THE WECAGRAM

Newsletter of the

Westchester Emergency Communications Association, Inc.

Post Office Box 831

Sleepy Hollow, New York 10591-0831

WECA Information Hotline: 914-741-6606

Web site: http://www.weca.org

Serving the Public through Amateur Radio and serving Amateurs since 1972

Volume 21, Issue 9 September 1997

Next Meeting

The next WECA meeting will be held on Tuesday, September 9, 1997 at the Weschester County Center inWhite Plains, beginning at 7:30 p.m. with a social half-hour followed by the main program at 8 p.m. Note that this month's meeting is on a Tuesday rather than our usual second Monday of the month due to scheduling problems with the County Center.

This month's speaker will be Stu Goldstein from the New York City Mayor's Office of Emergency Management.

Also, Tom, WB2NHC, will be discussing the upcoming WECAFEST plans.

Meetings are open to all--bring a friend! If you need directions, ask on the 2m repeater .

Hope you can all make it to the first meeting of the season.

Membership Renewal

By now, all of you should have received a renewal package from our Membership Director, Peter, N2TFC. Please take a moment to go over the membership information and make any necessary changes to update the roster, and send in your check.

Thanks!

Summer WECAFEST 97

by Bill Hertwig, N2QZB

Summer WECAFEST will be held on Sunday, September 14th at Yonkers Raceway. It will run from 8:00 a.m. (6:00 a.m. for sellers) till 2:00 p.m. Note the new starting time of 8:00 a.m. instead of the traditional 9:00 a.m.

This will be a 50,000 square feet, all outdoor tailgating event with 300 outdoor selling spaces. There will be free, unlimited parking for buyers, as well as handicap parking and entrance. Admission will be $6.00, under 14 years of age free with a paid adult admission.

Full food service will be available. There will be no VE exams. WECAFEST is an ARRL sanctioned event. Talk-in will be on 147.060(+), PL 114.8.

Next Board Meeting

The next WECA board meeting will be on Monday, September 22, at 8 p.m. at the EOC (148 Martine Avenue) in White Plains, NY. Meetings are open to all WECA members.

From the Editor

I hope you all had a wonderful summer, and I welcome you to a new season. Our first meeting will be on Tuesday, September 9th. Note that it is on a Tuesday this month, due to the unvailability of the County Center on our usual Monday.

This month we begin a new series on homebrew projects by Harry Lythall, SM0VPO. Harry has created a wonderful web site of original circuits (http://hem2.passagen.se/sm0vpo). We will print some of these in upcoming months. This month we begin with tips on soldering.
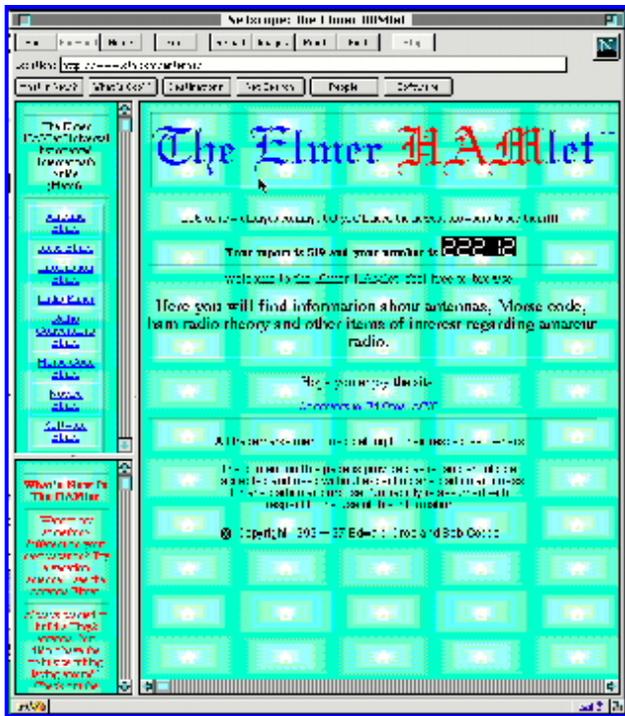
Harry and his wife Maj-Lis live in a small town in Upplands Väsby, 35 km north of Stockholm, Sweden. He is English (he also holds the call sign G4VVJ) and works for Ericsson Radio in Stockholm where he writes manuals for radio equipment. He had been a radio engineer for 25 years prior to that.

Harry says, "Most circuits are tried, tested and designed by myself. Please excuse the odd tipping errror (eg. mixing forward & reflected). All these circuits are simple and can almost be built on the kitchen table (when the wife is out, of course!!). You may have to play with the odd capacitor value or coil turns a little as variation occurs between different environments (coil former sizes etc). In the '80s I used to buy bulk packs of components, many of which were unmarked (mainly ICs, transistors and capacitors). I have tried my best to ensure the component values are as accurate as possible, but please accept my apologies if I got anything wrong."

This month we also begin a series of quizzes based on the new RF Safety subelements of the ham radio license exams. Since most of us were licensed before these questions were added to the question pools, perhaps we might learn a thing or two from them, or at least take this opportunity to think about safe operating practices.

As always, please send submissions to the WECAGRAM. This newsletter cannot be produced without your input!

73,

Web Sites of the Month

http://www.qth.com/antenna

http://www.twinight.org/chipdir/chipdir.htm

Priceless Music

by Robert Kantor, N2TSE

On July 26, WECA volunteers provided communications support at the New York Philharmonic Orchestra's annual

outdoor concert and fireworks extravaganza at Westchester Community College in Valhalla. WECA communicators linked officials from the New York Philharmonic Orchestra, New York State Police, Westchester County Police, Westchester County Cultural Affairs Office, Westchester Parks Department, Greenburgh Police, Fairview Fire Department, and various ambulance corps.

The program included Dvorák's *Scherzo capriccioso* , Copland's Suite from *Appalachian Spring* , Bernsteins's Symphonic Dances from *West Side Story* , and Gershwin's *An American in Paris* , conducted by Keith Lockhart.

The following hams volunteered at the event: N2s TSE, YGH, AMP, NWZ, FMC, OGK, TJE, MEF, AXO, TWN, YYL, ZRC, DVQ, SF, DB, DHH; KC2s BQM, AOW, BDT; WA2s NRV, KHR; KB2s NBN, LLV; and WB2NHC,

Thanks to all who helped out.

N2OGK at the New York Philharmonic concert.

Turkey Trot

by Robert Kantor, N2TSE

The annual Mamaroneck Turkey Trot will be held on Sunday, November 23 at Harbor Island. WECA will provide communications support. Volunteers can meet for breakfast at McDonald's from 7 a.m. to 8 a.m. or at the event at 8 a.m. The event should be over by 11:30 a.m.

If you'd like to volunteer or need more information, please call me at 914-949-4231, or catch me on the 2m repeater.

Save Those Receipts from AES

by Tom Raffaelli, WB2NHC

Amateur Electronic Supply has announced an incentive program where they will give clubs 1% of purchases its members make as credit towards club purchases at AES. In other words, if you purchase a new radio for $1,000 WECA will receive a credit of $10 toward any purchase it makes from AES. So, if WECA purchases a $100 antenna, it pays $90. The offer is good from September 1, 1997 to September 1, 1998. The purchases must be requested on club letterhead and paid for by a club check. This prevents anyone from diverting the credits to personal use.

I am writing this article before the August Executive Board meeting. I will propose to the Board that it designate someone to collect copies of your receipts (you keep the originals). All you have to do is submit the copy to the person designated by the Executive Board. That person will keep all receipts until the Board authorizes a purchase through this program. Look for the results of the August Board meeting in a future WECAGRAM.

Now I don't know how much each of us purchases from AES in the course of a year but let's see... a $1,000 radio times 300 members times 1% comes to about 1 new remote site plus a new radio for the comm van plus a free picnic, plus... well you get the idea :-). Seriously, it can't hurt and AES is a quality dealer.

From Field Day 1997

We don't have space for the [hundreds of digital pictures](#) taken at this year's Field Day, but we'll try to print a few more as space permits.

Photo: N2DB

Two staples of a WECA Field Day: The comm van, and the bucket truck. One provides power and space to operate, the other lifts the antennas.

How to Send a Radiogram Via the ARRL NTS

by Arte Booten, N2ZRC

I'm sure you've noticed that National Traffic System (NTS) radiograms are sent in a uniform, set format. If you've ever wanted to send one but didn't know how, just follow these simple steps.

Basically, there are four parts to any radiogram: the *Preamble* , the *Address* , the *Body* and the *Signature* . Let's start with the *Preamble* .

The Preamble is like the return address on an envelope. It starts with the *Message Number* . Some stations start at number 1 on January 1st and keep counting until December 31st. Others let the first digits coincide with the month (1-12) and the rest of the digits are counted serially upward as the month progresses. Still others use the current date as their message number (ie: a message sent on August 12th would be No. 812). Use whatever system works for you, as it's simply a reference number.

Immediately following that would be the message's *Precedence* : How important is this message. And I don't mean how important it is to you or the intended recipient. Precedence comes in four levels, the highest of which is *emergency* . This means "any message having life or death urgency." When in doubt, *don't* use *emergency* .

The next level of precedence is *priority* , which is "for official messages not covered in the *emergency* category; Emergency-related traffic not of the utmost urgency, or, notice of death or injury from within a disaster area."

Following this is *welfare* . This covers an "inquiry as to the health and welfare of" people in a disaster area or advisories coming out of such an area indicating that all is well. Finally, the lowest level of priority (and that which accounts for over 99% of all traffic passed on NTS nets) is *routine* , which covers everything else.

Following the *precedence* , you often (though not always) find three letters pertaining to *Handling Instructions* : Special instructions to the station delivering the message on how to do so. These also come in several flavors. Briefly, *HXA* means it's okay to call collect within a specified number of miles; *HXB* asks you to cancel the message if it's not delivered within a specified number of hours since its origination; *HXC* asks you to tell the originating station when and by whom the message was delivered; *HXD* is similar, except the originator wants to know who *you* got the message from and by what means you got it; *HXE* asks you to get a reply from the addressee; *HXF* says to hold delivery until a specified time and/or date; and *HXG* (by far, the most common) means that if delivery

would entail any more than just a local phone call, don't put yourself out; cancel the message and notify the originator.

By the way, it's not necessary to use *any* of these handling instructions, unless there's actually some reason to do so. The default is assumed to be *HXG* .

Next in the preamble is the *Station of Origin* : The call sign of the amateur radio operator that put the radiogram into the NTS system in the first place. Following this is the *Check* figure: a count of the number of words in the body of the message. It doesn't include anything in the preamble, address or signature. If there's an ARRL Numbered Radiogram text in the body of the message, this figure is preceded with the letters *ARL* .

After that is the *Place of Origin* , which is where many new traffic handlers make their first mistake. It is the town in which the person whose signature appears at the bottom of the message lives, or sent the message from, *not* your town (unless *you* are that person!). Finally, the last thing in the preamble is the *date* . Unless it's a time-sensitive

message, there's no need to include the time, nor is there any need to put the year in the date. If it hasn't been delivered after a whole year, I don't think it's going to be!

Following the preamble is the *Address* of the intended recipient. Try to make this as complete as possible. Use the zip code (and the plus-four zip, if you have it). Put in the phone number and extension. If the intended recipient is a ham, put their call sign after their name. Give the message its best chance at getting through.

After you've sent all of this information to the receiving station, use the proword *"Break."* This is to let the receiving station ask for any "fills" (stuff that he missed), as well as telling him that the body of the message is about to begin.

The *Body* of the message is simply that: whatever text is appropriate to be sent via amateur radio. Generally it's a good idea to limit it to 25 words or less. If it's a few more, okay. Otherwise, split the message into two (or more) separate radiograms. For punctuation, we use the prowords *"X-RAY"* for period and *"Query"* for question mark. Also remember that, as you're sending this traffic over the radio, somebody on the other end is trying to write it down! Please: only read it as fast as you can write it. A good practice is to drop your carrier after every fifth word so the receiving station can see if he missed something. Once you're done sending the body of the message, send the proword "*Break"* again and drop your carrier. Wait a second or two to see if any more fills are needed.

The *Signature* is just that: the way that the sender wants to be identified to the recipient. It doesn't include salutations such as: "Yours Truly," "Love" or whatever. Such things would be included in the body of the message. It would include titles, such as "Club Director," "President," etc. or merely their call sign.

Finally, after sending *all* of this, we use the proword "*End."* If that is all the traffic you're sending to that station at this time, follow this with "no more." If you have more traffic for that station, you could say either "End. More." or "End," followed by a number indicating how many more you have for him. Once again, drop your carrier and the receiving station will either confirm receipt of the message ("Roger" it) or ask for any more fills that are needed.

After all traffic has been passed between you and that particular receiving station, they will "Roger" your message, then say your call followed by their

own. At this point you would thank that station, say their call followed by your own, and then say "Back to Net," returning the frequency to the Net Control.

And that's all there is to it! No secret formulas. No voodoo. Just simple, effective, efficient communications. It's nothing to be afraid of! So why not come and join us. Every evening at 9:30 p.m. local time on the WECA machine, we hold the Southern District Net, which handles traffic "into, out of and throughout the Westchester and Rockland County areas, providing it is of legal destination and origin." NTS is a lot of fun, is an excellent means of public service and you don't have to leave your shack to do it. I feel, however, that I must give you this warning though: Traffic handling has a tendency to become addictive! Fortunately, there are lots of opportunities every day to get a "fix." 73 & see you on SDN!

RADIOGRAM

Preamble

Number: [ ] Precedence: [ ] HX: [ ] Station of Origin: [ ] Check: [ ]

Place of Origin: [ ] Time: [ ] Date: [ ]

To: [ ]

Phone: [ ]

Text:

Signature: [ ]

Received From: [ ] Date/Time: [ ] Sent To: [ ] Date/Time: [ ]

by WC YG8

Soldering

by Harry Lythall, SM0VPO

http://hem2.passagen.se/sm0vpo/begin/solder.htm

Test Your RF Safety Knowledge

The following questions are a random sample from the new RF Safety section of the Novice (Element 2) exam pool. Answers are at the end.

N0A01 What factors affect the resulting RF fields radiated into the environment by an amateur transceiver?
A. Frequency and power level of the RF field
B. Antenna height and distance from the antenna to a person
C. Radiation pattern of the antenna
D. All of these answers are correct

N0A02 Which of the following effects on the human body are a result of exposure to high levels of RF energy?
A. Very rapid hair growth
B. Very rapid growth of fingernails and toenails
C. Possible heating of body tissue
D. High levels of RF energy have no known effect on the human body

N0B01 In what type of RF radiation exposure environment are amateurs and their households considered to be located?
A. An excluded RF radiation exposure environment
B. A "controlled" RF environment
C. An "uncontrolled" RF environment
D. Both a "controlled" and "uncontrolled" environment

N0B03 What does the term "controlled RF environment" mean when it is applied to RF radiation exposure?
A. A location where there is RF radiation exposure to persons who are aware of the potential for exposure

B. A location that has been made inaccessible by a security fence
C. A location where there is RF radiation exposure to persons who have no knowledge or control of their exposure
D. A transmitter has been certified by the FCC to be safe for use at all frequencies

N0B04 What unit of measurement specifies RF electric field strength?
A. Coulombs (C) at one wavelength from the antenna
B. Volts per meter (V/m)
C. Microfarads (uF) at the transmitter output
D. Microhenrys (uH) per square centimeter

N0B06 Which of the following is considered to be nonionizing radiation?
A. X-radiation
B. Gamma radiation
C. Ultra-violet radiation
D. Radio frequency radiation

N0B08 What is radio frequency radiation?
A. Waves of electric and magnetic energy between 3 kHz and 300 GHz
B. Ultra-violet rays emitted by the sun between 20 Hz and 300 GHz
C. Sound energy given off by a radio receiver
D. Beams of X-Rays and Gamma rays emitted by a radio transmitter

Answers: N0A01: D, N0A02: C, N0B01: B, N0B03: A, N0B04: B, N0B06: D, N0B08: A

Southern District Net

Darlana Mayo, N2DB, net manager of the Southern District Net, reports July SDN stats as follows:
Sessions 31
Total checkins 417
Traffic brought to the net 85
Traffic passed on the net 70
Percent passed 82
Total time 488 minutes

Latest Call Signs

As of August 21, 1997, the following call signs have been allocated in the "2" call district:
Group A (Extra) AB2EB
Group B (Advanced) KG2MI
Group C (none left)

Group D (General/Tech/Novice) KC2CIG

Write for the *WECAGRAM* . Send your submissions to *wecagram@weca.org* .

September 1997

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
31	1 ●NM Labor Day	2	3	4	5	6
7 YARC VE Session N. Am. Sprint (CW)	8	9 WECA Meeting	10 ◐FQ	11	12	13 ARRL VHF QSO
14 WECAFEST ARRL VHF QSO	15 ARRL VHF QSO	16	17 ○FM	18	19	20 ARRL 10 GHz+
21 ARRL 10 GHz+	22 WECA Board Meeting 1st Day of Fall	23 ◑LQ	24	25	26	27 CQ WW (RTTY)
28 Metro 70 Hamfest CQ WW (RTTY)	29	30	1 ●NM	2	3	4