clinton in the White House.

"The message was 95 words, and it took me six or eight minutes to copy it," said Gorman, who took down the Morse Code message from the ship. "Then I just transmitted it to the White House via e-mail."

Original article provided (Edited for length) by:
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***This month's
club meeting***

**August 16
7:00 PM**

Visit to Alltel

**Meeting at Alltel's offices
Behind Smitty's/Albertson 3260 East Battlefield
Near 65 and Battlefield – Look for the tower
Turn on to Moulder, go south 1 block**

Back to the basics

The Basics - QSL Cards

As hams advance in licensing, and HF frequencies are used, QSL cards are commonly used to confirm a contact. What is a QSL card? When do they need to be sent? What information needs to be on the card? How can I get QSL cards?

QSL is an abbreviation meaning, "can you acknowledge receipt of a message or contact?" QSL cards are written confirmation of a two-way ham contact. While not required, many hams see them as the final courtesy of a completed HF contact. If you receive a QSL card, one should be returned, provided you can confirm the contact took place. This means you really need to keep a log of your completed contacts in order to know if a particular contact took place. Many awards and contests require confirmation of contacts, and QSL cards are the way this is done. In addition, QSL cards are often very decorative, and give you something interesting to mount on your shack wall.

In order to confirm a contact, you need a certain amount of information in your log. At minimum, you need to confirm the station call sign, date, time, band, a signal report, and the mode. All this information needs to be on the same side of a QSL card. Optional contact information you might include on the card would be rig, antenna, and power. Many cards have two small boxes that may be checked: "tnx QSL" (thanks for the QSL card) and "pse QSL" (please send a QSL card confirming this contact). In addition, a card needs your name, call sign, and complete address. County and grid square are usually included. Occasionally you may get a QSL card asking you to confirm a contact that you cannot find in your log. I return the card with a note stating this fact. Most likely they simply copied the wrong call sign during this particular contact.

QSL cards come in simple and flashy designs. Most are standard postcard size; 3 1/2 inches X 5 1/2 inches. Some have elaborate color photography, while others are simply black print on a white card. Both types accomplish the main task of confirming a contact. Let your

card be an extension of your personality. Many hams buy cards from a commercial printer. Addresses and prices can be found in ham magazines. Quantities range from 100 cards up, and prices go from about 8 cents per card for plain monochrome designs up to 20 cents or more per card for full color specimens.

Other hams like to design and print their own cards. The simplest card I ever received was a plain 3 x 5 index card with the information filled out in pencil. However, many hams who make their own cards find it pretty easy to do with a personal computer. I used a word processor to design my own card. Once I had a design to my liking, I used the copy and paste function to place three copies on one page. There are many clipart designs for ham radio on the internet. I found one I liked to include on my card. For printing, I purchase colored card stock from an office supply store for 6 cents per 8 1/2 X 11 inch sheet. I get three QSL cards per sheet. Once source of ham-related clipart can be found on the web at <http://www.barrysclipart.com/mdex3.html>.

Addresses can be most easily found using internet call sign databases, such as Buckmaster. Some hams will send a confirming card at their own expense. Other hams will not "QSL" unless you include postage or a SASE. Experiment to find what works best for you. Some call sign database server's list e-mail addresses. With a contact I really want to confirm, I e-mail the individual asking what his or her requirements are for returning a QSL. That takes care of the basics. QSL cards are a great way to add enjoyment to your radio operating.

73,
Fred Drake, KIØET

Editor's note:

There are no minutes published in SMARCalling this month because there was no formal meeting at last month's picnic. See last month's issue for the most recent minutes.

The MAX Factor

Meet Our Member - Dick Sanford, KEØPQ

Dick is something of a late bloomer in ham radio. He had been retired for five years when his son sent him a radiogram via ham radio. Dick had been looking for something to keep him out of trouble, and he suddenly saw ham radio was the answer. He earned his license in 1986 and has been active in ham radio ever since. His favorite bands are 20 and 80 meters, and he has done a lot of work in the Military Amateur Radio Affiliate System (MARS). For instance, he handled health and welfare traffic during the Los Angeles earthquake and morale traffic during Dessert Storm. In both instances, he was featured on local TV. His current goal in ham radio is to upgrade to Extra Class.

KEØPQ's major achievement in ham radio has been his service as Emergency Coordinator for Greene County for a good number of years starting soon after he was licensed. He was instrumental in getting amateurs in the southwest Missouri area involved with Sky Warn in support of the National Weather Service. Many are the times during bad weather when we heard KEØPQ as net control or as the liaison station at National Weather Service. He also spearheaded emergency communications for the Red Cross and is currently a member of the board of directors of the Springfield chapter.

Dick grew up in Oklahoma, came to Springfield for college, met his first wife on a blind date, and ended up staying here. In his work life, he was very productive salesman for the Metropolitan Life Company. He has three sons. Sadly, his wife passed away shortly after he retired. He and his second wife, Phyllis, do a lot of traveling in their RV and often winter in Florida or Texas. Dick, the consummate good old boy, also loves to golf and fish. We certainly appreciate his contributions to ham radio in the Ozarks.

Satellite News

AO-27 - An "Easy Sat" Revisited.

It's "easy" because you can work it with your VHF and UHF FM rig (or rigs) and because you don't need high power or fancy antennas. It operates as an FM repeater with 145.85 MHz input (uplink) and 436.80 output (downlink). For best results, tune for the best signal on the downlink to correct for the + & - 9KHz Doppler shift. No correction is needed on the uplink. AO-27 is subject to FM "capture effect" and will retransmit the one strongest signal in the uplink. So keep your calls short. I've listened in recently, and it is amazing how many different call signs and short greetings I heard during one pass. There seems to be a lot of regulars who know each other. It is not a ragchew machine, but it gives you a chance to hear your own voice from space.

You might want to homebrew your antennas to work AO-27. K5OE's web page describes a very short 70 cm yagi. See: <http://members.aol.com/k5oejerry/handi-tenna.htm>. There is a link to another of his pages that describes a gain 2m vertical.

RS-13 - Another "Easy Sat" With Surprises.

Tom, AD1B reports he has worked LU6HI on RS-13 several times this spring. Argentina is well outside of the RS-13 footprint (line-of-sight) for AD1B when RS-13 passes over. But by using mode K (15m up and 10m down), it is possible to use a skip to make contacts over the horizon.

You need SSB or CW to work this satellite, but it can be worked with one HF rig (split) or with a 2m transmitter and 10m receiver. Here are the frequencies:

Dn Link:	29.460 - 29.500
Up Link:	21.260 - 21.300
Up Link:	145.960 - 146.000
Beacon:	29504

Satellite News based on AMSAT News Service bulletins.

73, Max, WØZZQ

Updates from ARRL

FCC AUDITS NEW YORK EXAMINATION SESSION

The FCC is auditing an Amateur Radio examination session held May 2, 1999, in Yonkers, New York, and has written four applicants to ask some very specific questions.

Those questioned about the ARRL-VEC examination session included an individual applying to upgrade to Amateur Extra, one upgrading to Advanced, one to Tech Plus, and one seeking a new Technician license. The letters, all from the FCC's Riley Hollingsworth, K4ZDH, of the FCC's Compliance and Information Bureau note that the FCC has "not made a finding that you engaged in misconduct."

Hollingsworth invoked the FCC's authority "to request information from licensees and applications that the Commission needs in order to determine whether a licensee is qualified to retain a license, or whether an applicant should be granted a license."

In the case of the Extra, Advanced and Technician class applicants, the FCC enclosed a color copy of the answer sheets for the written exam, signed by the applicant, and questioned the appearance of blue markings on the answer sheets. Among other specific questions, the FCC asked which marks the applicants had placed on the answer sheets and if any marks already were on the sheet when it was handed out.

The FCC similarly queried the Tech Plus upgrade candidate about his Morse code answer sheet, asking if it was the only one he'd filled out on May 2; if any of the answers were modified after he'd turned in the sheet; others who took code tests were asked if they had written down any of their copy; and if so, what they did with those notes.

All four applicants also were asked to name the Volunteer Examiners who handed out their paperwork and to whom they gave their completed answer sheets, as well as any discussions they might have had with the examiners.

All applicants were given 30 days to respond to the questions or risk having the FCC dismiss their pending applications.

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Bits and Pieces

ULS HAM RADIO PHASE-IN PERIOD BEGINS AUGUST 8

The FCC begins phasing in the Universal Licensing System for the Amateur Service August 8 at 4 PM Eastern Time. That's when the FCC stops accepting new or upgraded licensee data from Volunteer Examiner Coordinators under the current amateur licensing system.

The ULS ushers in an era of electronic, interactive filing and handling of Amateur Radio applications. Being phased out under ULS is the familiar paper FCC Form 610 series. A "universal" Form 605--primarily designed for electronic use but also available on paper--will take its place.

A July 23 FCC Public Notice says the Wireless Telecommunications Bureau will begin using the ULS for the Amateur Service on August 16. Existing Amateur Radio licensing data will be transferred into the ULS database during a weeklong phase-in period. During the phase-in period, the FCC will not process new or upgraded licenses.

Electronic filing of Amateur Radio license renewals using FCC Form 900 ends August 9, at 9 AM Eastern Time. Electronic filing of vanity call sign application Form 610V terminates August 13 at 5:30 PM Eastern Time. Hams should not attempt to file renewal or vanity applications until the ULS comes up August 16.

Starting August 16, hams registered in the ULS may file the new FCC Form 605 electronically at any time of day, seven days a week. FCC Form 605 will be used for license renewals, modifications, cancellations, vanity call sign applications, application withdrawals and amendments, as well as requests for duplicate licenses and administrative updates (ie, a change of address or other clerical license modification). Applications for new or upgraded licenses will continue to be filed through a Volunteer Examiner Coordinator.

Automated processing of electronically filed applications will occur nightly each business day, but five days a week instead of seven. There will be no weekend processing under the ULS. The FCC has warned that applicants should anticipate processing delays during the first couple of weeks the ULS is in effect.

The FCC will stop accepting most Form 610 applications next February 16, but club station Form 610B will continue to be valid beyond the six-month transition window to allow time for the FCC to implement new handling procedures.

Among the advantages of the ULS, the FCC says, are fast and easy electronic filing, improved data accuracy through automated checking of applications, and better electronic access to licensing information. One feature of the new ULS is a renewal reminder sent 90 days prior to a license's expiration date. ULS also will simplify the process of submitting fees to the FCC, and the FCC said it anticipates that the ULS will be capable of accepting credit card payments on-line in the near future.

Registration in the ULS is required. Applicants should use FCC Form 606 for both electronic or manual filing. To register online, visit <http://www.fcc.gov/wtb/uls/> and click on "TIN/Call Sign Registration." A paper FCC Form 606 is available at <http://www.fcc.gov/formpage.html> or from the FCC's Forms Distribution Center, 800-418-3676.

The FCC will not process future license grants, upgrades, modifications or renewals for any applicant not registered in the ULS. Individuals eligible to hold a Social Security Number must provide this number to the FCC in order to be registered in the ULS.

A copy of the July 23, 1999 Public Notice is available at <http://www.fcc.gov/wtb/uls/>. Additional information on ULS will appear in The Washington Mailbox column in the September issue of QST.

The above is part 2 of:

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For Sale: Kenwood TS-850SAT. \$800.00
Contact: Bob Patterson, K5DZE, at Central Bible College, 417-833-2551 for info

Silent Key: Ozzie Jaeger, W6AD, of Nixa, Missouri, died June 26. He was 79 and had been ill with cancer. He had just recently remarried. Jaeger was associated with Ten-Tec in an unofficial capacity and assisted at the Ten-Tec booth at the 1999 Dayton Hamvention.

You or members of your club may be interested in the new release of Antenna Solver, which may be used to calculate general radiation patterns from arbitrary structures.
See <http://www.gsolver.com> for details.

Regards, KJ5AT

Learning about Repeaters

Repeater update –

When I began handling duties as the SMARC repeater trustee, Bruce asked me to write about repeaters and their operation. I decided to begin discussing the basics. First, we need to discuss why we use repeaters instead of simplex. Second, we need to talk about FM.

We use repeaters to help us communicate with stations we cannot reach through our own equipment. In most towns in the United States, for example, the police department is located in the business district or downtown. When the police and commercial businesses began using VHF & UHF FM radios, they realized that the higher they were the better communication method. VHF/UHF signals rarely propagate in the same manner as HF signals. These signals usually operate in a straight-line fashion; that is, they rarely bounce off of the atmosphere to a distant station. So, how do we "bounce" our signals to distant stations? We use a repeater. A repeater is simply a relay station that listens for your signal on the input frequency (the signal determined by that little '+' or '-' on your radio), and retransmits your signal on the output frequency (the frequency you see when you listen to the repeater). The higher the repeater, the further it can 'bounce' the incoming signals. So the police build repeaters on the highest point in town, like a water tower, TV tower, or hill. This extends the coverage of their radios.

So when you are listening to the repeater, and someone asks for a signal report, you should not give someone a '59' report or tell them they are '59+20db', because that signal strength reading on your radio is the signal strength of the repeater into your radio. It is not helpful to the operator to know how well you hear the output frequency of the repeater unless they are at the repeater site adjusting the repeater. A signal report for a repeater user is helpful only if you tell

the station how clear their signal is (e.g. 'you sound a little scratchy,' 'there is a little alternator whine,' or 'your signal is clear, sounds good.')

Simplex is fine for line of sight contacts, and in fact is preferred for local communications. If you are within simplex range of another station, you should operate on simplex. You can test this by listening on the input frequency of the repeater. This is sometimes called "listening on the reverse," because you can usually listen to the input frequency quickly by hitting the reverse button on your radio). Remember the FCC rules tell us to operate on a repeater only if we cannot maintain the contact on simplex.

Although you can have repeaters on other modes, FM is generally considered the best mode. FM and repeaters seem to go together like popcorn and a movie, or Joe Smith and Field Day. The primary benefit of FM is the clarity of the signal you receive. A FM receiver has a capture effect; that is, the receiver can only hear one signal at a time. On side band, you can hear several people talking all at once if they happen to be on or near the same frequency. The downside to side band is the ability to hear several signals at once makes it very difficult to listen to one signal at a time. The downside to FM is you need considerably more power to cover the same distance on FM than you cover on SSB. On FM, the strongest signal wins, so whoever is loudest has the floor, so to speak. It's not very democratic, but it makes for a clear signal.

Well, that is it for our discussion of repeaters for now. Next time we will talk about some of the terminology you may hear on repeaters.

Article by
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