



the **RARA RAG**

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RaRa PICNIC — JUNE 8th POWDER MILLS PARK

The annual RaRa Picnic will take place Saturday, June 8th at Wadhams Lodge in Powder Mills Park in Pittsford. The picnic will be from 1 - 5 p.m. There will be plenty of fun and food. The picnic is open to all members and their family or a guest. There is no charge. This is your chance to spend the day with your family and still work some great contacts face to face. This is one of the benefits of belonging to RaRa— take advantage of it and we'll see you there. If unsure of how to get there, and all else fails ask for directions on the 28/88 RRRR repeater. (See map on back page.)

DATE SET FOR 220 MHz CHANGES

On April 29 the FCC issued its final Report and Order in PR Docket 89-552, turning over 220-222 MHz to land mobile operators. Amateur Radio operators are required to relinquish use of this spectrum effective 0000 UTC August 28 (8 p.m. EDT Aug 27), 1991. Details will appear in July *QST*.

Tnx ARRL Letter

2,000 WATT CB LINEAR

FCC engineers and U.S. Marshalls swooped down on Rohan Monrigh of Wyandance, New York, and seized his illegal CB equipment which included a 2,000 watt linear amplifier. The raid was in response to a petition signed by 106 area residents who said Monrigh's transmission could be heard on their television and telephone equipment. He was issued a \$1,000 fine for unauthorized CB operation.

Tnx The Readout

**HAVE A GOOD SUMMER
SEE YOU IN THE FALL**

SPRING 1991 CODE AND THEORY CLASSES END

by Ed Gable, K2MP

This was a class marked by changes. First, there was the new Code Free Technician License class to contend with. This was successfully met by offering both the required Novice and Technician theory classes in the same evening consisting of two, one hour courses. Although offered, the code courses were sparsely attended this session with but about four each completing the 5 and 13 wpm classes. As this is being prepared the day prior to exam day, the final numbers are not known. However, there will be nearly 27 people finishing both the Novice and Tech/General theory courses. New this year is having the VE Team come to the classes for Technician and above license testing. We are indebted to John Schooley, K2NC, for making team and testing service available. Likewise, the new cadre of instructors did a wonderful job of picking up where we left off with the loss of some of the old timers. Brad Allen, KB2CHY, Neal Eckhardt, WB2EKP, and Dave Bernheisel, N2DPF, did the important Novice theory. Bernie Agins, KD2CU, cranked out the 5 wpm code. Teaming on Tech/General theory were Tim Stoffel, NS9E, Pete Secrist, WB2SUN, and Ed Gable, K2MP. Rounding out the group was Art Debruycker, W2YGW, doing the 13 wpm code. We also want to recognize and thank the members of RRRR, especially Bob Shewell, N2HJD, for putting on their usual nice repeater demonstration. A big RaRa "thank you" goes out to you all.

Thanks to all of those
who helped make the
1991 Hamfest
a large success.

- N2EH

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ARRL'S "TUNE IN THE WORLD" ENDS SUCCESSFUL 15-YEAR RUN

The end is near for "Tune in the World With Ham Radio", the League's beginner's kit born during the heyday of Citizen's Band radio in 1975. A few copies of the kit remain and when they are gone 547,955 will have been distributed.

"TITW" was the cornerstone of a three-year effort to increase the number of licensed Amateur Radio operators in U.S. Fifty to one hundred thousand new licensees was the goal set to be met before the 1979 World Administrative Radio Conference.

Chod Harris, WB2CHO, was named manager of the League's newly created Club and Training Department. "General Manager Dick Baldwin, W1RU, asked me to head this effort", Harris said. "I made him read out loud the last sentence of 20-page proposal to accomplish the task. 'You would have to be crazy to take this job.' On that basis, I took it."

The recruiting drive was centered around increased organization and support of local amateur radio classes around the country, and an all-new beginner's book and audio tape package. "Tune in the World with Ham Radio" was born.

The time schedule was grueling, Harris recalls. "To meet a deadline for buying paper, the number of pages in the book was determined before the first word was written", he said.

Rosalie White, WA1STO, was named deputy manager of the new department, and tackled the opening 20 percent of TITW—the "inspirational" section.

Bob Margolin, wrote the book's middle portion; and Harris penned the rest, describing how to get on the air and make contacts.

"I wrote much of it on a veranda overlooking the sun-washed roofs of Hamilton, Bermuda, where I was operating a contest DXpedition", says Harris.

"Tune in the World" included the League's first code-learning cassette tape, which introduced a format designed to avoid the so-called code speed 'plateau' around 10-15 WPM. The traditional printed list of code characters did not appear in "Tune in the World"; the new Novice would learn the Morse code by sound alone.

At the suggestion of a member of ARRL's shipping department, a call area map of the U.S. was added as the third element in the Tune in the World package.

"That map may be the only one ever printed that can be appreciated by a color-blind person",

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Amateur Radio News Service

said Chod Harris, who selected the colors and is himself color-blind.

“Unfortunately”, Harris said, “I failed to notice that the draft version of the map didn’t include Long Island. When then – ARRL President Harry Dannals, W2HD, who lived on Long Island, received his copy of the “Tune in the World” package, he immediately called to ask ‘Where is Long Island?’

“Off the coast of Connecticut”, Harris replied, not yet knowing of the omission.

“Tune in the World” was introduced to the public at a CB show on Long Island. Sales were brisk, Harris said, despite the map’s omission.

“As interest in Amateur Radio surged”, Rosalie White said, “the Club and Training Department staff couldn’t keep up with the demand for help from would-be hams. We hired two additional people and temporarily put the Headquarters museum into storage so we could use its space”.

Following its debut in July 1976, “Tune in the World” sold 111,184 copies in the first 18 months. Sales slowly declined until 1987, when “Novice Enhancement” resulted in sales of 57,926 TITWs. Since then some 40,000 have been sold annually.

Today, orders are arriving for the League’s new “Now You’re Talking”, an updated beginner’s kit that, among other goals, aims to bring the code-free Technician licensee into our ranks.

Tune in the World With Ham Radio, R.I.P.

Tnx ARRL Letter



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Advertisement

SUMMER HAMFESTS

for all in western & central New York

DATE	EVENT
June 1 st	Kitchener, Ont. in Vingman Park Talk-in on 146.37/97
June 2nd	Rome, NY: Ham Family Day Talk-in on 146.88
June 9th	Lancaster, NY: Lancaster, ARC Elks Club Hall, across from Lancaster Post Office on Route 20. Talk-in 146.55, 224.64r. \$4 ticket includes outdoor flea market space. Call 683-8880.
June 15th	Cortland, NY: 9th Annual Ham- fest of Skyline ARC at Cort- land Co. Fairgrounds. Talk-in on Cortland 147.825/.225 repeater 7 a.m. to 3 p.m.
July 7th	Alexander, NY: The Batavia Hamfest by the Genesee Radio Amateurs. Talk-in Contest on 146.52 call W2RCX. Talk-in on 145.31 also Breakfast @ 6:30, lunch @ 11:30.
July 13,14th	Fergus, Ont.: The Chicken Junction Picnic. No further details but reported to be radio oriented.
August 3rd	WNY Traffic Handlers Picnic - Location T.B.A. check with NY Public Operations Net @ 5 p.m. daily on 3913 or 3925 kHz.
August 17th	Ithaca, NY: Sponsored by Tompkins Co. ARC in N. Y. S. Armory on Rte 13. Breakfast from 6:30. Camping from Friday night. Talk-in on 146.97 repeater. VE testing, pre-regist to P.O. Box 4144, Ithaca, 14852-4414.
Sept. 21 st	Buffalo Hamfest & Computerfest
Sept. 28th	Elmira Hamfest & Computerfest



Amateur Radio News Service

SUMMER MONTHS EXAM SCHEDULE: ROCHESTER

MAY 30th – Thursday
JUNE 27th – Thursday
JULY 25th – Thursday
AUGUST 29th – Thursday
SEPTEMBER 26th – Thursday

Examination sessions on each last Thursday of each month are sponsored by the NO2Z and WB2IMT exam team of Mike Eeckhout and Paul Di Lorenzo. They have been providing this walk-in and flex-time exam session since 1987.

The doors open at 5:30 p.m. and you can walk in right up to 7 p.m. to begin an exam. They offer all levels from Novice through Extra. The new code-less Technician class exams are available. They are fully prepared for testing handicapped applicants with special conditions.

All tests are given at **565 Blossom Road**, just two doors west of the Winton Road bus line. 565 Blossom Road is a office sub-location inside the Richland Building at that address. The door is located about half way down the east side driveway next to a Tops Market. The door is labeled Astria/VNH Industries. Talk-in directions are available on the WB2IMT repeater system heard at 224.68 and 443.6 mHz. Persons coming for an exam from out of town can reach that repeater from roughly Auburn, Cortland, Ithaca, Lockport and parts of Canada. Southern 224.68 coverage is from mile marker two of route 390. Of course Novice voice privileges include 224.68 mHz so call in from anywhere for the best routing.

BULLETINS ALL SUMMER FROM K2KWK, WA2MYG, N2DCI

Ham radio news bulletins will continue all summer long for listeners in upstate New York. The same Tuesday and Sunday schedule used now will continue, except for minor vacations. Scanner radio enthusiasts can easily pick these up from three amateur radio bands. Recently new outlets have joined the group so look over the list and check the frequency. These bulletins are a service from ARRL Bulletin Stations K2KWK, WA2MYG from Rochester and N2DCI from Clay. Many other stations and repeaters relay this service for the hams in their service areas.

The principal hub is the WB2IMT repeater in Canadice which can be heard everywhere west of Syracuse and into Canada on its frequencies of 224.68 and 443.6. Another hub is the N2DCI re-

peater in Clay at 444.10 from which the program is carried into Cortland on 145.49 and to N2IQU in Cazenovia at 147.105. The bulletins are sent directly to the Attica repeater of WB2IID heard on 145.31. N2EXN picks up the programs and puts them out of the 145.41 Hammondsport, New York frequency on Tuesday evening. N2CEH in the southerntier picks them up and relays them to his repeaters in Bath on 146.805 and 442.75. They are carried on the KA2IFE repeater in Watkins at 147.165. From Wellsville they are heard on 147.21. In Penn Yan they are carried on N2HLT at 442.25. From Ulysis, Pennsylvania you can catch them on 145.43 mHz. On the alternate Sundays these bulletins appear in Rochester on N2JC (146.88), N2HJD (136.925, 444.7, 224.58, and 442.8), and KD2WA in Lockport on 443.45. When equipment is available the bulletins are relayed to ten meters at 28.455 USB by N2HXJ in Rochester. On alternate Sundays the news appears on the Rochester repeater of K2SA. On Tuesdays the 146.88 repeater of N2JC carries the service via a relay by WA2MYG.

Whew! Yes, it's complicated and means that many hams are helping and cooperating to bring you the news. More stations can join the system but we would like to know so we can give you credit and add you to the list.

Bulletin times on Sundays begin at 8:30 p.m. Bulletins on Tuesdays begin at 8:00 p.m. except on the Attica repeater which is not carrying the Newsline 91 program yet. A relay station is welcome to join, if they can pick up the program from Canadice or Rochester.

You are invited to contact Dwight, K2KWK at (716) 544-2332 for information, questions, and hamfest/event details. I also seek news of exam sessions. My callbook address is correct: 265 Norcrest Drive, Rochester, NY 14617. I am the ARRL Bulletin Manager for Western New York Section and welcome your interest.



AWA MUSEUM OPEN FOR SEASON

Village Park, East Bloomfield
Rte. 5 & 20

Saturday and Sunday – 2 p.m.
Wednesday – 7 p.m.

(No admission charge)

CNN SCOOPS COMPETITION

CNN (Cable News Network) scooped their competition when war broke out in Iraq, and they did it by using an incredibly cheap old fashion technology. If you were watching CNN, you know that when the bombs began falling on Baghdad, four CNN newsmen were giving a vivid description from their room in the Al Rashid Hotel in downtown Baghdad.

CNN was the only news service allowed to set up an old-fashioned four-wire telephone line that allowed uninterrupted live audio coverage via satellite throughout most of the night. Because a four-wire circuit is made with direct connections, it does not pass through the same relays to complete a circuit as do hotel and office phones. CNN's four-wire was the only link to the outside world after Baghdad's telephone relay station was damaged at the beginning of the raid. CNN managed to keep the link alive until about 11 a.m. the following day when the Iraqi's ordered it shut off. Despite the use of the simple four-wire, CNN had its share of technology available in the middle east. It had four flyaway satellite upstations with antennas ranging from 1.8 to 2.2 meters. Two were in Saudi Arabia and two in Jordan. For nighttime action the network used the Litton Industries infrared nightscope. Despite the shaky reputation hi-tech equipment has had with desert conditions, CNN experienced few problems during the bombings. As it turned out, the heat, which at times reached 120 degrees in August, caused more problems with the equipment. One major inconvenience, though, was power conversion. CNN drew power largely from local sources or from generators, both of which were 220 volts. Most of CNN's equipment required 110 volts. CNN was forced to use bulky step-down transformers that were difficult to move. It is fair to say that technology-wise, CNN lacked major advantage over the other networks; they all had the same level of quality equipment. But for those first 17 hours or so in Baghdad, CNN beat them all using one of the oldest tricks in the book.

Tnx TV Technolgy via The Readout

RECIPROCAL OPERATING

The FCC has released a new list of countries with which the U.S. has reciprocal operating agreements. In most cases the forms necessary for U.S. amateurs to apply for operating permission in these countries are available from ARRL HQ. Here is the latest list:

Antigua/Barbuda, Argentine, Australia, Austria, The Bahamas, Barbados, Belgium, Belize, Bolivia, Botswana, Brazil, Canada, Chile,

THE RaRa RAG 20 YEARS AGO — MAY 1971

by Ed Gable, K2MP

The headlines proclaimed the first hamfest to be held at the Monroe County Fairgrounds to be a great success. Harold Smith, WA2KND, reports nearly 2,000 in attendance with 44 exhibitors in the Dome. Mel Wilson, W2BOC/W1DEI, was the winner of the Amateur of the Year award for his work with VHF propagation studies. McCurdy's offered a very successful fashion show for the over 100 ladies attending. New graduates from the RaRa code and theory classes included Jim Allen, WN2SSO; Ray Roberts, WN2SSU; and Larry Stowell, WN2SRY. Joe Hood, K2YAH, and Bob Lauzon, WB2NSD, were instructors. Elected to posts in the Rochester VHF Group for the following season were Otto Bluntzer, WB2RJB, Chairman; Haywood Parker, K2YMM, Vice-Chairman; and Ed Kessler, W2EQW, as Secretary/Treasurer. Likewise for RaRa, the newly elected officers for 1971/1972 were: Richard Koehn, WB2SNA, President; Ed Holdsworth, WA2EKR, Vice-President; John Lucas, WB2BEH, Secretary; and Len Gessin, WA2ZNC, Treasurer. To the Board of Directors: Harold Smith, WA2KND; Bob Lauzon, WB2NSD; George Negus, K2OIU; Joe Hood, K2YAH; Bob Pavlock, WA2ECD; Elmer Wagner, WB2BNJ; and Lloyd Andrus, WN2MVC. *Harry's Amateur Radio Supply*, of Baldwinsville, is a new advertiser.

Colombia, Costa Rica, Cyprus, Denmark/Greenland, Dominica, Dominican Republic, Ecuador, El Salvador, Federated States of Micronesia, Fiji, Finland, France (including French Guiana, French Polynesia, Gambier, Marquesas, Society, Tubuai Is., Tuamoto Archipelago, Guadeloupe, Amsterdam, St. Paul, Crozet and Kerguelen Islands, Martinique, New Caledonia, Reunion, St. Pierre/Miquelon, and Walis and Fortuna), Germany, Greece, Grenada, Guatemala, Guyana, Haiti, Honduras, Hong Kong, Iceland, India, Indonesia, Rep. of Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kiribati, Kuwait, Liberia, Luxembourg, Monaco, Netherlands, Netherlands Antilles, New Zealand, Nicaragua, Norway, Panama, Paraguay, Peru, Philippines, Portugal, Seychelles, Sierra Leone, Solomon Islands, Rep. of S. Africa, Spain, St. Lucia, St. Vincent/Grenadines, Surinam, Sweden, Switzerland, Trinidad and Tobago, Tuvalu, United Kingdom (including Bermuda, British Virgin Islands, Cayman Islands, Falkland Islands, Gibraltar, Montserrat, St. Helena and Turk and Caicos Islands), Uruguay, Venezuela, and Yugoslavia. *Tnx ARRL Letter*

SOME RFI HINTS . . .

If you have TVI problems, here are some hints on cable TV RFI and telephone RFI that you might find useful.

If you are on a cable system, get the cable company involved. Walk around outside with your HT tuned to 145.250. The FAA and FCC have been getting after all the cable companies to clean up their leakage problems. If the cable company refuses to clean up any bad leakage problems, do not be afraid to call the FCC and get them involved. As much as you don't want the FCC at your house, the cable company doesn't want them involved either.

If you see a full-scale reading on your HT S-meter, chances are you have bad cable leakage. Again, make sure that all F-type connectors are put on the cable properly and are screwed into the fixture tightly. Use a good grounding block where the TV cable enters the house and attach a solid ground wire. Put a good TVI high pass filter at the same place in the cable. You may also have to place a high pass filter behind each television and radio that is attached to the cable.

RFI can also follow the outside of the cable. A high pass filter will not cure this problem. The way to cure this is to wrap eight turns of the cable around an Amidon ferrite core. You may also have to wrap the power cord around a ferrite core or use an AC line filter.

NOW FOR THE TELEPHONE. This is what the FCC has to say about working on telephones and telephone lines. This come right out of their information bulletin and I quote: "You should not internally modify the instrument yourself nor attempt filtering outside phone lines. Only authorized service technicians may internally modify telephone instruments.

Only telephone company personnel may filter outside telephone lines.

When people go out and buy a telephone from a department store for \$9.95, they have purchased a cheap phone and have gotten what they paid for. Do not waste your time trying to iron out any problems in these things. With AT&T trying to compete with these things, other companies have come out with some real junk in the past few years. You are going to have to call the phone company and get them out to work with you. Good Luck!! Get the jump on them before they come out. Call the FCC to get information on telephone interference. Take the telephone bulletin and make two extra copies. When the telephone person comes, invite him or her into your house and sit down and review it.

If you decide to work on this problem yourself, here are some ideas that you can try:

1. At the drop outside the house, place a 0.01 ufd at 1 KV disk capacitor from the red wire to the ground wire, one capacitor from the green wire to the ground wire, and one capacitor from the red wire to the green wire. The yellow wire is the ground wire.

2. Lift the red and green wires and put a 100 microhenry choke in series with each wire. You can use Radio Shack #273-102.

3. Make sure all connections are clean and tight. Check the yellow ground wire closely to see it is attached to a good ground source.

4. Take the telephone handset apart and place a 0.001 ufd disk capacitor across the ear piece and the microphone element.

You may also have to put chokes in series with the red and green wires that enter the telephone from the wall outlet.

by Barry, KU3X

Credit: ARNS Bulletin
via The Burlington Amateur Radio Club

Personal Injuries Accidents

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FCC GIVES FIRST IMPRESSIONS OF AMATEUR 'POWER AUDITS'

The FCC on April 5 released its preliminary conclusions from "power audits" conducted February 26 and 27.

The conclusions were based on visits to 209 amateur stations, according to the Commission. Most were selected at random but 31 were chosen because "they were subjects of interference complaints (interference to home entertainment electronics devices — ed).

"The FCC made observations of the communications conducted at the power level usually used by the station, and then made similar observations with the power reduced by one-half or more", the Commission said in a press release.

The FCC noted the following "findings":

- 75 percent of the stations experienced no degradation in communications capability when the power was reduced by more than half;

- Lower power resulted in reduced interference to home electronic entertainment equipment in one-third of the cases;

- 70 percent of the amateur operators interviewed stated that their stations normally transmit with less than 200 watts of transmitter power;

- Approximately two-thirds of the stations reported to be the source of interference to HEEE were transmitting with 100 watts or less.

The FCC press release noted the following conclusions:

- Most amateur stations are not operating at minimum power as required (by Section 97.313 (a);

- Reduced power can alleviate significant reception interference problems without degradation in communications capabilities;

The amateur community now awaits details of the methodology of the "power audit". The FCC has said it intends to release the study at a later date.

Commenting on the Commission's news release, ARRL Executive Vice President David Sumner, K1ZZ, said: "It is interesting to note that according to the Commission's own figures, amateur stations operating at 100 watts or less are as likely to be a 'source' of interference as higher-powered stations, and reducing power even further did not eliminate the interference in two-thirds of the cases. Anyone arguing for a reduction in amateur transmitter power limits will find no support in this study".

Tnx ARRL Letter

CHECKLIST: HOW NOT TO SET UP AN ATV STATION

by AH2AR/8 via RF Carrier

1. Start out with a lossy transmission line ... RG-8, or maybe RG-58. Stay away from low loss Belden 9913 or its equivalent. Hardline should be avoided at all costs. Use 75 ohm Cable TV hardline without 50 or 75 ohm baluns.

2. Try to use a 70 cm groundplane or a pair of "rabbit ears" as an antenna for your ATV station. And if you must use a directional antenna with gain, (GASP) ignore the specifications on how narrow or broadbanded it is.

3. If you are using a cable-ready VCR or television as a means of receiving an ATV signal, stay away from the GAaSFET preamps specifically designed to operate at the correct receive frequency.

4. While transmitting on 70 cm, try to drive the amplifier or final BA stage as hard as possible. An amplifier driven to a non-linear operating condition (class C) will have the desired effect on your transmitted video signal.

5. Patch cabling to RF output meters or amplifier should utilize SO-239 connectors. Try to use as many different types of adapters in a stacked chain where cables terminate. BNC connectors and N connectors especially, should be kept in the parts box and should never be utilized.

6. Use the oldest and largest TV set in the house to interface with your ATV downconverter. A television set with a hot chassis is very desirable. Large color TV consoles taken out of storage in the garage or barn, or picked up from the curbside are ideal for use on ATV.

7. If homebrewing a transceiver, stay away from bypass capacitors, extremely short ($\frac{1}{8}$ in. or less) exposed center conductors on RF line terminations, liberal grounding techniques, RF tight enclosures, and regulated power supplies with good filtering.

8. Steer clear from muffin fans as a supplemental means to cool amplifier heat-sinks. Nuisances such as these have the undesirable effect of extending the life of the amplifier and allowing it to run at cooler temperatures.

9. Try not to be patient if you do not see ATV video during your first attempt in receiving on your new set-up. If ATV signals don't come pouring in like the megawatt ERP commercial broadcast television stations, then it is simply not worth the trouble.

