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BARA

Facts

Newsletter of the Binghamton Amateur Radio Association

June 2005

Website: <http://www.wtsn.binghamton.edu/bara>

President's Corner

Are You An Elmer?

Ham radio is full of acronyms, Q-signals, and number codes. Everybody knows who an Elmer is, right?

An Elmer is a fellow ham who helps a newcomer get into the hobby, or mentors a new ham to learn and grow in the hobby. I don't know the origins of the term, I suspect it can be found in a QST of old. But I do recall my own Elmers — I was lucky to have three, all with different “specialties” and ranging in age from my best buddy (13), to a fellow my dad's age, to a gent my Grandfather's age.

One of the great things about our hobby is the range of activities and technical areas available to us. This can also be one of the daunting aspects to a newcomer. An Elmer “points the way.”

Remember Tom Vroman, the fellow that presented the Red Cross story at our January meeting? Tom is now KC2OKF. Tom and a group of 25 or so recently took part in an intense one day training session focused on the Technician class license. Tom reports that all but one person, a very disappointed youngster, earned a license that day.

We all need to welcome every newly licensed ham to the hobby. We all need to help the newcomers along. You do not need to have 30 years experience to be an Elmer to a newcomer. Every little bit of knowledge you share will help to build skills. Every Ham's middle name should be Elmer. — *Bill, N2BC*

Coming Soon

Our Treasurer will report on the financial results of the May 2005 Hamfest at the June General Meeting. Attendance was down a bit. I think this is a rather widespread phenomenon, probably something to do with gasoline sticker shock.

Also planned for the June meeting is a go/no-go decision on Field Day. Mel Snitchler, WE2K, is looking for people who want to have some fun on June 25 & 26.

The event is aimed at polishing our skills in emergency situations, but there is always a ton of just plain fun. In the past there have been some how-not-to lessons ranging from how-not-to raise a dipole antenna to how-not-to lay feedline across a walkway (especially when its connected directly to your favorite HF transceiver). The how-not-to lessons quickly turn into how-to lessons but with some serious laughter and almost tears along the way. — *73 DE Bill, N2BC*

Two Useful Morse Characters

It may have been Friday the Thirteenth, but it was a lucky day for Morse code — and particularly for veteran CW contest ops Chip Margelli, K7JA, and Ken Miller, K6CTW. During a May 13 appearance on NBC's The Tonight Show with Jay Leno, the pair was able to pass a message using good old fashioned Morse code more rapidly than a pair of teenaged text messengers equipped with modern cell phones. The victory, which replicated a similar challenge that took place recently in Australia, has provided immense encouragement to Amateur Radio's community of CW operators, who been ballyhooed the achievement all over the Internet. The text messaging team consisted of world text-messaging champ Ben Cook of Utah and his friend Jason. Miller said afterward in a reflector posting that the CW team won fairly handily.

“Ben was just getting ready to start entering the last two words when I was done,” he said on the Elecraft reflector in response to various questions he's received following the TV appearance. “I already knew that 28-30 WPM would easily keep us in front of even the current world [text messaging] record holder, and also it is the fastest speed that I can make nice readable copy on paper with a ‘stick’ [pencil].” Miller said it was

decided he'd be on the receiving end because he wasn't distracted by the noise in the studio.

Margelli recalls that he was sending at 29 WPM. "I believe the goods were suitably delivered," he told ARRL. "CW and old guys rule!"

What the viewing public didn't know was that Margelli and Miller had, in Miller's words, "smoked 'em every time" during three pre-program rehearsals. Even so, during the real thing, when Miller raised his hand to signal he'd copied the CW message successfully, Jason's jaw dropped. None of the players had any idea of the text they'd be sending, Miller noted. The message? "I just saved a bunch of money on my car insurance."

As with many Tonight Show bits, this one involved a member of the audience, a young woman named Jennifer who predicted — incorrectly as it turned out — that text messaging definitely would top 170-year-old Morse code. She walked away with a gift of restaurant tickets anyway.

Margelli says the CW team used Yaesu FT-817 transceivers — one of his own and another owned by Dan Dankert, N6PEQ. Backup units — not needed — were provided by HRO; Margelli's wife Janet, KL7MF, manages an HRO store. They ended up using 432.200 MHz as an operating frequency in order to avoid RFI from the plethora of TV equipment in the studio and to avoid interfering with NBC's gear. They ran the little transceivers at their lowest power level and with the antennas disconnected — although they were mounted on the back of each unit — no problem given the close proximity involved. Margelli sent with a Bencher paddle.

To add a little atmosphere to the affair, NBC producers attired Margelli and Miller to look like 19th-century-era Western Union or railroad Morse telegraphers. The costumes came complete with green visors, white shirts, sleeve garters, vests and bow ties. The teenaged SMSers wore T-shirts and jeans.

Cook told Leno that he'd managed to send a 160-letter message to his friend using his cell phone's short message system (SMS) — the formal term for text messaging — in 57 seconds.

A member of the Morse Telegraph Club and a QRP enthusiast, Miller said he'd been using CW for 38 years. Margelli told Leno he'd been using Morse "for 43 years in ham radio," a phrase Leno echoed. That was the only plug Amateur Radio got during the appearance on the show's "Dinner for 4" segment. Miller says that during rehearsal, the pair had come up with a few lines

to promote ham radio and telegraphy, but they were cut during the final dress rehearsal in the interest of making the segment fit its allotted time slot.

During the Australian competition in April, a Morse team consisting of 93-year-old former post office telegrapher Gordon Hill — the sender — and 82-year-old Jack Gibson — the receiver — topped 13-year-old SMSer Brittany Devlin. In that event, Hill spelled out the message in full, while Devlin used text-messaging shorthand. In that competition, held at the Powerhouse Museum in Sydney, Hill took 90 seconds to send the message, 18 seconds faster than Devlin's message took to reach her friend's cell phone.

Miller encouraged all who enjoyed the CW-vs-text messaging segment on NBC to contact The Tonight Show to let the producers know about it — with an eye toward having the network schedule a more elaborate segment "next time."

"Thanks for the kind comments from all," Miller concluded, advising "let's keep on having fun! — It is a hobby after all."

Commented Margelli to ARRL: "I completely agree with my fantastic teammate, Ken Miller. It was a lot of fun, just like ham radio, and the show also delivered an important, if subtle, message about the benefits of the 'basic' communication infrastructure that Amateur Radio provides." — *From the ARRL Letter for 18 May 2005*

Farewell

By the time this issue of the BARA Facts gets to press the Firm of R. L. Drake will have completed its exit from the Amateur Radio and SWL Markets. Apparently Drake has decided to concentrate its efforts in Digital Television and related fields and has discontinued its high-end series of Short Wave Receivers. Although Drake will continue to provide Warranty/Repair services for its products, there will be no new Ham or SWL offerings from this old and fondly-remembered name in communications.

Changing Times

A recent article in *Mechanical Engineering* magazine raises some interesting points for Radio Amateurs. The authors, Peter Huber & Mark Mills, remark on the changing world of Mechanical Engineering and how improvements in Electric Motor Technology are displacing Mechanical Systems as the Power-Development and Energy Transmission mechanism of choice in Industrial and Automotive Systems.

In the past, Mechanical Systems were the mechanism of choice when it was necessary to develop large amounts of power. Factories, locomotives, ships, and (of course) automobiles used steam, diesel, and gasoline to develop power and mechanical linkages distributed and transmitted the power to the factory floor, wheels, and propellers.

In the twentieth century this hierarchy was altered somewhat as Electric Generators and Motors became practical and efficient and displaced shafting and belts in factories and then the compound steam engine in locomotives. But despite these inroads, the turbine and piston with mechanical linkages were still the mechanism of choice for ships, automobiles, and heavy construction.

But the diesel-electric locomotive was a signal of the future: This technology addressed the problem of compounding steam locomotives and the difficulty in reducing high-speed diesel shaft speeds to practical track speeds by using the diesel engine to drive (directly) a generator. The electric power developed by the generator was then distributed to motors attached to each of the locomotive drive wheels. The inherent loss in converting the mechanical to electrical energy was offset by the low losses due to the short transmission distance and the benefit of being able to gang multiple generators to combine the resulting power.

Today, Huber & Mills suggest, we are ready to extend the technology blazed by the Diesel-Electric Locomotive to an all-electric Distribution Bus in Construction and Automotive applications. A thermo-mechanical Prime Mover will still generate the power, but it will be converted to electricity for distribution and use. Electric Motor Technology has reached the point where high torques and low shaft speeds can be attained without the need for intermediate power or reduction trains. Further, the size and weight of the equipment can be reduced leading to increases in efficiency. In engineering terms, the densest form of power available is electric: With quick starting, direct control of speed and torque, and (now) extremely granular control of the electric drive over a wide range of requirements electric is positioned to dominate the power field.

What can this mean to us as Hams? It's primarily a matter of voltage. Our current (no pun intended) standard for a voltage bus is essentially tied to 13.8 Volt automotive systems. Even equipment that runs off the AC Grid (with the notable exception of Vacuum Tube circuits) tends to convert to a 12/13.8 Volt standard. It's true that QRP and compact equipment may use

common battery voltages, but this is an exceptional and special-purpose use. Why 13.8 Volts? Because that is the common ignition and accessory voltage available in automobiles and — to be frank — this level is tied to Lead-Acid Storage Battery and Automotive Starter technology.

In an all-electric environment a 13.8 Volt standard makes less sense. Ohm's law reminds us that Power (the product of Voltage and Current) can be increased by increasing either Voltage or Current. Since increasing Current requires heavier conductors (more expense and more weight) considerations of economics and efficiency both suggest a higher voltage on the bus. It is quite likely that a practical Electric Car would use higher voltages and existing Amateur Equipment would require voltage converters for mobile use. On the other hand, a higher Bus Voltage could be the opening to more efficient and powerful Amateur Gear.

On the other hand, there is a possibility of unwanted side-effects: If the Electrical Control requires rapid switching within the Drive, an increase of RF Hash in the form of Square Waves and a wealth of Harmonics might arrive with the new technology.

What will happen? Predicting the future is never easy, but it is fairly safe to say that the times will be a-changing and we Hams may reap some benefits as Electrical Technology turns the next corner.

Field Day Reminder

Please keep in mind that Field Day will be a topic of discussion at our General Meeting (on 15 June).

Field Day will be run on 25 and 26 June. It's a fun event and we would like to run a BARA Station from the Town of Binghamton Field House. For this to be a success, though, we need Club Participation and we won't mount the effort unless there is a Commitment From Our Members (YOU!).

If you would like to participate in the BARA Field Day, please make sure that you let Mel, WE2K, know. The Final Decision will be made at the June General Meeting and it will be based on YOUR commitment to participate.

You don't need to operate all day (or at all), families and friends are welcome and we would like to make Field Day at the Field House a FUNKEN (that's German for "radio"!) FUN EVENT!

[Your editor apologizes for the really awful pun in that last paragraph and promises to try and reign in the levity in the future....]

Club Officers and Committees

President	Bill Coleman	N2BC	748-5232
Vice President	Bob Handel	K2FU	693-4310
Secretary	allen lutins	KC2KLC	729-4817
Treasurer	Paul Slocum	N2NCB	687-2057
Directors	Steve Orzelek	N2MSB	775-0281
	Mel Snitchler	WE2K	723-9612
	Jack Connors	WB2GHH	724-8822
	Jim Lawson	KC2JED	797-1583
W2OW Trustee	Mel Snitchler	WE2K	723-9612
Newsletter	Ed Plesnar	KB2SCF	754-3810

BARA, The Binghamton Amateur Radio Association is

e-Mail Address: w2ow@arrl.net



an ARRL Affiliated Club

Next General Meeting

7:30 PM, Wednesday, June 15th

Town of Binghamton Town Hall, 279 Park Avenue, South of the Ross Park Entrance

Board Meeting

7:00 PM, Wednesday July 6th

Broome Community College Campus, Office of Emergency Services (West Side of Campus)

Exam Session

7:00 PM Monday, June 27th

Vestal Public Library, Route 434 Vestal

BARA Dues

\$18/year Single Member; \$27/year Family

DX Cluster

W2OW on 145.070 MHz with a Data Rate of 1,200 baud; questions to n2bc@stny.rr.com

Local Repeater Nets

146.73 MHz STAR Net (NTS Feeder) Monday-Friday Evening at 6:30 PM Local Time

146.82 MHz BRAT Net (Informal BARA) Sunday Evening at 8:00 PM Local Time