

**BC245XLT DETAILS**

Posted on SCAN-L, compliments of Rich Barnett

The Bearcat 245XLT uses the same case as the 235 with a slightly modified display. It is still 300 channels and it still covers the same bands (no, it will not do digital or cook your breakfast). Here are the major new features:

**EDACS Tracking** You can use decimal or Uniden's own method for programming talkgroups, your choice. The Uniden method provides some incredible functionality. More on this at a later time).

**Multiple-System Tracking** (Multi-track) allows you can track up to 10 trunked systems at one time! Any mix of Motorola and EDACS.

**All Band Trunking** The scanner will trunk in VHF, UHF, 800 & 900 MHz

**Trunked & Conventional Operation** You can Trunktrack and scan conventional frequencies at the same time! You can program conventional frequencies into trunking banks. You can be in Trunk Search mode and scan conventionally or Trunk Scan mode and scan conventionally.

**RS232c -- Complete Computer Interface** With a supplied cable --DB9 on one end-- you can remotely program AND control the 245 from a PC. You can also CLONE from one 245 to another.

**SMARTSCANNER** Program your scanner from a remote database via a phone line and a remote server. The programming includes not only frequencies, but also trunking systems and talk groups as well as Type 1 fleet maps. It's all done for you. More on this fascinating new service at a later date.

**Status Bit Toggle** For Motorola Type II trunked systems you can toggle the status bit on and off.

**More Talkgroup Memory** There are now 10 Scan Lists of 10 channels each. That's 100 talk groups per trunking system, up from 50 in previous models.

**Priority in Trunking Mode** You can now set up to 10 priority talk groups per trunked system.

**Auto-Light** You can set the radio so that the backlighting will light for the first 5 seconds of each transmission.

**Frequency Find Mode** While trunking, you can check the frequency the data channel or the current transmission is on or you can have it alternate between talk group and frequency automatically.

**Upgraded Service Search** RR Railroad is a new service search. The radio flashes alternately the frequency and its Association of American Railroads Channel number.

**COMMENTS FROM BC-245 USERS**

The 245XLT arrived today. I am scanning the Miami County EDACS system at this very minute!

Here is a few quick observations:

One thing I did not see documented very well in the manual on the first read through - if you are scanning or manual in conventional mode and press TRUNK to go into Trunk Tracking mode, it goes to whatever bank was selected for conventional mode. On the old Trunk Trackers, after pressing TRUNK, you had to press the bank number. On the new Trunk Tracker, you need to have the bank or banks that you want to Trunk Track selected before pressing TRUNK. That will take a bit to get into the habit of doing.

When DELAY is on, the scanner picks up several of the beeps after the mic key is dropped on EDACS systems, if DELAY is off, it only picks up the first beep.

Tracking EDACS systems requires a stronger, cleaner signal than Motorola systems. While sitting in my recliner with the scanner at a comfortable viewing angle, it loses the control channel sometimes on the Miami County system. Motorola systems that are further away do not do this. I may try a signal preamp with this.

Being able to turn Status Bits off or on is a great improvement!

I have not tried 400 MHz Trunk Tracking yet. I'm not sure what is needed for "Base Frequency" and "Offset". I need to re-read that section of the manual and will play with that over the weekend.

When tracking multiple trunk systems, it tends to dwell on the system (or systems) with the stronger signal. Turning DELAY off seems to help with this.

**Dave Marshall N8OAY**

The best deal I found was Advanced Specialties in Lodi, NJ... they are expecting their shipment any day. The price is \$228 which includes shipping and the cigarette lighter cord.

Power Supplies • Antennas • Books • Pagers • Power Mikes

**ADVANCED SPECIALTIES  
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AMATEUR RADIO      SCANNERS      CB RADIO

*Business Band ★ Marine ★ GMRS ★ Electronic Kits*  
114 Essex Street, Lodi, New Jersey 07644  
201-VHF-2067

its being reported on Trunkcom that National Electronics is selling them for \$218.95 including shipping.

**Mark Meece - N8ICW**  
Franklin, OH

**EDACS SYSTEMS INFO PAGE**

<http://ourworld.compuserve.com/homepages/brennan/guide.htm>

So now that the new Trunk Tracker is out you'll probably want to start listening to all those new systems in use. This page seems to be growing daily, listing lots of the information you will need to program the BC-245XLT. You may also want to check out <http://gtrac.ztn.net/> Lots of neat utility programs that will come in useful once EDACS systems become part of your scanning habit!

**FINDING THE "LCN"**

For those with the new 245xlts, here is a painless way to determine LCNs. It will require use of a second 800Mhz capable scanner. This second scanner can be any 800Mhz scanner.

The following assumes you're starting from scratch. Make sure you have a valid list of frequencies used under the license for that system. If its multi-site or networked, make sure you only have those frequencies valid for the site you're interested in. The FCC License will usually list these.

First, put your 245xlt into Trunk Mode, and select the 'Ed' mode for the bank you'll be using. Immediately put the current (active) data-channel into the last channel in that 'Edacs' Trunk Bank.

Now, start with the first channel in the Edacs bank for LCN1, put a frequency in there, then hit 'SEARCH'. Now make sure you have that same frequency keyed into the other 800Mhz scanner, and leave that scanner on that frequency. If the 245xlt doesn't mirror the same audio as the other non-trunk scanner, then zero-out LCN1, and try that same frequency in LCN2. So-on and so-on, til you find its right place ; After you find its correct LCN slot, zero-out that LCN, and move onto the next frequency, taking notes of the slot-assignments, as you progress. When you have all the slots, its time to put the data-channel in its correct slot. If you have more than one LCN that isn't figured out, wait for the data channel to switch to another LCN, then put the former data-channel frequency into one of the unknown LCN slots. Sit your non-trunk 800Mhz scanner on to that frequency, and wait for it to come alive. If both scanners mirror the same audio, you've got it.

The 245xlt does not seem to be concerned with the currently active LCN assignment, for the Data-Channel. The above listed method allowed me to positively identify all the LCNs for a Nextel Edacs Business TRS.

**HARRIS CORP. AWARDED 55 MILLION DOLLARS**

MELBOURNE, Fla.--(BUSINESS WIRE)--July 12, 1999--Harris Corporation (NYSE:HRS) has been awarded a \$55 million contract to help establish a wireless national marine communications network that will for the first time enable boaters throughout the United States to easily place phone calls, send/receive faxes and even check emails - all from a next-generation marine radio.

Harris was awarded the two-year contract from MariTEL, the nation's leading provider of VHF marine wireless telecommunications, to develop the

MariNET system. The system will enable recreational boaters, U.S. Coast Guard vessels and commercial ships traveling along the entire U.S. coastline and all inland navigable waterways in 43 states to wirelessly link to a network of 300 towers onshore. By connecting to the towers, the boaters can place a phone call directly into a public phone network.

Harris will provide the necessary hardware and software, tower site electronics, radio direction finders, and system integration and support services. The hardware will consist of radio transmitters, receivers, and antennas. The operational software will control the system and route calls into the public phone network.

Through MariNET, boaters up to 100 miles from shore will be able to place a phone call to anywhere in the world and send and receive faxes and email using a next-generation VHF marine radio that will soon be available for purchase from several manufacturers. Currently, boaters are very limited in how they place phone calls over their marine radios - it is all done manually and most areas have only one channel, allowing only one call at a time. With MariNET, each area will have at least nine channels, and all the network connections will be fully automated, allowing for much quicker and more direct connections. MariNET will also enhance emergency response capabilities, as automatic radio direction finding equipment will provide the precise location of vessels in distress to rescue agencies.

Recently, the Federal Communications Commission changed the regulations governing the use of marine channels. As a result, technologies that have been used by cellular telephones can now be used by VHF marine radios, allowing for such things as email and fax transmissions. New models employing these technologies, such as narrow banding and trunking, are being introduced by several manufacturers this year.

Cellular phones only work several miles offshore, so the maritime community has no reliable way to place a telephone call using conventional communications equipment at the present time.

MariTEL is the nation's leading provider of VHF marine wireless telecommunications. With continuous coverage of inland and coastal waterways, MariTEL offers marine vessels the best

in reliable, convenient, and affordable VHF communications.

Harris Corporation (NYSE:HRS) is an international communications equipment company focused on providing product, system, and service solutions that take its customers to the next level. The company provides a wide range of products and services for commercial and government communications markets such as wireless, broadcast, government systems, and network support. The company has sales and service facilities in nearly 90 countries.

For further information on Harris, contact Jim Burke at 407/727-9127 or [jburke@harris.com](mailto:jburke@harris.com). Additional information on Harris is also available on the Internet through our World Wide Web address: <http://www.harris.com>

### **HUDSON RIVER AVIATION INFO**

By K2JAS

Hi Bob,

Surprisingly, your mention of the Hudson River aircraft self-announcing traffic frequency of 123.050 was ACCURATE, however, you inadvertently neglected to include the East River aircraft self-announcing traffic frequency of 123.075.

The purpose of these frequencies is to have pilots reporting their current positions and intentions to anyone who may be listening nearby so that everyone knows where the traffic is. These frequencies ARE NOT CONTROLLED by any supervising agency. Pilots are merely talking to who ever is listening- or no one in particular.

Self-announcing frequencies are also used in and around airports without control towers. These frequencies are designated as CTAF... Common Traffic Advisory Frequencies. They are generally 122.7, 122.8, 122.9 and 123.0-Mhz. 122.75 is reserved for Air-to-Air communication (between planes). These same frequencies may also be designated as UNICOM frequencies at airports which the pilots can use to talk to any airport personnel who sell gas, or provide other services... such as a flight school or pilot shop. These people do NOT control airport traffic and do not function in an official capacity as would a control tower, however, they can advise traffic of the current runway in use and perhaps the wind status. Pilots

may use the CTAF frequency to order a rental car to be ready on landing... or request a catering service... or a mechanic... or advise a waiting friend of your updated arrival.

Some airports that have control towers that do not operate around the clock (because there isn't sufficient traffic to justify paying a tower controller) will often use the tower's frequency as the CTAF when the tower is closed. This means that although no controller is on duty... pilots will simply talk to themselves and announce their whereabouts and intentions.

The CTAF frequencies are extremely busy on the weekends (when people have time off from work to go flying or taking lessons). Adjacent airports are usually assigned different frequencies... but not always. If I take off from my local field in Old Bridge, NJ it's not at all uncommon to hear planes reporting their position in the traffic pattern around Block Is., RI! Soon you begin to appreciate the meaning of QRM!

You just want to shut off the damn radio, but, if you're in and around an airport... you need to tell people where you are and what you're doing and you likewise need to hear the same from others. Planes are frequently closing on each other at hundreds of miles an hour and what was a minuscule speck one minute may be a humongous BARN the next.

As much as pilots would like to tune out the din and cacophony of screaming and beating signals... and listen to some quite music on the CD player... common sense and safety dictate otherwise... at least in the vicinity of the airport!

Away from the vicinity of busy airports and "special use airspace," and above 3,000-ft (measured at sea-level) pilots flying by VFR... visual flight rules, don't need to talk to anyone. If they maintain a course from 0-degrees to 179-degrees... they should be flying at ODD- thousands of feet plus 500-ft... ie. 3500, 5500, 7500-ft. With courses of 180-degrees to 359-degrees they must be at EVEN thousands of feet plus 500-ft... ie. 4500, 6500 and 8500-ft. And... of course, while you're "maneuvering" from one altitude to another... you're always in danger of running into someone.

For this reason it's helpful to avail yourself of a Flight

Following service offered by an Approach Control facility... "their workload permitting." Aircraft flying by Instrument Flight Rules- IFR are on flight plans that require that they be separated from all other aircraft and in constant control by controlling facilities. This is NOT the case with VFR traffic. What happens is a controller assigns everyone he's talking to a distinctive 4-digit numerical code to place in the aircraft's transponder and every time the area's radar hits that aircraft, the transponder will reply with a 200-watt signal (in the 900-Mhz range) that will identify the aircraft and its altitude on the controller's radar screen. The controller can then advise the pilot of any traffic in his vicinity. If the controller has any doubt as to which is your blip on his screen, all he has to do is ask you to IDENT. When you do, you push the IDENT button on your transponder and your radar blip gets immensely brighter on the controller's radar screen.

Some of the wealthier pilots and probably all of the airlines have TCAD on board. Tactical Collision Avoidance and Detection systems tell a pilot if there is a nearby aircraft and where it would be located. Very nice toys!

Enjoy the summer... and Happy Aviation Listening!  
**Roger, K2JAS**

### ***IFLOWS FREQUENCIES***

From: "Bill Dunn" <ecps92@tiac.net>

Awhile ago, someone posted a web-site for IFLOWS (simply, Rain Gauge Monitors).

<http://www.afws.net/freq>

What I've found that I've been looking for for years is:

**171.1250 Mhz** with Data is coming from a MicroWave site, to the NWS in Taunton

**171.8250 Mhz** with Data is coming from a MicroWave site, to the NWS in Taunton  
**170.3250 Mhz** with Data is coming from NWS Taunton to the Taunton Microwave site.

**171.1000 Mhz** 100.0 Hz with Data is from Mt. Wilcox (Western Mass) to Glastonbury CT  
**170.2500 Mhz** 100.0 Hz with Data is from Glastonbury CT to Mt. Wilcox Mass.

There are some wonderful MAPS on this site, that show all the SENSOR Repeaters, as well as the

Voice-Repeater sites, with CTCSS and Freq's. Try the Frequency SEARCH page and you might (I sure did) find some interesting OTHER federal Agency Repeaters.

**Bill Dunn**

**ODXA**

The Ontario DX Association (ODXA) announces a new internet web site at: <http://www.odxa.on.ca>

After several years presence on the net, we are pleased to offer internet users the convenience of this simple address. At the ODXA site you'll find a wealth of information for radio listening enthusiasts, from our monthly classifieds column to sample columns from our DX Ontario magazine to lists of equipment reviews, prices and suppliers. As well, [odxa.on.ca](http://www.odxa.on.ca) is your source for shortwave propagation forecasts, our popular Target Listening column, amateur radio news, and the latest updates on Radio Fest 99.

**GLENN HAUSER'S WORLD OF RADIO**

<http://www.angelfire.com/ok/worldofradio/>

**MARK CONNELLY'S WEB PAGE**

<http://members.aol.com/MarkWA1ION/weblink.htm>

**DOT to DOT - PUBLIC ITINERANT CHANNELS**

You'll find these frequencies used for anything from fast food to law enforcement. You're supposed to apply for a license to use one of these, but many people don't. The radios are relatively low in cost and typically have a colored "dot" affixed to the back of the radio. Next time you spot one, here the color scheme to easily identify the frequency the radio is on!

- 151.625 Red Dot
- 151.955 Purple Dot
- 154.570 Blue Dot
- 154.600 Green Dot
- 464.500 Brown Dot
- 464.550 Yellow Dot
- 467.7625 J Dot
- 467.8125 K Dot
- 467.850 Silver Dot
- 467.875 Gold Star
- 467.900 Red Star
- 467.925 Blue Star
- 462.575 White Dot
- 462.625 Black Dot
- 462.675 Orange Dot

**NASSAU COUNTY EDACS**

I happened to visit a local firehouse tonight and I had one of the Nassau County issued Ericsson radios in my hands. The helpful friendly firefighter also was kind enough to show me his programming sheet.... can any of you guys who are familiar with EDACS systems make heads or tails of this and will this info be helpful to me when I get my BC-245?

The Ericsson radio seemed really simple looking, no digital display or keyboard...nothing elaborate like the Dayton Ohio FD's Motorola.

- Ch 1 847 Firecom 1
- Ch 2 1546 TAC 1
- Ch 3 1547 TAC 2
- Ch 4 1548 TAC 3
- Ch 5 1549 TAC 4
- Ch 6 1544 Battalion 8
- Ch 7 1537 Battalion 1
- Ch 8 1541 Battalion 5
- Ch 9 1713 Department Main (Albertson)
- Ch 10 1714 Department Administrative
- Ch 11 825 EMO (Emergency Management Office)

Some additional information....

This info came from an actual personality (codeplug) in a Nassau County Radio.

- 1-866.1875
- 2-866.3375
- 3-866.5875
- 4-866.7375
- 5-866.8375
- 6-866.9000
- 7-867.1125
- 8-867.1750
- 9-867.9000
- 10-868.1750
- 11-868.4250
- 12-868.5750
- 13-868.7250
- 14-868.6500

**BC-245XLT DISCRIMINATOR INFO**

I know it is way too early to hack into a BC245XLT, but has anyone thought about tapping into the discriminator (most likely IC2?, still ML3361CDR2, pin 9?) and porting it to an unused pin on the remote port to output data (and possibly track) to TrunkTrac, E-Trax, Trunker and Etrunk. Better yet, if there is room inside, tap the discriminator and connect the input to a "small" buffer board and

send the output to an unused pin on the remote port 9 pin connector (if one is available).

Just for giggles I used Andrew Porrett's Slicer program <http://home.ica.net/~phoenix/wap/slicer.htm> to check that the 245 was not sending data from the discriminator to a pin (wishful thinking I know, but if AOR can do it?).

Using an RS-232 tester in line when running Freetracker or Radio Manager I can see that CTS, DTR, RTS, DSR and CD are all high (on) and TD and RD are low (off unless data is sent or received).

The 895 uses pins 1,2 and 3 of the remote port with 1 and 5, 2 and 4 shorted together inside the 895. The DB9 connector uses pins 2,3 and 5 on the Computer end of the 895 cable.

On the 245 all pins are connected.

On the 245 cable not connected to the radio, I see: 245 cable (DB9 connector) pin/245; 993A2B connector from the left with connector "UP".

DB9/993A2B connector

- 1/8
- 2/1
- 3/5
- 4/7
- 5/4 and GND
- 6/3
- 7/6
- 8/2
- 9/9

With the 993A2B connector in the remote port ("UP" to the front of the 245) and the 245 OFF, Pins 5 and 9 are shorted together with GND at the DB9.

With the 245 ON and "E" (Remote) key ON at the DB9 the following pins are shorted:

- 1 with 6,8
- 2 with 3,4,6,7,8,9 and GND
- 3 with 6,8
- 4 with 6,8
- 5 with 6,8,9 and GND
- 7 with 8

Uniden has the BC895XLT RS232C Remote Mode Operation Specification at the 895 page: <http://www.uniden.com/docs/product/bc895xlt/>

Some codes will be the same as the 245 codes due to the fact that most of the functions work in 895 programs with the 245 connected others (new function codes) will be missing.

Advantages to this feature would be, computer controlled multitrack of Trunked systems with no 5 second delay between inactive systems. Use of Trunker to find system frequencies, talk groups. Ability to see (visual only) Astro system activity. Use of Etrunk to find all system frequencies in LCN order as well as hex and decimal talk group numbers. And don't forget portability of a small scanner and a laptop computer for database hunting.

Hopefully the Etrunk programmers will add the AFS decoding feature like the Uniden decimal number was added to Trunker.

Dave K9DV

**NJ UPDATES**

Date: Fri, 16 Jul 1999 13:33:17 EDT  
From: SM166@aol.com  
Subject: more

the PIP- NJ just approve the new radio's for year 99-2000 the narrow banded FREQ's as promised are **155.4525**...input **159.0975** Bogota PD now on 506.3875 and for those of you up in Passack Valley- Hillsdale PD using **159.045** repeater input

**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.”

After Morse invented the telegraph, he devised Morse code for use with his new invention. In 1844, testing the new system, he telegraphed the words “What hath God wrought?” from Washington D.C. to an assistant in Baltimore.

The telegraph and Morse Code quickly became the backbone of long-distance communications around the globe.

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.

“If there's static and you get only half the letters in a Morse Code message you can still make it out, but if you only hear half a conversation, that's no good,” said Gorman, who began working at KFS Marine in the late 1970s.

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.

Morse Code and the radio telegraph are currently used only by smaller ships from developing countries, as well as certain Russian and Chinese vessels, Gorman said.

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.”

### ***WA2EEP... Silent Key***

It's with deepest sadness that we have to mention the passing of Fed Caroll, WA2EEP on July 10. He had been battling a long illness and it had been some time since I had heard him on the air. Fred was an avid shortwave and scanner listener and had been a frequent supporter of the Wednesday night net. He was a retired NYPD patrolman, having left the job in the 1960's. His recollections of those early days of police radio communications gave us a unique first hand account of our hobby before many of us were even born. The Scanner/SWL Net has lost a good friend.

via John KB2SGJ

**MILCOM ACRONYMS**

**AABNCP**

Advanced Airborne Command Post

**ACES**

Advanced Carry-on ELINT/ESM Suite, multi-platform system

**ADEWS**

Air Defense Electronic Warfare System

**ADVCAP**

Advanced Capabilities ALQ-99 tactical jamming system for EA-6B

**AFSATCOM**

Air Force SATellite COMmunications

**AFWES**

EW evaluation simulator for USAF

**AIRGLO**

Airborne InfraRed Gunfire LOcator

**ALTAIR**

ARPA Long Range Tracking And Instrumentation Radar

**AMRAAM**

Advanced Medium Range Air to Air Missile

**ANSI**

American National Standards Institute

**ANVIS**

Aviator's Night Vision Imaging System

**ASAS/ENSCE**

All-Source Analysis System and Enemy Situation Correlation Element, provides command with real-time integrated information

**ASPJ**

Airborne self-protection jammer (ALQ-165)

**ASTE**

Advanced Strategic and Tactical Expendables program (IR)

**ASW**

Air-to-Surface Weapon

**ATARS**

Advanced Tactical Airborne Reconnaissance System

**ATBM**

Antitactical Ballistic Missile

**ATCCSS**

Air Traffic Control Communications Switching System

**ATCRBS**

Air-Traffic Control Radar Beacon System

**ATIRCM**

Advanced Threat Infra-Red CounterMeasures system

**ATRJ**

Advanced Threat Radar Jammer (US Army)

**AWACS**

Airborne Warning And Control System

**BIFF**

Battlefield Identification Friend or Foe

**CCC (C3)**

Command, Control and Communications

**CCCC (C4)**

Command, Control, Communications and Computers

**CCCCM (C3CM)**

Command, Control and Communications Countermeasures

**CCCI (C3I)**

Command, Control, Communications and Intelligence

**CEESIM 64**

EW simulation and evaluation system

**CEFIRE TIGER**

Airborne multi-channel communications/ESM set (ALQ-150)

**CFAR**

Constant False Alarm Rate

**COMFY SWORD**

Mobile jamming and deception

system

**COMINT**

COMmunication INTelligence

**COMPASS CALL**

C3CM system used on EC-130H

**COMPASS SAIL**

C/D band DF system (ALR-67)

**COMPUSEC**

COMPuTer SECurity

**COMSEC**

COMmunications SECurity

**CN&I**

Communications, Navigation & Identification

**COSTARS**

COmbined Sensors Target Acquisition, Recognition, Strike

**DCCS**

Defense Communication Control System

**DIRCM**

Directable [sometimes Directed] Infrared Countermeasures

**DRAGONFIX**

HF and ground-wave emitter intercept and analysis system

**DRAGONFLY**

Communications jammer and surveillance in VHF/UHF band

**DRFM**

Digital Radio Frequency Memory

**EBCDIC**

Extended Binary Coded Decimal (Increased Capacity)

**ELINT**

ELectronic INTelligence

**EMD**

Engineering and Manufacturing Development

**EMI**

ElectroMagnetic Interference

**ERINT**

Extended-Range Interceptor,  
anti-missile, missile

**FAADS**

Forward Area Air Defense System

**FLIR**

Forward Looking InfraRed

**GEMINI**

Chaff/flare ECM dispenser used  
against antiship missiles

**GEN-X**

From GENERIC EXpendable, an  
active radar decoy

**GPS**

Global Positioning System

**GWEN**

Ground Wave Emergency Network

**HARM**

High-speed Anti-Radiation Missile

**HAVE CABLE**

Swept frequency jammer

**HAVE CHARCOAL**

Airborne IRCM system for USAF

**HAVE QUICK**

Antijamming system for E-3A

**HELLFIRE**

Helicopter-borne, laser-aimed, fire  
and forget system

**HISS**

Horizon Infrared Surveillance Sensor

**HMMWV**

High Mobility Multipurpose Wheeled  
Vehicle

**HUD**

Heads Up Display

**ICAAS**

Integrated Controls/Avionics for Air  
Superiority

**ICNIA**

Integrated Communication,  
Navigation and Identification  
Avionics

**IDOCS**

Intrusion Detection Optical  
Communication System

**IEWCS[S]**

Intelligence/EW Common Sensor  
[System]

**IFF**

Identification Friend or Foe

**IFFN**

Identification Friend or Foe/Neutral

**IMEWS**

Integrated Missile Early Warning  
System

**INEWS**

INtegrated EW System for advanced  
aircraft

**IRST**

InfraRed Search and Track system

**ISAR**

Inverse Synthetic Aperture Radar

**ISDN**

Integrated Services Digital Network

**ITALD**

Improved TALD, turbojet version of  
the TALD decoy

**JSIPS**

Joint Services Imagery Processing  
System

**J-STARS**

Joint Surveillance Target Attack  
Radar System

**JTIDS**

Joint Tactical Information  
Distribution System

**LAMPS III**

Advanced helicopter and ship ESM  
system (SH-60B)

**LANTIRN**

Low Altitude Navigation and  
Targeting InfraRed (system) for  
Night

**LONGBOW**

Millimeter-wave fire control radar for  
attack helicopters

**LONG STAR**

Northrop Grumman/Rafael heliborne  
escort jammer for protection against  
radar threats

**LWIRJ**

Long Wavelength InfraRed Jammer

**MANPACK**

Small sized ESM direction-finder

**MAWS**

Missile Approach Warning System

**MICRO-AMES**

Threat simulator

**MILSTAR**

Military Strategic Tactical And  
Relay, satellite communication  
system

**MINI-MUTES**

Miniature Multiple Threat Emitter  
Simulator

**MUTES**

MULTiple Threat Emitter Simulator

**NAVSTAR**

NAVigation System using Timing  
And Ranging, GPS precursor

**OBEWS**

Pod-mounted EW simulator for crew  
training on F-16

**OTH-R**

Over The Horizon Radar

**PAVE PENNY**

Advanced laser search and track set

**PELSS**

Precision Emitter Location Strike  
System

**POET**

Primed Oscillator Expendable  
Transponder, an active radar decoy

**REMBASS**

REmotely Monitored Battlefield  
Sensor System

**RINT**

Radiation INTelligence

**RBOC**

Rapid Bloom Off-Board Chaff, chaff launching system

**RFSS**

Radar Frequency Simulator System

**RPV**

Remotely Piloted Vehicle (also see UAV)

**SAMSON**

Air-launched decoy missile

**SAR**

Synthetic Aperture Radar

**SAWS**

Silent Attack Warning System, passive SAM or air-to-air MAWS

**SCARECROW**

ECM unit designed for use in Aquila RPV

**SEAD**

Suppression of Enemy Air Defenses

**SEEK RAM**

Upgrade for ALQ-131 podded jammer

**SEEK TALK**

Antijam radio for F-16, OV-10 and ground vehicles

**SHORAD**

SHOrt Range Air Defense

**SIGINT**

SIGnal INTelligence

**SIIRCM**

Suite of Integrated Infrared Countermeasures

**SINCGARS**

SINgLe Channel Ground and Airborne Radio System

**SIRFCM**

Suite of Integrated RF Countermeasures

**SNAP-1**

Steerable Null Antenna Processor for ECCM on VHF/FM radios

**SOTAS**

Stand-Off Target Acquisition System

**SRAM**

Short Range Attack Missile

**STRAP**

Straight Through Repeater Antenna Program, an RF decoy

**TACAN**

TACTical Air Navigation system

**TACELIS**

Tactical Emitter Location and Identification System (TSQ-112)

**TACJAM**

Ground-based tactical communications jammer (MLQ-34)

**TALD**

Tactical Air Launched Decoy, a derivative of the Sampson decoy

**TEREC**

Tactical Electronic REConnaissance remote terminal

**TERPES**

Tactical Electronic Reconnaissance Processing Evaluation Segment (TSQ-19)

**TEREC**

Tactical Electronic REConnaissance, tactical ESM system

**TEWS**

Tactical Electronic Warfare System for F-15

**TOW**

Tube launched, Optically-tracked, Wire-guided, missile system

**TRAILBLAZER**

TSQ-138 radio communications intercept & DF system

**UAV**

Unmanned Aerial Vehicle (drone)

**GLOBE WIRELESS FINAL CW TRANSMISSION**

Date: Tue, 13 Jul 1999 21:36:10 GMT

Subject: [WNU] Globe Final Messages

Another era has come to an end. The 4 Globe Wireless stations serving North America have just finished their last transmissions. I got most of what was sent, but any corrections will be most welcome.

12/2338Z--Channel Clear tape ON 4310 KHz into VVV, apparently on a hand key, then:

VVV VVV VVV DE WNU/WCC WNU/WCC VVV =  
...CW 4310 6376 12826.5 16972  
17117.6 QSZ AS = ...JULY 12 1999 = IN 1901,  
CALL SIGN WCC WAS ASSIGNED  
TO THE SOUTH WELLFLEET MASSACHUSETTS  
WIRELESS TELEGRAPH FACILITY OPERATED  
BY GUGLIELMO MARCONI. MORSE CODE

PJuly 30, 1999

The Urban DX'er

SIGNALS FROM WCC HAVE BEEN HEARD AROUND THE WORLD EVER SINCE. TODAY WE RETIRE WCC FROM WIRELESS TELEGRAPH OPERATIONS.

WCC WILL CONTINUE TO SERVE THE MARITIME COMMUNITY IN ASSOCIATION WITH THE GLOBAL RADIO NETWORK OPERATED BY GLOBE WIRELESS = AR DE WCC WCC WCC SK

Same message repeated at 2348, then at 2351 (possibly on a bug):  
VVV VVV VVV VVV DE WNU VVV = VVV CQ CQ  
CQ DE WNU WNU = 12/2347UTC JUL 99

PEARL RIVEN RADIO/WNU NOW CEASES RADIOTELEGRAPH SERVICE AFTER EIGHTY-SEVEN YEARS OF CONTINUOUS OPERATION. WE WILL CONTINUE TO SERVE THE MARINER THROUGH OUR ELECTRONIC MAIL SERVICE AS PART OF THE GLOBE WIRELESS NETWORK. AR  
73 DE  
WNU WNU WNU CL

At about 2357, I switched over to 17184.8 KHz for the following:  
...WE NOW CLOSE THE RADIO TELEGRAPH OPERATION OF STATION KPH. SINCE 1904, STATION KPH HAS DISTINGUISHED ITSELF AS ONE OF THE MOST WELL KNOWN AND RESPECTED CALL SIGNS IN THE WORLD, AND WILL CONTINUE TO DO SO AS PART OF THE GLOBAL RADIO NETWORK OF HF STATIONS = NW CL DE KPH SK

Finally, at 0002, this message (with some QSB that rendered a few letters uncopiable):  
CQ DE KFS = THIS IS THE FINAL CW TRANSMISSION FROM STATION KFS - THE LAST COMMERCIAL RADIO TELEGRAPH STATION IN NORTH AMERICA. APPROPRIATELY, WE CLOSE CW AND EMBARK ON A NEW ERA OF COMMUNICATION WITH SAMUEL F. B. MORSE OWN WORDS OF 155 YEARS AGO = NW CL 73 = WHAT HATH GOD WROUGHT = DE KFS SK

So there you have them--the last words of four more giants in the WT business. 73 to all four, and we salute them for all their faithful service over all these years.

Scott Havens, AB2V

Nautical News Editor

### **FDNY HI-RISE FIRE AIR SUPPORT PLAN**

History has shown us that in times of crisis people will act instinctively in lieu of Fire Department instructions. When in a high-rise building that is on fire they will attempt to flee the fire by going to the roof.

The FDNY realizes that helicopter evacuations from the roofs of buildings are hazardous and time consuming. In most cases it was determined that roof evacuations were unnecessary since the people were not in any immediate danger. The Department also realizes that there are times when it would be necessary to remove occupants from the roof and/or place firefighting personnel on the roof for fire operations.

To address the problem, the Department in conjunction with the NYPD, developed the Hi-Rise Air Support Plan. The objectives for the plan are:

Provide FDNY with the capability of placing fire personnel on the roof of a high-rise building, otherwise inaccessible due to fire conditions for the purpose of ventilation and search. Control, comfort, and direct people who view themselves as trapped and remote from help. Provide the lobby command post with intelligence on roof conditions. Provide the capability to evacuate the roof as a last resort.

There are three phases to the plan:

**ALERT:** Upon transmission of a third alarm in a high-rise building, the Manhattan Supervising Dispatcher notifies the NYPD Aviation Unit to make them aware of the situation.

**ASSEMBLE:** Specially trained Fire Department units and Police Helicopters and Repelling Team assemble at a pre-determined mobilization point. The order to assemble can only be given by the Incident Commander.

**AIRLIFT:** Air Support Teams are airlifted to the vicinity of the roof of the fire building pending the decision of the IC to actually land members on the roof. The order to airlift can only be given by a staff officer.

For fires in the borough of Manhattan, selection of the mobilization point is determined by the location

of the fire building:

For fires south of 23rd Street the mobilization point is the 34th Street Heliport. For fires north of 23rd Street the mobilization point is the Wall Street Heliport. For fires in other parts of the city, the mobilization point will be determined by the Manhattan Supervising Dispatcher.

Upon receiving orders to assemble, the Manhattan Central Office will dispatch a High-Rise Roof Chief and 2 High-Rise Roof Teams (HRRC & HRRT) to the designated heliport. Battalions trained as HRRC's are 1, 4, 8, and 9. Ladder companies trained as HRRT's are 2, 6, 7, 10, 15, and 21.

NYPD will dispatch 1 helicopter (2 if available) with a rappelling team to the designated heliport. If 2 helicopters are sent, the first will transport the HRRC and the repelling team, the second will take the HRRT. If only 1 aircraft is available, the HRRC & repelling team will be dropped off at the fire building and the helicopter will return for the HRRT. A unit from NYPD's Special Operations Division will be assigned to the fire command post so that the IC can have direct communication with the helicopter via the SOD radio frequency.

At the mobilization point the HRRC will determine which HRRT will be the primary unit. The primary HRRT will load the 2<sup>nd</sup> helicopter (or await the return of the 1st helicopter) with the Hi-Rise Roof Kit (HRRK) and board the craft. The HRRK consists of 6 SCBA's with a 1 hour cylinder each, a bolt cutter, 2 Halligan tools, 2 axes, 2 search ropes, and 1 rabbit tool. The Commander of the aircraft decides where to stow the HRRK and controls the seating arrangement of personnel. The secondary HRRT will stand by at the mobilization point and await further orders. Once on the roof, they will operate as directed by the incident commander.

### **Vy 73's!**

The traditional expression "73" goes right back to the beginning of the land line telegraph days. It is found in some of the earliest editions of the numerical codes, each with a different definition, but each with the same idea in mind - it indicated that the end, or signature, was coming up. But there are no data to prove that any of these were used.

The first authentic use of 73 is in the publication 'The National Telegraph Review and Operators'

Guide,' first published in April 1857. At that time, 73 meant "My love to you!" Succeeding issues of this publication continued to use this definition of the term. Curiously enough, some of the other numerals then used have the same definition now that they had then, but within a short time, the use of 73 began to change.

In the National Telegraph Convention, the numeral was changed from the Valentine-type sentiment to a vague sign of fraternalism. Here, 73 was a greeting, a friendly "word" between operators and it was so used on all wires.

In 1859, the Western Union Company set up the standard "92 Code." A list of numerals from one to 92 was compiled to indicate a series of prepared phrases for use by the operators on the wires. Here, in the 92 Code, 73 changes from a fraternal sign to a very flowery "accept my compliments," which was in keeping with the florid language of that era.

Over the years from 1859 to 1900, the many manuals of telegraphy show variations of this meaning. Dodge's 'The Telegraph Instructor' shows it merely as "compliments". The 'Twentieth Century Manual of Railway and Commercial Telegraphy' defines it two ways, one listing as "my compliments to you"; but in the glossary of abbreviations it is merely "compliments". Theodore A. Edison's 'Telegraphy Self-Taught' shows a return to "accept my compliments". By 1908, however, a later edition of the Dodge Manual gives us today's definition of "best regards" with a backward look at the older meaning in another part of the work where it also lists it as "compliments".

"Best regards" has remained ever since as the "put-it-down-in-black-and-white" meaning of 73 but it has acquired overtones of much warmer meaning. Today, amateurs use it more in the manner that James Reid had intended that it be used - a "friendly word between operators".

*Louise Ramsey Moreau W3WRE/WB6BBO*

***The Urban DX'er would like to thank all those who contributed to this month's issue!***

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