NVARC
Nashoba Valley
Amateur Radio Club

SIGNAL

SPECIAL SERVICE CLUB
ARRL

de N1NC

August 2005 Volume 14 Number 8

This Month's Meeting

There is no August meeting.

The NVARC Cookout is scheduled to take place August 13 at the KD2S QTH. Pictures and info in the September issue.

The next meeting will be September 15th when we resume in the fall.

Last Month's Meeting

There was no July meeting.

From the President

It has been a busy summer which started out with a great Field Day. The August event is the cookout which is noted elsewhere. Next month we resume our regular meetings. We plan to participate in the Groton Septemberfest next month. Larry KB1ESR has volunteered to organize the event and round up the volunteers. It is important in that it is the one event a year where we go out with the express purpose of demonstrating and explaining to the public what Amateur Radio is.

As always we encourage comments and suggestions from the membership so that this year can be even better and more interesting than the last.

73 and see you in September. Stan KD1LE

Adopt A Highway

The July cleanup was Sunday July 24th. The crew was Ralph KD1SM, Bob W1XP, Larry KB1ESR, John KB1HDO, and Stan KD1LE.

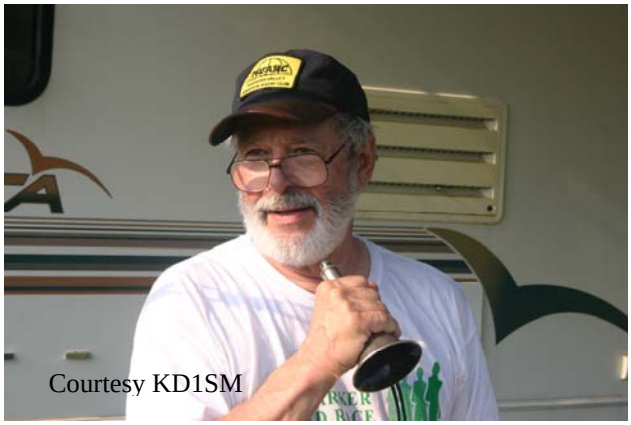
The next cleanup will be August 21st.

We meet at the traffic island on the east side of the Nashua River at 9:00 AM. The normal clean up day is the Sunday after the club meeting.

Field Day 2005

Field Day is over but we have many pictures and many people contributed and many different ways. First we think of the technical aspects of preparation and the equipment involved. But Bob below is demonstrating that there are other important tasks that need to be done.

Sunday morning is already warm as Bob whips up a pan of scrambled eggs to feed the hungry crew.



Larry KB1ESR ready to sound the call for breakfast.

Assembling the 20 meter antenna Friday evening were Peter N1ZRG, Stan KD1LE, Leo WA1ULK, Bob AB1CV, Ralph KD1SM, and Dave N1MNX.

A particular challenge for the 20 meter yagi antenna is that its boom is too long to mount it on the tower mast with the tower horizontal. So the back ¾ of the antenna are mounted and then the tower tipped up slightly so the front part of the boom and the first director can be attached.

Other Friday afternoon activities included putting up ropes for dipoles and staging equipment that would be needed in the morning to eliminate delays and extra trips.

Above (top – bottom) are the antennas for satellite, six meters, and two meters

Above L-R Bob AB1CV, Doug KB1JCY and Daniel N1KJN tackle the many parachute cords needed to set up the four 30 foot masts that were to support the 40 meter loop for the Digital Station.

Bruce K1BG (above) keeping the CW station active as the clock heads toward midnight Saturday night.

Maybe it would seem more interesting to talk about setting up the U/VHF and Satellite station antennas. But alas this is late Sunday morning and the antennas are coming down. This is the last support and antennas to be lowered and disassembled. Besides the six meter and 440 contacts the U/VHF station was successful at logging a satellite QSO.

As the last equipment was packed and people patrolled the area for forgotten items and debris we assembled at the knoll.

And then it was over. Everything was packed up and we left the site in a caravan.

Board Meeting Notes

The Board Meeting took place August 10th. In attendance were Ralph KD1SM, John KB1HDO, Les N1SV, Dave N1MNX, Larry KB1ESR, Stan KD1LE.

Items discussed included

Speakers and Programs for the Fall

Book raffle materials

Ralph mentioned the insurance policy premium bill was received. It is due in October. There is no change in the premium so we should pay it. It will be mentioned at the September meeting.

Larry will be organizing the Groton Septemberfest. He also mentioned he would need some help for the Groton 350th parade the week before. He will be using APRS to keep the organizers and police informed as to the location of the parade segments.

Flea Markets and Such

21 Aug NoBARC Hamfest
Northern Berkshire ARC Adams MA

21 Aug MIT Swapfest Cambridge MA

Oct 7-8 Hosstraders Hamfest Hopkinton NH

Oct 9 Nutmeg Hamfest/ARRL CT Convention
Wallingford CT

Oct 16 MIT Swapfest Cambridge MA

25-27 Aug 2006 Boxboro/ARRL NE Convention Boxboro

PSLIST

Date Location `Event
Contact Tel/Email

Aug 13 Pittsfield to Whately Red Ribbon Ride
EJ KB1LNU 433-781-1143 ejmandigo413@aol.com

Aug 13 Princeton Red Ribbon Ride
EJ KB1LNU 433-781-1143 ejmandigo413@aol.com

Aug 13 Stow Red Ribbon Ride
EJ KB1LNU 433-781-1143 ejmandigo413@aol.com

Aug 21 N.Oxford MA Ride for Kids
Wayne NH6XW 508-892-3521 or
508-735-0807 wayne.anderson@verizon.net

Oct 8 Pepperell MA Fall Soccer Tournament
John KB1HDO 978-772-5406 to 10
kb1hdo@verizon.net

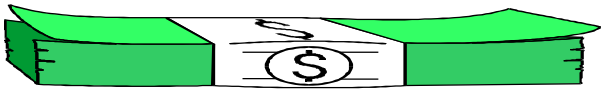
Oct 21 Cambridge Head of the Charles Regatta
Jeff N1FWV to 23 RWJeffA@comcast.net

Advertisements

Tell them you saw it in the Signal. Advertisers should contact the NVARC Treasurer for information.

$July Treasurers Report$

Income for July was $45 in membership dues, $0.01 in road cleanup findings, and $2 from ARRL membership renewals. Expenses were $14.80 for newsletter postage and $100 for Field Day pins leaving a net expense of $67.79 for the month.



Current balances:

General fund $4517.37
Community fund $2079.95

As of 11 August we have 57 current members and five renewals outstanding. Please check your newsletter mailing label for your expiration date or look for the email reminder I send you if you are overdue.

Remember, if you renew your ARRL membership through the Club the ARRL rebates a portion back to the Club. And you can save yourself a stamp.

NVARC Club Net

The club net has been meeting on the 442.900 repeater. Recent participants include Bob W1XP, Bob AB1CV, Larry KB1ESR, Skip K1NKR, Gary K1YTS, Ralph KD1SM, Stan KD1LE.

On August 7th the net was run on the 147.345 two meter repeater to allow people without 440 to check in.

The net is a good place to bring information for the club and questions or discussions. The net meets at 8:00 PM Monday evenings on the 442.900 N1MNX repeater.

ARRL Letter

HAMS BECOME "FIRST RESPONDERS" AS CONVENTIONEERS FORCED TO EVACUATE

Radio amateurs attending the ARRL Rocky Mountain Division Convention July 30 in Bryce Canyon, Utah, were among the first to respond when release of a noxious substance felled more than 50 people. Utah ARRL Section Manager Mel Parkes, AC7CP, and other hams swung into action to assist after conventioneers and other guests near an inside pool adjacent to the convention area at Ruby's Inn lodge began complaining of nausea, headaches and difficulty breathing sometime around 11 AM. Parkes himself later suffered the effects of the substance--now believed to be pepper spray—and was among those treated at the scene before being taken to a hospital.

"It was fantastic to see people go into emergency mode," said ARRL Sales and Marketing Manager Dennis Motschenbacher, K7BV, who was representing the League at the convention. "The calmest people there were the hams."

Convention attendees helped to evacuate victims and direct traffic as emergency crews arrived on the scene. Among those helping to coordinate activities was Utah Section Emergency Coordinator Jerry Wellman, W7SAR. Motschenbacher said several Amateur Radio Emergency Service members grabbed their "jump kits" and rendered assistance to those suffering from the fumes.

Ironically, the incident occurred as Wellman's forum, "Emergencies: What If?" was under way. When notified that he had to clear the room because of an emergency, Wellman says his first reaction was that someone was playing a joke. "Then the fellow said, 'This is the real thing, you have to evacuate,' so we ended the seminar quickly."

At first, neither the substance nor its source were known. It was later determined that someone had apparently smeared pepper spray on the wall of a room in the lodge, and the fumes got into the inn's ventilation system.

"As the gas began to migrate out of the initial release area into the hamfest area, more and more people began to be affected," Motschenbacher recalled. "By this time a mass evacuation was in process. Eventually the entire central complex was evacuated and roped off." In all, some 300 guests were relocated into other facilities at the inn complex.

The incident "totally disrupted the convention," Motschenbacher said, but as things began to calm down that afternoon, some presenters conducted their forums outdoors. An evening banquet was also held outside and away from the affected area.

After several hours, Parkes and others returned to the inn, but because authorities had confiscated their clothing for analysis, they were attired in garb donated by a local charity. "Everybody just pulled together," said Motschenbacher, who reported suffering a sore throat but did not require medical treatment. "All the authorities were very complimentary about Amateur Radio."

PCSAT2 INSTALLED ON ISS DURING SPACE WALK

The PCSat2 <http://web.usna.navy.mil/~bruninga/pcsat2.html> Amateur Radio package has been installed on the exterior of the International Space Station (ISS) as Materials International Space Station Experiment 5 (MISSE5).

Astronaut Soichi Noguchi, KD5TVP, unfolded the suitcase-like Passive Experiment Container (PEC) holding PCSat2 and other experiments mounted atop the ISS P6 truss structure August 3 during a space walk with Astronaut Steve Robinson. Noguchi deployed the "tape measure" antennas by pulling up a couple of Mylar strips that allowed the antennas to pop out. PCSat2 is not yet available to users.

Built by US Naval Academy students under the guidance of APRS guru Bob Bruninga, WB4APR, PCSat2 will operate in cooperation with the Amateur Radio on the International Space Station (ARISS) program <http://www.rac.ca/ariss>. It will provide a 10-meter PSK31 multi-user transponder, an FM voice repeater for possible use with ISS crew members and an AX.25 packet system for use as a UI digipeater and for telemetry, command, control.

Bruninga says the PSK31 transponder will not be turned on for general use until ground controllers have a better understanding of its thermal and power load. But it was enabled on August 5 over the US for a test, and the FM downlink (435.275 MHz) displayed the signal of a station transmitting on 29.402 MHz.

The NA1SS/RS0ISS ARISS equipment was powered down during the PCSat2 installation, but it was back up August 4, when STS-114 crew member Andy Thomas, KD5CHF/VK5MIR, made some terrestrial contacts while the ISS and Discovery were passing over his native Australia.

Bruninga says PCSat2 may be ready for use within a few days, but he asks that stations not attempt to use the system until it's been checked out and an announcement made. In the meantime, Bruninga has invited well-equipped ground stations to help capture early telemetry on the alternate downlink of 437.975 MHz. By week's end, some Earth stations were already reporting telemetry from PCSat2. Telemetry is at 1200 and 9600 baud. E-mail telemetry files to pc2@grc.nasa.gov. Bruninga says the UHF downlink is only 1 W and will require a gain antenna to copy.

Bruninga also has asked 1200 baud IGates or SATgates to monitor 437.975 MHz and feed the global

APRS system live telemetry page <http://www.pcsat2.info/PCSat2Web/RealTime.jsp>.

PCSat2's primary downlink frequency is 435.275 MHz; the packet digipeater up and downlink frequency is 145.825 MHz. More information is on the USNA Web site <http://www.ew.usna.edu/~bruninga/pec/pc2ops.html>.

RADIO AMATEURS AID IN PACIFIC MARITIME RESCUE

"Mayday, Mayday, Mayday! This is the sailboat Enamorado. Mayday, Mayday!" That's what Wisconsin radio amateurs Ed Toal, N9MW, and Ralph Henes, W9CAR, heard during a casual Sunday morning net July 24 on 14.238 MHz that also involved Dick Mannheimer, K6LAE, in Los Angeles. Toal and Henes were able to contact the operator, Ken Saijo, KC6ORF--a California retiree--who confirmed the 35-foot sailing vessel was in trouble and needed help.

"All social chatter immediately stopped, and we declared an emergency in progress on frequency," Henes said. Then, while Toal gathered information from the operator aboard the Enamorado, Mannheimer and Henes both called the US Coast Guard to relay the boat's situation and position, which turned out to be in Mexican waters. Henes said the Coast Guard relayed their information to the Mexican Navy. Henes and Toal were able to copy KC6ORF well, although Mannheimer could not, and they maintained contact with the disabled boat.

The Wisconsin hams learned that that Saijo was accompanying the boat's skipper, Ken Scheibe, on a trip from California to Costa Rica when they ran into a storm. As a result, the vessel lost its engine and steering and both men were injured, neither seriously. Before putting out distress calls on 20 meters, Saijo had tried without success to raise help via the vessel's VHF marine radio.

Mannheimer noted that Art Rowe, K7HA, in Washington, and Tom Miller, K4IC, in Arlington, Virginia, initially kept the frequency clear. They were subsequently joined by a host of other stations in the US and Canada, some of whom were able to copy KC6ORF and help relay as needed.

Toal had to leave after a couple of hours, but Henes and Mannheimer remained on frequency. About three hours into the incident, Henes again called the US Coast Guard to see if it had heard back from the Mexican Navy. It had not, so he called the Mexican Navy himself and, after what he described as "a few tense language-barrier moments," he was connected with someone who spoke English and Spanish and told that a rescue boat and helicopter were on the way.

Henes also got the Mexican Navy vessel to come up on 20 meters. "Within minutes, they were on the frequency calling the stranded boat," he said. Unfortunately, neither Saijo nor Scheibe spoke Spanish fluently enough to understand the communicator on the Mexican Navy vessel.

Enter Jorge Lira, XE1JP, who volunteered to serve as translator. He was able
to relay the foundering sailboat's coordinates to Mexican authorities. "He saved the day," said Henes, who reports he was able to hear the rescue helicopter in the background on Saijo's transmission. Saijo and Scheibe were plucked to safety from the distressed vessel, which the Mexican Navy towed to safety.

Henes said he later received an e-mail from Scheibe thanking him and the other radio amateurs for helping. Toal said later, "To me, we were just paying our dues for the right to be hams."

A TV station and a newspaper in Madison, Wisconsin, were among the news media reporting the incident and Amateur Radio's role in coming to the rescue.

AMATEURS TO GET "NEW" SATELLITE

PO-28 (POSAT-1)--Portugal's first satellite, launched 12 years ago--will be turned over to Amateur Radio use in the very near future. That was the word July 30 from AMSAT-UK Secretary Jim Heck, G3WGM, during the AMSAT-UK International Space Colloquium in Guildford, England.

Launched September 25, 1993, the satellite operated as a packet store-and-forward BBS (9600 baud FM FSK) on Amateur Radio frequencies for several weeks in early 1994. Over the years, PO-28's primary usage has been commercial, although plans have called for eventually shifting its operation to ham radio use. G3WGM reports that following lengthy negotiations it has been agreed that the satellite can be switched permanently to amateur frequencies. The changeover is expected to take a couple of weeks.

The Portuguese satellite was built at the University of Surrey as part of a collaborative satellite technology program that involved industry and academe.

Uplink frequencies will be 145.925 and 145.975 MHz. Downlink frequencies will be 435.075 and 435.275 MHz. More information on PO-28 is on the AMSAT Web site <http://www.amsat.org/amsat/sats/n7hpr/po28.html> .

EDUCATORS QUERY ISS ASTRONAUT VIA HAM RADIO

Some 35 educators attending a NASA Explorer School (NES) program workshop July 20 got the chance to speak via ham radio with astronaut John Phillips, KE5DRY, aboard the International Space Station (ISS). Acting on very short notice, the Amateur Radio on the International Space Station (ARISS) program was able to arrange the contact between NN1SS at Maryland's Goddard Space Flight Center, where the workshop was being held, and NA1SS on the space station. ARISS International Team Chairman Frank Bauer, KA3HDO, reports the contact went very well, and the group got in 15 questions asked and answered.

"The educators derived a lot of benefit from this activity, which they will bring into the NASA Explorer School program," he said. To accommodate the group's size, the Earth station actually used two locations and two sets of equipment, Bauer explained. "The two-station event was closely choreographed using 70-cm radios, while the two stations could simultaneously hear the full set of questions being asked and the answers from Astronaut John Phillips," Bauer said. Before the QSO, Bauer briefed the educators on the ARISS program.

The contact started and finished at the NN1SS ground station in Goddard's Building 11, where about half of the educators were located. Halfway through the contact, however, with the ISS closer to Goddard, another station a few hundred feet outside Building 11 was put on the air to handle questions from the other half of the group. The second station consisted of a hand-held transceiver and an Arrow antenna to successfully ask six questions. AMSAT President Rick Hambly, W2GPS, aimed the dual-band antenna at the ISS, while Dave Taylor, W8AAS, took care of the handheld transceiver.

"The educators, several with tears in the eyes, said this was one of the best events they have experienced." He noted that the QSO took place on the 36th anniversary of the Apollo 11 moon landing. Several educators' questions focused on human physiology issues involved with space travel, while others asked about human exploration of Mars and long-distance space travel.

The NN1SS-NA1SS QSO represented a role reversal of sorts. During most ARISS school group contacts, the students--not the teachers--ask the questions.

ARISS <http://www.rac.ca/ariss> is an international educational outreach with US participation by ARRL, AMSAT and NASA.

VoIP MODES CRITICAL FOR HURRICANE CENTER SUPPORT, WX4NHC SAYS

Radio amateurs using voice over Internet Protocol (VoIP) modes such as EchoLink <http://www.echolink.org/> and IRLP <http://www.irlp.net>are doing an outstanding job of supporting forecasters tracking hurricanes. So says WX4NHC Assistant Amateur Radio Coordinator Julio Ripoll, WD4R. The latest example was during WX4NHC activations--in cooperation with the Hurricane Watch Net (HWN) <http://www.hwn.org/> --for Hurricane Emily. Ripoll, says VoIP-mode users have supported WX4NHC in collecting ground-level weather data as well as relaying hurricane advisories to residents and agencies in affected areas.

"The EchoLink and IRLP partnership created for hurricanes and severe weather is unique," Ripoll told ARRL, adding that he's seen upward of 100 VoIP connections during storm emergencies, many of which represent repeaters and conference rooms "with untold numbers listening." Ripoll said VoIP modes also have served to connect Red Cross headquarters stations, state emergency operations centers (EOCs), National Weather Service offices and other agencies.

"The VoIP-WX Net <http://www.voipwx.net/> has also added a large number of Technician class operators who were not able to report on HF in the past," he noted. Although it has a defined and trained cadre of regular member-operators, the HWN operates on 14.325 MHz--beyond reach of operators lacking at least a General ticket. Ripoll said those connecting via VoIP modes often do so using low-power VHF/UHF radios running on battery power via an IRLP or EchoLink-equipped repeater.

Ripoll spotlighted WX-Talk Conference Net Manager Kevin Anderson, KD5WX, of Texas, IRLP Reflector 9219 Net Manager Danny Musten, KD4RAA, of North Carolina, and ARRL Eastern Massachusetts Section Emergency Coordinator and SKYWARN

Director Rob Macedo, KD1CY, for being "very supportive" of WX4NHC.

Ripoll reports that the VoIP Hurricane Net most recently generated "some of the most important surface reports" as Hurricane Emily tracked over Grenada, St Lucia, Trinidad and Tobago. He cited specific information during Emily that arrived via VoIP modes including a report from J73CI, relaying for J39JQ, of a roof being blown from a hospital and damage to homes on Grenada caused by strong winds. Other VoIP reports came via Julien Dedier, 9Z4FZ, in Trinidad, of power outages. Reports relayed by the Trinidad EOC from Tobago at one point indicated heavy rainfall and sustained winds of 60 MPH.

Reports such as these, Ripoll said, were "especially vital during the very late evening hours, when there was a lack of HF propagation into the affected area."

For additional information, visit the WX4NHC Web site <http://www.wx4nhc.org>.

SPECTRUM PROTECTION BILL SPONSOR'S ARTICLE PROMOTES AMATEUR RADIO'S VALUE

Amateur Radio Spectrum Protection Act of 2005 sponsor Sen Michael Crapo (R-ID) this week promoted the value of Amateur Radio and his bill's efforts to preserve ham radio spectrum in a July 13 article in The Hill--a magazine for and about Congress. Crapo introduced the US Senate version of the Amateur Radio Spectrum Protection Act of 2005, S 1236, in June with bipartisan support in the 109th Congress. It's identical to the House version, HR 691, introduced earlier in the session by Rep Michael Bilirakis of Florida. In his article, "Amateur Radio: a voice in the storm," Crapo says that in an era of increasing demand for spectrum, Amateur Radio's allocations must be preserved.

"Today, Amateur Radio still serves a vital purpose, especially in our post-Sept. 11 world," he wrote. "Acting as volunteers, Amateur Radio operators provide assistance in numerous disaster-relief efforts, from the terror attacks in New York and Washington to floods in Texas, hurricanes in Florida, earthquakes in Seattle and California and fires in the West and in my home state of Idaho."

Crapo points out that since 1982, Amateur Radio has lost 107 megahertz--"the equivalent of 18 television channels"--and another 145 megahertz "is in danger of being reallocated." Calling Amateur Radio "one of the pioneers of modern communications," he notes that even today's communication systems, such as cellular telephones, can fail or may be primary targets, while ham radio operators have a demonstrated history of being able to provide vital communication under adverse circumstances.

"The Amateur Radio Spectrum Protection Act will ensure the success of this vital link in our security communications infrastructure while continuing to encourage the innovation and creativity that is the hallmark of this field," Crapo asserts. The Senate and House legislation would require the FCC to provide "equivalent replacement spectrum" to the Amateur Radio and Amateur-Satellite services in the event of reallocation to other services of primary amateur spectrum or the diminution of secondary amateur spectrum. The bill also would cover additional allocations within Amateur Radio bands that "would substantially reduce" their utility to Amateur Service licensees.

"It maintains spectrum allocation flexibility by only requiring that the basic amount of spectrum allocated to Amateur Radio operators be maintained," Crapo explained. "Together with my colleagues Sens Daniel Akaka (D-HI), Kit Bond (R-MO), Max Baucus (D-MT) and Conrad Burns (R-MT), I look forward to working toward this bipartisan solution to the problem of lost spectrum for Amateur Radio operators."

S 1236 has been referred to the US Senate Commerce, Science and Transportation Committee of which Burns is a member. HR 691 has been referred to the US House Committee on Energy and Commerce.

"Amateur Radio: a voice in the storm" appears on The Hill Web site <http://www.thehill.com/thehill/export/TheHill/News/Frontpage/071305/ss_crap o.html>. The Hill circulates to all members of Congress and their staff members as well as to much of "official Washington."

Efforts continue in both chambers of Congress to attract additional cosponsors for S 1236 and HR 691. The League encourages its members to urge their congressional representatives and senators to sign aboard. More than 100 lawmakers in both houses agreed to cosponsor similar legislation in the 108th Congress. A sample letter <http://www.arrl.org/govrelations/hr-691-sample-letter.html> for HR 691 and a sample letter <http://www.arrl.org/announce/regulatory/s-1236/> for S 1236--are available on the ARRL Web site.

Members may want to use these as guides in writing their members of Congress to seek their support.

To expedite delivery, send all correspondence bound for Members of Congress--preferably as an attachment--to specbill@arrl.org or fax it to 703-684-7594. The ARRL will bundle correspondence addressed to each Member of Congress for hand delivery.

Contest Calendar and DXpeditions

The information for a DXpedition can be quite detailed and may include bands, dates, number of stations, and times of day they plan to work certain continents so I can not list it all here. But if a country or prefix is of interest you can get more information at www.425dxn.org.

Contests July-Sep

Aug 20	ARRL 10 GHz
Sep 3-4	RSGB SSB Field Day
Sep 10-12	ARRL Sept VHF QSO Party

DXpeditions

Call	Location	Until
9V1CW	Singapore	2008
8Q7WP	Maldives	09/05
5H3HK	Tanzania	March 2006
SU8BHI	Egypt	31 Dec 2005
T68G	Afghanistan	March 2007
ZD8I	Ascension Is	March 2006

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Meetings are held on the 3rd Thursday of the month - 7:30 p.m. - Pepperell Community Ctr. Talk-in
146.490 simplex
442.900 + 100Hz Repeater
147.345 + 100 Hz Repeater
53.890 – 100Hz Repeater
This newsletter is published monthly. Submissions, corrections and inquiries should be directed to the newsletter editor. Articles and graphics in most IBM-PC formats are OK.

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