1999 UARC Board Says 73

Photos: Ron Speirs, KC7MVS and Harley Watson, KB7YOI

UARC Board members (and Mel, our ARRL Section Manager) enjoy the annual Steak Fry. By the way, where was Tom?

Volume XLIII Issue 11, December 1999

The MICROVOLT

Periodicals Postage Paid

PLEASE SEND DUES TO:
U.A.R.C.
c/o Russell Smith
2493 South 17th East
Salt Lake City, UT 84109

SEND TO:

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 Russell Smith, 2493 South 17th East, Salt Lake City, UT 84109.

Prologue

The Utah Amateur Radio Club was organized under it's 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, 2493 South 17th East, 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 Santaquin 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, 2493 South 17th East, Salt Lake City, UT 84109.□

UARC 1999 Board

President: Gary Openshaw, KC7AWU	484-3407
Exec VP: Maurine Strektenfinger, K7HOZ	254-1536
Vice Pres: Gordon Smith, K7HFV	582-2438
Secretary: Russell Smith, KC7ZDZ	652-5021
Treasurer: Chuck Johnson, WA7JOS	268-0153
Microvolt Editor: Bruce Bergen, KI7OM	943-1365
Asst. Microvolt Editor: Steve Perry, N7SWP	576-0646
Program Chair: Jack Warren, KC7KEL	268-8069
Program Chair:Linda Reeder, N7HVF	364-7006
Immediate Past Pres.: Tom Schaefer, NY4I	450-7730

Committee Chairpersons and Members

Book "Lady": Fred DeSmet, KI7KM	485-9245
Historian: Ron Speirs, KC7MYS	968-4614
Field Day Chair: Joel Neal, KC7UBP	352-0322

Repeater Committee

Trustee: Ron Jones, K7RJ	561-2685
Engineer: Randy Finch, K7SL	277-7135
ATV Engineer: Clint Turner, KA7OEI	566-4497
Board Liason & Autopatch Engineer: Gordon Smith, K7HFV	582-2438
Provo Autopatch Host & ATV Engineer:Dale Jarvis, WB7FID	224-3405
Repeater Monitor: Allen Wright, N7QFI	268-8482

□

Contents

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. □

For account information go to:
http://www.xmission.com/
Or call 801 539-0852.

The Microvolt

The Official Publcation of the Utah Amateur Radio Club, Salt lake City, Utah

Volume XLIII, Issue 11, December 1999

Photo: Ron Speirs, KC7MYS

QST From the Prez

It has been my distinct privilege and honor to serve as your President for 1999. I could not have done it without your support and help. I hope your will support your new President and new officers of UARC. Please help them and support them.

- We have had some special people work extra hard this year. I would like to thank all of them for their countless hours of service. I will not name names, because I would forget someone important for sure, so I will try to name the projects:
- *The Microvolt* as been superb. Thanks to all those who contributed and worked on *The Microvolt.* (Especially the editor). (No names)
- The UARC club station at the Red Cross Building. Thanks to all those who were involved this year.
- Scott's Hill. Many hours by a few. Thanks for all your help.
- The Repeaters. Thanks to all those who keep the repeaters going. Also thanks to all those involved with the auto-patches.
- Field Day was a great success. Thanks to the chairman and all those involved or had anything to do with field day.
- Steak Fry. Thanks to all those who were involved in Steak Fry. It was a great time and food.
- The Test Sessions - Thanks to all who helped on the test sessions. Special thanks to the one in charge. (No Names).
- Special Events. Scouting events and other special events stations during the year.
- The UARC Ham Hotline- Who is that guy anyway.
- Book Sales- Thanks to those who helped with the books, lifting, buying and selling. Special thanks to the book lady, (No Names).
- Thanks to all those who served on the Board. Your great service and time were greatly appreciated.
- Last but not least I would like to thank you, the membership. As I said before the club is only as good as the members it has.

Let's make the year 2000 even better.

Thank you 73 Gary Openshaw, KC7AWU ❑

Featured Member of the Month

Photo: Ron Speirs, KC7MVS

This month we are featuring David Player KC7NGH. Dave was interested in amateur radio back in junior high. Some of his friend's fathers were in the hobby. Dave has always been interested in electronics and loved trying to fix radios. Even though he was interested in amateur radio he just never got around to doing anything about it. It wasn't until the Christmas of 1994 when his wife Dianne surprised him with the book *Now You're Talking* and a 1,000 channel scanner with a diskcone antenna. Dave read the book and got his no code license on Oct.3 1995. In fact, he received his license three hours before the UARC meeting. This just happened to be the meeting where Mat George, AB7GM, did his presentation on the morse code. After his presentation he was giving away prizes to individuals who just recently got their ham licenses and since it was just three hours ago that Dave got his license he won a candy bar.

Dave is a member of UARC, VHF Society and the ARRL. Field day and home brew night are Dave's favorite activities. Dave said even though he hasn't had time to put together a project for home brew night the is really excited to see what others have put together for home brew night. Dave really enjoys helping people when ever he can. He has put in a lot of hours helping with the club station.

Dave and his wife Dianne have two children a 27 year old son and a 18 year old daughter. Dave does data entry for a tax consultant. Dave said he is really impressed with the progress UARC has made since he has been a member. UARC has their own club station and then there is the project on Scott's Hill. Dave said he has never met so many nice people. He said getting his license and joining UARC is the best thing he ever did.

Dave, we really appreciate all you do.

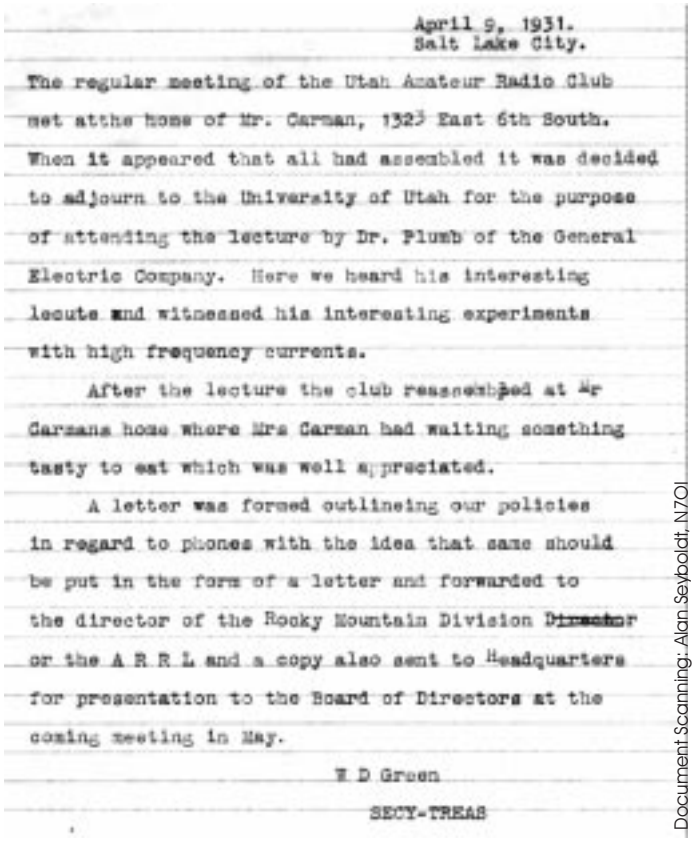
73 N7HVF Linda Reeder ▫

A Blast from the Past

As Alan, N7OI, has reviewed these old minutes of the early days of UARC, he has been struck with the consistent attention to the duty of the Secretary-Treasurer to make an accurate record of the activities of UARC. I wonder if in five , ten, or twenty years we will be able to look back on our records and get an equally clear picture of our club and board meetings?

In this day of the Internet, desk-top publishing, and I-15 road rage, we seem to have forgotten to make an official record of our activities and decisions. The Club Bi-Laws state that "The Secretary shall keep an accurate record of all official meetings of the Club, which may be read upon request." I have been a board member now for seven years and have yet to have had formal minutes taken, read or approved of any UARC meeting. I challenge the new board to turn this seemingly insignificant lapse of official protocol around and renew a commitment to keeping accurate records.

Bruce - KI7OM ▫



April 9, 1931.
Salt Lake City.

The regular meeting of the Utah Amateur Radio Club met atthe home of Mr. Carman, 1323 East 6th South. When it appeared that all had assembled it was decided to adjourn to the University of Utah for the purpose of attending the lecture by Dr. Plumb of the General Electric Company. Here we heard his interesting lecute and witnessed his interesting experiments with high frequency currents.

After the lecture the club reassembled at Mr Carmans home where Mrs Carman had waiting something tasty to eat which was well appreciated.

A letter was formed outlineing our policies in regard to phones with the idea that same should be put in the form of a letter and forwarded to the director of the Rocky Mountain Division Director or the A R R L and a copy also sent to Headquarters for presentation to the Board of Directors at the coming meeting in May.

W D Green
SECY-TREAS

Document Scanning: Alan Seybold, N7OI

Merry Christmas, KA7TGR

With winter, and the holidays coming up soon, its going to be time to make arrangements to establish contact with the North Pole, and Santa, for our annual "Santa Net". I've worked on this "net" before, and it really is a lot of fun. In past years, Jerry Bennion, WR7N, has been instrumental in working with Santa, and the "North Pole Elves Association", as he has a very good working relationship with them. (I suspect it has something to do with his having installed the new fireplaces in Santa's castle, and the Elves dormitories.) Several times as we were doing this net over the years, we've been honored to have even Mrs. Claus talk to the children, and once in a while elves and some of the reindeer will help out too. This net occurs at a very busy time of year at the north pole, everyone there is getting things ready for Santa's annual flight around the world. I remember once having to help an elf troubleshoot the power supply for Rudolph's nose lamp before the net started. We really owe those responsible for putting this net together a debt of gratitude, it can be a great deal of work, at a busy time of year.

If you haven't participated in the "Santa Net" before, you ought to try it this year. It really is easy, and kids really get excited when they get to talk directly to Santa and the elves in the North Pole toy factories, and reindeer stables. It is held on 2 meters, on the 146.620(-) repeater, taking the place of the regular Sunday night information net on the last Sunday night before Christmas. This year it will be on December 19, with a starting time tenatively set for 9 PM. We'll try to start earlier if we can adjust scheduling other obligations on the repeater, so it doesn't get too late for the youngest kids to participate. (Tune in to the Sunday night info. net for updated start times as we get closer to the holidays.)

P.S. Does anyone know if the North Pole, (Santa), has an E-mail address?

P.P.S. How long can Rudolph's nose be left on without his "motor running" before he'll have to be jump started?

Cya, KA7TGR, John ▫

Utah Hamfest 2000

Hi everybody. This is Bob Anderson AA7TR. I have the great honor of being the publicity chairman on the Utah Hamfest 2000 committee. My wife Cathi AB7YL and I are really excited about this educational, exciting and fun ham activity coming up just after the 4th of July next year (Utah Hamfest 2000 is currently scheduled for July 7 through July 9, 2000 at Ruby's Inn near Bryce Canyon). It will be an activity that all hams (new or old, Novice or Extra) and their families will enjoy and will want to participate in.

As publicity chairman it is my responsibility to see that the word gets out about this great activity. There are over seven thousand hams in Utah alone and it is impossible to send each one an individual announcement. What we have decided to do is send periodic announcements to each of the clubs in Utah and also to those that have attended the Utah Hamfest in past years. Also there will be a web page setup. However, many of the new hams and a lot of the OMs/YLs are not members of a club or group or do not attend club meetings and will never hear about it unless a special effort is made to reach every one.

I personally have made a commitment to inform every ham in Box Elder County about this hamfest. Volunteers are needed to get this word out to the hams in their local county, city, community or club. Please let me know if you would like to be a spokesperson like this for the Utah Hamfest. I'll simply add your name to my email list (or if you have no email address to the UBET newsletter mail list). What you do after that will be up to you. No pressure of any type will be used. You will not be disappointed that you did. The Utah Hamfest will be best ham convention ever something you will be proud to recommend to your friends and family http://www.utahhamfest.org/).

73 and Thanks, Bob (AA7TR)

anderra@thiokol.com, aa7tr@efortress.com
Call me at work: (435) 863 5272
Call me at home: (435) 257 3021
Call me on the radio: 145.430- ▫

2000 UARC Board Nominees

Editors Note: I thought it would be instructive to include the official language out of the club Bylaws describing each Board of Directors position. The descriptions below come from Section I of the Bylaws. Section II of the Bylaws is also informative:

Section II.

The Board of Directors shall be the governing body of the Club and as such shall formulate and be responsible for all matters of policy. It shall review all reports of conduct unbecoming a member of the Club and, if sustained, submit the matter to the body of the Club at a regular meeting. In the event of the inability of the President of the preceding year to serve as a member of the Board of Directors, the Executive Vice-President of the preceding year will fill the vacancy. Decisions of the Board of Directors shall be reached upon majority vote; thereupon the President shall execute the decisions so made or the policies so formed.

The Board of Directors shall actually meet in regular or special meeting in order to transact business. The newly elected Board of Directors shall take office immediately following the election meeting. The new President shall call a regular organizational meeting of old and new officers within ten days of the election meeting. The Board of Directors shall normally meet in regular meeting, duly called, once each month.

President:

D) President: The President shall be the administrative head of the Club; shall preside at all meetings; and shall conduct same according to the rules adopted. The President shall enforce due observance of the Articles of Incorporation, and its Bylaws; decide all questions of order; The President alone shall sign all official documents that are adopted by the Club; and shall act as its spokesmen and representative at meetings with other organizations and committees unless some other member is delegated so to act in any instance by him/her or the Board of Directors. A pronouncement shall not obligate or commit this Club unless this obligation or commitment has been specifically authorized by the Board of Directors. The President shall perform all other customary duties pertaining to the office of President. All candidates for the office of President shall have held membership in the Club continuously for at least one year immediately prior to the election date. For election eligibility purposes, membership is considered continuous if it contains only one lapse not exceeding ninety days.

Maurine Strektenfinger KC7HOZ

I got my license on the last day of l994, and have an Extra class license since l997. It has been a real joy to be part of this hobby. Some of the best friends I will ever have, I have met through Amateur Radio. I also enjoy being a VE, and seeing so many people get their licenses and upgrades. I love being part of UARC and serving on the Board, and if elected to the office of President, I will work hard to keep the Clubs high standards , and help wherever I am needed.

Executive Vice President:

E) Executive Vice-President: The Executive Vice-President shall posses all the powers and assume all the duties of President in the event of the absence, disability, refusal, or failure to act, of the President. The Executive Vice-President shall, further, assist the President in all functions of that Office; and shall perform such other duties as are properly assigned to him/her by the Board of Directors.

Alan Seyboldt, N7OI

I have been nominated to run for Exec Vice President for this next year. I have served in the past as Program chairperson and as the President of UARC. As Exec Vice President my job would be to assist Maurine, or whoever is elected President, work with pubic relations for the club, and promote new membership.

I would like to further the use of the Club station by holding the Monthly UARC Board meetings at the Club station site. I have talked with Maurine and if all others on the board agree, this would allow us to have the Club station open every month, for the general membership, at the same time. By having a set schedule for the Station to be open, it would allow many to participate in the use of the club station, and at the same time to observe what the UARC Board is doing in the club planning meetings. If I were asked what I would like to see happen with UARC this next coming year it would be that I ask that each of you look to donate time or volunteer to help in something in the Club. Gary and I had a very hard time finding people to fill positions this year, not because we did not have a large membership, but because many just said some time in the future, but not now. I would ask that each of you evaluate what Ham Radio has meant to you and decide to make this one of the best years the Club has ever had. I am excited to serve under Maurine, she will bring great leadership to our Club.

Vice President:

F) Vice-President: The Vice-President shall posses all the powers and perform all the duties of the President in the event of the absence, disability, refusal, or failure to act, of the President and the Executive Vice-President. The Vice-President shall act as Liaison Officer as required and act as Chairman of the Bylaws Committee. The Vice-President shall perform such other duties as are properly assigned by the Board of Directors

Gordon Smith, K7HFV

I was first licensed almost 40 years ago as a teenager, and ham radio continues to be my favorite hobby. I joined UARC in the early 1960's and had become Microvolt editor by 1963. After something over 15 years in that position, the other officers started looking for positions that might keep me occupied but in which I couldn't do as much damage. At various times I have been Assistant Editor and Vice-President. I seem to remember being President one year, which is odd, because I can't ever remember agreeing to run for that office.

The two Vice-President positions are officially the line of succession in case the President dies, resigns, moves away, or just refuses to perform his duties. Since most of our presidents have been healthy and quite capable of doing the job, the reality has usually been a little different. In practice, the Vice-Presidents take on some of the jobs that aren't explicitly given to another officer. For my part, I have been running the series of UARC-sponsored exam sessions since ARRL-coordinated exams became possible in the early 1980's. We offer tests on the first Saturday of each month for all classes of amateur license. We pioneered (in Utah, at least) the notion of giving the code tests through headphones (to eliminate room echoes), and regenerating the code on a local, sine wave, soft-keyed oscillator, to eliminate tape print-through and allow a choice of pitches. If elected, I hope to continue that series, and to continue contributing to the club's web site and to *The Microvolt*.

Secretary:

G) Secretary: The Secretary shall keep an accurate record of all official meetings of the Club, which may be read upon request. The Secretary shall keep a copy of the Articles of Incorporation and Bylaws present at all times; shall keep these in good order; shall effect all changes and additions in same; shall permit same to be consulted by members upon request. The Secretary shall be responsible for the safe keeping of the Articles of Incorporation and Bylaws. The Secretary shall keep a roll of all members, and the current status of these members; shall keep a roll of members present at meetings; and shall accept all applications for membership; shall carry on all necessary correspondence for the Club; shall read all communications.

Gregg Smith, KD7APW

Greg has been around ham radio for most of his life. His father, Roy, K7YPG, has had a license since the

sixties. After several decades of coaxing from his father, Gregg became licensed in February of 1998. The aspects of ham radio that are most interesting to him are the challenge of learning and experimenting with various antennas and radio configurations. It has been fun to refresh some of the principles learned in electronics and physics classes. The social side of amateur radio is also very rewarding, many new friends have been made. Gregg is currently working to improve his code speed, and further upgrade his license. Gregg owns his own business, and works as a General Contractor doing residential and commercial remodeling. .

Treasurer:

H) Treasurer: The Treasurer shall keep an accurate and current record of all monies received and disbursed by the Club; shall read all bills; shall receipt for all bills paid and monies received. The Treasurer shall pay no bill without the approval of the Board of Directors; shall submit at the end of each quarter an itemized statement of all receipts and disbursements. The Treasurer shall deposit all monies received in the Bank approved by the Board of Directors. The Treasurer shall be the Property Officer and have custody of, and safeguard, keep in good order, and report who is in possession of Club property when the final statements are presented. At the expiration of the Treasurers term all the property and records belonging to the Club will be turned over to the new Treasurer.

Chuck Johnson, WA7JOS

I am pleased to have served as UARC treasurer for the past four years. I would be pleased to serve you for another year. The club is in good financial shape, but could be better. We have been able to provide the usual benefits plus move the .62 repeater and prepare the Scott's Hill site to receive equipment. All of this has been paid for from general revenue and a few donations, but just barely. If the club is to grow and prosper, taking on more projects, we need more members to make it happen. Encourage your non-UARC-member friends to join. $15 per year is CHEAP considering the benefits you receive. Don't make us hold a telethon!

Russ Scholz, K7MRS

(No statement was available form Russ at Press Time)

Program Chairpersons (2):

I) Program Chairpersons, under the direction of the Board of Directors, shall be responsible for the presentation of the technical program features of the meeting; they shall endeavor to promote generally increased knowledge of the radio technique among its members; they shall organize club member activities, plan and recommend contests for the operating benefit, and advance Club interest and activity as approved by the Club. They may call upon any member to assist them in their various projects.

Dick Abbott, K7MZ

I first attended UARC meetings before I was licensed. The programs conducted at the meetings and the helpful people provided the incentive to get my license. I was licensed as a Novice in 1985 and finished the licensing process with my Extra in 1988. I continue to be interested in learning more about ham radio and have gained a lot from club meetings and field days. I have an interest in emergency communications where ham operators really "pay their dues." I am just getting started in DXing and contesting now that I have an HF antenna system that reaches farther than California. I hope to make club meetings interesting and make each of us stretch a little in gaining new knowledge about our hobby.

Darryl Hazelgren, AF7O

Darryl Hazelgren, AF7O, was born in California and reared in Utah. After a 30 year career in the computer industry he has just become a Realtor and works with Mansell & Associates. First licensed in 1959 as KN7KPQ he quickly gained his General class license and dropped the N. He gained his Advanced class in 1976 and became an Extra class licensee in 1978 as AF7O. After a period of inactivity which led expiration of his license, he was required to retest to gain his new Extra class call of WA7S. In 1996 he requested and got his old AF7O call under the vanity license program.

Darryl's main interests in radio are HF DXing and contesting and HF mobile. His preferred mode is cw but, he is equally comfortable on phone. He has 283 countries worked toward DXCC and has "a few more to go" on 80 for 5BDXCC. He has just discovered the IOTA program and has 235 islands worked.

His most recent interest has become DXpeditioning. In 1996 he participated in the VK9WM operation on Willis Island in the Coral Sea. In 1998 he went to the Maldives as a part of 8Q7AA and to Burma as XZ1N. He will return to Burma as XZ0A for a new prefix and IOTA in January, 2000. He is also a Trustee of N7WU the Great Salt Lake Contest Club which has be very successful in recent years during Field Day.

Linda Reeder, N7HVF

If I am elected I will do my best to help get interesting people for our meetings. I am always open for suggestions. I really enjoy helping UARC.

Editor:

J) Editor: The Editor shall carry out all duties pertaining to, and be responsible for, the maintenance and the publication of THE MICROVOLT, the official paper of the Club. The frequency of the publication shall be determined by the Board of Directors in accordance with U.S. Postal regulations. The date of mailing should be at least one week prior to each general meeting. The Editor shall mail all notices of meetings, shall carry on all correspondence necessary to the office; shall maintain a mailing list. The Editor shall submit monthly bills for the maintenance and publication of the Club paper, and shall be reimbursed for the expenses in connection therewith.

Manford Gooch, AB7PM

As a fourth grader, in 1950, Manford was first interested in amateur radio, when he and some SWL friends got together and started building their own radios. He passed his no code license exam in January of 1996 and now holds an Extra Class License, AB7PM. Earlier in his life he was involved in commercial radio broadcasting. He was a disc jockey and an announcer for television. Manford also did lab work with electronic equipment which lead him into the field of medicine.

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 but felt being Editor, and the flexibility of working his own hours would be a good way to contribute to the club.

Assistant Editor:

K) Assistant Editor: The Assistant Editor shall assist the Editor in maintaining and publishing the official Club paper and perform such other duties as properly assigned him/her by the Board of Directors. The Assistant Editor shall assume all duties of the Editor

in event of the Editor's absence, disability, refusal, or failure to act.

Charlie Kimball, KC7QQD

(No photo available at press time)

Born, 1961. Grew up on the East coast (Maryland, near Washington, D.C.). Died, ...? I'm an EE doing software at Evans & Sutherland (last 5 years). I have two wonderful children, who keep me happy and on my toes (Alicia, a 13 year old daughter, and Billy, a 7 year old son, who may be 8 by the time you read this). I'm a widower -my wife died 5 & 1/2 years ago, and I'm NOT re-married (hint, hint). I got my HAM license 3 or 4 years ago (no-code tech, which may be tech-plus by the time you read this). I dropped out of the hobby for a couple of years, but decided to get back into it in the last year, and I'm enjoying it and the friends I've made tremendously. I'm trying to get my code speed up to 13 wpm, so I can get my General class license by the end of the year (~ 9-10 wpm now). And, I have no qualifications at all for Assistant Editor, except a willingness to try, and
a desire to be more involved. If elected, I'll try not to muck things up horribly (however, if someone else is running, I'll probably vote for them).

Bruce Leonard, KJ7HZ

My first introduction to amateur radio was when I was about 11 or 12 years old. My father built a short wave Heathkit receiver. I watched him for hours as he constructed it during the evenings on the kitchen table. He eventually finished the radio and installed just a small wire antenna on top of the house in order to receive shortwave broadcasts. I was fascinated by all the sounds I heard on this radio. While I never pursued the hobby at the time to become licensed, I remember vividly spending hours with him listening to hams talk around the country and world as well as listening to WWV to make sure our watches were correctly set. After awhile, my interest shifted to other areas and I never became licensed. Now, fast forward to adulthood. I can now contribute my re-establishment with amateur radio because of my father-in-law, Eugene Christensen -KC7CSE. We started out by using CB radio to stay in touch with each other due to a lot of camping trips. After a bit,Eugene got tired of the CB noise that was on the air and decided to go for his ham license. At the time, I really didn't have any interest in ham radio. Shortly after he received his license, he was at my house and had his 2m radio on. After listening to it for about 5 minutes I decided that this form of communication was a lot better than just regular CB. I then decided that I wanted to get my license. I studied the *Now Your Talking* handbook and eventually passed my No Code tech license. I have since advanced to Advance Class and have enjoyed the hobby ever since. I have spent time on 20, 40 and 80 meter voice as well as 80 meter RTTY and HF APRS and VHF APRS. My interest in APRS is due to the help of a another good ham friend - K7IP -Doug Wetzel. I eventually plan on getting my Extra Class license...as soon as I get around to passing the 20 wpm test. :-) ▫

Utah APRS Conference Announced

A full-day conference for those interested in APRS (the Automatic Position Reporting System) will be held on Saturday, December 4, from 10 AM through 5 PM Tom Schaefer, NY4I, tells us the location will be either the American Red Cross Building, or the Harris Communications Office. Check here for more information when available.

APRS uses packet radio to let operators watch a computer-displayed map and track the movements of GPS-equipped stations. Using interties between radio and Internet, it is possible to track stations all over the country.

A Utah group is working to get more digipeaters up on the national APRS frequency, 144.39 MHz, and to get more operators interested. For more information, check the Utah APRS Web Site. Anyone interested may want to subscribe to a new mailing list devoted to Utah APRS activities. To subscribe, go to http://www.onelist.com/subscribe.cgi/utahAPRS

Another option for those interested in getting more information about APRS is a voice net now being held on Sunday evenings. Tom Schaefer, NY4I, is in charge of the net which is held at 8:00 P.M. on UARC's 146.62 MHz repeater. Additional net control stations are needed. ▫

Intermountain Area Amateur Radio Organizations

Amateur Radio Venture Post 1973, Utah National Parks Council, is a coed Venture Scout post open to all young men and women ages 14-20. The post is supported by a committee of hams over the age of 21. The post meets on the third Wednesday of each month at 7:00 at the UVSC Provo campus, and holds a net on the 147.34+ machines on the first Wednesday of each month at 8:30 PM. Post members provide communications for various parades and Boy Scout functions and participate in other ham groups. Contact person is Post President Sariah Whitehead KC7KEI 465-3983, Committee Chairman Derick Wolsleger KC7KRS 465-1134 KC7KRS@ucares.org , or Advisor Terry Gardner N7QGA 785-7517 jerrygardner@juno.com .

Borderline Amateur Radio Club (BARC) based in the Uintah Basin operates repeaters located in North Eastern Utah. The club repeaters are Blue Mtn. 147.100 (wide coverage), Grizzly Mtn. 147.040 (linked full time with the SDARC repeaters), and the Duchesne rpt. 147.260. Other local repeaters are the Tabby Mtn. 147.240 (wide coverage linked with 147.140 machine covering the Wastach front), Roosevelt rpt. 145.490 (linked full time with the SDARC repeaters), and Blue Mtn. 449.950 (PL 114.8). All VHF repeaters follow the state band plan and are PL toned for 136.5. The club holds a weekly net on Monday evenings 2100 hr. (Mtn. time) on the 147.100 rpt. Contact person: Jay Hansen/KA7BPB email: ka7bpb@ubtanet.com. Club home page can be found at http://ecso.com/barc/ .

BARC or The Bridgerland Amateur Radio Club Monthly club meetings are held each second Thursday of the month at 7:30pm at the Hyde Park City offices building, 113 E. Center St., Hyde Park (except June, July and August). They hold a net at 9:00 PM on the146.72 repeater on Mt. Logan (hard linked to 147.26 on Promontory) every Tuesday. Their contact person is Tyler Griffiths, N7UWX at (435)752-7269. Postal mail address for the club is: BARC, P.O. Box 111, Providence, UT 84332. WebPage URL is http://www.w7ivm.org/

BYUARC (Brigham Young University Amateur Radio Club) is open to all alumni, faculty, staff and student of BYU. The club maintains the145.33(-) repeater that has a closed autopatch (members only). The dues of $15.00 covers autopatch usage for a whole year. The club also has a shack with a variety of equipment. Members have the opportunity to provide emergency communications for the campus. Meetings are held the first Thursday of each month, and the location varies. The information line for the club is (801)378-COAX, or you can contact the president Alan Pippin, KC7YIZ, kc7yiz@byu.edu . Club webpage URL is: http://byuarc.clubs.byu.edu/

The **Cache/Box Elder Volunteer Examiner Team** headed by Niko, AA7OL offer ARRL VEC exam sessions in Mantua (between Brigham City and Logan) every second Wednesday 7:00 PM (Local Time). The team maintains a website at http:/www.geocities.com/aa7ol and can be reached by phone at 435-512-5919 (Niko) or 435-723-1947 (Jim).

Colorado Connection Repeaters, Inc. The Colorado Connection, is a unique statewide two meter linked FM radio system with additional coverage into adjacent states including eastern Utah. The Colorado Connection is not a club with dues and membership, instead it is an organization of volunteers funded thru donations. Currently the repeater system provides coverage to about 80-90% of the state's population and about 50-60% of the area. More information can be obtained on their excellent webpage at http://www.colcon.org/index.html.

The Davis County ARES conducts a Net each Thursday night at 7:00 P.M. on 147.42 simplex.

DCARC (**The Davis County Amateur Radio Club)** meets the 2nd Saturday of each month at 10:00 A.M. The Davis Club operates the 147.04 and the 449.925 (normally cross-banded to 147.42 simplex) repeaters. For further information please contact Clark Dowding, N7TDT at 296-1797. The Club Webpage URL is http://www.xmission.com/~dcarc

Dixie Amateur Radio Club (DARC) meets every third Wednesday in the basement of the Washington County Administration Building, in St. George, UT. Sunday Night Net 7 PM local time on 146.910 with an alternate frequency of: 145.450. Contact Person; President Bob Palambo K9ZWH P.O. Box 422 Santa Clara, UT 84765. E-mail, palambo@infowest.co Club Wepage: http://www.infowest.com /DixieSun/suar/index.html

Eagle Rock Amateur Radio Club Idaho Falls, Idaho operates the 146.640 and 146.740 repeaters. Club meetings are held the 1st Wednesday of each month in

Room 22 of the John Sessions Building on the Eastern Idaho Technical College at 7:30 PM. A net is held every Tuesday night 9PM MST on the 146.640 MHz Repeater Contact person is club president, Chuck Olsen, N7PME, phone (208) 523-7948, email hamradio@ida.net . Club Webpage is ttp://www.ida.net/org/hamradio/

Emergency Response Radio System (LDS Church Welfare Square Station KD7DUB). Utah Area North, Emergency Response Radio System Net is held each Thursday at 2100 Hrs local 0300 UTC on the 145.45 MHz Repeater System. Contact person is David R. Haag, KC7PVD, ERRS Communications Board, Welfare Square, email kc7pvd@erda.net.

The **Elko Amateur Radio Club** (Nevada) holds its monthly meeting the fourth Saturday, 10:30 Pacific, at 557 W. Silver St., Suite 202, Elko. They conduct a weekly net on Wednesday at 19:30 Pacific on the 449.75 (down 5 MHz) in the Elko area and 146.91 in the Battle Mountain area. Contact person for the club is Bill Hance, KD7CWA, phone (775) 777-3344, Email bhance@rabbitbrush.com. Email for club business is ki6v@sierra.net Club Webpage URL is http://www.expage.com/page/earc.

The **Evans & Sutherland Radio Club** is currently inactive. The club callsign is KC7LCX. Trustee and President is Alan Brubaker, KO7X. For more information contact Alan Brubaker at 600 Komas Drive, Salt Lake City, telephone (801)588-7212 or email alan@es.com .

Grand Mesa Repeater Association (Not to be confused with the Grand Mesa Repeater Users Group). Http://www.gmra.org Operates the 449.300 Mhz (107.2 PL) on the Grand Mesa, (just east of Grand Junction) -Public Open Machine. They support several other repeaters on the Grand Mesa; Abajo Peak, UT; Bald Mesa, UT; Baxter Pass, CO and operate as an affiliate of the Cactus Radio System (Private System). Gary Hanson, KB0SW, the president can be contacted :kb0sw@gmra.org

Grand Mesa Repeater Users Group, Grand Junction CO, operates repeaters located on the western slope of Colorado with coverage of west central Colorado and eastern Utah. Repeater Frequencies are 145.145, 145.22, 146.82, 147.39 and 147.57 (simplex remote) that are linked together on a full time basis. 147.12 and 147.36 are linked part time from their end. Contact Person: Robert Kirner - NØMBJ Mail: 3087 Bookcliff, Grand Junction, Co. 81504. Webpage URL is: http://www.bewellnet.com/fgriffee/

The High Valley Net from Heber City, which has in the past met every Monday at 9:00PM on the 147.18 repeater, is currently inactive. Their contact person is KB7RAC, Brian Menzel.

Idaho Society of Radio Amateurs has two chapters serving South Central Idaho: The Magic Valley Chapter and Mount Harrison Chapter. Magic Valley is a general purpose organization and Mt Harrison exists to support several repeaters including: 146.06 in Jerome, 146.16 in Twin Falls, and 146.16, 449.20, on Mt Harrison near Burley. They also support the ATV Repeater on Mt Harrison with a 434 MHz Uplink and 1253.125 MHz Downlink. Contact person for the Magic Valley Chapter is WI5E, Joe Herring Twin Falls (208)736-7027. The club's monthly meeting is 7:00 PM the 2nd Wednesday in Shields Building, Room 102, College of Southern Idaho in Twin Falls. ISRA has a Webpage with links to both chapters at http://netnow.micron.net/~wb7cyo/isramvc.htm#C.

IREAN or **Intermountain Repeater Emergency Amateur Network** based in Salt Lake City, Utah is a collection of 222 MHz repeaters spread across the state. It is an open 222 MHz linked repeater system for amateurs of all license classes. The IREAN system also provides open autopatches, frequency-agile remote bases, voice messaging and telemetry of weather and site conditions. Contact person is Bruce Larner WB6CDN, Riverton, 801-278-3516. IREAN maintains the following repeaters Riverside 223.9, Little Mountain 224.5, Kaysville Peak 224.0, and Ensign Peak 224.82.and a link to the SINBAD system. Monday and Tuesday at 19:55 scheduled announcements are made immediately prior to the Mt Harrison and Utah VHF Society Nets respectively. The organizations webpage URL is: http://www.asd-webtec.com/irean/ .

JARS - Juab Amateur Radio Society of Nephi has a club call sign of KD7AGX. The Club newsletter the *JARS Roundtable* can be viewed on the Club's website: http://members.xoom.com/kf6lor/jars.html Dues range form $3 to $5 depending on the status of the prospective member. They hold a weekly net on 2 meter simplex, 144.330, at 20:00 Mountain Time on Thursdays. Club contact person is A. J. Grantham, KF6LOR, who can be reached at (435)623-1179, and emailed at kf6lor@broadcast.net.

KC Amateur Radio Club, Kanab, UT. Contact person is Phyllis Stewart KC7AOR President. Her address is 311 E. 100 S. Kanab, Utah 84741. The club meets on the second Tuesday of each month at 7:00 PM. The meeting is held in the Social Hall of St. Christopher's Catholic Church. Harvey Zilm AB7UT is secretary-treasurer and can be reached for info at harveyz@xpressweb.com .

Las Vegas Radio Amateur Club, Las Vegas, Nevada meets the second Tuesday of each month at the Nevada Power Company building on Vest Sahara, near the intersection of Sahara and Jones. Meetings at 7: 00 p.m. On non meeting nights, the club sponsors a net on the clubs' K7UGE repeaters. Located atop the Tropicana Hotel, the frequencies are 146.940 (100.0 Hz) and 449.700 (127.3 Hz). To find more information on the LVARC, visit our web site at http://www.lvrac.org. The club also has an email reflector for general information, announcements, and discussion. To subscribe, follow the link on the web page, or, if you lack full Internet access, send a blank email to: lvrac.org-subscribe@listbotcom. The club also maintains an answering machine. The telephone number (702)243-8672. To correspond to the club via the postal service, write: PO Box 27342; Las Vegas NV 89126. Contact person is Tom Allen, N7GBJ (702)362-8107. If any of the above modes communications are foreign to you, remember, you are a HAM, listen to the QST message on 146.730 (no CTCSS, -offset).

Las Vegas Repeater Association (LVRA) owns and operates VHF and UHF amateur radio repeaters throughout Southern Nevada. The following are its open repeaters: 146.88 (PL 100, linked to the Snowbird system), 145.11, 147.99, 449.150 (PL 127.3 & linked to Arizona). The coverage and linkages of these repeaters are detailed on their web page: http://www.hxo.com/ . Contact association President Craig Brunson n7tsz@anv.net

MARA or **Mercury Amateur Radio Association** is a world wide group of radio amateurs dedicated to training and traffic handling for emergency operations. They conduct VHF nets each Wednesday at 9:00PM. They also conduct health and welfare traffic net on 3.873 MHz (80 meters). The Salt Lake area is on the 146.74 repeater and their contact persons is Willy Peake N7VVL at 446-1144. The Ogden area is on the 145.49 repeater. The Utah county area is on the 145.37 repeater with Walt Nicholes, President, WA7YPL, 224-0668, wnichole@nuskin.net or nicholes@inet-1.com , as their contact person. The Provo/Utah Country group maintains a webpage at http://physc1.byu.edu/~peterson/marautco.html Their general site is http://www.mara.net .

Northwest Colorado Amateur Radio Association draws its membership from Jackson, Routt, Moffat and Rio Blanco Counties in the Northwest corner of Colorado. They support The Mt Weavers repeaters 147.210+, and 449.650-phone repeaters, plus packet and Colorado Connection links at this location. In addition they operate Magnetic Mt. repeater 146.730- and packet system on 441.050. Their website can be found at: http://www.cmn.net/~ssarc/

OARC or **Ogden Amateur Radio Club** meets the 3rd Wednesday of each month in Ogden at 7:00PM. The meetings are held at the Red Cross building at 2955 Harrison Blvd. Members and nonmembers are invited. Dues are $15.00 per year and can be sent to P.O. Box 3353, Ogden, UT 84409. OARC supports the 444.60, 146.82, 146.90 and the linked 146.92 repeaters, all with a PL of 123.0. The OARC Web Page URL is http://www.softcom.net/users/ke7wi/oarc. The contact person is Greg Moore, KD7BPQ who can be reached at 782-3064.

Payson High School Amateur Radio Club (KC7PJY) is composed of students who are interested in radio communications at Payson and Springville High Schools in the Nebo School District. The Club holds the call sign of KC7PJY. Club advisor is Bob Strange, K7VVU, 754-3535 and can be reached via email: srobert@admn.phs.nebo.edu. Co-advisor is Reed Thomson, N7YVJ.

Rainbow Canyons Amateur Radio Club of Cedar City meets at 7:30 PM the 3rd Tuesday of each month in the FAA Building (north door) at the Cedar City airport. They sponsor the 146.94 Frisco Peak WR7AAA repeater (part of the linked Snowbird system), and the 146.76 Iron Mountain repeater. Club president is Larry Gaboury, KC7VAV. The URL for their webpage is: http://www.netutah.com/rcarc/ .

RMRA: Rocky Mountain Radio Association is open to all Utah hams and they support the 447.900, 448.800, 448.400, 448.700 + 6 M gateway repeaters. Contact Marc Peterson KB7YJJ at 977-9845 for information. They also house other affiliated repeaters: 447.450 linked to 146.660 Manti system . The URL for their webpage is: http://www.inconnect.com/~rmra/ .

Salt Lake County ARES (Amateur Radio Emergency Service) conducts a net each Wednesday Night at 8:00 PM on the 146.88 repeater (PL tone of 88.5)(Note: for the net they tie together the 146.88 repeater with 449.90 repeater). All amateurs are welcome to participate. Their in-person meeting is held the third Wednesday of each month. For more information please contact Don Scarlet N7DIZ at 278-3204. Call the ARES Infoline, 333-7400, for the upcoming in-person location and other info. Their webpage URL is: http://www.members.home.com /slares/

The **Ski Country Amateur Radio Club** in Glenwood Springs operates the 146.880 MHz, 447.100 Machines on Sunlight Peak, and the 146.670 Machine (all 107.2 PL) on the Snowmass Ski Area. Membership is open to anyone, dues are $35. Home Page is at http://www.geocities.com/k0rv/.

Sinbad Desert Amateur Radio Club (SDARC) meets the first Thursday of each month and rotates between at least two counties, Emery and Carbon, (South Central and Eastern Utah) during winter months either in local restaurants or individual homes, during spring, summer, fall, we try and get in several camp-outs. The Club conducts a net on Tuesdays at 2000 local using their entire system. SDARC sponsored repeaters are linked together on a full time basis and cover most of Eastern Utah with the following repeaters: 147.06 Horn Mountain, 145.31 Ford Ridge, 147.14 Cedar Mountain, 147.32 Bruin Peak, 146.61 Abajo peak,146.76 Bald Mesa (linked), 146.90 downtown Moab (linked). Other repeaters not full-time linked to the system include: 447.700 Horn Mountain, 223.920 Skyline Drive, 224.480 Navajo Mountain, 448.550 Cedar Mtn., 145.43 Dwntwn Price, 442.025 Star Point, Club Dues: $25.00 First Year. $20.00 Each Year thereafter. Contact Person: Communications -Jim Anderson, KG7BC, Email jima@ecso.co.emery.ut.us . The Club has a webpage at: http://ecso.com/sdarc.html .

SPARC or **Saltlake Peaks Amateur Radio Club** (sponsored by L3 Communications In Salt Lake City) normally meets the 2nd Wednesday of each month at Noon in the L3 Communications Building "F" Canyon Conference Room (640 N. 2200 West, Salt Lake City, UT 84116). The club promotes community assistance, along with enhancement of communication skills and engineering techniques. Dues are $12 per year. SPARC supports the 448.050 repeater (callsign KC7NAB) and conducts an emergency committee net there each workday at 7:05 a.m. The current president is Phil Speckart, KD7CGC, who can be reached during working hours at (801) 594-2485. SPARC also publishes "The Signal" monthly. The editor is Rick Donkin, KA7MMM, who can be reached on workdays at (801) 594-2167 (email to: donkin@csw.L-3Com.com). Webpage for the club is at: http://sparc.csw.L-3Com.com/.

UARC or **Utah Amateur Radio Club** meets the first Thursday of each month except the months of July and August. The meeting is held in the Doxey-Hatch Medical Building located at 1255 East 3900 South in Holladay (a Salt Lake City suburb), across the street from St. Marks Hospital at 7:30 PM. There is a newcomer's meeting held prior to the main meeting 7:00 PM. UARC conducts an information net every Sunday nite originating on the 146.62 Farnsworth repeater. UARC maintains the following repeaters: 146.62(-), 146.76(-), and 449.10. The UARC Webpage can be found at http://www.xmission.com/~uarc/ . -mail can be sent to uarc@xmission.com. The Club (UARC) has a Ham Hotline, 583-3002. Information regarding Amateur Radio can be obtained, including club information, testing, meeting information, and membership information.

UBET (Utah Box Elder Thiokol) holds a net every Wednesday at 8:00 PM on the 145.43, 448.300 p.l. 123.0, 145.29 repeaters. Contact Wayne Jensen AB7TS for details about net. Although the club is sponsored by Cordant Technologies (formerly Thiokol) many of it's members are not employed there. The majority of the club members live in Box Elder County but many also live in Cache and Weber Counties. Club meetings are held the first Tuesday of every month at 7:00 PM at Mills Montessori School 575 N. Main Brigham City. Dues are $15 per year. Club President is Bob Anderson AA7TR, Email anderra@thiokol.com . Their webpage URL is: http://members.xoom.com/ubet/ .

UPRA (Utah Packet Radio Association) is open to all radio amateurs interested in packet radio and its applications, including TCP/IP, high-bandwidth, and digital repeaters. The purpose of the club is to coordinate packet activity within the state and interface to adjoining states. Meetings are scheduled as necessary, and there are no dues (at this time). For more information contact Jack Christensen KD7NX at (801)581-0897 or email jchriste@sisna.com .

The **University of Utah Radio Club** is open to

University staff, alumni and students. There is a fully equipped station available 24 hours a day. Their contact person is Marvin Match, KA7TPH, MEB 2575, at 581-8761 or Clint Turner KA7OEI at 566-4497, Email: ka7oei@uugate.wa7slg.ampr.org.

The **Utah APRS User's Group** holds a weekly net on Sunday at 8:00 PM on the 146.62 repeater. The purpose of the net is to exchange information about APRS and packet in the state of Utah. All hams with an interest in APRS and/or packet are invited to check-in. The Utah APRS User's group host a website at www.qsl.net/utahaprs.

Utah Army MARS (Military Affiliate Radio System) VHF nets are held Monday, Wednesday and Thursday at 2100 local. Frequency is 143.99 recv 148.01 xmit. Membership information can be requested from Bill Spatz, N7OKD, bspatz@earthlink.net, (801)774-8772 State MARS director for the Army, or Dave Christensen State Training Director (801)936-9242. The Utah Army MARS webpage is: http://osm7.cs.byu.edu/people /dubois/MARS/index.html .

The **Utah Contest Club.** The President is Jim Lawrence, W7CT mail to w7ct@qrq.com. The club callsign is NC7J and the trustee is Matt George, NG7M mail to: ng7m@qrq.com. If you are interested in learning more about the UCC (and or contesting in general), contact W7CT Jim Lawrence at (801)546-4399 or send email to mail to: w7ct@qrq.com. The Utah Contest Club also sponsors the "NC7J Utah DX Packet Cluster". Information about the "NC7J Utah DX Packet Cluster" can be found at: http://nc7j.qrq.com

Utah County ARES holds their general meeting the first Tuesday of every month at 7:00 PM. They also conduct a net each Tuesday at 9:00 PM on the 147.34 repeater. The contact person is Derick Wolsleger KC7KRS phone 465-1134 email : kc7krs@ucares.org Their Webpage URL is: http://www.ucares.org/

The **Utah VHF Society** is a group dedicated to maintaining and operating a system of repeaters in the state of Utah. Dues are $10.00 per year and can be sent to PO Box 482 Bountiful, UT 84011-0482. The Utah VHF Society holds a swap meet annually, usually on a Saturday in February. The Society holds a traffic and swap net for its members each Tuesday night at 8:00 PM on the 146.940 repeater (PL 88.5). Contact is Eldon Kearl KB7OGM at 571-9955. The UVHFS maintains a webpage at http://www.ussc.com/~uvhfs/ .

Voice of Idaho Amateur Radio Club is a Boise, ID based organization. They maintain the following repeaters: 147.24 Cinnabar Mtn; 443.600 Cinnabar Mtn; 146.840 Shafer Butte (PL 100) with an emergency autopatch; 146.620 Snowbank Mountain; and 443.850 on Lone Mountain, near Baker, Oregon will be relocated to somewhere in the Treasure Valley for local coverage on an interim basis. The VOI net meets every week on Thursday evening at 8:00 PM. on 147.24, 443.600, and 146.62, which are linked during the net 147.240 and 443.600 cover all of southwest and southern Idaho (as far as Twin Falls normally) and south sometimes to Winnemucca, Nevada. 146.620 covers all of west central Idaho as far east as Stanley and west into Oregon. Club Contact person is N7HQT Jeff Shinn, email jshinn@compuserve.com. The VOI website URL is: http://www.interplus.net/~voi/. Mail address is Post Office Box 812, Boise, Idaho 83701.

The **West Desert Amateur Radio Club (WDARC)** Meets the 1st Tuesday of each month (Except Jul. & Aug.) 7:00 pm at the Tooele County Courthouse, 47 S. Main St. Tooele, UT 84074. Meeting room is in the Tooele County Emergency Management Conference Room located in the basement of the Courthouse. Access is Via the Public Safety Entrance at the Sheriffs Department off of Vine St. next to Clair's Auto Repair 64 E Vine St. A net is conducted on the 3rd Tuesday of each month at 7:00 pm on the 146.980 / 145.390 linked repeater system. WDARC supports four repeaters; the 146.980 / 145.390 Linked System (Delle; I-80 & Vernon, UT Rt. 36); 147.300 Tooele City PL 100.0 Hz; and Wendover Peak, Wendover, Ut. 147.200.Contact person is Gene May KC7MBF (Public Relations) (435) 882-1222 or David Haag KC7PVD Secretary at P.O. Box 208 Tooele, Ut. 84074-0208. E-mail contact is Dave Haag, KC7PVD KC7PVD@erda.net

Wood River Amateur Radio Club is located in the Sun Valley Idaho area. WRAC supports the 147.18 repeater on Della Mountain in Hailey. They conduct a net on that repeater on Tuesday nights at 8:00 pm. Contact person is Fred Naumann at (208) 788-4540. The club webpage URL is http://www.geocities.com/SunsetStrip/9202/

Last updated 10 November 1999. For corrections, additions, deletions, changes or updates email Bruce J. Bergen, KI7OM at bbergen@xmission.com. ▫

Propagation Forecasting and Propagation Reports Explained

Editors Note: Though the data reported here is dated, it serves to illustrate how the ARRL Propagation Forecast Bulletins are reported. This bulletin though, had a bonus: a good explanation of what the numbers really mean. I hope you find this clears up some of the mystery of Prop Forecasts.

Propagation Forecast Bulletin 42 ARLP042
From Tad Cook, K7VVV
Seattle, WA October 15, 1999
To all radio amateurs

Solar activity is up by quite a bit this week. Average solar flux values increased by nearly 30 points over last week, and average sunspot numbers were up by almost 80 points. The reporting week, which runs Thursday through Wednesday, began with a stable geomagnetic field and A indices in the single digits, but quickly changed after the weekend to storm conditions. The worst conditions were probably on Tuesday, October 12, when the planetary A index reached 34, and the highest planetary K index was 6. Of course it was worse in the higher latitudes, with the College A index from Alaska at 61 and K indices has high as 7.

The author has been operating on 10 meter SSB recently, and when the A indices were high, sometimes the only signals audible were from the southern hemisphere. I wrote to Bob Brown, NM7M, to ask about this. Dr. Brown taught physics at UC Berkeley, and has spent his retirement years using amateur radio and studying HF propagation. Bob wrote that the geomagnetic disturbances of the past week weren't really big storms, and that part of the reason for observed trans-equatorial propagation is because of the absence of other propagation modes. "In the absence of high latitude propagation due to lowered MUFs or auroral absorption, the old standby, trans-equatorial propagation, looks better than ever," Bob wrote. He also said that there are effects which may increase HF propagation at low latitudes, but only during really big geomagnetic storms.

The projected solar flux values for the next three days, Friday through Sunday, are 200 for each day, and the planetary A index is forecast at 25, 20 and 15. Solar flux is expected to drift lower after the weekend, reaching 150 around October 20 and a minimum of 125 from October 23-39. Predicted disturbed days, when the A index is 25 or more, are October 24 and 27 and November 6-8.

Recently I have received more requests for an explanation of some of the numbers in this bulletin. Here it is.

Amateur Radio operators who use HF generally like increased sunspots because it correlates with better worldwide radio propagation. When there are more sunspots, the sun puts out radiation which charges particles in the ionosphere. Radio waves bounce off of these charged particles, and the more dense these clouds of ions, the better the HF propagation. When the ionosphere is more dense, higher frequencies will reflect off of the ionosphere rather than passing through to space. This is why every 11 years or so when this activity is higher, 10 meters gets exciting. 10 meters is at a high enough frequency, right near the top of the HF spectrum, that radio waves propagate very efficiently when the sunspot count is high. Because of the wavelength, smaller antennas are very efficient on this band, so mobile stations running low power on 10 meters can communicate world wide on a daily basis when the sunspot cycle is at its peak.

The sunspot numbers used in this bulletin are calculated by counting the sunspots on the visible solar surface and also measuring their area. The solar flux is measured at an observatory in British Columbia using an antenna pointed toward the sun tuned to 2.8 Ghz, which is a wavelength of 10.7 cm. Energy detected seems to correlate with sunspots and with the density of the ionosphere.

Other solar activity of concern to HF operators are solar flares and coronal holes, which emit protons. Since the charged ions in the ionosphere are negative, a blast of protons from the sun can neutralize the charge and make the ionosphere less reflective. These waves of protons can be so intense that they may trigger an event called a geomagnetic storm.

The Planetary A index relates to geomagnetic stability. Magnetometers around the world are used to generate a number called the Planetary K index. You can hear the Boulder K index updated every three hours on WWV, or by calling 303-497-3235.

A one point change in the K index is quite significant. A K index below 3 generally means good stable conditions, and above 3 can mean high absorption and poor reflection of radio waves. Each point higher than 3 is a big change in conditions.

Every 24 hours the K index is summarized in something called the A index. A one point change in A value is not very significant. A full day with the K index at 3 will produce an A index of 15, K of 4 means A of 27, K of 5 means A of 48, and K of 6 means A of 80. You can find an explanation of these numbers on the web at http://www.ngdc.noaa.gov/stp/GEOMAG/kp_ap.html.

The number reported here is the Planetary A index, which is a worldwide average based on the K readings from a number of magnetometers. The numbers reported on WWV are the Boulder K and A index, measured in Colorado. Generally the higher the latitude of the measuring station, the higher the K and A indices reported. This is because the effects of geomagnetic instability tend to concentrate toward the polar regions of the globe.

Sunspot numbers for October 7 through 13 were 184, 170, 235, 195, 163, 191 and 210 with a mean of 192.6. 10.7 cm flux was 129.4, 151.2, 153.2, 160.5, 166.6, 183.6 and 191, with a mean of 162.2, and estimated planetary A indices were 6, 8, 6, 28, 23, 34 and 26, with a mean of 18.7. ▫

Using Anti-Oxidants to Ensure Good Conductivity

Anti-oxidant compounds are not a new invention or idea in the pursuit of good integrity or longevity of joint connections that make up telecommunication facilities. But their use has been popularized and improved in recent years with the advent of synthetic lubricants with wide temperature capacities and improved lubricity. Many important connections in radio and television work can be easily compromised over time by water condensation and vaporous atmospheric chemicals. When dissimilar metals are used in direct contact the effect can occur faster and with greater severity, especially outdoors. Examples of common trouble areas are ground terminal connections, radial system connections, RF connections, and even the bolted joints between stacked tower sections.

There is nothing inherently wrong with using dissimilar metals in direct contact. But if the joint is exposed to air, or if the joint commonly passes a great amount of current then the oxidation that occurs in the metals will accelerate and eventually the connection will fail. It may even heat to a point where the metals melt or burn.

An anti-oxidant performs two critical functions. First, the anti-oxidant compound material placed in the region between the two metal conductors seals out air and moisture. The use of synthetic lubricants in the base compound ensures that the material is not miscible with water or other chemicals and cannot be driven out. The second function is that modern anti-oxidants are electrically conductive under pressure. This is accomplished by mixing copper, aluminum, lead, and/or graphite flakes in the 5-10 micron range into the lubricant vehicle and then applying the compound to the surfaces to be joined. The addition of metal particles into the mixture also creates a heavy compound which is more difficult to displace by weatherization.

The application of anti-oxidants is simple and easy. Both the metal surfaces to be joined should be cleaned and then either brushed with a wire-wheel or emery paper. The ridges cut into the metals in this process are actually beneficial, and the scraping also ensures that bare metal is reached before anti-oxidants are applied. The compound may then be applied by any convenient means (brush or finger). Work the material around a small amount and don't be afraid to use the compound in a liberal manner. Remember that filling the air voids in the contact joint is a critical necessity. Any extra compound will squirt out the side when the metals are joined together, and it's easy to scoop up the excess and push it back into the original container for later use.

The next step is tighten, tighten, tighten. Make sure the joint connection is plenty tight and that hardware will not back out in use. A weather covering is a good idea to help prevent external corrosion and to help keep hardware from moving. Washing down the outside of the joint with alcohol will drive off any excess anti-oxidant compound.

Use different compounds for different types of jobs. For copper to copper or copper-to-steel joints use a copper-loaded anti-oxidant such as our Model 601 Series. For aluminum-to-aluminum or aluminum-to-copper use a complex compound such as our Model 602 Series.

Anti-oxidants have no rated shelf life so they may be stored in virtually any location or condition. Just be sure to stir the mixture before use to assure good mixing suspension of the metal flakes inside.

Sensible use of these compounds offer a high degree of reliability and long term satisfaction to users who want serious results in telecommunications work.

Reprinted with permission from: INDUSTRIAL COMMUNICATION ENGINEERS, LTD ▫

Rumors of 62'S Death Exaggerated

Things were running along happily until the afternoon of Wednesday, November 3, when UARC's 146.62 repeater suddenly developed a thunderous hum which virtually eliminated communication possibilities. A short time later the repeater went off the air altogether.

I got reports of the repeater's demise while I was still at work, but analysis had to wait a few more hours. Then we were able to determine that some sort of hummy signal was keeping the repeater keyed up. The reason it was off the air was simply that it had timed out. The hum sounded suspiciously like video buzz, so our first guess was that one of the TV stations on the mountain had developed a parasitic near our input on 146.02. We could not hear such a signal in the valley, so it had to be coming from something very close to the repeater --close enough that a very low-power signal could cause a problem.

I tried comparing the changes in the buzz with video changes in the known stations on the mountain, but none seemed to match. Later that night, something changed, and the repeater was just plain off the air. It was no longer possible to reset the timeout and cause it to reappear.

The following morning, in a discussion with Clint, KA7OEI, we discovered that two new stations had recently gone on the air at '62's Farnsworth Peak site. About the same time, we also got word that the repeater was back on the air, so Clint compared the buzz against Channel 18, the one whose sign-on time most closely matched the time the '62 problem appeared. He reported they matched. Aha! It had to be a Channel 18 problem.

One of the hams who works at KSL, the owner of the Farnsworth Peak site, suggested that the engineer on the mountain should check Channel 18 for any kind of uncleanliness. He checked and reported that Channel 18 looked fine, but "the ham repeater" ('62) was causing lots of spurious signals to appear. So he turned '62 off. Well, at least now there was no question why the repeater was off.

As time passed while we were waiting for a chance to make another trip, people told us it was really hard to get used to the idea of '62 being off the air. Come to think of it, most of the other heavily-used repeaters have had months of outage at some time in their histories. The '62 repeater never has. It has been off for a week or two on occasion, but over the past fifteen years or so, '62 outages have not been common. Some users told us the outage had its good points: they had discovered there are actually several other great repeaters in the area!

On Saturday morning, Clint and I got in his four-wheel-drive Cherokee along with enough test gear to see what was going on, and headed up the dirt road to the 9000-foot repeater site. The mild fall weather was a blessing; in many years the site is already snowed in by early November.

When we got to the site and started investigating, we quickly discovered several things. The new Channel 18 transmitter was, indeed, close to us --about three feet away from our transmitter rack. But our receiver (which is about 400 feet away on another part of the ridge) was receiving no interference, and whatever had been keying up the repeater was no longer doing so. There was, indeed, a large amount of “grass” that sprouted on the spectrum analyzer when we keyed the repeater, but we were able to demonstrate that it wasn't originating from our transmitter or feedline. The hum was still there, but it was a result of audio rectification into '62's audio circuits. The problem was quickly cured by breaking a ground loop. With that, the repeater was back on the air.

We spent most of the rest of Saturday trying to locate the source of the spurious signals that came up with '62. We were able to indicate a general direction, but not to isolate the exact source. We found that the spurs contained the audio of two FM broadcast stations. Clearly, our signal was part of a larger intermod recipe. But at least '62 was working properly. We left thinking, “Ah, another cured patient.”

The good feelings did not last as long as one might have hoped. I woke up the next morning to find the repeater again off the air. The problem this time was that the squelch was adjusted to a setting way too low.

We should take time out here to explain that a repeater receiver has a squelch circuit just like most other kinds of FM communications receivers. It senses the presence of signals on the frequency. Like other squelch circuits, it shuts off the audio when no signals are present to keep the listener from having to hear endless white noise. In addition, the squelch circuit on a repeater is what senses incoming signals to know that the repeater transmitter should be turned on.

It is urgent that the threshold of a repeater squelch be

adjusted correctly. If the squelch is too tight, weak signals will not be able to key the repeater. If it is too loose, the repeater may randomly key up in response to noise, nearby lightning, or even temperature changes. It is not uncommon for those who take care of repeaters to make a trip to the mountain just to make a squelch threshold adjustment.

Back when we were building '62, to save some unnecessary trips, we included a remotely-controllable squelch threshold. This let us make fine tuning adjustments without having to travel to the site. This has proved particularly useful in midwinter when Farnsworth Peak may have six feet of snow and be accessible only by an all-day snowshoe trip.

With the current problem, the remotely settable squelch was a curse as well as a blessing. Something -- possibly some kind of interference on the control frequency --was setting the squelch threshold for us. We could undo the problem temporarily by resetting the threshold remotely. But every two or three hours the problem came along again and left the squelch open. Sometimes it would be so loose that the repeater would make noise for three minutes and then time out until someone could reset it. Other times it was tight enough to close once in a while --just long enough to reset the timer. During these periods, the repeater worked as well as ever if two people wanted to communicate, but it transmitted noise when there were no signals on the input frequency. We heard people referring to this noise as “the interference.” Actually, though, there was no interference involved. The noise was simply the same noise you hear if you open the squelch on your own receiver.

Murphy's law was clearly at work here since we had spent at least eight hours on the site Saturday without the problem appearing even once, but as soon as we were back in the valley it happened every 2-3 hours for days.
One possible culprit was some sort of interference on our control frequency. Clint suggested we could build a cavity to be armed for such an eventuality. “Build a cavity?” I asked. I thought cavities were things you purchased from Wacom or dB Products for several hundred dollars. But Clint demonstrated that with a piece of 3-inch pipe, some threaded stock, some copper-clad board, some 1/2-inch pipe, some miscellaneous hardware, some E-field probes (which look remarkably like U.S. pennies), and an evening, it was possible to create something that would give 20 dB suppression a megaherz and a half away. Not bad. (For more details see the ARRL UHF and Microwave publications.)

On Tuesday the 9th, we made a quick after-work trip to the mountain to see what we could do. The problem again refused to appear while we were watching for it. But we discovered a possible culprit: the audio output stage of our control receiver was oscillating. Miscellaneous frequency components of this oscillation could very well have fallen on the receiver's intermediate frequency and caused a problem. A new electrolytic bypass capacitor cured the oscillation.

The oscillation problem seemed so likely to be the cause of our trouble that we imagined the cavity would not be necessary. However, having gone to all the trouble to build it, we installed it anyway. We also added some ferrite cores to help further discourage the Channel 18 RF.

At this writing, the repeater has lived happily ever since. We are sure one of our cures fixed the problem although we are less certain which one. So we will enjoy the presence of the repeater until the next challenge comes along.

Gordon Smith, K7HFV ▫

December Meeting: Elections

On December 2, UARC will have what may well be the most important meeting of the year, the meeting that determines the future of the club.

We will hold elections and discuss directions for the coming year. There will be an opportunity for further nominations from the floor (although no nominations will be accepted without the nominee's consent, so check in advance before nominating someone).

There will also be nominations and an election for a new Repeater Trustee. Ron Jones, K7RJ, who has served in that position for many years, has decided to resign, leaving a vacancy. This person will be in charge of the Repeater Committee and will be the trustee of the W7SP club license. It is highly desirable that the Repeater Trustee hold an Extra Class license, thus allowing the W7SP Field Day station to operate anywhere without needing to append the callsign of the control operator. So think about who qualified candidates might be.

December is also a good time to tell the new officers

what you would like them to do (without, of course, getting too graphic). What kind of programs would you like to see? Are there new activities we should sponsor? Where can we find volunteers to do the work for any new activities? Should Field Day or the Steak-Fry be handled differently? Where can we find more contributors to *The Microvolt*? If you have ideas, the December meeting is the perfect time to discuss them.

In addition, the ever-popular "Fred, the book lady" (KI7KM) will be there with the latest ARRL books. Greg Smith, KD7APZ, will be available to help you sign up for ARRL membership or renew your existing membership. There will be a chance to meet the people you've met on the air and find out what they really look like.

To finish it all off there will be a choice of "Dime Limes" or "meetings after the meeting" that occur over pizza or other edibles. Don't miss it! ▫

The Last Word

As I close out this, my last issue of *The Microvolt,* before turning the mantle of office over to another, I feel a need to get in one last word.

I want you the reader to know what a delightful experience editing this publication has been for the past two years. Not only have I learned a lot about the technical aspects of using my desktop publishing tools, have had the opportunity to be a little bit creative in the process, but have learned that many members do have some interesting things to write. I have always tried to keep you the reader foremost in mind and put myself in your place. My goal has always been to create an informative, interesting, and appealing document. At times it has been a challenge to keep it up month after month.

My reasons for not seeking yet another term are many fold. To name a few probably won't really explain my decision to my satisfaction. One though, that comes to mind, is in line with Gary Openshaw's thoughts on making significant board changes. It really is time for others to grapple with the challenges of running this fine organization. I have served in one capacity or another on the UARAC Board now for some seven years continuous.

I have often heard the statement, "It's only a hobby", from others in relation to what gets done and what doesn't in UARC.. Perhaps that is also part of my need to step back, because for me it is not "only a hobby", but a passion. *The Microvolt* was a passion from before the beginning of my term. I could not see any reason to publish anything short of an excellent newsletter. To do less would have betrayed my values, insulted my readers, and wasted club funds. Too often, I expect this same standard of others, and end up offending someone in the process. If you are one of the offended please accept my apologies. I certainly wish no one ill, after all "it's only a hobby".

My challenge to the new board is to pursue excellence. I am confident that if this goal is pursued, like-minded people will be attracted to UARC. If on the other hand only mediocre efforts are made by the leadership those following will not be inclined to do any better resulting in a mediocre organization. Obviously all the work can't be done by the board, just as I could not single handed create an excellent newsletter. Everyone's best effort is needed. If each member were to raise their standard of excellence just one order of magnitude it would have a geometric impact on the quality of UARC, it's activities, and the desirability of being a member. We currently have only about ten to fifteen percent of the total licensed Hams in our area as members. A high quality organization makes recruiting new members very easy, renewals a no-brainer, and reviving inactive members a piece of cake.

I'll continue to be around. Most of you know how passionate I am about getting Scott's Hill on-the-air, to the point of being a pain in the backside to some of those contributing their time, ideas, and resources. I will continue to occasionally write a few lines for publication in *The Microvolt*, to perhaps the amusement of some, befuddlement of others, and aggravation of still others.

73 - K - Bruce - KI7OM ▫