



# the **RA RA RAG**

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**ROCHESTER AMATEUR RADIO ASSOCIATION, INC.**

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## **MARCH 2nd MEETING TO FEATURE ARRL VICE-DIRECTOR, K2KIR**

Bud Hipsley, K2KIR, ARRL Atlantic Division Vice-Director and Program Chairman of the Rochester Hamfest will be the featured guest at our March 2nd RaRa meeting at the 40/8 Club, 933 University Avenue, at the usual 8 p.m.

Besides an update on the latest ARRL happenings and some insight on the workings of the ARRL board of directors, Bud will present a program on antennas and some new thoughts on how to get the most out of them. Antenna-raising weather is just about here, and we all could use some tips on how to do it right the first time!

Of course there will be the usual committee and public service reports, the delicious refreshments and the fabulous awards. So don't miss this one!

## **NOMINATING COMMITTEE APPOINTED**

RaRa President Bill Thiel, K2KGE, has announced the formation of a nominating committee to choose a slate of officers and directors for the next club year. The appointees are:

Lenny Gessin, WA2ZNC

Joe Hood, K2YA

Bruce Sanborn, KB2WN

If you would like to recommend yourself or any other club member for nomination, contact Lenny, Joe or Bruce within the next few weeks. Their report will be given at the April meeting.

## **EASTERN AIRLINES BANS COMPUTERS**

Eastern has banned the use of computers (even small ones) on board their passenger airplanes. Now aircraft makers—Boeing, McDonnell Douglas and Lockheed—will test passenger-operated devices to determine if they do indeed interfere with complex and sensitive airborne avionics.

*Tnx W5YI REPORT*

## **RRRA/VHF GROUP AUCTION MARCH 16 AT P&F ACADEMY**

### **"A Night to Remember"**

by Howie Davies, N2CUN

The Rochester Radio Repeater Association and the Rochester VHF Group will team together again for their annual auction on Friday evening, March 16 (Kodak Bonus Day!) at the Police and Fire Academy on Scottsville Road. Set-up will start at 7 p.m., and the auction will start at 8 p.m. *sharp*.

Auctioneer will be Ed Gable, K2MP, and Ron Jakubowski, K2RJ. As usual, 10 percent of the selling price will be paid to the clubs by the seller and split 50-50 between the clubs.

The VHF Group will be passing out the sweepstakes awards at this meeting also.

There has been a serious problem the last several auctions of the auction lasting way too long, often past midnight. In order to speed the auction along this year, the auctioneer along with the sponsoring clubs have decided there will be no *Chinese* bidding. All items must have a minimum bid, and if there are no bids, the item will be put aside for the seller. Of course, items may *not* be returned to the auction block with a lower minimum bid a second time.

We ask that all items be marked before you bring them to the auction with the following information:

- Description of item.
- Condition.
- Callsign/name of seller.
- Minimum bid.

Bring your goodies and your wallet!

## **SILENT KEY**

Morgan D. Booth, KA2IES  
January 24, 1984

# the *RaRa* RAG

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P.O. Box 1388, Rochester, NY 14603-1388

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152 West Church Street, Fairport, NY 14450 (716-223-7344)

Photographer ..... **John VanGriethuyson, N2BNE**  
61 Olympia Drive, Rochester, NY 14615 (716-663-8192)

## RAG HAS NEW ASSOCIATE EDITOR: Don Taylor, KB2BU, Accepts Post

I am delighted to announce the appointment of Don Taylor, KB2BU, as Associate Editor of the *RAG*. Don is relatively new to Amateur Radio but has been very active in club activities and has much more time to devote of late since he retired.

Don's main job will be to coordinate articles in-put to the *RAG* by the individuals who write them, seek out new articles and columns, and to keep the contributors on their toes so that material is received by deadline.

From now on, all articles, columns, want-ads, etc. are to be sent to Don by the deadline published in the *RAG* Calendar. Don's address is: 109 French Road, Rochester, NY, 14618, phone 586-3158.

The entire *RAG* staff wishes Don the very best of luck in his new capacity, and request the full cooperation of the club members.

K2RJ

VOL. 36 MARCH 1984 NO. 7

### OFFICERS:

President: Bill Thiel, K2KGE 442-3111  
Vice-President: Ray Roberts, WA2SSU 663-6157  
Secretary: Alan Komenski, AC2K 248-8286  
Treasurer: Bob O'Neil, KA2NBK 467-9937

### BOARD OF DIRECTORS:

Dave Bernheisel, N2DPF 244-1856  
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Ed Holdsworth, N2EH 624-1929  
Ron Jakubowski, K2RJ 482-6308  
Steve Sykes, KA2KGM 288-8559  
Brad Wallace, N2BEJ 334-7559

Club Historian: Bruce Kelley, W2ICE  
Licensing Course Director: Edwin Holdsworth, N2EH  
Membership Chairman: Lloyd Caves, WB2EFU  
Public Relations Director: Lee Grills, WB2ZHD  
Hamfest General Chairman: Harold Smith, K2HC  
K2JD Engraving Director: Robert Lauzon, K2RL

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Who remembers Cappy Capauldy, K2UXF, one of RaRa's first auctioneers?

## PUBLIC SERVICE

by Ed Holdsworth, N2EH

I was very pleased with the response to requests for volunteers for our public service events for 1984. We have received requests for assistance on Fourteen different events so far this year and the response was so good that four of these events already have sufficient operators. Listed below are the events that we will be working on and I am sure that as soon as the warm weather sets in – we will receive more.

- \*April 29            March of Dimes
- June 3             Lake Ontario Marathon
- June 9/10         Susquehannock Road Rally
- June 10            Mendon Pony Club Pony Rally
- June 15/16        Scotch Bonnet Yacht Race
- August 8-12      Empire Games (Syracuse)
- August 9-12      Walnut Hills Farm Driving Competition
- August 19         Iron Man Contest
- Late August      Camp Good Days (Special Event Station)
- \*September 3     Rochester Marathon
- \*September 12    Ginna Evacuation Drill
- September 15/16 Palmyra Canal Town Days
- September 23    Bike-A-Thon
- \*November 23    Light the Lights & Sing Along (Downtown)

I will have sign up sheets at each meeting until June so that you will be able to sign up at any meeting. If you think you would be able to work on an event but are not sure of your schedule – let me know and I will keep you advised when other events are scheduled.

I would also like to point out that some events, especially the Susquehannock Pro Road Rally does not require an all night participation by all operators. The more people that we have the more time everyone has to see the Rally. If you would like to work a short time or leave for home early – you can be assigned to an early stage and then leave for home. I want to also point out that in the last seven years that we have participated in this event – we have never left anyone in the hills – some minor mechanical problems but we have always brought everyone home. (This Rally was voted #1 Rally for 1983 by the participants.)

If you think you will be available for any event – sign up early so that you won't be disappointed and find that we already have sufficient operators.

NOTE: Those events with an \* already have the required operators.

## MARCH RAG CALENDAR

- 2 - RaRa meeting, 8 p.m., 40/8 Club, 933 University Avenue
- 7 - RaRa Board of Directors meeting, 7:30 p.m., QTH of N2DPF
- 8 - Teleconference Radio Network, 8:30 p.m., 146.79, 145.11 – “Amateur Radio and The Law”
- 13 - RDXA meeting, 8:15 p.m., Colonial Hotel, 1127 Empire Boulevard
- 14 - April Rag Deadline to KB2BU
- 16 - Annual Joint RRRRA/VHF Group Auction, 8 p.m., Police and Fire Academy, Scottsville Road

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## MAGICIAN BIT HIT AT VALENTINE DINNER PARTY

Although poorly attended, the annual RaRa Valentine Dinner Party was a huge success and everyone in attendance had a superb evening.

The food was the best we have had in many years, and magician Jerry Argetsinger succeeded in puzzling all present with his “*illusions*”.

Ask Bud Young, WA2UGE, about his *illegal* twenty dollar bill. Or Alan Komenski, AC2K, about his wife's wedding ring. Or Tom Perry, WB2UTM, about the 10 of diamonds.

This audience participation was enough to convince the worst skeptic that magic is not just trick photography on television. Too bad many of you missed it.

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## ROCHESTER HAMFEST

MAY 18, 19, 1984

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## RaRa MEMBERSHIP REPORT

Type of Member	Total 1984	Non-Renewals 1984	Total 1983
Full	601	117	654
New	61	26	
Associate	51	15	64
New	35	18	
Family	78	27	90
New	10	5	
Life	35		
Total Paid	765	(169)	834
Total Renewals	624	(120)	696
Total New	106	( 49)	138
Honorary Members	1		4
ARRL Members	458	68.6657%	489
End of Report		1010 Total Records	65%

# RaRa AFTER THE WAR

by Bruce Kelley, W2ICE, Club Historian

From the declaration of war in 1941 until the end in 1945, all amateur radio activity was, of course, banned, but it resumed almost immediately after V-J Day. In fact, many eager operators "jumped the gun" on the F.C.C. and went on the air well before the designated date using self-assigned calls similar to those sometimes heard on the present CB band.

All pre-war licensed amateurs were allowed to use their original call letters. Western New York was then part of the Eighth District but was soon changed when the F.C.C. transferred it to the Second District. The same shuffle switched Western Pennsylvania from the Eighth District to the Third.

Members who had the good fortune of having a call sign with an opening in the Second District were assigned the same letters. W8DOD became W2DOD, for example. Others were not so lucky. New calls were issued where they had stopped before the war with many in the W2P-, W2Q-, and W2R- slots. (I had been W8ACY and was assigned W2QCP - W2ICE came later.)

The first post-war amateur gathering was a miniature hamfest at the old Powers Hotel on Main Street, and in short time R.A.R.A. was back in full operation. By 1947 the Association was holding regular meetings at the East Avenue Science Museum, and by 1948 the club paper was revived, appropriately named the R.A.R.A. Rag. It used the same Post Office box number which had been obtained by the newly formed Rochester DX Association: P.O. Box 1388. Twenty-eight years later it is still being used.

RaRa officers in 1949 were President: Linc Cundall (W2QY); Vice-President, Frank Cona (W2WPY); Secretary, Orv Bauer (W2TEX); and Treasurer, Rog Williams (W2NES). I recently looked over the Rag's issue for September



Amateur Radio News Service

## ARTICLES FOR SALE:

**TR-7400A** - synthesized for full 2 meter band, high power 25 watt, low power 1 - 10 watt. Includes Drake 1525 TT mic., pl tone installed for local area use, both user and technical service manuals, and mobile-tray-mount.

**\$230.00**

**Timex Sinclair ZX-81** - complete with many books, switch and power unit, rty interface directions, original box. Very low use, excellent shape.

**\$35.00**

**"LO-fer Antenna Tuner"** - Model BC-306, tunes 150 to 800 khz handling up to 150 watt output. In new condition, part of old BC-375 transmitter.

**\$58.00**

**Note:** All above listed items will be available at March Auction unless previously sold. Contact Dwight Hill, K2KWK, 716-544-2332.

"FOR SALE", "WANTED" items are **FREE** to RaRa members!

1949 (Vol. 2, No. 1) and found a masterpiece of ham journalism: fourteen 8½ x 11" pages chock full of news items, a Ladies' Column, Traffic Column, VHF Report, DX News, and other sundry reports. In fact, the material warranted a table of contents!

Flipping through the pages, I noticed several commercial ads including two from defunct firms which brought back memories of occasional spending sprees: Beaucaires and Hunter Electronics.

Production of this opus fell squarely on the shoulders of the officers. The printing office was Hank Blodgett's basement where the staff would congregate, hand-crank an old mimeograph machine, collate and staple stacks of paper, stamp, and prepare for mailing. The major cost of this operation, obviously, was the paper. Perhaps that enthusiastic teamwork was what made those old days such good ones.

Early RaRa Rags were highlighted with a cover cartoon provided by Linc Cundall. It always told a story and usually tied in with the program for the current Association meeting.

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# COP'S CORNER

by Howie Davies, N2CUN, RPD

## "CLIP OUT AND SAVE"

Listed below is the schedule of major events for 1984, Rochester's Sesquicentennial Year.

### Saturday, April 28 - Commemoration of the City's Anniversary Date

- Afternoon: Official Ceremonies at Eastman Theatre - 1:30 p.m.
- Evening: Public gala at Masonic Temple and Auditorium - 8:00 p.m. **Grand Ball** (contemporary or period formal attire) featuring dance bands, refreshments and entertainment.

### Friday, June 8th

- Music in downtown parks at noon
- A cabaret, 5 - 8 p.m., with food, beverage and music (in The Aqueduct)
- Musical events around town  
Nathaniel Rochester Days

### Saturday, June 9th

- Children's carnival in the morning and afternoon Theme picnics with prizes at Crossroads Park
- Sesquicentennial Parade at noon - East Avenue to Four Corner's
- Afternoon of street entertainment, exhibits, and floral displays - **Main Street closed.**
- Evening street dance at Festival Tent and Washington Square Park

### Sunday, June 10th

- Walking Tours of churches, landmarks, and green spaces.
- Interfaith Service at St. Mary's Church - 4:00 p.m.
- Concert of Sacred Music - 8:00 p.m.,  
Downtown Presbyterian Church

### July 6 - 8 THE GREAT CANAL CAPER:

July 6th - Friday evening - Towns and villages along the Barge Canal and Upper River Festivities centered around barge and floats.

July 7th afternoon - Floats Parade from towns and villages to Genesee Valley Park - starting 1:00 p.m.

- Cross-Canal Activities: Continuous musical entertainment, old fashioned games and displays.
- Biking, hiking and tours along the Canal.
- Pageant at dusk.

July 8th - City events - continuing activities at Genesee Park

- Pageant at dusk

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July 9 - 11 Urban Cultural Park Festival  
Daily exhibits, entertainment and tours focusing on industrial development and water power.

Tuesday, July 10th - Sound and Light Show in Upper Falls River Gorge - 7 - 11 p.m.

July 12 - 15 Lake Ontario Festival

Thursday, July 12th - Arrival of Tall Ships

Friday, July 13th - Opening Ceremonies, Ships Tours, Musical entertainment  
- Ray-Ban Gold - Biplane Exhibition  
- Nostalgia Picnic

Saturday, July 14th - Festival at Ontario Beach Park, Ships Tours, Boat Races, Antique Car, Drum and Bugle Corp Parade.

- Evening RPO Concert
- Fireworks Display

Sunday, July 15th - Yacht Parade

- Official Review of Ships by Dignitaries
- Closing Ceremonies

August 11th - Chuck Mangione Concert  
Free Family Concert at dusk - Main Street Bridge

December 13th - Closing Ceremonies

## F.A.R. ANNOUNCES SCHOLARSHIPS

The Foundation For Amateur Radio, Inc., a non-profit organization with Headquarters in Washington, D.C. plans to award fifteen (15) scholarships for the academic year 1984-85. The Foundation composed of fifty local area amateur radio clubs, fully funds two of these scholarships from the proceeds of its annual Hamfest. It administers without cost to the donors, three scholarships for the Quarter Century Wireless Association, two for the Dade (FL) Radio Club and one each for the Radio Club of America, the Richard G. Chichester Memorial, the Young Ladies' Radio League, the Edmund B. Redington Memorial, the Amateur Radio News Service, the Columbia (MD) Amateur Radio Association, the Baltimore (MD) Amateur Radio Club and the Lewis G. Wilkinson Memorial.

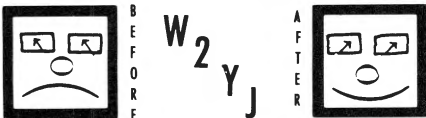
Licensed Radio Amateurs may compete for one or more of these awards if they plan to pursue a full-time course of studies beyond high school and are enrolled or have been accepted for enrollment in an accredited university, college or technical school. Most of the scholarships require the applicant to hold at least an FCC General Class license or equivalent. The scholarship awards range from \$350 to \$900 with preference given in some cases to residents of specified geographical areas or the pursuit of certain study programs.

Additional information and an application form can be requested by a letter or QSL/postcard, postmarked prior to May 31, 1984 from:

F A R Scholarships  
6903 Rhode Island Avenue  
College Park, Maryland 20740

The foundation is devoted exclusively to promoting the interests of Amateur Radio and to those scientific, literary and educational pursuits that advance the purposes of the Amateur Radio Service.

## COMMERCIAL COMMUNICATIONS



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## SO YOU THOUGHT THE WARC WAS OVER?

from W5YI REPORT

In mid-January, representatives of over 100 nations once again converged on Geneva, the site of the five week long World Administrative Radio Conference (WARC) that will decide the fate of the *worldwide shortwave broadcasting*. While the 1979 WARC was a "general" revamping of the Table of (Frequency) Allocations, the January 1984 WARC will decide on new guidelines for international high frequency broadcasting *only*.

The 1979 WARC provided for 780 kHz of new HF broadcasting spectrum. The Amateur Radio Service shares 40 meter spectrum (7100-7300 kHz) with overseas HF broadcasters. In addition, many nations utilize 3950-4000 kHz for national and international shortwave broadcasting.

The HF WARC is of *critical importance* to such services as the Voice of America, Radio Liberty and Radio Free Europe and their opponents from overseas. The ITU sponsored meeting will attempt to put together a plan assigning new frequencies to countries to make shortwave broadcasting more effective, efficient and equitable in the 3-30 MHz range.

*Jamming* loomed as one of the major points for discussion at the meeting with political overtones inevitable. It is generally agreed that ignoring the intentional interference issue could cause a collapse of the conference.

Also due for study is the use of *SSB (single sideband)* for HF broadcasting. While the emission would allow a doubling of the number of shortwave stations, the high cost of replacing transmitters and the general lack of adequate receivers would pose a problem for broadcasters and listeners alike. High power (500 kilowatt) and the number of transmitters broadcasting to a specific area are also due for debate.

The biggest issue seems to be possible confrontation between the "developed" and the "less developed" nations with the emerging nations demanding more frequencies and less spectrum for the United States. Private broadcasters also have a stake in the conference since non-government high frequency broadcasting is likely to grow in the future. By law, the State Department is *prohibited* from monopolizing shortwave broadcasts.

The actual assignment of frequency space will not occur until 1986 when a second session of the HF-WARC is scheduled. The first session is scheduled to close on February 10th.

## BASIC RTTY — DIGITAL CODES DECIPHERED

With the advent of the home computer, interest among amateurs for digital communications is on the rise. ASCII, a popular computer code, is allowing hams to trade programs on the air and to facilitate computer-to-computer conversations directly. Let's take a look at digital codes in Amateur Radio today:

### Q. What is RTTY?

A. RTTY means radioteletype, a form of telegraphic communication using typewriter-like machines or small home computers with alphanumeric keyboards. Two things happen when a RTTY message is sent: (1) a coded message is generated from electrical impulses made when typewriter keys are pressed for the desired words, and (2) the message is transmitted in this code to a distant receiver that converts the code back to plain language for the message recipient.

### Q. What kinds of codes are used for coding these messages?

A. Baudot (also called Murray and International Telegraph Alphabet No. 2) is a code used to encode the alphabet, numbers and some special symbols into five-level binary code. Binary is a number system consisting of only two digits, 0 and 1. There are only two states to deal with: ON and OFF, or "mark" and "space" (two discrete frequencies) in RTTY applications. For example, the letter "D" in Baudot is "10010". An RTTY transmitter/encoder sends a "mark" (on one frequency) for each "1" and a "space" (on the other frequency) for each "0". The receiver/decoder at a distant station subsequently receives the coded "D" and converts it back into English.

### Q. What is ASCII?

A. Like Baudot, ASCII is a binary code, but it has seven levels instead of five (an eighth parity bit allows for error checking).

### Q. What's AMTOR?

A. AMTOR, a digital teleprinter code that produces copy less prone to errors, is now authorized in the Amateur Service. Under marginal conditions, amateur stations using conventional codes often lose transmitted data, and must engage in time-consuming repeats. With AMTOR, the equipment checks itself periodically for errors and repeats only when necessary.

### Q. What about sending speeds? What's baud rate?

A. ASCII, AMTOR and Baudot code speeds can be given in terms of BAUD RATE, which equals the reciprocal of the time of a unit or data

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pulse. For example, if you are using a data pulse 22 ms long in a Baudot character, your baud rate is  $45 (1/0.022 = 45)$ , safely within the FCC rules. For the Baudot code 45 baud is by far the most common amateur data rate.

### Q. What modes and frequencies are used for ASCII, AMTOR and Baudot RTTY?

A. On the VHF bands where A2 and F2 transmission is permitted, audio frequency shift keying is generally used. Below 50 MHz, F1, frequency-shift keying, is used. The carrier is on continuously, but in this case, it is the carrier frequency itself that is shifted.

### Q. How can I use my SSB transmitter for RTTY at HF?

A. Amateurs operating RTTY in the HF bands frequently use audio tones fed into the microphone input of an SSB transmitter. With properly designed and constructed equipment that is correctly adjusted, this provides a satisfactory method of obtaining F1-like emission.

### A. Can I use A1 or CW for ASCII?

A. Yes. A1 may be used where F1 is permitted. Novice (and Technicians using Novice sub-bands) may not use RTTY because they are restricted to radiotelegraphy code only.

### Q. Are other codes allowed in Amateur Radio?

A. Yes, the FCC permits the use of experimental digital codes on amateur frequencies above 50 MHz, except those frequencies on which only A1 emission is permitted (50.0-50.1 and 144.0-144.1 MHz).

### Q. What is Packet Radio?

A. Packets are individual bursts of data (digitally encoded). A user's PACKET is made up at his or her "Terminal Node Controller", addressed, then transmitted to another station, which accepts packets, performs an error check on them and, if there are no errors, sends a confirmation.

Tnx SJRA HARMONICS

## Education Through Communication

In the heart of New York City, Joe Fairclough, WB2JKJ, instructs "the most unique English class in all the world". In fact, his Junior High School English program is in contact with the world by Amateur Radio. The hobby has become an effective teaching tool for the ARRL Registered Instructor at Junior High School 22 in Manhattan.

"After several years of using the conventional methods in teaching English," Joe said, "and finding they simply do not work on the seventh and eighth graders I'm dealing with, I decided it was time for a change."

He developed an English curriculum around Amateur Radio. This exciting new approach to classroom teaching has gained the interest of his students. It's a technique for motivation. "If a child is interested and wants to be in school, he or she will learn," Joe emphasized.

Students learn the International Morse code at the beginning of the term, and practice their spelling and vocabulary skills by cw. Grammar is taught using Amateur Radio publications and books as texts. These students double check the editors when they analyze and diagram sentence structure and writing style.

When the students study their homework, they learn about the hobby. Joe has provided the chance for the class to speak over ham radio which opens the channel to more educational opportunities. For example, after a contact, the communication doesn't end. The student write letters, exchange QSL cards, and learn about geography. Of the QSL cards received, one is chosen each week for the "QSL of the Week Award," and the owner of that card is appropriately acknowledged. All 180 students in the Eng-

## RaRa RAG Now ONLINE!

There is an alternate method of getting articles into the RAG besides sending them to the Associate Editor Don Taylor. I have recently put a modem into operation and have become a regular check-in on many of the local bulletin board systems.

If you have an article, a want-ad, a calendar item, etc. for the RAG, leave a message on either the Heathkit BBS (716-424-2576) for RONALD JAKUBOWSKI or leave E-Mail for R JAKUBOWSKI on Star-Net (716-436-8256/235-0512).

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## ROCHESTER HAMFEST

MAY 18, 19, 1984



lish classes examine the color, design, and overall attractiveness of the QSLs.

WB2JKJ claims, "We are total self-supporting. All of our equipment was purchased from the fund raising efforts of the students and myself. Even down to the postage, it's all done by the kids. It's very difficult to survive this way, but it makes for a great spirit of everyone pulling together. And besides, hams are great people. Without them, this wouldn't be possible."

Steve Ewald, WA4CMS

Editor's Note: Bud Young, WA2UGE, submitted one of the latest QSL's of the week to the class. Seems they really liked the RaRa club QSL!



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