



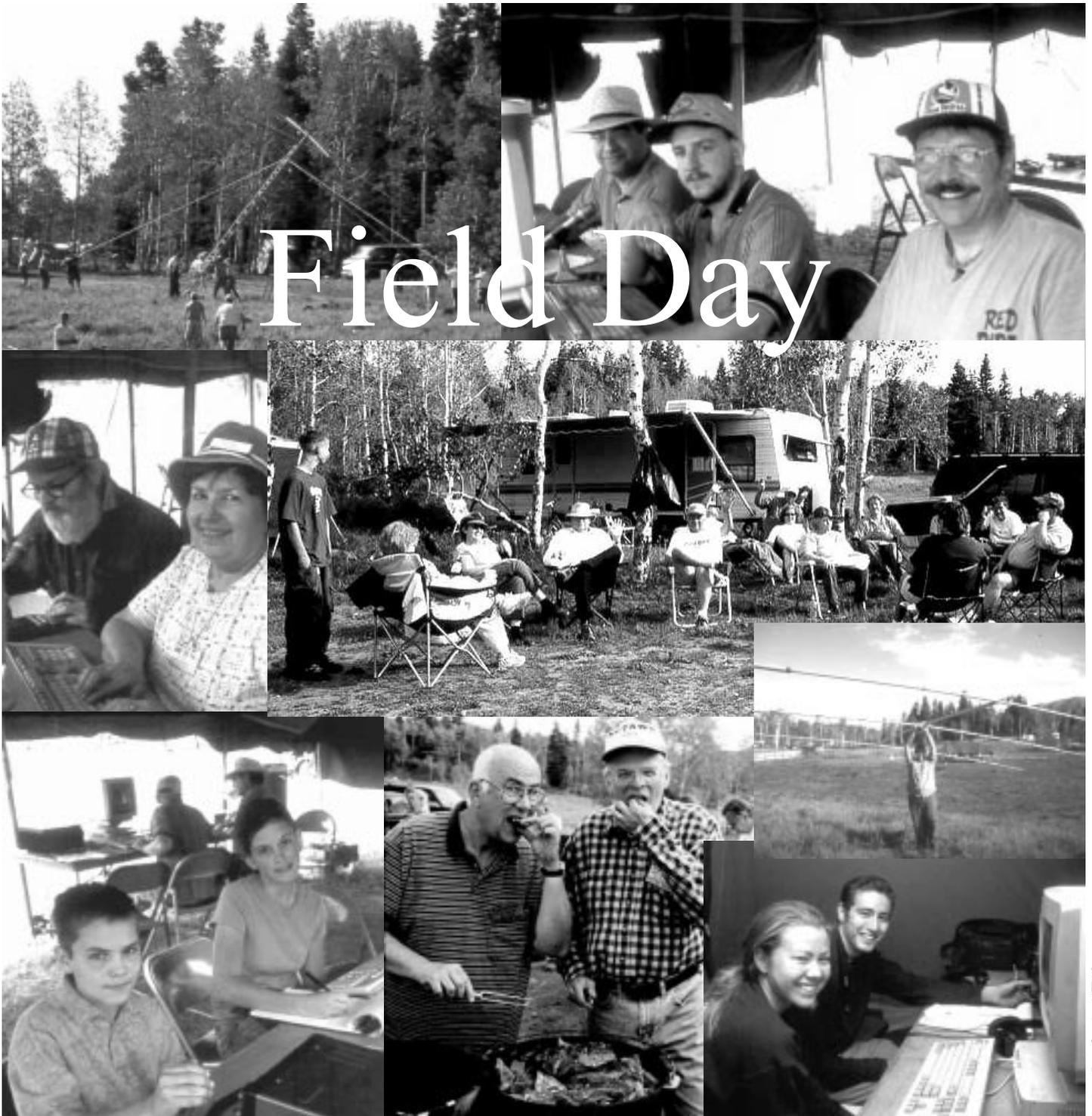
The MICROVOLT

Volume XLVI Issue 6, June 2002

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7546 S. Uranium Dr.
West Jordan, UT 84084-3942

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, 3666 South State Street, Salt Lake City, UT 84115-4848. Periodicals Postage Paid at Salt Lake City UT. POSTMASTER: Send address change to "The Microvolt", c/o Gregg Smith, 7546 Uranium Dr., West Jordan, UT 84084-3942.



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 Infina 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 dueto the Club Secretary: Gregg Smith, K7APW, 7546 S. Uranium Dr., West Jordan, UT 84084-3942 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 146.62- and the 146.76-repeaters. 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 Santaquin to Lehi) and the Salt Lake City exchange (covering Draper to Layton). The 449.10 repeater has autopatch facilities available to UARC members 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 listed under "Submission Schedule of Editorial Content for The *Microvolt*." Submissions by email are preferred (KC7PM@arrl.net), but other means including diskettes and typewritten submissions can be mailed directly to Associate Editor Ted Cowan, KC7PM, 1889 E Foxmoor Place, Sandy, UT 84092. 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: Gregg Smith, 7546 S. Uranium Dr., West Jordan, UT 84084. □

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Field Day Chair: Brett Sutherland, KC7WRR	298-5399

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Engineer: Randy Finch, K7SL	277-7135
ATV Engineer: Clint Turner, KA7OEI	566-4497
Board Liaison & Autopatch Engineer: Gordon Smith, K7HFV	582-2438
Provo Autopatch Host & ATV Engineer: Dale Jarvis, WB7FID	224-3405
Repeater Monitor: Allen Wright, N7QFI	268-8482

Exam Schedule

06/01/02 (Sat.) Salt Lake City
Contact: Gordon Smith, K7HFV
Phone: (H)582-2438 (B)534-8116

06/08/02 (Sat.) Logan
Contact: Clyde A. Best, AC7KN
Phone: (435) 563-9492

06/12/02 (Wed.) Mantua
Contact: Jim Jones, KJ7VO
Phone: (435) 723-1947

06/19/02 (Wed.) Provo
Contact: Steve Whitehead, NV7V
Phone: 465-3983

06/25/02* (Tues.) Salt Lake City
Contact: Eugene McWherter, N7OVT
Phone: 484-6355

07/03/02 (Wed.) Farmington
Fred Villanueva, N7FV
Phone: 295-6560

*Only Technician elements (1 and 2) given at this session.

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

Submission Schedule of Editorial Content for *The Microvolt*

The *Microvolt* editorial team has made a commitment to providing the club membership with a quality publication that will be in your hands prior to the meeting of the publication month. This means you should be able to count on being reminded of upcoming meetings and events before they happen. In order for this to happen we must have two things: quality material submitted to the associate editor, Ted Cowan, KC7PM, and submitted prior to the deadlines listed below.

Meeting Submission Deadline

No July Mtg	Tue June 12
No Microvolt published in August	
Thu Sep 5	Tue Aug 13
Thu Oct 3	Wed Sep 11

This schedule will be revised and published in subsequent issues of *The Microvolt*. We sincerely hope that this will help those who wish to make submissions make our deadlines.

The Microvolt Editorial Team -Bruce -KI7OM., Ted KC7PM, and Bruce, KJ7HZ □

More on Editorial Content Submission Standards

The Microvolt Editorial Team wishes to make submitting documents for potential publication as easy as possible. A contributor or writer should feel free to submit text, preferably via email, in any format, within reason, of popular wordprocessors they are comfortable using. Writers should keep in mind that the Editors in producing *The Microvolt* use a standard font and layout. All submitted material used will be stripped of formatting and converted to these standards. Please keep your formatting of submitted documents as simple as possible. Simple ASCII text is easiest to handle - the less stripping we have to do, the less time it takes to prepare. □

Net Schedule

VHF Nets

Day	Time	Freq.	Name/Purpose
Sun.	2100	146.62 MHz	Utah Amateur Radio Club Information Net
Mon.	2100	147.18 MHz	High Valley Net (Ragchew)
Mon.	2100	144.25 MHz	Weekly 2-meter SSB net
Tues.	1900	146.98 MHz	West Desert Amateur Radio Club & 145.37 MHz
Tues.	1930	146.90 MHz	Ogden Amateur Radio Club
Tues.	2000	146.94 MHz	Utah VHF Society (business and swap)
Tues.	2100	147.34 MHz	Utah Valley Amateur Radio Emergency Service
Tues.	2100	146.72 MHz	Bridgerland Amateur Radio Club Net
Wed.	2000	146.88 MHz	SL County Amateur Radio Emergency Service
Wed.	2000	145.43 MHz	Utah Box Elder -Thiokol Net & 145.20 MHz & 448.43 MHz
Wed.	2100	146.74 MHz	Mercury Amateur Radio Association, SL area
Wed.	2100	145.49 MHz	Mercury Amateur Radio Association, Ogden area
Wed.	2100	145.37 MHz	Mercury Amateur Radio Association, Provo area
Wed.	2100	50.125 MHz	Weekly six-meter net
Thu.	1900	147.42 MHz	Davis County Amateur Radio Club & 449.925 Mhz

HF Nets

Day	Time	Freq.	Name/Purpose
Daily	1230L	7272 kHz	Beehive Utah Net (formal traffic handling)
Daily	0200Z	3937 kHz	Farm Net (Same UTC summer and winter)
Daily	1930L	3708 kHz	Utah Code Net (formal traffic handling)
Sat.	1100L	7272 kHz	Quarter Century Wireless Association (QCWA)

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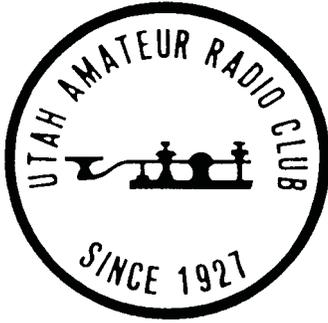
For net times and frequencies, testing details and late breaking news listen to the *UARC Information Net* Sundays at 21:00 on 146.62 or set your browser to: www.xmission.com/~uarc/announce.html □

We are grateful to the management of XMission, our Internet Service Provider (ISP), for the donation of this Web-Page service. □



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The Microvolt

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

Volume XLVI, Issue 6, June 2002



Photo: Ron Speils, K7RLS

QST From the Prez

Fellow hams,

It has been noted by a number of you of the less that professional operating procedures on our club repeaters. So I will take this opportunity to remind everyone of a few operating procedures. Take this in the spirit good will and lets raise the standard and for those who will not read this (not members of the club). Let us set the level of professionalism and drag them along with us.

Making a call - if the repeater is quiet, transmit your call sign, adding optionally the word "listening" or "monitoring." If anyone is interested in talking to you they will call you after your initial transmission.

Don't make a long CQ to attract someone's attention. In some areas a solitary CQ is permissible, including our repeaters. Call CQ and add your call sign.

Don't add any other conversational information, such as your current location, operating conditions, etc. That is broadcasting and is forbidden by FCC rules.

If you want to join a conversation already in progress, transmit your call during a break between transmissions. The station that transmits next will acknowledge you. In some areas of the country using the work "break" suggests an emergency and indicates that all stations should stand by for the station with emergency traffic. If the word "break" is used too often, it will be a case of the boy who cried wolf and be the cause of someone getting hurt.

If you want to call another station and the repeater is inactive, simply call the other station. (For example: "KC7WRR this is W7HPW"). If the repeater is active and it sounds like the conversation is going to continue for a while, transmit your call between transmissions. When you are acknowledged, politely ask if you can make a quick call. Usually the other stations will acquiesce. Make your call short. If the called station answers, MOVE to a simplex frequency or another repeater, or ask them to stand by until the present conversation is over. THANK the other stations for the interruption. Be POLITE.

It is illegal to transmit without identification. Aside from breaking FCC rules, it's poor operating practice to key your microphone to turn on a repeater without identifying your station. This is called "kerchunking" the repeater. If you don't want to have a conversation, but want to check whether radio works or if you are able to access a particular repeater, identify with "W7HPW testing". This way you can accomplish what you want legally.

It takes time, money, knowledge and energy to operate a reliable repeater system. How often do you stop to think of what goes into keeping a repeater system running, 24 hours a day, 365 days a year? If you frequent a repeater system, or just want to help out, support the organization that owns the repeater. There is no free lunch; if no one supports it, it will disappear!

73, Mark W7HPW □



Photo: Ron Speils, K7RLS

QRV from the SM - PRB-1 for Utah !

On 16 May 2002 during the Emergency Management meeting the subject of PRB-1 was discussed. All in attendance felt it was very important for the Amateur Radio community in the State of Utah to begin working toward the goal of drafting and passing a PRB-1 bill. A number of individuals have volunteered to become members of a committee to work on this effort.

Our initial goal is to draft a suitable bill to have ready for review and comment by mid June. We also will discuss this issue at the UTAH HAMFEST on 12-13 July 2002. If we desire to see this effort pass in the next 2003 legislative session we will need to get amateurs from every county in the state working to support this bill.

We also need to educate our friends and neighbors about how important this is. In addition we must ensure all elected State Senators and Representatives are contacted via email, letters and in person so they understand the importance and value of this effort. If you don't know what PRB-1 is all about please go to the ARRL web page www.arrl.org and do a search on PRB-1. *Continued on page 5 -*

Featured Member: David Smith, KD7LRK



Photo: Ron Speils, K7RLS

This month we are featuring David Smith KD7LRK. David has been in Amateur Radio for about a year. It was his wife Kim, KD7MYZ whom we featured last month who did all of the research on Amateur Radio for him. David expressed to his wife one day that he would like to talk on something much better than CB radio. Something that would require a license to be able to talk on it. He had heard about Amateur Radio, but really didn't really know too much about it.

Kim surprised David with a radio for Christmas a year ago. David then purchased a book on Amateur Radio and started studying. David was already involved in electronics so the test wasn't too hard. He went to the BYU campus, took the test and passed it.

David joined UARC before he ever got his license. He would always listen to the 146.2 repeater. He said those people that he listened to on the repeater were his friends.

David has his Technician license and he is working very hard on upgrading to General. David bought a Kenwood TS-530 and would really like to be able to use it. He even has a dipole up and ready to run. He has been monitoring the ham bands every day. David said it sounds like so much fun

The thing David likes the best about Amateur Radio is providing emergency services. David and Kim have attended several of the ARES meetings and plan to join in the near future. David said that they are also going to attend the emergency preparedness fair that will be held in the Avenues on May 11th. David really enjoys traffic handling. He is also involved in serving as the Net Control station on the third Sunday of each month for the UARC Information Net.

David spent two hours at the QSO party helping Mark Richardson W7HPW sort and mail the QSO cards received from the K7O Olympics Special Event station. David said this sparked his interest even more to upgrade so he could get on the low bands.

David said that he and Kim are going to really be involved in helping with Field Day. David said he enjoyed it so much last year that he is really looking forward of being a part of it this year.

David works as a technician for Rescue Alert.

David we wish you the best of luck on your upgrading to General.

73 N7HVF Linda Reeder ☐

May Meeting Notes - John Lloyd on Repeaters



Photo: Ron Speils, K7RLS

John Lloyd, K7JL, informed and entertained with his delightful presentation on the Intermountain Intertie, an interconnected group of repeaters located across the intermountain West. He began with an instructional video on how repeaters really get fixed [you had to be there], and then showed slides of the many repeaters in the Intertie.

John then explained the mission of the Utah VHF Society's frequency coordination. Repeaters are on fixed frequencies, and coordination eliminates interference. Co-channel repeaters are separated by distance and Utah coordinates VHF repeaters on 20 kHz spacing. John works with frequency coordinators in adjacent states, to avoid interference with their repeaters.

Decisions are made on frequency assignments from data submitted by existing repeater owners. Repeaters on high mountaintops are given greater coverage protection due to their superior range. Frequency coordinators submit their data annually to the ARRL for inclusion in the Repeater Directory and assigned repeater frequencies are reassigned after six months of inactivity.

John then ended the meeting with a brief questions and answers session on repeater usage in general. He put in a good word for the VHF Society, recommending that repeater users join and support the great work they are doing.

More information about the Utah VHF Society may be found on their website at <http://www.ussc.com/~uvhfs>. Click on the Intermountain Intertie for more information on supported repeater frequencies, locations, status, and coverage.

73, Ted KC7PM ☐

June Meeting: Field Day

UARC's June 6 meeting (like most June meetings for the last 43 years) will be devoted to Field Day. There will be pictures and tales of Field Days past and a chance to make plans for this year's event. For those who regularly go, it will be a chance to remember past Field Days, and for those who don't it will be a chance to remember why not.

Field Day, for those who might never have had the experience, is a national contest that UARC enters each year. The object of the contest is to work as many stations as possible from a portable location -- a location in the *field*. The reason for such a contest is to give as many operators as possible an experience under conditions similar to those that might exist during an emergency. Those might include 24-hour operation, a station that must be set up quickly where no facilities are available, and the need for emergency power.

Field Day always happens on the fourth Saturday in June and the following Sunday, (*not* necessarily the last full weekend as a persistent myth claims) which makes it June 22 and 23 this year. UARC's plans include combining the contest with a family campout just south of Payson Lakes. There will be several stations available, including at least one specifically for beginners.

Field Day chairman this year is Brett Sutherland, KC7WRR. Brett is anxious to find people who can help with the planning and execution of this year's Field Day. People are needed for everything from antenna design to garbage detail. Anyone who can help is encouraged to contact Brett at (801) 298-5399.

The meeting will be held Thursday, June 6, at 7:30 P.M., at the Infinia Medical Center, 1255 E. 3900 South

Of course there will be the "standard" features of monthly meetings as well:

- Availability of ARRL books from Fred, the "Book Lady"
- A chance to sign up for badges, hats, and jackets
- The "Elmer Hour," an opportunity after the meeting to get your questions answered by those who have been in the hobby a while
- The "Meeting(s) after the meeting," a chance to enjoy pizza or other gastronomic delights with other hams.

73, Gordon, K7HFV □

Strays

The UARC Board is saddened to inform members of the passing of the now silent keys:

* Matthew John Eltgroth, K9DOU, a ham for 50 years, died April 23, 2002 at age 83.

* Sandra Nadine Smith McCreary, 58, passed away May 14, 2002. Sandi is the wife of UARC board member Lauri McCreary, K7LMM.

K7O QSL Party

The Salt Lake 2002 Winter Olympic Games Special Even station K7O officially concluded with the QSL response party on April 20, 2002. Thanks to all who helped process over 600 certificate requests.

In attendance was Greg Smith, Jordan Smith, Mark Richardson, Lauri McCreary, Brett Sutherland, Dave Player, John Hanson, Rolf Strecktenfinger, Maurine Strecktenfinger, Gordon Smith, Carla Burningham, and Gordon Orr.

A very special thanks to our president, Mark Richardson, W7HPW. Mark hosted

both the special event station and the QSL party. He also designed the certificate (see the illustration). Greg, K7APW, arranged to have the certificates printed on heavy high quality paper. Please see the accompanying photos of all the activity. Stay tuned for another Special Events Station October 12 which will celebrate the 75th anniversary of UARC.

73, Lauri K7LMM □

Volunteers Needed

The Ironman Utah communications team still needs 10-15 more ham radio operators in Utah County on June 8, 2002. If you want to volunteer, please call Nikki Purdy at 370-8056 or visit <http://www.ironmanutah.com>.

73, Trevor Holyoak KD7GHI □

Call For Field Day Volunteers

I wanted to thank all of those who have agreed to help with this years Field Day. I would also like to invite anyone who is interested to help.

The date for Field Day is June 22-23. We need help with all aspects. If there is something you would like to learn more about, now is the time. While working with others you can learn about:

- Antenna setup and tuning
- Remote power setup and options
- Logging
- Coordinating ham events
- ...and many others!

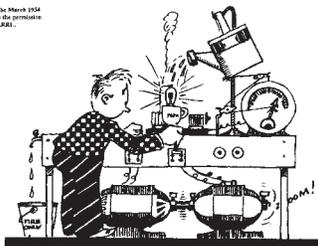
You can contact me as follows:

Home 801-298-5399
Work 801-994-9944 ext 101
bsutherland@rjfs.com
146.62 some evenings

Thank you in advance for your time and willingness to help.

Brett Sutherland, KC7WRR □

Reprinted from the March 1954 issue of QST with the permission of the ARRL.



QRV

Continued from page 3

Read the FCC Memorandum Opinion and Order in PRB-1 released September 19, 1985 then review some of the bills related to PRB-1 that have been passed by other states. New Mexico recently passed a bill that becomes law on 1 July 2002, other states have also done this. We must learn everything about the issues related to PRB-1 so we can educate our fellow hams and friends and neighbors who are sympathetic to amateur issues.

If you would like to become involved with the committee and this effort or have any comments or suggestions please send me an email at ac7cp@arrl.org.

Mel Parkes, AC7CP
Utah ARRL Section Manager □

Putting Up a Tower: Part II

Part I appeared in the May, 2002, issue.



Ropes, pulleys and Mark - Ready to raise the beam.

Finally - warm enough weather and the ground was dry enough to get the tower up to the base. With the help of a pretty big tractor and a really big chain, we hauled it up, swung it over the base, and inserted the bolts. We also installed the lifting fixture that would be used to erect the tower and attached it to the tower with cables and pulleys which fitted right into the fixtures made for them. My tower was on its base and leaned over horizontal to

Photo: John Hansen, K7AR



Photo: John Hansen, K7AR

Tuning the 75/80 meter rotatable dipole on a cold day.

the ground - but it was not touching. It could be raised any time we wanted. I HAD A TOWER!!! We cut the steel bands holding things together, pulled out the 20' mast - 3/8 inch steel walls and a weight of about 300 lbs - installed the rotor, drilled the hole for the lock bolt, and attached mast to rotor. Co-ax guides were bolted on, as was a dipole hanger at the top, and we were done for the day.

The following week, we dug the trench for the conduit that ran from the house to the tower and I spent a few hours gluing and cutting to make the path that would carry the coaxial cable, rotor cable, power lines for the switch box, and the #6 gauge solid copper ground wire that would eventually run from shack to tower - plus any other cables that would ever be run back and forth. The conduit under the house had been installed back in July when the foundation for the house was poured and ran right into the 'shack' at about head height since it was located in the basement. Next, I attached the switch box that would allow me to control electrically which antenna was selected and which made it possible to run only one length of coax through the conduit to the top of the tower. From that switch box ran five lengths of coax, each from 12 to 20 feet, to the five separate connections - three to the 5BA, one to the 40 meter dipole, and one to the 64 foot long 75/80 meter dipole 10 feet above the huge beam antenna.

With conduit installed and a pull-through rope snaked through it with the help of a 'fish line', we were ready to work on the antenna. For this, I called on a real expert - someone who had assembled over a

dozen Force 12 antennas - Darryl Hazelgren (AF7O). This job would only take about 1½ hours, Darryl assured me as we unpacked the boom and elements. The antenna was bigger than either of us thought. Four hours later we had the job essentially done and carried the beam up near to the tower to await antenna raising day. It was late February and I was in charge of doing the 75/80 meter rotatable dipole myself. I knew I could do it after the lessons I had received assembling the beam.

Finally - an acceptable day, but I was as sick as I had been in years. Darryl, Mark and I started the antenna installation, but after a couple of hours and with only the big rotatable dipole attached to the mast with the tower leaned over, we called it quits as snow started falling and the wind

started blowing. The only question in my mind was whether I would die out at the tower or later - inside the house. I had not been much help. I had a business trip to Oregon the next week and didn't know when we would get the job done, but that question was answered just a few days later when, feeling a little better, Mark and I decided the forecast for the next weekend was good and made the decision to go for it. The beam was going up!

We put out the call for help, and the very next Saturday, eight of my friends, including brand new ham Mit and his son Tommy, Rick, Darryl, Dennis, Paul, Clyde, Mark and myself, gathered at the tower. This time I could work, and we cheered the fact that the gooey mud of the week before was gone and we had blue skies instead of snow. The weather was not perfect though - we had wind and hoped the gusts would not make it impossible to raise this huge antenna - 38' boom and 46' on the largest element. As gusts picked up to 50 MPH, we were REALLY glad we had so many helpers. With stabilizing ropes on both ends of the beam and ropes and pulleys secured to its balance point, Mark climbed the tower to the mast and we hauled away. It only took a couple of hours to prepare and haul that big 5BA beam to the top of the lowered tower, attach it, and lean the tower over to tune it and attach cables and coax where they needed to be. We started at 9 that morning and excused everyone at about 11:30 with a heartfelt thanks.

After that it really was a two man job, and by 1:30 that afternoon, Mark and I had everything connected and I had an operational tower with three antennas



Photo: John Hansen, K7AR

Rigging the 5BA to raise in 50 MPH gusts

Covering all bands from 3.5 to 30 megahertz.

The test was that evening, after I had spent the afternoon catching up on errands that had been put on hold all week. Finally, at about 7 PM I sat down in the shack and powered up the radio. I had to leave the tower retracted because of the heavy winds still blowing outside, but I didn't care - this was the test. I tuned up on 15 meters and turned the dial listening for a call. It only took a moment, and at 21.305 I heard it - BA4DX calling QRZ after finishing a short QSO with a station on the east coast. I couldn't believe it, and wished I had the amplifier hooked in. With a barefoot rig at 100 watts, and a tower cranked all the way down because of wind, I rotated the brand new beam to NNW and put out my call. "BA4DX - this is KI7AR". A pause - and then "KI7AR - this is BA4DX. You are 5 8 in Shanghai, China. My name is Ted." I passed a 5 7 back to Ted Wu in Shanghai. We exchanged short greetings, I told him what my equipment was and that he was my first contact on the new tower & beam. We closed our QSO and I relinquished the frequency back to him.

And then?? Well, I let out a yell that brought my wife Karen running to see what was wrong. How could I explain that the noise she was hearing - just like the noise she always heard out of my shack - was different tonight. This night the signal was coming from a place with which I had never talked. It was coming up over Alaska and down the coast of Canada to my brand new tower and beam, and it was as clear as a 2 meter signal. It was magic.

Before the night was over, I had spoken with South Africa and Algeria as well. I spoke with some other folks too, but I had measured my tower in advance by whether or not I could raise South Africa and mainland China, and I had done it. My 2 year journey was a success, and there was no part of the world that was not available to me now. It was all worth it. And - before that night was over - I paused to think of the people who had made it possible. I had raised the money, but that was the smallest part. All of that equipment would still be sitting outside waiting while I learned and struggled if it weren't for the friends and fellow hams who helped me and taught me how to put up a tower and a beam.

12 years ago I had finally given in to a neat

old truck driver I knew who kept pestering me to get my ham license. He had been after me for six years before that and had never given up. I had grown to love this guy, so even though I didn't want to get a ham ticket, I finally gave in just to satisfy him.

That next morning after talking to Ted in Shanghai, Mohammed in Algeria, and John in Pretoria, I got up early at 5:45 AM and talked to Bud in Washington State. I thanked him again for not giving up on me all those years ago and for bullying me into becoming a Ham. I could hear him chuckle over the airwaves, as he said:

"My pleasure, Johnny-o - My pleasure."

John - KI7AR □

2002 UARC Field Day

June 22nd and 23rd, 2002

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 21st. The operating event starts at Noon on Saturday June 22nd and goes until Noon on the 23rd. 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 Brett Sutherland, KC7WRR, Home 801-298-5399, Work 801-994-9944 ext 101, bsutherland@rjfs.com, 146.62 some evenings.



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.

Brett - KC7WRR □

For Sale:

Mosley, 40 meter 2 element beam,
\$100.00.
Call Wally, AE7Y
(801) 768-3636
Wallylh@juno.com □

New Licenses for APRIL 2002

AC7SN	RONALD A YOUNG	BOUNTIFUL	UPGRADE GEN to EXTRA
AC7SU	LYLE R NELSON	EUREKA	UPGRADE GEN to EXTRA
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KA7SEZ	ALAN R CHIDESTER	CEDAR CITY	UPGRADE TECH+ to GEN
KB6BYU	TELVIN MILLS	WEST JORDAN	UPGRADE GEN to EXTRA
KB7YER	MICHAEL S ARVESETH	MURRAY	UPGRADE TECH to GEN
KD7EGN	ELLIOT J WINTCH	SALT LAKE CITY	UPGRADE GEN to EXTRA
KD7ICU	DONALD G MITCHELL	WEST VALLEY CITY	UPGRADE GEN to EXTRA
KD7MXG	TIMOTHY A GOLD	WEST JORDAN	UPGRADE TECH to GEN
KD7NMZ	ELGIE R MILLS	CLEARFIELD	UPGRADE TECH to GEN
KD7PUX	ROY E LAWSON	TOQUERVILLE	UPGRADE GEN to EXTRA
KD7QWT	LARRY D YACK	NEOLA	NEW TECHNICIAN
KD7QXR	JOSEPH L JACQUART	TAYLORSVILLE	NEW TECHNICIAN
KD7QXS	JEFFREY D JOHNSON	SALT LAKE CITY	NEW TECHNICIAN
KD7QXT	J STEWART MANWILL	SALT LAKE CITY	NEW TECHNICIAN
KD7QXU	KADEN R POWNALL	KEARNS	NEW TECHNICIAN
KD7QXV	DAVID R REES	SALT LAKE CITY	NEW TECHNICIAN
KD7QXW	WARREN B STRINGHAM	SALT LAKE CITY	NEW TECHNICIAN
KD7QXX	DAVID R WINN	SALT LAKE CITY	NEW TECHNICIAN
KD7QYW	DAVID A WALLACE	W JORDAN	NEW TECHNICIAN
KD7RBF	RICK W HANSON	PRICE	NEW TECHNICIAN
KD7RBG	GARTH M BASCOM	PRICE	NEW TECHNICIAN
KD7RBH	BARTON C GUNDERSEN	HUNTINGTON	NEW TECHNICIAN
KD7RBI	JANSON J HARDINGER	PRICE	NEW TECHNICIAN
KD7RBJ	MARK T ADAMS	SANDY	NEW TECHNICIAN
KD7RBK	BERNIE M DOUD	PROVO	NEW TECHNICIAN
KD7RBL	IRIS G EATON	HEBER	NEW TECHNICIAN
KD7RBM	CALVIN S KITCHEN	SANTAQUIN	NEW TECHNICIAN
KD7RBN	CURTIS L MEMORY	SPRINGVILLE	NEW TECHNICIAN
KD7RBO	ADAM S NELSON	GENOLA	NEW TECHNICIAN
KD7RBP	BRANDON T PETTY	RIVERTON	NEW TECHNICIAN
KD7RBQ	ERIC L SMITH	AMERICAN FORK	NEW TECHNICIAN
KD7RBR	DAVID S VALERIO	OREM	NEW TECHNICIAN
KD7RBS	ROBERT L WESTBROEK	LINDON	NEW TECHNICIAN
KD7RBT	PAUL K WILCOX	OREM	NEW TECHNICIAN
KD7RBU	QUINTIN E WILLIAMS	RIVERTON	NEW TECHNICIAN



The editor of *The Microvolt* finds that this simple exercise puts him in the proper frame of mind to begin assembling yet another newsletter for UARC.

Thanks to Richard Evans N7PCE for downloading the FCC files

John Bingham, AC7GV □

Blast from the Past

The minutes from the UARC meeting of 7 May, 1931 tell of an upcoming field trip to KLO in Ogden. They were also planning on doing some frequency measurements - seems that perhaps staying within the bands then was a major concern.

Alan - N7OI

Editors Note: Having grown up and started my ham career in Ogden in the 40's and 50's, KLO was prominent in my radio experience and was the first station I heard on my home made crystal set.



From "The Best of Beasley", Worldradio Books

BOY, ARE YOU IN LUCK? -- THAT LIGHTNING BOLT MUST HAVE GONE STRAIGHT TO GROUND AND DIDN'T BOTHER YOUR HANDHELD?

Meeting of May 7th, 1931.

Meeting was called to order by President Green at 9:10 at the home of Russell Shurtliff, 1339 East 13th South.

Minutes of the last meeting were read and approved as read.

Plans were made to visit KLO in Ogden on May 17th to meet at the home of Ed Hardley at 6:30 PM unless further plans were made to change this appointment.

Mr Jones arranged for card design and also for sign etching - cost to be all. Mr Jones described the proposed card and stated that the entire cost would probably be nothing. Other card designs were submitted and examined by the group. Motion was passed allowing Mr Jones to go ahead with his own card design - carrying same out to completion.

Mr Green makes suggestion that it would be a fine thing to have all the club members on the air. Also co-operation to help new stations and operators - particularly in keeping on the bands and in measuring their operating frequencies.

Mr Morgan gave a very interesting talk on High Voltage Rectifiers - his talk being followed by a general discussion on the subject.

Suggestion was made to have talks on Frequency Measurement and on Practical S.W. receivers at the next meeting.

After delightful refreshments served by our host the meeting was adjourned.

L.D.Stearns Secy. Treas.

Remember the Amateur in Amateur Radio

FCC rules Part 97.113 (a) reads
No amateur station shall transmit:

(3) Communications in which the station licensee or control operator has a pecuniary interest, including communications on behalf of an employer. Amateur operators may, however, notify other amateur operators of the availability for sale or trade of apparatus normally used in an amateur station, provided that such activity is not conducted on a regular basis;

Several years ago, the FCC relaxed the rules regarding conducting business on Amateur Radio to the one listed above. Basically, the test is if the licensee has a financial interest in the conversation. In other words, if by asking the question, or making the statement, you could possibly be using ham radio to facilitate your financial affairs, that is not allowed. Sometimes this can be a subtle thing. Perhaps some examples..

Imagine that you are a long haul truck driver and you need to find the RC Willey in West Jordan. If you get on the repeater and ask directions, then you are breaking the rules. You have a financial interest (namely your job) in getting that truck to RC Willey.

Imagine that you are out of work. You hear someone on the air that you know works for a company that you might be interested in working for. You ask the ham if he could give you the name of someone to talk to about a position. Again, one only need ask the question, "Am I making money or COULD I be making money as a result of the answer", to discover that this is not acceptable according to the rules.

Another example. On the way to work your car breaks down. You call home on the autopatch to ask your spouse to get a tow truck for you. So far, so good according to the rules. Then comes the fatal flaw...You ask your spouse to call the office and tell them you will be late. That is where you crossed over from non-financial interest (you need to get off the side of the road) to financial interest (you may lose your job if you do not show up and don't call).

Last one...Your elderly neighbor asks you to take a look at her lawnmower because it will not start. The neighbor says UPFRONT that she will gladly pay you to fix it. Realizing that this is going take all day, you agree to be paid a small sum. Unfortunately, you get stumped on something about the lawnmower. As you are working on the mower, you are listening to the repeater.

You hear Mike, KD7ZZZ who is a lawnmower repairmen by trade. You get on the radio and ask Mike if he knows what kind of spark plug this brand of mower needs. Well, you now have two choices. You can ask Mike and get the help, but you had better forgo the payment from the neighbor because if you accept payment for this, you are now guilty of using ham radio to further your financial gain. Even if you were paid and then gave the money to the local ham store the same day, you still made money with help of amateur radio, and that statement alone is contradictory.

The rules are deceptively simple. I often hear people step right into mistakes like these and not even realize it. The best course of action if someone asks you a question that is obviously commercial in nature is to respectfully say that you cannot talk about that on the radio. A long winded tirade (like this one) on the rules is not warranted (on the air at least). If you do hear someone engaging in this type of behavior, please, please, please contact them OFF the air. Embarrassing someone on the air serves no purpose and reflects poorly on the club and its repeaters, so please refrain from destructive criticism and try some of the constructive kind.

I hope that all the members and repeater users understand the repeater is governed by the same rules every other radio in Amateur Radio is. Just as you are responsible for the transmissions of your home station, I, as the W7SP trustee, am responsible for the repeaters transmissions. If you have any questions about these rules, I encourage you to ask or consult the rule book.

73, Tom Schaefer, NY4I W7SP Trustee
□

Entertaining Uncle Oscar

Reprinted from the August 1939 issue of QST with the permission of the ARRL. Some things change, some never do.

HAM is faced with the pleasant task of demonstrating his station to Uncle Oscar, just in from the country. Leads uncle into the shack and heartily hopes that everything will work, since uncle shows signs of great enthusiasm. Recalls final tank condenser arced four times on last transmission; hopes uncle will accept same as natural phenomenon should it occur again. Prepares for ordeal by turning on receiver, transmitter and soldering iron since past experience has shown that this last item must be used at least once per QSO on the average.

Is glad he has returned to 160 'phone since Uncle Oscar will no doubt find 'phone far more interesting than CW. Uncle mentions that he has heard much about inter-continent amateur contacts and casually requests that his nephew raise Africa or Europe. Ham explains that such things are not done on 160 'phone (and feels like adding' "Or any other band," as far as he is concerned). Uncle Oscar gets very excited and shouts, "I knew them newspaper articles was lies! It's agin the laws of nature to talk to tellers in them places! How could a body talk to someone in China when it ain't every feller what speaks Chinese? Take me fer example, I don't reckon as how I know a word of anything but English."

Ham is not impressed with his uncle's English and feels like telling him to improve it before worrying too much about his inability to speak Chinese, but respect for his elders throttles this remark. Ham decides to impress uncle by drawing sparks off the antenna with a pencil. Sparks are too feeble to excite the ham-mind but nevertheless uncle is interested and promptly wants to light a cigar on the antenna condenser. Ham says it can't be done and leaves room to get matches, since he is afraid of his lighter ever since he "fixed" it and it emitted a seven-inch column of flame, nearly setting his hair on fire.

Ham returns and is horrified to find Uncle Oscar kneeling behind rig with one hand on rack and his nose about a quarter of an inch from cap of one of the 866's. Wonders if it would be best to shout warning, or take more definite steps to enable Uncle Oscar to continue living. Decides on latter course and gently but firmly drags uncle backwards by the ears amid S9 protests at such unfriendly handling. Protests cease after ham explains exact details, taking care to point out that an arc jumping from the end of



One's nose looks silly, even though the victim is in no condition to worry very much. Uncle says he only wanted to see inside of rig and proves his genuine interest in radio by asking: (1) What would happen if a bird sat on the antenna? (2) Does steam come off the antenna if the rig is on while it is raining? Ham is not very sure about the first question and idly grabs the Hand-book to look up under "bird." Is some-what disappointed to find nothing so devotes his remarks to the second question and emphatically denounces idea of steamy antenna.

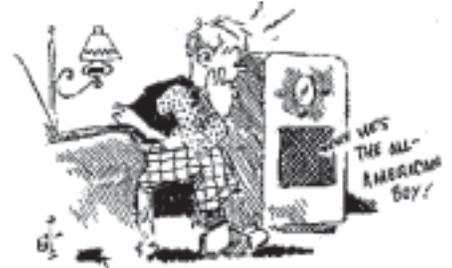
Hunts over band which shows little sign of activity, so puts rig on and calls a long CQ, interrupting same with frequent insulting remarks directed at local hams who might be listening and who might come on the air to defend their honor. Allows uncle to hear transmission by using earphones on receiver. Uncle listens attentively and finally remarks, "Say, this feller's voice sounds a little like your own, don't it?" Ham stops CQ long enough to point out that it is his own and that is possibly why there is some resemblance. Explains to uncle what is happening and continues calling. Looks over the band and is rather pleased to hear local calling him in an irate voice suggesting a QS0 of the 160-meter type. Station calling seems to be using a telephonemike and modulating about seventeen per cent; the quality being very hard to read. Ham opens QSO by asking, "What did you say you were selling?" which remark is calculated to at least trigger off a "different" contact. Meanwhile uncle asks what country the station they are working is located in, and if the operator can speak English. Ham explains station being worked is four blocks away and that the operator is speaking English. Uncle replies that he cannot make out a word that is being said and why not use the telephone if the other fellow is only four blocks away? Ham decides poor quality is main reason for his uncle being unable to understand QSO, so

on next transmission withdraws his report of Q5 S9 and substitutes Q-zero S9, after which he signs off with a few "73's" and several other CW abbreviations which were never meant to invade the 'phone bands.

Ham looks over the band again and hears another local calling an out-of-town station which he happens to know is right on his frequency, so when local stands by he conveniently comes on shouting, "Hello test! " Needless to say other local comes back bemoaning fact that out-of-town station was put out of the picture. Ham says he is very sorry and obligingly supplies a Q5 S9 report followed by a series of highly complimentary and exaggerated remarks regarding fidelity, etc. Lengthy QSO follows during which such topics as rotary beams, 5-meter DX, and YL's are discussed in great detail, most of the detail being reserved for the YL portion of the transmission. Second transmission is utilized to take apart several of the more popular transmitting tubes, which are heartily condemned by both hams. The fact that neither ham owns, or knows anyone who owns, one of the tubes is a matter of apparently little importance. Third transmission deals with popular commercial receivers which are treated with the same derision given the tubes previously. Both hams are unanimous in stating that they wouldn't dream of trading their own home-made receivers for any one of the commercial models which they have just discussed. Neither ham bothers to mention he recently looked over a few catalogs and cast many envious glances at the receivers just panned with such gay abandon.

Ham suddenly remembers his uncle and turns around to find that gentleman sound asleep, despite the fact that radio history is being made. Finally wakes uncle by shouting violently. Uncle jumps up, mumbling unintelligibly, but quickly quiets down and devotes a rather sleepy interest to the QSO which terminates three minutes later when the other ham remembers a date with his YL. Ham feels very disgusted with everything, especially his uncle, and resolve never to undertake further demonstrations for anyone; then mentally decides to make Susie the one exception. Telephone rings and ham finds next-door neighbor wants to know if he is on the air since said neighbor has been bothered with considerable QRM for the last few minutes. Ham simply states he is not on the air, which remark he feels is the

solemn truth, as he is speaking on the telephone at that exact instant and, therefore, is not on the air, whether he was on or not a few seconds previously is a side-issue which ham does not consider necessary to discuss.



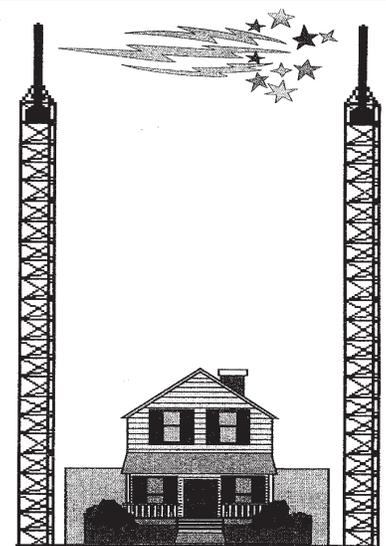
Loud and unpleasant snores very similar in tone to some foreign (and domestic) CW. signals, give audible evidence as to Uncle Oscar's condition. Ham is completely fed up with both Uncle Oscar and 160 meters. Decides to leave them both strictly alone and goes downstairs to listen to Jack Armstrong on b.c.l. set.□

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Bob Wood, W7OAD,
UARC Member



It's that time again ...

June is here and its time to think about the big contest again. Time to dig out the antennas, dust off the radios and camping equipment and head for the hills.

Field Day has long been a favorite activity of mine, from the time I was first licensed in 1973, but that is not the contest this article is addressing. I am talking about the June VHF QSO Party, starting at noon local time on Saturday, June 8th. Rules and announcement are in the May 2002 QST on page 110¹.

Like many of you, I have one of those DC-to-Light, all-mode radios. (If you do not have one, keep reading anyway.)

A couple of years ago I put an FT-100 in my Jeep Wrangler along with an ATAS-100 screwdriver antenna and a nice dual band antenna for 2m and 70cm. This combination allows me to operate from 40m to 70cm (less the 222mhz. Band) mobile.



The Rambling Jeep Wrangler and antenna array

Photos: John Hayes, K7VE

Shortly thereafter, I learned about a crazy activity called "roving!" The "rover" is an amateur station that during VHF and above contest drives about providing grids to the lazy-chair operators.

What is a grid and why would a station need to provide them? Well for those of you that remember vacuum tubes it is not that mesh of wire between an anode and cathode. A grid² is a 1x2-degree rectangle on the face of the earth. Utah has all or

part of 14 such "squares." In Salt Lake County they are identified as DN40 and DN30. You can calculate your grid square from your longitude and latitude, or if you have a GPS, just switch it to Maidenhead³ grids. The reason that grids are important is that they are the common exchange in VHF and above contacts for contests and awards.

In a VHF contest, usually two items provide multipliers for the final score. One is the band where the higher the band, the bigger the multiplier and the other is the total number of grids worked on the band.

Now if you are a lazy-chair operator, you only get the grid once per band per station. In other words, if you work K7VE in DN40 on 2 meters, you cannot work him again on the band for points. However, and this is where the fun is, if K7VE moves to DN30, you can work him all over again for multipliers. That is why I love roving.

The rover station is typically at a disadvantage for antennas. To make up for that, in Utah, we can put a mountain under us. It is amazing what a modest antenna does at 9000+ feet. I still suggest the best antenna you can muster and for SSB/CW/PSK31/ATV operate horizontal polarization. On FM, (Simplex Only) use vertical polarization. Use a beam if you can. I mount beams for 2m, 70cm, and 23cm⁴ on some mast and use an "arm-strong" rotator⁵.

I usually work from at least four grids over the 30 hour contest, but six or more are definitely possible with some planning, since they sort of hug I-15. I also usually take a sleep break.

If you do not wish to rover or only have FM, please get on the air anyway. This contest is open to all license classes. Novices can operate 1.25m and 23cm, where I only have FM gear, but Technicians and above can operate all bands.

Just a warning, this activity is habit forming. These operators like to QSL. You may experience a major 6-meter band opening and spend the rest of your ham career listening to 50.125 MHz. for the thrill of VHF-DX.

Listen for KD7PRN in the contest.

73 de K7VE, John

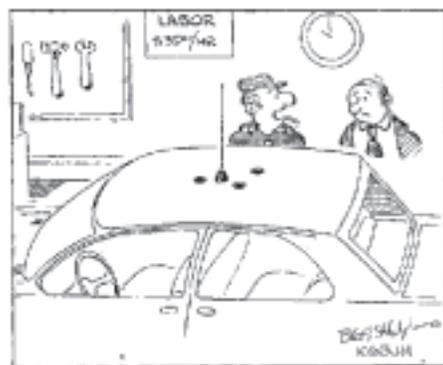
¹<http://www.arrl.org/contests/rules/2002/June-VHF.pdf>

²<http://www.arrl.org/files/contests/ln9404.pdf>

³Your GPS will likely provide a 6-digit designator. Just take the most significant four characters

⁴222/1296 MHz

⁵An arm-strong rotator means you turn the mast with your hand and the strength of your arm.



FROM 'THE BEST OF BEASLEY', WOLFRATO BOOKS

ARRL June VHF QSO Party

Contest! June 8, 1800z (12 Noon Saturday Utah time) till June 10, 0300z (9 pm Sunday Utah time). All bands, 50 MHz and up can be used for QSOs, but only one QSO per band per grid square can be counted regardless of mode.

The exchange is your call sign and grid square. Most of the weak signal QSOs will take place on or near the calling frequencies: 50.125, 144.200, 222.100, 432.100, and 1296.100 MHz. The main simplex FM frequencies are: 50.545, 146.54, 223.5, and 446.000 Mhz.

For more info see QST May 2002 issue, page 110. This information is also on the ARRL web site at <http://www.arrl.org/contests/rules/2002/June-VHF.pdf>.

73 de Dave NJ7A □



Utah Hamfest 2002



ARRL ROCKY MOUNTAIN DIVISION CONVENTION
July 12,13,14 2002 (Friday, Saturday & Sunday)
Ruby's Inn - Bryce, Utah (1 mile north of Bryce Canyon)
 Visit <http://www.utahhamfest.org/> more details

Special Guest and Breakfast Keynote Speaker
Jim Haynie, W5JBP - ARRL President

Activities Include:

- BBQ Cookout / Eyeball QSO Party
- Dutch Oven Dinner
- Breakfast Banquet
- Dealers
- Outside Swap Meet Area Free (Bring your own table)
- Seminars and Forums
- Women's and Children's Events
- Contests:
 - CW, QLF, and Homebrew
 - Mobile Installation,
 - Transformer Toss (a new method)
 - Transmitter Hunts (a new challenge)
- Prize Drawings
- Wouff Hong
- HF Special Event Station
- Amateur License Exams - Pre-Registration Required
- Contact Fred Villanueva, N7FV
 (N7FV@arrl.net or Villa72@Juno.com)

Accommodations:

Ruby's Inn (Special Rates prior to June 21)
 2 Queen Beds \$70
 Pool Side \$90
 Lodge across street \$50
 Contact: **Keith** in Group Sales
Call: 1-435-834-5341 Ext. 7222
 Ask for Special Utah Hamfest Room Rates

RV/Campground:

Accommodations	For 2	For 8
Full Hookups	\$26	\$38
Electric & Water	\$23	\$35
Tent Spaces	\$15.50	\$26.50
Teepee Rental	\$23	\$35
Call: 1-435-834-5301 Fax 1-435-834-5481		

Grand Prize: ICOM 706MKIIG
Pre-Registration Prize: ICOM IC-207H

Registration Information: Mel Parkes, AC7CP ac7cp@arrl.org
Before June 21st Adult (18 and over) \$7.00, Youth (17 & Under) \$3.00 **(No mail-ins after June 21, 2002)**
At the Door: Adult \$10 and Youth \$5.00

Please Print

Please provide your e-mail address so we may send you a confirmation

Name: _____ Call sign: _____ Email: _____
 Address: _____ Phone: () _____
 City: _____ State: _____ Zip+4: _____

Number of Adults:	X	\$7 / \$10	= \$	_____
Number of Youth and their ages (17 & under):	X	\$3 / \$5	= \$	_____
(Youth registrations eligible for youth prizes only)				
Friday BBQ Cookout / Eyeball QSO Party:	X	\$6 = \$		_____
Saturday Dutch Oven Dinner	X	\$12	= \$	_____
Sunday Breakfast Buffet:	X	\$9 = \$		_____
				Total = \$ _____

Names of Additional Attendees:

 _____ Call sign: _____
 _____ Call sign: _____
 _____ Call sign: _____
 _____ Call sign: _____

Must have names and call signs (if applicable) of all registered attendees.

Check or Money orders Payable to:

Utah Hamfest
PO Box 382
Bountiful, Utah 84011-0382