

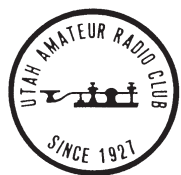
# W1AW: NY4I's Pilgrimage



Photo: Joseph P. Garcia III, N1JQ

ARRL Headquarters in Newington Connecticut. The brick building along Main Street which houses W1AW is the first sign of something familiar to hams everywhere.

Volume XLIII Issue 6, June 1999



## The MICROVOLT

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PLEASE SEND DUES TO:

U.A.R.C.

c/o Russell Smith

3267 East 3300 South #115

Salt Lake City, UT 84109

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THE MICROVOLT (USPS 075-430) is published monthly except August for \$15.00 per year or \$1.50 per issue by the Utah Amateur Radio Club, 632 University St. Salt Lake City, UT 84102. Periodicals Postage Paid at Salt Lake City UT. POSTMASTER: Send address change to "The Microvolt", c/o Russell Smith, 3267 East 3300 South #115, Salt Lake City, UT 84109.

## Prologue

The Utah Amateur Radio Club was organized under its present name in 1927, although its beginnings may date back as early as 1909. In 1928, it became affiliated with the American Radio Relay League (club #1602) and is a non-profit organization under the laws of Utah. It holds a club station license with the call W7SP, a memorial call for Leonard (Zim) Zimmerman, an amateur radio pioneer in the Salt Lake City Area.

*Meetings:* The club meets each month except July and August. The meetings are held on the first Thursday of the month at 7:30 PM in the Doxey-Hatch Medical Building located at 1255 East 3900 South in Holladay, across the street from St. Marks Hospital.

*Membership:* Club membership is open to anyone interested in amateur radio; a current license is not required. Dues are \$15 per year, including a *Microvolt* subscription. *The Microvolt* and membership cannot be separated. Those living at the same address as a member who has paid \$15 may obtain a membership without a *Microvolt* subscription for \$9. Send dues to the Club Secretary: Russell Smith, KC7ZDZ, 3267 East 3300 South #115, Salt Lake City, UT 84109 ARRL membership renewals should specify ARRL Club #1602.

*Contributions:* Monetary contributions are gladly accepted. Send directly to the Club Treasurer: Chuck Johnson, 1612 W. 4915 S., Taylorsville, UT 84123-4244. For in kind contributions, please contact any board member to make appropriate arrangements.

*Repeaters:* UARC maintains the following repeaters: 146.62 (-), 146.76(-), and 449.10. The repeaters are administered by the UARC Repeater Committee. Comments and questions may be directed to any Committee member. The Lake Mountain repeater 146.76(-) has Autopatch facilities on both the Orem exchange (covering Santequin to Lehi) and the Salt lake City exchange (covering Draper to Layton). The 449.10 repeater has autopatch facilities into Salt Lake City only. Due to the volume of traffic, only mobiles should use this autopatch. Autopatch use is open to all visitors to our area and to all club members. Non members who wish to use the Autopatch are encouraged to help with the cost of maintaining the equipment by joining the club.

*Ham Hot-Line:* The Utah Amateur Radio Club (UARC) has a Ham Hotline, 583-3002. Information regarding Amateur Radio can be obtained, including club information, testing, meeting information, and membership information. If no one answers leave your name, telephone number and a short message on the answering machine and your call will be returned.

*Publication:* *The Microvolt* is the official publication of the club. Deadline for submissions to the *Microvolt* is the 10th of each month prior to publication. Submissions by email are preferred (bbergen@xmission.com), but other means including diskettes and typewritten submissions can be mailed directly to: Bruce Bergen, 3543 Fieldstone Cir., SLC, UT 84121. All submissions are welcome but what is printed and how it is edited are the responsibility of the Editor and the UARC board. Reprints are allowed with proper credits to *The Microvolt*, UARC, and authors. Changes in mailing address should be communicated to the Club Secretary: Russell Smith, KC7ZDZ, 3267 East 3300 South #115, Salt Lake City, UT 84109. □

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□	

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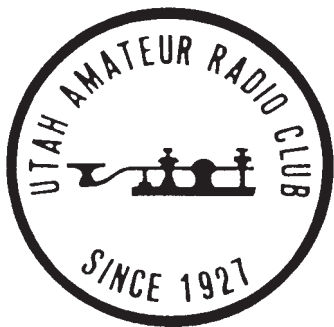
For late breaking news listen to the UARC Information Net Sundays at 21:00 on 146.62 or set your browser to:  
[www.xmission.com/~uarc/announce.html](http://www.xmission.com/~uarc/announce.html) □

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# The Microvolt

The Official Publication of the Utah Amateur Radio Club, Salt Lake City, Utah

Volume XLIII, Issue 6, June 1999



Photo: Ron Speirs, KC7MYS

## QST from the Prez

It is amazing to me what you can find in the ARRL Repeater Directory. The new edition has just arrived and the UARC Book Person, Fred DeSmet, has them available at UARC meetings and other events. I would just like to review the autopatch guidelines and maybe stick a few in of my own.

Autopatch operation involves using a repeater as an interface with the local telephone exchange. Therefore you must remember that it is on the open airwaves of amateur radio. The same FCC rules apply as on any other of your transmissions. Also remember to inform the person you are talking to as to the nature of your phone exchange connection. Third parties should not be put on the air until the responsible control operator has explained to them the nature of amateur radio. Inappropriate language has been used before and is not allowed. Remember your calls are not private. Anyone may be listening.

Autopatches should never be made when normal telephone service is available and could be just as

easily used. The primary purpose of autopatches is to provide vital convenient access to authorities during emergencies. Operators should exercise care, judgment and restraint in placing routine calls.

Autopatches must be terminated immediately in the event of any illegality or impropriety.

Station identification must be strictly observed.

Phone patches should be kept as brief as possible as a courtesy to other amateurs. The amateur bands are intended primarily for communication among radio amateurs not to permit hams to communicate with non-hams who can only be reached by telephone.

If you have any doubt as to the legality or advisability of a patch, don't make it. Compliance with these guidelines will help ensure that amateur autopatch privileges will continue to be available in the future which help the Amateur Radio Service contribute to public interest.

On another matter I would also like to encourage all amateur radio operators to participate in Field Day. If you would like to learn more about amateur radio and the technique of erecting antennas and communicating on CW or voice, or learning about satellite operation and contesting, I invite you to join the Utah Amateur Radio Club at Payson Lakes on June 25th to the 27th. We even had star gazing and a telescope last year. UARC provides the meat dish at a potluck dinner on Saturday June 26th. If you have any questions please contact any member of the UARC Board of Joel Neal, KC7UPB, Field day chairman.

Thank you. and 73.

Gary Openshaw, KC7AWU □

## A Blast from the Past

Your Editor is pitch hitting this month's column, since our regular contributor, Alan Seyboldt, N7OI (formerly K7OPT) is, as I write this, enjoying the Dayton Hamfest. The Gods must have been smiling upon me. I was scratching my head wondering how to fill in for Alan, when I received a call from Stan Stevenson, KK7EN, (formerly W6ERL) asking if I could help him with a project.



Stan Stevenson (circa 1930), as W6ERL, in his Long Beach radio shack.

Stan, one of our genuine "Old Timers", was first licensed in 1928, in his home town of Long Beach, California. I had the privilege of meeting with Stan in my living room last week after he, following my directions, drove himself and his wife to my home.

He related how, following the big earthquake of March 10, 1933, he and a number of other Hams were instrumental in getting traffic in and out of that devastated area. His shack was in his garage, and as he recounted, it was several days before he saw his bed in the house. He showed me several certificates of membership in the ARRL and other organizations. Some had the signature of Hiram Percy Maxim, who served as President of the League from 1914 to 1936.

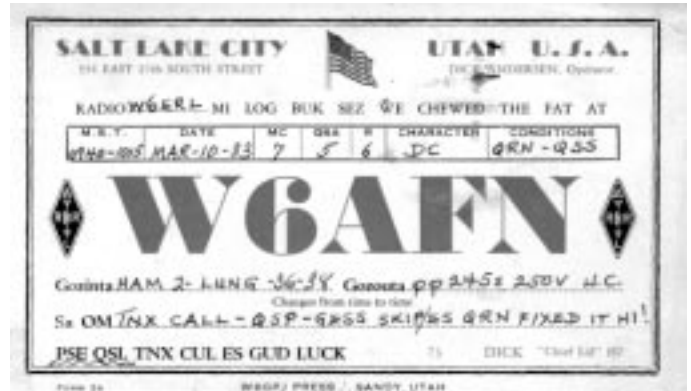
I was shown a number of QSL cards from that era, originating from several Hams in Ogden and Salt Lake City. The project for which Stan requested my aid, is to locate either the operator, if still living, or their children if any, so that he can present the original QSL cards as a memento. It would seem that publishing this request along with images of the actual QSL cards should enable Stan to reach at least one or two of these "Old Timers." He has already tried the obvious sources of information by searching for the operators' names in phone books and the calls in the QRZ database.

If you were not already aware, or noticed from some

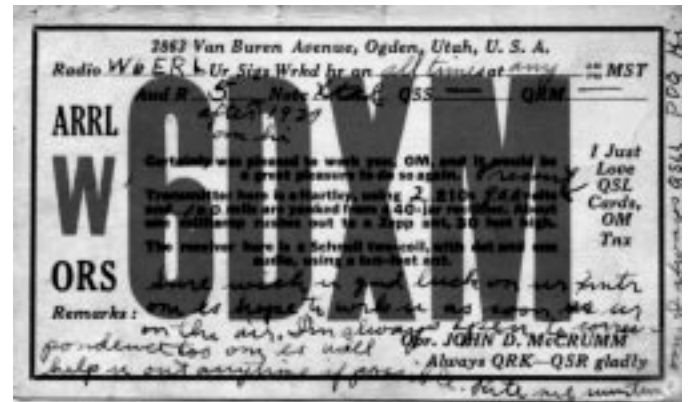
of the previous *Blasts*, Utah was in the six call area back then.

See what you, as the reader, can do to help with this project by locating these individuals or their families and if you have information that might be helpful to Stan, call him at (801)268-8002. Think of how much fun it would be, after almost 70 years, to get one of your cards back with an eyeball QSO as a bonus.

73, Bruce, KI7OM



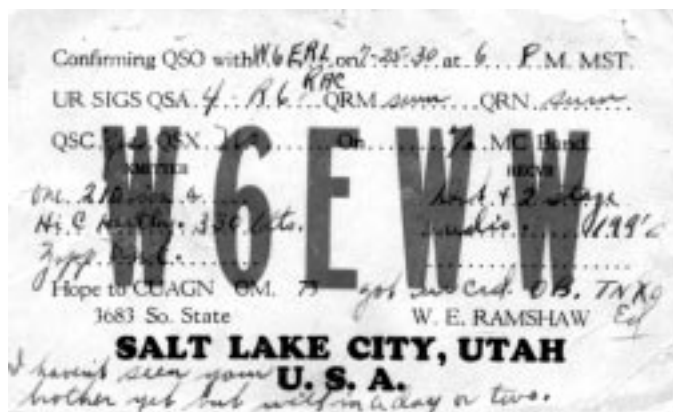
Dick Andersen, W6AFN, Salt Lake City, Mar10, 1933



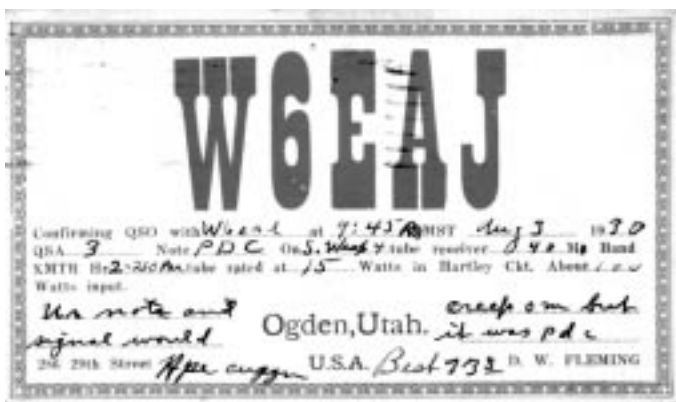
John D. McCrumm, W6DXM, Ogden, ?, 1929. John is first mentioned in the UARC minutes of April 26, 1929.



Robert Williams, Operator for G. H. Brimhall, W6CJT, Ogden, July 15, 1931



W. E. Ramshaw, W6EWW, Salt Lake City, July 25, 1930. Ed was initiated into UARC on February 26, 1931.



D. W. Fleming, W6EAJ, Ogden, Aug 3, 1930

## ARRL to Celebrate 85th Anniversary on the Air

The ARRL celebrates its 85th anniversary May 18, 1999. To mark the event, Maxim Memorial Station W1AW will operate as special event station W1AW/85 during the week of May 17-23. Some W1AW/85 operation will include PSK31. The American Radio Relay League was founded in 1914 by Hiram Percy Maxim, later 1AW, and Clarence Tuska, later 1AY.

It was Maxim's desire to send an inquiry about a hard-to-get receiving tube--A DeForest Audion--from Hartford, Connecticut, to Springfield, Massachusetts, that served as the catalyst for the League's birth in 1914. After conditions prevented him from working Springfield directly, he arranged with a station between the two cities to relay his message.

Initially working with Tuska through the Radio Club of Hartford--which had voted to take over development of a national "relay" organization--Maxim's vision for the League became reality in May

of that year. Initial dues were free. By late summer, more than 200 "relay stations" had been appointed across the US, although the first edition of QST--16 pages in all--did not appear until December 1915.

"Our celebration of the League's 85th anniversary would please our founders in two ways," said ARRL Executive Vice President David Sumner, K1ZZ. "First, we are celebrating with on-the-air activity--the organization, promotion, and protection of which was why they went to the trouble of creating the League in the first place. Second, just as they did in the exciting early years, we are looking forward by emphasizing new methods of radio communication."

ARRL President Rod Stafford, W6ROD, encouraged participation from all segments of the Amateur Radio community. "We hope everyone, member and nonmember alike, will join in celebrating the League's first 85 years and the beginning of the next 85," he said.

Volunteer staff members will handle on-the-air duties at W1AW/85, which will take place before and after regular daily W1AW transmissions. Plans call for W1AW/85 to operate 160-10 meters plus 6 and 2 meters and 70 cm, 25 kHz inside subbands on CW, plus SSB, RTTY, PSK31, SSTV, satellite, Novice bands, etc. Additionally, W1AW/85 will transmit bulletins using PSK31 as a secondary digital mode (time permitting) for the last digital bulletin of each day that week.

A special QSL will be available.

ARRL Bulletin 031 □

## Help Sought

A few years back I acquired an HF linear amplifier build by Harro Beyer, W7KIP, now a silent key. It is based on a pair of 4-250's and has a rather unique circuit using a pair of 6AX4's, (damper tubes). Apparently several of these were built. I would appreciate hearing from anyone who may be either familiar with this circuit or who may have been involved with Harro in the construction of similar amplifiers or own one themselves. Contact Bruce Bergen, KI7OM, (801)943-1365 or email [bbergen@xmission.com](mailto:bbergen@xmission.com). □

## 1999 UARC Field Day

June 26th and 27th, 1999

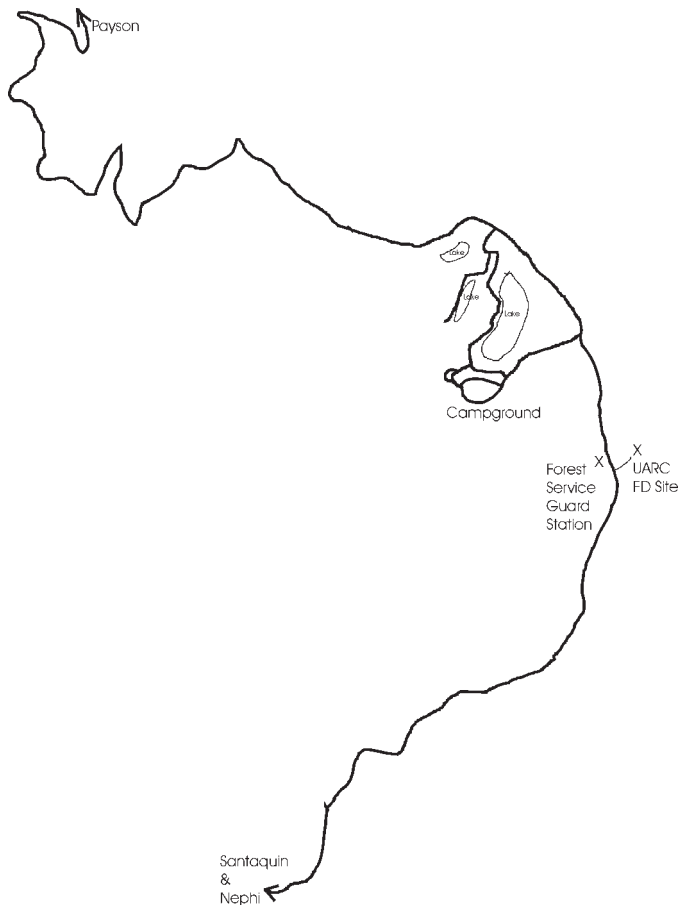
Just past Payson Lakes Campground, Mt. Nebo Scenic Loop, Payson, Utah

All amateurs are welcome to attend the annual UARC field day. We will be setting up HF, VHF, and satellite stations to work hams from all over the US. Setup begins at noon on Friday June 25th. The operating event starts at Noon on Saturday June 26th and goes until Noon on the 27th. A BBQ is scheduled for some time on Saturday afternoon. The club will provide the meat, but everyone must bring a pot luck dish to share. For more information, contact Joel Neal, KC7UBP at 209-2045.



So, How to get there? Go south on I-15 (approximately 65 miles from Salt Lake City), get off at the Payson exit (# 254) and go south into town (see map of Payson). Watch for the Mt. Nebo Loop signs (brown scenic loop sign). Turn left at the stop light in the center of town (you are now headed east) then turn right (head south again) by the old school with the odd playground equipment. Keep going up the winding

canyon (you'll probably lose the 146.76 and 146.62 repeaters somewhere in here).



Just ½ mile past the turnoff for the improved Forest Service Payson Lakes Campground (right side) will be another turnoff (left side) across the hiway from the Forest Service Guard Station access road.. We will have a sign here to guide you to our meadow (only a couple of hundred yards off the main road). You are welcome to choose your spot, first come first served. We generally “circle the wagons” around the main antenna, operating positions and the generator.

Talk-in will be on 146.76 until you get close (up and out of the canyon) and then on 146.54 simplex.

We hope to see you there. Tom, NY4I ☐

## Wells repeater Back on Line

The Wells, Nevada, repeater is back on the air after a lengthy absence, with excellent coverage along Interstate 80. The freq is 146.96, with a 100.0 Hz PL.

--Ron, KG7OR ☐

## UARC Field Day 1999 W7SP

### What is Field Day?

The Utah Amateur Radio Club is sponsoring a Field Day station, June 26 and 27, near Payson Lakes (approximately 65 miles south of Salt Lake City). What is Field Day? Field Day is an annual event. Amateur Radio Operators in the United States and Canada set up emergency radio stations and compete to make as many contacts as possible with other Field Day stations. It's a lot of fun. Come and participate with the club. All are welcome licensed or not, club members or not. Setup for this event starts Friday, June 26. The contesting starts Saturday, June 26 at 12 noon and ends June 27 at noon. Clean up takes about 2 hours. Come for a few hours or spend the entire time. Please let us know what your plans are so we can make preliminary schedules and generally know what to expect. For more information about this activity contact Joel Neal, KC7UBP, at 352-0322.

*It isn't just another contest.* Field Day is a test of your ability to operate under adverse conditions. It prepares you for the day when disaster strikes and you find yourself providing lifesaving communications without the benefit of commercial electrical power—or even a decent shelter."

Several important positions are still open for Field Day. Check with the Field Day 1999 chairperson, Joel, KC7UBP for details.

### Guidelines For Making Field Day Contacts

Some in our midst have a vast amount of experience with Field Day. UARC has been doing Field Day for more than 40 years and we have found things that work well and other things that don't work so well.

These guidelines were written so you (experienced or not) can make lots and lots of contacts. In past years we have allowed newcomers right off the street to begin contesting without any previous experience or training. This has not been fair for either the newcomer or for those that want to have a good showing in the *QST* magazine.

I would like to suggest that this year we try a new twist. First the operator (the person actually speaking into the mike, typing on the keyboard for RTTY or keying the key) should be someone that has obtained a

level of proficiency and/or confidence through observation, logging and some friendly help from an on-site Elmer. We have tried, unsuccessfully, to get people interested in demonstrations at our monthly meetings and even at the Field Day site. If there is interest we can organize some *ad hoc* instruction sessions at Field Day. Newcomers and those that don't feel quite ready to perform this function can gain experience and confidence in three ways. 1) Watch an experienced operator in action. 2) Monitor on a separate radio to listen to how other stations are making contacts. 3) Perform the logging task for an experienced operator. 4) Ask your Elmer lots of questions. Once you feel able to perform the operator function on your own you should sign up on the schedule for a block of time. Quite a few are ready to do this right now. They have operated at Field Day before and/or have participated in other contests like this. Those that feel confident will begin. The others will trade off as they feel more confident. We do want everyone to have an opportunity to operate.

As a general rule, we will have a minimum of two people at each station. One doing the operating and one just observing or doing the logging. At least we should not have two stations going with only two people working. (Well maybe late at night when the "normal" people have all left and/or gone to bed.)

Also in years past we have allowed the operators to make contacts any way they wanted to. This year we will try to make contacts as outlined below. These are only guidelines. If you don't feel comfortable making contacts this way and there is a station available, by all means go ahead and make contacts any way you can provided all the other operating stations are fully manned.

1. Use the CQ Field Day method. More contacts can be made using this method than any other method. **Revert to answering CQ Field Day calls only as a last resort.** Usually there are plenty of stations scanning the band listening for CQ Field Day callers. If you desire, have someone else on a different radio monitor your band to spot the frequencies that other stations are calling CQ on. Quickly jump to those frequencies during a slow period. Then return back to the frequency you were working before.

2. While calling CQ Field Day give the call sign slowly and clearly two or three times. Ex. "CQ Field Day CQ Field Day this is W 7 S P ----Whisky Seven Sierra Papa." Stations scanning the band for calling stations will pause when they hear you call. But they

normally will not answer until they have heard your call sign clearly and have checked their logs. If they can't hear your call sign clearly the first time they will wait until they do. But they will not wait very long before they move on to someone else they can hear. It is frustrating to hear someone calling "CQ Field Day CQ Field Day this is kd4lid kiloWatt donkey four loud india dummy" Each time they call it sounds like a different call sign.

3. Using a catchy phrase or acronym for the call sign is OK. But make sure it is easy to understand not just cute and that it is said clearly and distinctly. Change it from time to time. Stations that can't hear you very well will have less trouble with the standard alpha words. Alpha, Bravo, Charley ..... than with anything else you might come up with. So if you are not receiving any replies change back to the good old standard, "Whisky Seven Sierra Papa."

4. Repeat the CQ phrase once or twice (no more than twice). Then pause for just a few seconds and listen. If you hear nothing repeat it again once or twice. If you hear something but aren't sure if it was for you just continue to repeat the CQ phrase just as if you had heard nothing. If you are pretty sure someone was responding to your CQ but you did not hear it well enough to catch the call sign, just say the word "AGAIN?"

Option A. If you only catch part of their call sign repeat back that part of the call sign you heard or take a guess. If you hear their call sign perfectly clear simply repeat it back to them, say nothing else. They should reply with their Class and Section. Make sure you (or the person doing the logging) have their complete exchange (Call Sign, Class, and Section) before you give them the club station's exchange (2A Utah).

After you have given the exchange you may ask, "QSL?" Meaning: did you get the exchange OK? This is not necessary but is done as a courtesy. Then say; "Thank you & good luck. QRZ?" Meaning : who is calling me? It's a good idea to give the call sign after QRZ. Example:. "QRZ? This is W 7 S P"

#### Phone Example One

You say: "CQ Field Day, Whisky Seven Sierra Papa"

You hear: "November Two Xray Xray Xray"

You say: "November Two Xray Xray Xray, Two

Alpha Utah"

You hear: "Please copy Two Brovo Maine."

You say: "Thank you and good luck. QRZ? W7SP"

You hear: "KH6TD"

You say: "KH6TD Copy Two Alpha Utah"

You hear: "I am One Echo Pacific. QSL?"

You say: "QSL. Thank you and good luck. QRZ? Whisky Seven Sierra Papa"

----

You say: "CQ Field Day Whisky Seven Sierra Papa"

You hear: "WF1B"

You say: "WF1B I'm sorry. You are a dupe? QRZ? Whisky Seven Sierra Papa"

I would recommend that you review the ITU phonetic alphabet and notice the correct pronunciations. For example you will notice that "PAPA" for "P" is pronounced PAH **PAH**, with the emphasis on the second syllable. "Quebec" for "Q" is mispronounced by most Americans south of the Canadian border to sound like **QWEE** BECK. The correct pronouncement whether on the air or off is KEH **BECK**. The object is to be understood and correctly pronouncing the phonetic alphabet will increase the probability of that happening.

Option B. If you hear their call sign or only catch part of their call sign repeat back to them the part of the call sign you heard or take a guess, add your Class and Section and then ask, QSL? Example. " N?WW? Copy 2A Utah QSL?". They will reply with their Class and Section and correct the call sign if you copied it incorrectly.

After you have checked to see if you have (or the person doing the logging has) the complete exchange reply with, "QSL . Thank you & good luck. QRZ? W7SP"

#### Phone Example Two

This example illustrates how you might handle an exchange which is not heard correctly. If you are not experiencing any difficulty getting correct copy it may not always be necessary to use phonetics.



You say: "CQ Field Day Whisky Seven Sierra Papa"

You hear: "Kilo Hotel Six Tango Delta"

You say: "KH6TD, copy Two Alpha Utah. QSL?"

You hear: "Was that Two Brovo Kansas?"

You say: "No! Please copy 2A, Two Alpha, Utah, Uniform Tango. QSL?"

You hear: "OK W7SP QSL, copy One Echo Pacific the call sign is KH6TP QSL?"

You say: "QSL One Echo Pacific. Thank you. This is Whisky Seven Sierra Papa QRZ Field Day."

5. If you hear no response to your QRZ call, continue with the CQ Field Day as in the above examples. Saying QRZ assumes that you are working a pile-up and that several stations have been calling you.

You say: "CQ Field Day Whisky Seven Sierra Papa"

6. The greatest point-getter there is: CW. Many newcomers are astounded watching the speed at which a proficient contester will make a CW exchange. Five exchanges in a minute are possible. Remember an exchange for Field Day is the call sign, station class, and section. Maintaining a pace of two a minute is common. Try doing that by phone - you can't talk that fast. Two a minute on phone is close to the max.. But even more important, a phone contact counts as one point whereas the **same station contacted via CW gets you two points!**

#### **CW Example:**

Us: CQ FD W7SP

Them: W7LID

Us: W7LID 2A UT K

Them: R 7A WY K

Us: 7A WY TU DE W7SP QRZ FD.

7. During FD the bands are very crowded. Once you have established yourself on a frequency it's a good idea to stay there for as long as you can. Others will try (well at least it seems like they are trying) to take over your frequency. Without becoming angry you must defend your bandwidth/air space (your little portion

of the band). This can be done in a number of ways. One way is to totally ignore them. Every time they pause just call CQ. Another way is to simply say "This frequency is in use!" If conditions are really bad you might be lucky enough to hear someone say "This frequency is in use. I've been here for the past 10 hours. Please go to another frequency. Get lost!" or something else like that, not so nice. If they are saying it to you the best thing to do is move to another frequency. Don't be embarrassed by this. It happens a lot during Field Day. And we learn to live with nut cases like that. Others are very polite about it. And if you talk to them you might be able to reach an agreement. ("I'll move up a kilohertz if you move down a kilohertz.")

8. Only one contact per band can be made with any other station per band and modality. Our logging programs will automatically check for this. Don't worry if you make a few dupes. Everyone does. If a dupe is detected politely say, "I'm sorry. You are a dupe." (See EXAMPLE ONE above) If the other station questions this you can tell them what time the contact was made. If they have no record of the contact just give them your exchange but don't enter it again in the log. And continue on with the contest. The key here is to be polite. Some will give you a very difficult time for wasting their valuable time this way. Here again don't worry about it. Everything will work out in the end. When I go through the logs after the contest the dupes can be easily eliminated. It's better to make a few dupes than to miss a good contact all together.

9. The most important thing at Field Day is to have fun. Some people take contesting very seriously. I feel if you aren't having fun then why do it. Remember no one is forcing you to do this. You are doing it to gain experience and have fun. Operating an emergency radio station in less than perfect conditions is not easy. It is something that nobody wants to do every day. But it could be the life saving thread to the people in your city, county, or state if disaster strikes.

#### **Guidelines for Logging at Field Day**

Getting the contacts into the log is the most important Field Day activity. (Just having fun is really the most important Field Day activity.) Points can only be claimed if the contact appears in the log. Several methods of logging are used at Field Day. Some people just like to keep a pencil and paper by their stations and jot down the contacts as they go. This method is easy but since we may have more than one

operator working on a band, those contacts must eventually be logged into the computer data base or we will have lots of dupes.. Sure there are those that can type on the keyboard, listen and talk all at the same time. You should hear them during any number of national and international contests. Some of the avid testers can make five or more contacts in one minute. Un-believable! One station with one operator can average 2 contacts per minute, 120 contacts per hour, 2900 contacts in 24 hours or more.

We will again be using TRLOG from N6TR. You may want to visit his website to familiarize yourself ahead of time. Go to <http://www.qth.com/tr/> Here are some simple guidelines for logging to make things easier for everyone. This assumes that there is one person working the radio and one or more people entering the contacts into the computer. The person working the radio may be jotting down call signs and other information but he is not entering this information into the computer. If everyone does it this way we should have no problems says Murphy.

1. Note, in the log, any changes of operator, band or mode. On a piece of paper note down who is doing the logging or assisting in any way.

2. Keep the area around the stations as quite as possible. Only speak to the operator to indicate if you have the info needed. (Example: "OK", "I need the section!", "Class!", "Call sign!", "That is a Dupe!") There is a good chance that anything you say near the operator will be transmitted over the air. Also the operator is having as much trouble hearing as you are. Any distractions can really make the operator lose concentration. He is the one we are trying to help.

3. Type the contacts directly into the computer with the call sign first (the program checks for a dupe) then class and section. Make sure the information is correct (especially the section abbreviation) before entering "Y" for QSL. You may correct any entry (call sign, class, section) before entering "Y" for QSL, by entering "N" for QSL to cancel the entry (which takes you back to the call sign entry level) and re-entering the correct information a fresh.

4. There are 79 section, each with a unique and acceptable abbreviation. Each logging station should have a copy of the section names and abbreviations. Check it. Some section abbreviations are very close. (ex San Jaquin Valley SJV and Santa Clara Valley SCV). It is important that you enter the correct one. Once you have heard a section once you will

remember its abbreviation. The contacts seem to come in from one area of the country at a time. You may have 15 contacts from the same section before you hear a new section name that you haven't heard before.

5. It is the operator's responsibility to make sure they have all the info before proceeding to the next contact. If all the info can't be obtained log what you have and leave the rest blank. That is better than guessing. The missing information can be obtained from other contacts with that same station or from the QRZ callsign server. If not the Field Day coordinator will decide to make phone calls or just guess.

6. Don't worry. Relax and have fun.

73 - CU at FD - KI7OM, Bruce □

### Tigger's Corner

As promised and just in time for the summer's camping season, I'm devoting the next two month's columns to some general "Do's and Don't's" when installing Ham equipment in your camper, trailer or RV. Since every installation will be unique and "one of a kind", I won't try to cover all the possible combinations involved, but offer some general ideas applicable to everyone.

The first installment of this 2 month feature will be dealing with power considerations, and July's installment will cover antennas and feedlines.

In a modern coach, all the lighting and most all accessories are fed from a 12 Volt DC distribution system, (exceptions to this rule are refrigeration air conditioners, microwave ovens, coffee pots and other high wattage loads.) This system consists of a large deep cycle battery(s), a 120 VAC converter / charger / fuse or breaker panel, as well as any external battery maintenance equipment such as the vehicle's starting/charging system or solar panels, etc.

When the designers put together the specifications for the coach, they took into account the *maximum* current that would be required to be supplied by the 12 Volt DC source. (This is the current drawn when all the possible lights are on, furnace is running, water pump is on, fans, etc.) The designers then "sized" the "converter," which is really a large *unfiltered* direct current battery charger, to handle all the loads running at once while still providing 5-10 Amperes to charge

the deep cycle battery while connected to 120 Volt AC “shore power”.

Now that you have this brief description of how the system works, let me discuss some possible problems you may encounter.

When I ordered my trailer, a 19 foot Layton, several years ago, it had as standard equipment a 30 Amp converter. This would have been adequate if I weren't a Ham, and didn't like extra lighting. (Those of you who've seen my rig will understand what I'm talking about.) I upgraded the original unit to the largest converter that would still fit the available space, a 50 Amp unit, thinking that I would have the same clean, well filtered regulated direct current I get from my big Astron at home.

I learned a hard lesson, and wished later I had spent the few extra dollars for one of the new high frequency switching type units. My new fifty Amp converter has ample capacity for all the trailer's lights and accessories, but to my dismay, had absolutely no filtering (Switchers are well filtered!). I connected my Kenwood and found I had “raw unfiltered DC” while I was connected to the shore power. I had so much hum I could not use its output to directly run radio equipment. I wondered why the cheap AM/FM cassette deck the manufacturer had installed didn't hum. I found the reason by tracing its 12 volt wiring all the way back to its source. It was connected to its own “dedicated” line right back to the battery, using the battery as a filter. As a result of this finding I ran my own #8 AWG dedicated lines out to the battery and found this worked well for my Ham gear and television set as well. Remember to fuse any wire you tie to the ungrounded side of the battery as close to the battery as possible.

This brings up another point I want to call your attention to: the wiring color code used in your coach will not be using black to denote the negative side of the twelve Volt system. The black wire in all RV wiring that conforms to Underwriters Laboratories and National Electrical Code standards will be positive 12 volts. If you are adding extra equipment to your coach, keep this in mind so you don't accidentally let the “magic smoke” out of something. Another point to remember is that the wiring the manufacturer installed was based on the calculated loads they originally built into the trailer. (In may case they used 16 gauge wire, OK for a couple extra lights, but way too small for even a modest 2 Meter rig.) It's easy to overload this small wiring, not to

mention the inherent voltage drops associated with it. If you can, connect all your equipment to wiring large enough to keep voltage drops to less than a volt from source-to-load for the actual current draw.

The last part I wanted to cover is also the most important: the battery. Without it, nothing else discussed here matters. First off, everyone knows you can't use a regular car battery to power long duration low amperage loads, or deep discharge them without permanently harming them. (Everybody did know that didn't they?) They're (automotive lead acid batteries) designed to provide a great deal of “juice” for a short time during engine cranking and then immediately be recharged by the alternator once the engine starts. The plate structure of a “cranking” battery is thin and porous, and using one for deep cycle service will cause it to sulphate and fail quickly. A deep cycle battery on the other hand, has thick non-porous plates, and is designed to be deeply discharged at a relatively slow rate without harm, in fact most deep cycle batteries could not provide the same amount of instantaneous current as their “cranking” cousins for a similar size battery in Amp Hour capacity.

The two most common sizes of 12 Volt deep cycle batteries are Group 24, at 60 Amp Hours, and Group 27 at approximately 90 Amp Hours. Even the smaller coaches I've run into will accept the larger Group 27 battery. Most larger trailers have two battery trays on the hitch, and depending on your electrical usage many people will put two Group 24 deep cycles on the hitch and connect them in parallel. Besides the obvious cost problem, (\$60 x 2 batteries equals \$120), there's another reason not to do this - connecting and charging / discharging batteries in parallel is a big no-no. As one battery ages a little more than the other, it “pulls down” the other healthier one, eventually causing both to fail sooner.

There is a better and cheaper way if you need to replace your batteries. Consider purchasing two 6 Volt “Golf Cart” batteries and connecting them in series. You'll get 125-130 Amp Hours in the same size “footprint” as a #27 deep cycle, so they will fit most hitches. Now the best part, They are only \$35 to \$49 each. So you get a lot lower cost per Amp Hour, and they're built like a Sherman Tank. They really seem indestructible. Now their only drawback. They are about 3 inches taller than a regular deep cycle battery so check to make sure you have the vertical clearance necessary to install and service them. Last, check the battery often for corrosion and

electrolyte level, and **never** buy a sealed deep cycle battery. Deep cycle batteries by their very nature consume more electrolyte than their cranking cousins, and if you can't replace it when they become starved for electrolyte, they will sulphate rapidly, and dry out after only a couple of seasons.

I hope these tips have given you some ideas that will help you have a more enjoyable outing.

Looking forward to some outdoor fun.

C YA KA7TGR - John □

### Featured Member of the Month

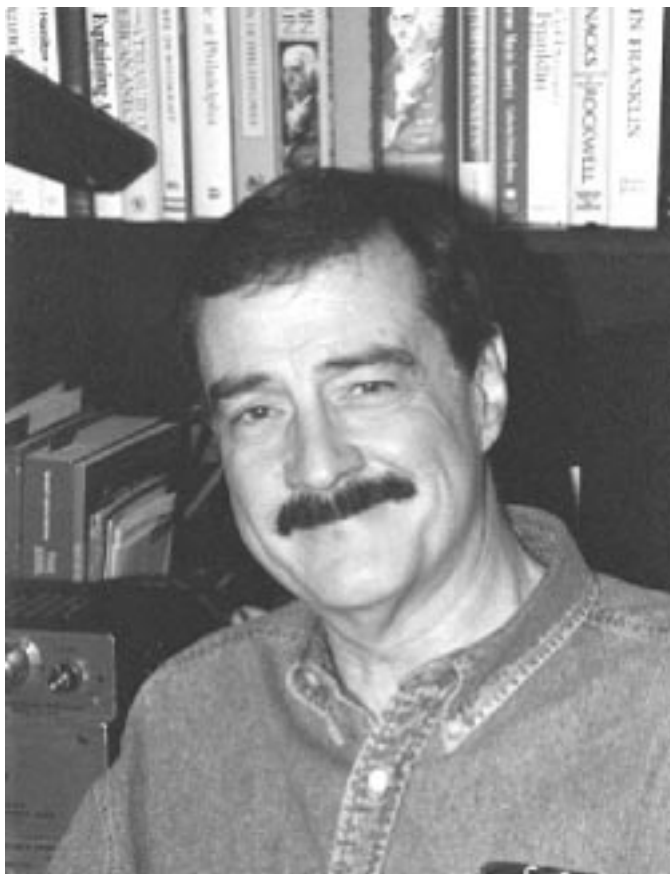


Photo: Ron Speirs, KC7MYS

Willis Manford Gooch, III, AB7PM, goes by the handle Manford

Featured this month is Willis Manford Gooch, III, AB7PM. You may also know him by his previous call, KJ7VL. He passed his no code license exam in January of 1996 at the Farmington test session and then in Provo on the third Wednesday of that same month the 13 wpm code and the 3B test element, giving him his General Class License. Just 2 months later in March of 1996 he passed both advanced and extra class test elements, 4A and 4B, and the 20 wpm

code test in Farmington.

Manford he did all of his studying during his travels. As a medical doctor he works for Hill Top Medical Research Associates. His work takes him all over the world to present his findings on new medical drugs to physicians. He also teaches pediatrics at Primary Children Medical Center.

While on his many flights he studied the morse code. Using a MFJ 411 pocket code tutor he managed to drive the other passengers crazy. He also used a W5YI computer program on his lap top computer.

Manford has been interested in amateur radio since 1950 when he was in the 4th grade. He and his short wave listener friends studied the Morse code together. They built several receivers of which he remembers some were Heathkits. In the 6th grade he built homebrew receivers. He was really into electronics and loved to build things. He said it was so much fun back in those days because it was easy to get your hands inside of the equipment. He would even fix his own cars. It is not like that today. There is no room to get your hands "inside" the equipment and the technology today is so specialized. In the 8th grade he lost interest in radio due to his other "interests", cars and girls.

Years later he became involved in commercial radio broadcasting. He was a disc jockey and an announcer for television. Manford said he also did lab work with electronic equipment which lead him into the field of medicine.

Manford has 7 children. His wife sparked his interest again in amateur radio when she gave him a new portable short wave radio for Christmas in 1995.

He joined UARC as soon as he was first licensed in January 1996. He is net control on the first Sunday of each month for the Sunday Night UARC Information Net. He has difficulty getting to the club meetings because of his travels and felt this would be a good way to contribute to the hobby. With his experience in broadcasting he brings a level of professionalism and a great radio voice.

Manford, welcome to the hobby and lots of luck in your many endeavors.

73 N7HVF Linda Reeder □

## A Visit to the ARRL and W1AW

All avocations have their “Mecca.” For pilots, a visit to the Oshkosh fly-in is required; for race fans, the Indy 500 is required. As a ham, we have two places that we must go to at least once in our ham career. The first being the Dayton hamfest, and the second, the ARRL headquarters in Newington, CT. This is a story about my recent visit to the ARRL HQ and the W1AW station.

Ever since I became a ham, W1AW had a special meaning. After all, W1AW represents our national amateur radio organization. The politics of it aside, the ARRL headquarters holds a special place in the lore of amateur radio. The place exudes ham radio history. As you drive down Main Street in Newington (a suburb of Hartford, CT), you go from a small downtown into what appears to be a residential area of town. Then just as you start to think you are lost, you see them: Towers! The brick building along Main Street which houses W1AW is the first sign of something familiar to hams everywhere. Then, a look further down the street reveals a large two-story office building, which houses the ARRL.



Photo: Joseph P. Garcia III, NJ1E

ARRL Headquarter in Newington Connecticut.

Turning into the parking lot you see the expected antennas on the vehicles, the ham license plates, and the omni-present towers of W1AW. On this day, I arrived at about Noon for the tour of the building. After a quick tour of the amateur radio museum complete with equipment from all eras of amateur radio, someone came out to give me the tour of the office building. The building was constructed in the early 1970s. It is a Spartan building complete with the requisite look and feel of any office building. But in this building, there is one difference: While most buildings like this usually house insurance companies or schools, this one was 100% dedicated to Amateur

Radio. As I went through the departments that I have heard about and spoke to, I kept thinking that these people were so lucky that they could make their living supporting basically a hobby. One interesting observation came when I stopped by the contest desk. On the wall, there is a standard business looking chart. Only instead of sales forecasts or new client data, this one had a graph of contest entries by year. To see a chart that we associate with typical “business” functions used to display something that we choose to do on the weekends was indeed enlightening to show that support of our hobby on this level is really treated by the men and women of the ARRL as a serious occupation.

Another area I visited was the ARRL Lab. I now know why the projects in *QST* and the handbook look so good. Besides all the electronic test equipment, they have what looks like a full machine shop for fabrication of parts. I saw table saws and the like in the lab. So, the next time you tackle a project in *QST* and it does not look as good as it does in the picture, do not feel bad. They really have the equipment to do things right. Just beside the lab is an RF screen room where the reviews that appear in *QST* can be seen. On this day, surrounded by amazing test equipment was an Icom IC706MKIIG radio going through the paces. After a discussion with the tech in the room, I discovered that the Yaesu FT100 had already been through the lab in a “rush” job. Based on all the equipment here, the lab can really make sound tests of the equipment and give good recommendations on just how well equipment performs in the real world.

I continued my tour with a walk through the publishing sections of the ARRL. The ARRL really is a membership organization and a book publisher. They have just as much area dedicated to publishing *QST* and books as they do dedicated to other member services. I suspect the majority of the League’s income is derived from their publishing operations. Interestingly enough while I saw PCs most everywhere, I could tell when I entered the publishing side because I started to see Macintoshes on the desks (frequently used by the publishing industry).

My final stop was the ARRL-VEC area and the outgoing DX bureau. The most notable thing about the VEC was that all the test material is in a locked cage just to make sure the tests are not compromised. The DX bureau, as you would expect, had QSL cards everywhere. That completed my tour of the office side of things. The final stop on this day was the W1AW station across the parking lot.



Photo: Joseph P. Carcia III, NU1Q

W1AW is housed in this small building at League HQ.

As I went into the station, I saw that the lobby has a brief history of the station. You can see pictures of the various stages of the building. The layout of the station is quite impressive. When you walk into the area, you notice a large console in the middle, which houses some computers and audio equipment. Behind that desk is an environmentally controlled area that houses the W1AW transmitters used for HF bulletins and code practice. The gear is mostly Harris HF equipment and Harris 1 KW amplifiers. There are only two pieces of equipment that look like “normal” ham gear: A Ten-Tec HF radio on 20 meters, and a Command Technologies amplifier for 20 meters. When these stations operate on all bands on CW, it is really interesting to see all the LED power meters on the HF rigs sending code in unison. The next area to see was the operating “studios”. There are three studios. One houses packet and satellite equipment, one had some HF equipment and the last has more HF equipment. Each manufacturer is thoroughly represented in each area. From what I understand, each manufacturer donates equipment to be used at W1AW. After the tour and showing my license to the operator at the station, I sat down to operate a Yaesu FT1000D on the 20-meter beam at 120 feet. I turned



Photo: Joseph P. Carcia III, NU1Q

One of several operating positions in the W1AW building.

The rotor to the West to see what was on the band. Propagation did not seem particularly good today, but I would soon learn otherwise. I made a simple CQ on 14.260 Mhz and that is where I sat. If you have ever heard W1AW on the air, you know the station attracts quite a following. Many people said this was the first time they had spoken to W1AW. I really did not make a contest out of it, choosing more to rag chew with people. I spoke to quite a few mobile stations including a truck driver in Kentucky running 1000 watts mobile. (He really was the loudest signal on the band.) As I logged each entry in the log, I reflected on my own attempts to work W1AW when I heard it on the air. Always there was a guest op visiting the station having just as much fun as I was having now. Towards the end of my operating time, I turned the beam towards Europe and heard a few pile-ups. One Russian station was on and I simple gave my call as “Whiskey One Alpha Whiskey. He came back to me and we exchanged information. When he came back to me, he said “W1AW...Is this the ARRL?” This goes to show the notability that the ARRL and the W1AW call sign have in the world. After 2 ½ hours at the mic, it was time to close up as they had to get the stations on the air for code practice. I completed my log sheets, submitted them to the operator and hung around for a bit while the code practice was played. I then took a stroll outside to see the “aluminum trees” growing outside. W1AW has four towers. The tallest one is 120 feet with at least 8 Yagi antennas on it. There are a few 65-foot towers with various HF antennas. Another tower has the satellite antennas on it as well.

The tallest (120 feet) and central tower of the four tall towers behind the W1AW building. Tom indicates that this one had at least 8 Yagi antennas on it.



Photo: Joseph P. Carcia III, NU1Q

All in all, this is quite the place. I thank each and every person at the ARRL for his or her assistance and for the work they do. I recommend every ham make the trip to Newington at least once and see this amazing place. Oh, by the way, if you are not yet be a member of the ARRL, I encourage you to join to support this organization. They really do so much work that makes our hobby possible.

73, Tom NY4I □

## June Meeting: Field Day Preparations

Gordon Smith, K7HFV, will provide the evening's entertainment, er, I mean enlightenment, regarding the great triumphs of Field Days past and our plans to avoid past foibles in this year's activities.



Photo: Ron Speirs, KC7MYS

UARC's June 3 meeting will be about Field Day: preparations for this year's event and recollections of Field Days past. For Field Day fans, it is a chance to remember the fun of past events and make plans for this year's event. For the detractors, it is a chance to remember why they avoid this event each year.

What? You've never heard of Field Day? Well, just check your May issue of *QST* for more details about the most popular contest in amateur radio. What? You're not an ARRL member and, therefore, don't get *QST*? Be sure to talk to Gregg Smith at the coming meeting and he can help you rectify that situation.

Field Day is, indeed, the hobby's most popular contest. It is a contest where entry by clubs and groups rather than individuals is the rule rather than the exception. UARC has entered the contest almost every year for the last thirty or forty years, and it is one of the most popular events each year.

The contest is one that encourages radio operation away from normal fixed-station sites, and is, therefore, perfect to combine with a club family campout. Joel Neal, KC7UBP, is in charge of UARC's entry this year. He and his committee will be telling us all the details of this year's plans. We do know that the plan is to return to a site near Payson Lakes that we have used for the last seven years. As for the date, Field Day is always the fourth Saturday in June and the following Sunday, so this year's event will be June 26 and 27. Some folks may take advantage of the opportunity to extend the weekend and might arrive as early as Thursday the 24th.

The June meeting is also the last chance to make a teak-fry reservation in person. The annual steak-fry will be on the afternoon of Saturday, July 17th, at The Spruces campground, approximately ten miles up

Big Cottonwood Canyon (the one that goes to Brighton). Cost is just \$2.00 for members, \$3.00 for children and \$9.00 for guests.

Again, the meeting is at 7:30 on June 3. Of course, it will have all the customary features including "eyeball QSOs," a chance to peruse ARRL books, and the famous "Dime Lime" or "Meeting After the Meeting," which allows a chance to find out what those people you've been talking to look like. Don't miss the fun! □

## Club Station Open House

On April 24, UARC officially opened the doors of its club station to its members. This station, located at the Salt Lake Red Cross in downtown Salt Lake, is for members to use and also for the emergency use of Salt Lake ARES emergency communications group. The station has available HF (TS450, IC730, TS820S), VHF (IC211 all-mode), Kenwood TM741 Dual bander, APRS packet, RTTY and other HF digital modes.



The Kenwood 450SAT is on the right side with the Icom IC-730 to its left.



A Kenwood TS720S is located in the center.

This station has been the result of 2 years of work by many UARC members with support from many

people including the club and other donations of equipment. Due to security concerns, the club station is available for operation under the supervision of one of three club members who maintain the keys. This allows the Red Cross to ensure that anyone operating the station is authorized. For operation times, please listen to the UARC information net for scheduled times of operations in any given week.

Tom, NY4I □

## Examination Schedule for May

06/05/99 (Sat.) Salt Lake City  
Contact: Gordon Smith, K7HFV  
Phone: (H) 582-2438 (W) 534-8116

06/09/99 (Wed.) Mantua  
Contact: Niko Takahashi, AA7OL  
Phone: (435) 753-9544

06/16/99 (Wed.) Provo  
Contact: Steve Whitehead, NV7V  
Phone: (H) 465-3983 (W) 225-5200

06/29/99\* (Tues.) Salt Lake City  
Contact: Eugene McWherter, N7OVT  
Phone: 484-6355

\*Only Novice and Technician elements (1A, 2, and 3A) given at this session.

For more detail either call the contact or checkout the information on our webpage  
<http://www.xmission.com/~uarc> □

## NEWSFLASH

Mel Parkes, N5UVP, is the new Section Manager-elect of the Utah Section of the ARRL. In a close election, Mel just edged out Tom Schaefer, NY4I, by a margin of 237 - 205 votes. Please join with me in wishing Mel the best for his term as Utah Section Manager. Mel's term as SM starts in July, 1999.

Tom NY4I □

## UARC at the Great Salt Lake Boy Scout Council 1999 Scout-O-Rama



Photo: Ron Speils, KC7MYS

Eugene Christensen, KC7CSE, sitting right, organized the UARC participation. Several Scouts and Scouter-Hams check out the activities.



The Main UARC exhibit area

Photo: Ron Speils, KC7MYS



Russ Scholz, K7MRS, has a taker on a HT demo.

Photo: Ron Speils, KC7MYS

Gregg Smith, KC7APW, had another demonstration site.



Photo: Ron Speils, KC7MYS

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