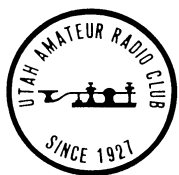




Tom Roling W7GT

Field Day 2000 -- The First of A New Millennium....

Volume XLIV Issue 7, July/August 2000



The MICROVOLT

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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 Bonneville 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: Gregg Smith, KD7APW, 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 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 Santequin to Lehi) and the Salt Lake City exchange (covering Draper to Layton). The 449.10 repeater has autopatch facilities into Salt Lake City only available to UARC members. 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, testing, meeting, 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 (wmgooch@concentric.net), but other means including diskettes and typewritten submissions can be mailed directly to: Manford Gooch, 6344 S. Shenandoah Park Ave., Holladay, 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: Gregg Smith, 7546 S. Uranium Dr., West Jordan, UT, 84084-3942. □

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Contents

Prologue	2
UARC 2000 Board & Committees	2
QST from the Prez	3
Next UARC Meeting	3
The Magic of Volunteering in Amateur Radio	4
FCC's Hatfield Tells Hams to "Walk the Walk"	6
Rainscatter Record?	7
League Calls Ham Radio "Fertile Testing Ground" for SDR	7
Continuing Education Pilot Project Update	8
VEC and VE	8
ULS Registration Can Protect Your License Record	11
Anti-virus Software May Impair ULS Access	11
California PRB-1 Bill Update	11
Florida Tower Ruling Disappoints League	11
Son of the Packrat	12
Contesting Calendar	15
Examination Schedule	15

For late breaking news listen to the UARC Information Net Sundays at 21:00 on 146.62 or set your browser to:

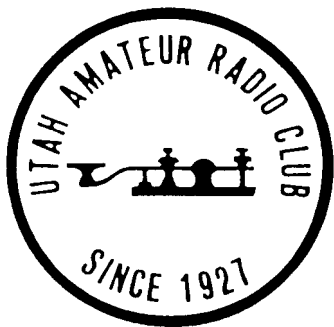
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QST from the Prez

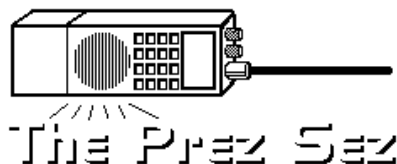
Isn't it amazing how time flies? We are half way through the year already, and I hope you have enjoyed it so far. As I write this, we are about to experience Field Day, but when you read it, Field Day 2000 will be a thing of the past. If you attended, you will be glad you did, and if you didn't come, you will be sure to do so next year.

I have said so many times that the best friends I will ever have, I met through UARC and Amateur Radio. We, as a Board, want to make sure that all of our members are satisfied with the way our Club is operated, and that you enjoy being part of it. We want to hear from you, and we want to know what you think, good or bad, about how we are doing. Your suggestions and opinions are a great help to us.

There will be no meetings in July or August, but make sure to come to the regularly scheduled meeting on the first Thursday in September.

I'll see you on July 15th at the Steak Fry. Have a wonderful Summer.

Maurine 73'□



Next UARC Meeting

As noted above by our President, there will be no meeting of the Club in August. Monthly meetings will resume in September. For details concerning the September meeting, please call the UARC hotline as September approaches or refer to the UARC web site at:

<http://www.xmission.com/~uarc>□



Tom Roling W7GT

Field Day 2000

The Magic of Volunteering in Amateur Radio

It was 12:15 p.m., 10 July. The first runner, Randy Isler, had just crossed the fast-moving Cataract Creek toward the Sherman Aid Station, the fourth out of thirteen along the course. He moved with confidence and clarity. His personal support team stood by with warm food and words of encouragement. The team of volunteer amateur radio operators was also ready. Jerry Gray, an EMT from nearby Lake City, stood by with food, medical supplies, and the athletes' drop bags. Our four-element beam was in place. We stood by, monitoring the race net control in Silverton on our 25-watt, Midland 13-510 mobile. Carol Lewin, KC6ECO, clutched her clipboard, ready to check off incoming runners. I stood by the large, laminated chart, ready to check in the first of the 82 runners scheduled to pass our check-in point in the next seven hours.

Ticket to adventure

My experiences as a ham operator over the past year-and-a-half have been extraordinary! When I first began studying for my license, I had no idea what wonderful experiences lay before me, adventures made possible because of my ability to use amateur radio. I was about to travel 853 miles from my home near the Queen Mary in Long Beach, California, to become part of a team of over 50 volunteer amateur radio operators who all serve as a part of a huge support team of over 225 that make the Hardrock 100 race possible.

The Hardrock story

The Hardrock 100 is the most challenging "ultra" foot race in America. It began eight years ago and has grown in international popularity ever since. Experienced runners from Great Britain, New Zealand, and Germany participated with experienced Americans. The 82 starters began the race from Silverton, Colorado. This year the race began in the rain on Friday at 6:02 a.m. The winner, Ricky Denesik of Telluride, Colorado, cruised into Silverton 31 hours, 12 minutes, and 31 seconds later. Our challenge, as communicators, was to ensure the safety of the runners throughout the weekend.

The race

The racecourse snakes its way from 7,500 feet to 14,000 feet across Handies Peak. The route forces runners to climb a total of 33,015 feet and descend the same in the course of the grueling race. In one challenging, 10-mile segment, runners climbed from 9,500 feet to 14,000 feet. It is a grueling race. Running at an average altitude of over 11,000 feet above sea level, breathing is a challenge in itself. But the challenge of running a total of 101.3 miles without sleep, and without any time out for lengthy rest, leaves some runners disoriented. The elevation changes also pose problems for the communications team, but years of experience by the race organizers have resulted in a nearly perfect system that is as efficient as it is effective. Two teams of Hams had to hike all of their equipment into their aid station site.

Historically, only one third to one half of the starters finish before the predetermined time limit. This year, there were 38 finishers who crossed the finish line in Silverton before the 48-hour cutoff time. Any runner who checks into an aid station later than the designated time limit is pulled from the race at that point.

Our aid station

The Sherman Aid Station was graced by tall aspens and pine as well as beautiful flowers including the famous Colorado Columbine, wild pink roses, blue bells, and painted brush. One of thirteen such aid stations along the racecourse, Sherman is an abandoned mining camp, where gold, silver, copper, and lead were pulled from the ground as far back as 1877.

The site was divided from the incoming runners by the fast-running Cataract Creek. Runners could walk over a large fallen pine tree or brave the icy creek. The stream was only about 30 inches deep, but the fast-moving water made it tough for some of the tired participants.

Rain poured on the runners and the station volunteers at about four in the afternoon on race day, but the aid station was well covered, thanks to the volunteer fire fighters from Lake City who built a yurt, whose original design dates back to the nomadic Chinese of Khengis Khan. It is a covered

dome that provided excellent protection in the country of extreme terrain and weather conditions. The runners stayed nice and dry while they ate and refreshed themselves.

I worked Sherman Townsite with Jim Lewin, WD6FET, and Carol Lewin, KC6ECO. Carol and I would check in the runners as they crossed Cataract Creek; my son, Chris and EMT Jerry Gray took over from there. Chris gave the runners their drop bags and poured water into the runners' bottles. Jerry's niece, along with her friend plus three volunteer fire fighters from Lake City, would give the runners sandwiches, feed them soup and all the Gatorade they could drink. When they thought they were ready, the runners checked out with Carol and me and took off for the next 10 miles of the race. Some stayed with us for only two minutes. As runners left, one of our communications team would call in the athlete's numbers, their time in and out to net control in Silverton operated by tireless Molly Hardman, N3CHZ, Steve Blaylock, NØHGV, Jerome Janisse, KAØUMT, Jim Scott, W9KV, and a host of others.

The top finishers had family at Sherman Townsite. Moms and dads, coaches and friends set up their own aid station. They had burgers cooking, dry clothes waiting, hugs, and words of encouragement. I felt those runners had a big advantage. I learned to quickly look up the runner's number, who had no support people waiting for him or her, and call out the runner's name for encouragement. A runner would come in and shout out his number. "76 in." I'd call back, "Got you, Bill. We're ready for you." The runner's face would break from the concentration of the race for just a minute and smile. The amateur radio team did more than communicate "check in" and "check out" times; we became the surrogate family and friends. Most of the runners smiled as they left. They knew the amateur radio team was there for them and thanked us as they left.

One runner came in with wobbly legs, who was obviously suffering from the demands of the first thirty miles. He departed from Sherman Aid Station only to return two hours later, withdrawing from the race. These "extreme" runners seem to know their limitations.

We had one competitor who failed to show up at our aid station by the cutoff time at 7:30 p.m.

He had left Pole Creek Aid Station, ten miles back, but never made it to us. Nine-and-a-half hours into the race, there was no sign of the runner. I stood by the stream with a flashlight, hoping to help the runner find his way. I continued to monitor the race frequency, but I knew there was nothing I could do. Jerry Gray headed into the woods and came back with the runner 30 minutes later.

Jerry is not only well trained in medical emergency procedure, he is a long distance runner himself. In another 30 minutes it would have been pitch black. That runner was dropped from the race and went back to town, safe and sound.

A runner is missing!

The next morning, we were awakened by pounding on the RV door. It was the Lake City Sheriff. One man never made it from our site to Grouse Gulch. He was five hours overdue. A search party had been formed on either side of that leg of the race. The sheriff wanted us to run communications with Silverton. We jumped up and got the radios on, as the search commenced. They found the runner an hour later, asleep. The organizers of the race take great pride in that they have never lost a runner. Given the immensity of the challenge, it is amazing. It is due to the incredible team of volunteers who work behind the scenes to coordinate the movements of the runners with race headquarters in Silverton.

The magic of Joel Zucker

One runner, Joel Zucker, stood out from the others. Joel immediately touched the hearts of the amateur radio operators and aid station volunteers who met him. It was Joel's third Hardrock 100 race. Joel was a librarian from Freeville, New York. Joel came into camp, I quickly checked out his number and said, "We got you Joel. How are you doing?" Smiling, Joel said, "Great, and you need to treat me special. I'm the shortest runner here." I turned and looked at him and started laughing with him. His eyes were bright and after 30 miles of hard running, he was in a great mood. He unloaded his fanny pack and sat down to eat and get ready for the next leg of the race. He told us it was his third race and he would finish this one under the cutoff time, too. Unlike some of the other runners, Joel was relaxed and had time to talk to the others who were running the race for the first time.

When he left, I shouted words of encouragement and watched him start off for the trail leading to Handies Peak.

On Sunday, during the awards ceremony, I saw Joel sitting by himself in the bleachers in the high school gym in Silverton. I asked him if I could take a picture of my favorite runner. The other runners hooted and teased him. He smiled and said, "I'd be honored." Later when Joel went up to get his lithograph for finishing the race, I snapped pictures like he was part of my family.

Two weeks later when I returned to Durango, Colorado, for a vacation with my family, I was devastated when handed a copy of the Durango Herald. There in the Sports Section was an article written by Eric Davidson announcing the death of Joel Zucker en route to the Albuquerque Airport from Silverton. My favorite runner was gone but he had touched my life in a special way. I was able to send my memories and those last pictures to his family, who were overwhelmed by the response of the running and Amateur Radio community after his death. Plans are being made to name a trail of the race in Joel's memory.

Victory!

At the awards ceremony on Sunday in Silverton, the Hardrock 100 winners received a signed, numbered lithograph created especially for the race. Six women ran the race, and four finished. The top female runner came in fifteenth overall. Eliza MacLean, from Mebane, North Carolina, looked radiant as she accepted her awards. The top male runner, Ricky Denesik, walked easily up to the awards table, grinning broadly. He looked like he just took a walk in the park. The conditioning of these athletes is awesome. In addition to the lithographs that all of the finishers received, both Eliza and Ricky won a golden mining pan for top overall times.

The rewards of being an Amateur Radio operator

It was an important experience to be able to be a part of such a wonderful team of volunteers, to be treated as if I were part of the race family, to get some top-notch practice working amateur radio in a well-organized communications net, and to help to the runners. I was able to see some "knock-down"

gorgeous country that, as a tourist from California, I would probably never know about. I have become "rich in experiences" as result of being a volunteer in radio communications and was touched by the special magic of knowing Joel Zucker. Of all of my volunteer experiences in amateur radio, working radio for the Hardrock 100 has been the most rewarding. We were able to keep the runners safe, serve as encouragers, and assist the local sheriffs when one runner was lost. All of this occurred as a result of my new skills in amateur radio. It has been marvelous and completely rewarding, going far beyond my expectations. Amateur radio is more than just technical operation; it's about people, too!

Devon Day, KF6KEE/*Worldradio*□

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Bob Wood W7OAD, UARC Member

FCC'S Hatfield Tells Hams To "Walk The Walk"

The FCC's Dale Hatfield, W0IFO, predicts a bright future for Amateur Radio. But the Office of Engineering and Technology chief says that amateurs "will be under a certain amount of pressure" to justify their free use of the radio spectrum. As a result, he said, it will be more important than ever that hams actually fulfill their service, good will and educational roles--not just

talk about them.

Hatfield offered his observations as keynote speaker for AMRAD's 25th anniversary dinner June 17 in Virginia. Hatfield told the gathering, "the key issue for the amateur service is maintaining access to an adequate amount of spectrum." While emphasizing that he was not suggesting any immediate threat, Hatfield said hams will have to do a better job of justifying their current allocations.

Hatfield said hams should actually engage in experimentation to advance the state-of-the-art, provide communication and train operators for emergencies, encourage international cooperation and good will, and offer an important technical educational outlet. "Or, to use a bit of slang, it seems to me that it will be even more important for all segments of the amateur community to 'walk the walk' not just 'talk the talk'," he said.

Hatfield encouraged his audience to explore advanced techniques that conserve spectrum, especially digital techniques. As the rest of the telecommunications world transitions to digital techniques, Hatfield said, "the amateur service will look antiquated if it is not making progress in that direction as well."

Hatfield also said software defined radios could facilitate "a new era of amateur experimentation" and, in many ways, represent "a final merger" of radio communications and computers.

The text of Hatfield's prepared remarks is available on the FCC Web site at:

[Http://www.fcc.gov/Speeches/misc/dnh061700.html](http://www.fcc.gov/Speeches/misc/dnh061700.html)

ARRL Letter □

[The preceding article on volunteering and the following two articles suggest that at least some of the Ham community are "walking the walk" -Ed.]

Rainscatter Record?

On June 17, ARRL First Vice President Joel Harrison, W5ZN, and noted VHF-UHFer Al Ward, W5LUA, completed a 515 km (321 mile)

rainscatter QSO on 10 GHz. The contact could be a record for that mode of propagation. Details are at <http://www.ntms.org>. Harrison says the trick was to keep a sharp eye on the weather radar, looking for very strong, appropriately positioned storm cells. "We have tried this a few times before," Harrison reports, adding that the pair once managed a 5.7 GHz rainscatter contact. "This time, everything fell into place!" Harrison says the longest distance he's aware of for a 10 GHz rainscatter QSO is 240 miles.

ARRL Letter □

League Calls Ham Radio "Fertile Testing Ground" For SDR

The ARRL says that Amateur Radio "is a fertile testing ground" for software defined radio technology and that SDR would be especially valuable to facilitate disaster communications. The League commented in response to FCC Notice of Inquiry ET Docket No 00-47 on SDR technology, released in March.

The League said its understanding of SDRs is that they are "in essence, digital computers connected to an antenna, controlled by software." True SDR functions, other than baseband DSP, are yet to be incorporated into commercial or even into sophisticated homemade amateur equipment, the ARRL noted.

The League said that because of its flexibility, utilization of multiple modes, and shared allocations, the Amateur Service provides the proper environment to develop, test and deploy SDR technology. Amateur Radio is not constrained by limitations imposed on other services and "serves as a reasonable paradigm for a regulatory structure that might be adapted to other services," the ARRL told the FCC. The League said it intends to give a "high profile" to SDR developments in the Amateur Service through its technical/experimental publication, QEX.

The ARRL said that SDR affords a level of flexibility and interoperability that could enhance Amateur Radio's performance in emergency communications and disaster relief efforts with

respect to served agencies. "Amateur SDR equipment could be rapidly reprogrammed to be interoperable with that of served agencies such as the Red Cross, the Salvation Army, local civil defense offices, state OES offices, and public safety agencies," the League said. The result would be "an even more immediate and adaptable source of restored communications for disaster relief coordination" than previously available.

The ARRL told the FCC that SDRs would obviate the need for differing transmission standards in the future. SDRs automatically could shift transmission standards to overcome common communication roadblocks such as noise levels, propagation characteristics, QRM, and other factors.

The League cautioned the FCC against imposing equipment authorization requirements on SDR hardware or software designed for amateur use that could inhibit experimentation.

A copy of the League's comment in response to FCC Notice of Inquiry ET Docket No 00-47 is available at:

[Http://www.arrl.org/fcc/arrldocs/et-0047.pdf](http://www.arrl.org/fcc/arrldocs/et-0047.pdf)

ARRL Letter□

[As noted in a previous issue of Microvolt, those in amateur radio who think of licensing and testing restructuring as a "dumbing down" of the service should consider the following a real opportunity. It should also be a useful response to the concerns of the Office of Engineering and Technology. -Ed.]

Continuing Education Pilot Project Update

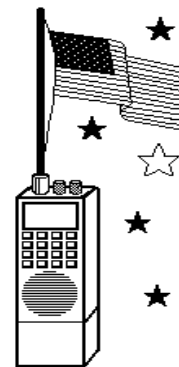
The ARRL Continuing Education Emergency Communications Pilot Program is aiming to meet its projected end-of-summer deadline to complete Phase I. An Advisory Committee has been assembled -- under the guidance of Pat Lambert, W0IPL -- to assemble the Emergency Communications course. All committee members are volunteers. Other members include: L.B. Cebik, W4RNL; Rich Slover, ND4F; Bill Thompson, W2MTA; Rob Foshay, W9VK; Ron Hashiro, AH6RH; Eldon

McDonald, KE4OCW; Taylor Davidson, N4TD; Jeffery Stidham, KC7FUY; Richard Werner, K7UK; Charles Harris, KE4SKY; and Randy Long, W0AVV. Those who have offered to assist have been put on a separate list as back-up advisors and will be involved at the "beta testing" stage. An outline is at:

[Http://www.svvi.net/w0ipl/emcom-rd.htm](http://www.svvi.net/w0ipl/emcom-rd.htm).

Text is being developed by the Advisory Committee for completion of the Level 1 Course. For more information, contact ARRL Certification Specialist Dan Miller, K3UFG, 860-594-0340; k3ufg@arrl.org.

Dan Miller, K3UFG/ARRL Letter□



VEC And VE

In the last few months when the restructuring was announced, thousands of Amateur Radio Operators across the United States became familiar with testing operation which the Federal Communication Commission, (FCC) has had in place now for several years. At a test session one sees creatures that are called Volunteer Examiners, (VEs). A VE is an individual accredited by a Volunteer Examiner Coordinator, (VEC). A VEC is an organization that has entered into an agreement with the FCC to coordinate efforts of volunteer examiners in preparing and administering examinations for amateur radio licenses.

Today there are approximately sixteen (16) VECs who cover all 13 FCC defined regions. There are two major VECs in our area along the Wasatch Front. They are ARRL VEC and W5YI VEC. There are also many VEs who are accredited with one of these two VECs -- or perhaps they are accredited by both of them. These VEs are to enforce testing rules and policies set forth by the

VECs and must enforce rules set forth by the FCC. It is advised that every amateur radio operator become familiar with the FCC rules. Some of these rules that I think are important are as follows, (FCC U.S. Amateur Part 97 Rules and Regulations):

Part 97.509

(A) Each examination for an amateur operator license must be administered by a team of at least three (3) VEs at an examination session coordinated by a VEC. Before the session, the administering VEs or the VE session manager must ensure that a public announcement is made giving the location and time of the session. The number of examinees at the session may be limited.

(B) Each administering VE must:

- (1) Be accredited by the coordinating VEC;
- (2) Be at least 18 years of age;
- (3) Be a person who holds an amateur operator license of the class specified below:
 - (i) Amateur Extra, Advanced or General Class in order to administer a Technician Class operator license examination;
 - (ii) Amateur Extra or Advanced Class in order to administer a General Class operator license examination;
 - (iii) Amateur Extra Class in order to administer an Amateur Extra Class operator license examination.
- (4) Not be a person whose grant of an amateur station license or amateur operator license has ever been revoked or suspended.

(C) Each administering VE must be present and observing the examinee throughout the entire examination. The administering VEs are responsible for the proper conduct and necessary supervision of each examination. The administering VEs must immediately terminate the examination upon failure of the examinee to comply with their instructions.

(D) No VE may administer an examination to his or her spouse, children, grandchildren, stepchildren,

parents, grandparents, stepparents, brothers, sisters, stepbrothers, stepsisters, aunts, uncles, nieces, nephews, and in-laws.

(E) No VE may administer or certify any examination by fraudulent means or for monetary or other consideration including reimbursement in any amount in excess of that permitted. Violation of this provision may result in the revocation of the grant of the VE's amateur station license and the suspension of the grant of the VE's amateur operator license.

(F) No examination that has been compromised shall be administered to any examinee. Neither the same telegraphy message nor the same question set may be readministered to the same examinee.

(G) Passing a telegraphy receiving examination is adequate proof of an examinee's ability to both send and receive telegraphy. The administering VEs, however, may also include a sending segment in a telegraphy examination.

(H) Upon completion of each examination element, the administering VEs must immediately grade the examinee's answers. The administering VEs are responsible for determining the correctness of the examinee's answers.

(I) When the examinee is credited for all examination elements required for the operator license sought, 3 VEs must certify that the examinee is qualified for the license grant and that the VEs have complied with these administering VE requirements. The certifying VEs are jointly and individually accountable for the proper administration of each examination element reported. The certifying VEs may delegate to other qualified VEs their authority, but not their accountability, to administer individual elements of an examination.

(J) When the examinee does not score a passing grade on an examination element, the administering VEs must return the application document to the examinee and inform the examinee of the grade.

(K) The administering VEs must accommodate an examinee whose physical disabilities require a special examination procedure. The administering VEs may require a physician's certification

indicating the nature of the disability before determining which, if any, special procedures must be used.

(L) The administering VEs must issue a CSCE to an examinee who scores a passing grade on an examination element.

(M) Within 10 days of the administration of a successful examination for an amateur operator license, the administering VEs must submit the application document to the coordinating VEC.

§97.511 Examinee conduct.

Each examinee must comply with the instructions given by the administering VEs.

§97.519 Coordinating examination sessions.

(A) A VEC must coordinate the efforts of VEs in preparing and administering examinations.

(B) At the completion of each examination session, the coordinating VEC must collect applicant information and tests results from the administering VEs. Within 10 days of collection, the coordinating VEC must:

- (1) Screen collected information;
- (2) Resolve all discrepancies and verify that the VEs certifications are properly completed; and
- (3) For qualified examinees, forward electronically all required data to the FCC. All data forwarded must be retained for at least 15 months and must be made available to the FCC upon request.

(C) Each VEC must make any examination records available to the FCC, upon request.

(D) The FCC may:

- (1) Administer any examination element itself;
- (2) Re-administer any examination element previously administered by VEs, either itself or under the supervision of a VEC or VEs designated by the FCC; or

- (3) Cancel the operator/primary station license of any licensee who fails to appear for readministration of an examination when directed by the FCC, or who does not successfully complete any required element that is readministered. In an instance of such cancellation, the person will be granted an operator/primary station license consistent with completed examination elements that have not been invalidated by not appearing for, or by failing, the examination upon readministration.

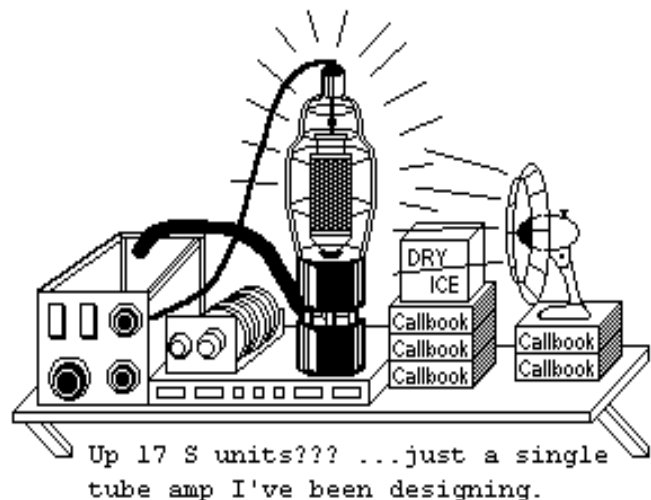
I think that every Amateur Radio Operator should be familiar with these and all other rules of Part 97. It might be advisable to look it up on the internet at:

[Http://www.arrl.org/field/regulations/news/Part97/](http://www.arrl.org/field/regulations/news/Part97/)

or purchase an *FCC Rule Book* from the Book Lady.

Also I would suggest that those who can qualify to be VEs do so. It's a great way to give service.

Thank you and 73,
Gary Openshaw, KC7AWU□



[First, the good news - Ed.]

ULS Registration Can Protect Your License Record

Registering now on the FCC's Universal Licensing System can be a big benefit even if you don't have any plans to file an application anytime soon. The FCC's Steve Linn, N4CAK, told those on hand for the Dayton FCC Forum that ULS registration "protects your call sign within the system" and could prevent it from inadvertently being deleted or reissued due to a filing error. He also pointed out that amateurs wishing to make a change of address should file an "administrative update" (AU) and not request a "modification."

The ULS will not renew an amateur's license unless it is within the 90-day window of expiration (or within the two-year grace period after expiration). The same applies for those upgrading their tickets under restructuring. Linn said the FCC continues to work out the bugs in the ULS. He said that support for the Mac platform and other browsers, such as Internet Explorer, would be coming along soon.

The FCC in late April opened the ULS to Web filing. Linn advised filers to use the on-line system whenever possible, since it helps users to avoid errors that will not get trapped when filing on paper and could lead to delays or errors in your FCC record. Visit <http://www.fcc.gov/wtb/uls> for more information or to access the ULS.

ARRL Letter□

[Now, the bad news - Ed.]

Anti-virus Software May Impair ULS Access

Dennis Faist, WB8TUU, reports he had problems during recent attempts to log on to the FCC's Universal Licensing System using direct dialup. He suggests that individuals running into difficulty during the Netscape Navigator 4.73 logon/encryption procedure disable McAfee anti-virus software. Faist says running McAfee in the background inhibited his system's ability to download Java applets necessary for filing an

application via the ULS. "I was running McAfee anti-virus software initially in the background. Disabling the McAfee software, re-logging onto the FCC ULS site, and letting the four FCC applets -- ClientUtil.jar, jaguar.jar, jconnect.jar, and powerj.jar -- download and function cured the problem," he says.--Dennis Faist, WB8TUU

ARRL Letter□

[More good news - Ed.]

California PRB-1 Bill Update

California's pending PRB-1 legislation, Senate Bill 1714, has been voted out of the California Assembly's Local Government Committee on a 9-0 vote. Pacific Division Vice Director Bob Vallio, W6RGG, and Sacramento Valley Section Manager Jerry Boyd, K6BZ, attended to support the bill at a committee hearing June 28. The bill's sponsor, Senate Republican Leader James Brulte, spoke in favor of the measure. Three communities provided written opposition, but no one spoke against the bill.

The bill already has passed the California Senate by a 39-0 vote. Once it clears the Appropriations Committee, it requires a vote by the full California Assembly before going to the governor for signature.

California's 103,000 hams are being asked to contact their Assembly representatives to urge support for the measure. To find an Assembly member, visit <http://www.assembly.ca.gov>. For more information see <http://www.leginfo.ca.gov/>, click on "Senate Bills" and scroll down to "SB 1714".

Fried Heyn, WA6WZO/ARRL Letter□

[More bad news - Ed.]

Florida Tower Ruling Disappoints League

The ARRL is expressing disappointment at a recent US Appeals Court ruling in a four-year-old Florida Amateur Radio tower case. The US Court of Appeals for the Eleventh Circuit on May 31

affirmed a lower-court ruling against Lenard Persin, WB4HZQ, in his efforts to erect an 80-foot repeater and HF remote base tower in his side yard in Seminole County.

"We are disappointed with the Court's ruling, which runs contrary to the clear and unambiguous meaning of the FCC's PRB-1 preemption decision," said ARRL Executive Vice President David Sumner, K1ZZ. The Eleventh Circuit ruling was doubly troubling because the ARRL had agreed to fund Persin's appeal in the case.

In a six-page, unpublished decision, the Eleventh Circuit decided that the US District Court had not erred by applying "a balancing test rather than the reasonable accommodation test required by PRB-1."

Sumner said that by letting stand the US District Court's reliance on the "balancing of interests" approach, the Appeals Court took a regulatory direction that the FCC has expressly labeled "not appropriate." He called it "incomprehensible" that the Eleventh Circuit Court of Appeals could have failed to follow the lead of the Eighth Circuit, which reaffirmed the "reasonable accommodation" and "minimum necessary regulation" principles of PRB-1 in a landmark 1994 case.

Seminole County's ordinance restricts Amateur Radio towers to 35 feet without a special exception. The lower court agreed with Seminole County that Persin's request for a taller structure would be detrimental to the character and not consistent with the development trends of his neighborhood. Persin said one neighbor in particular fought his application on that basis. In District Court, Persin had presented--to no avail--expert testimony that a 35-foot tower would be ineffective and that the taller tower he requested would not change the character of the neighborhood nor affect property values.

Persin says he believes the decision dealt "a fatal blow" to PRB-1 and that other jurisdictions will copy Seminole County's approach to dealing with Amateur Radio towers "since they now know it will hold up in court." The county's ordinance, Persin says, "was particularly designed to thwart PRB-1." He called for protection stronger than

that offered by PRB-1.

Sumner and ARRL General Counsel Chris Imlay, W3KD, note, however, that, because the Eleventh Circuit opinion was not published, it will not serve as a precedent in future cases. Sumner says that, under PRB-1, municipalities continue to have "an absolute obligation" to reasonably accommodate Amateur Radio communication and to impose "the minimum practicable regulation to accomplish its legitimate purpose."

This week, Persin applied for and was granted permission by Seminole County to erect a 35-foot tower on his property.

ARRL Letter □

UARC Jackets and Hats

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All of the above prices include sales tax. You can order your apparel at club meetings or by contacting Custom Design Marketing, 6049 S. Highland Drive, 278-5258. REMEMBER ... a portion of all sales goes back to the Club to support the repeaters. Wearing the apparel also helps promote the Club. □

Son of the Packrat

Sooner or later, every Ham comes to the realization of what they are and how they fit into the hobby. Some may realize that they are diehard DX or contest operators while others are into things like packet radio or VHF work. I cannot deny the fact that I am a packrat. Actually, I am the son of a packrat, and I merely inherited those packrat traits.

Being a packrat is not a character trait you can control, it is something that was always meant

to be. Packrats are born and not made. As they say, you can't change the spots on a leopard; well, the same thing applies to being a packrat. You cannot change what you are.



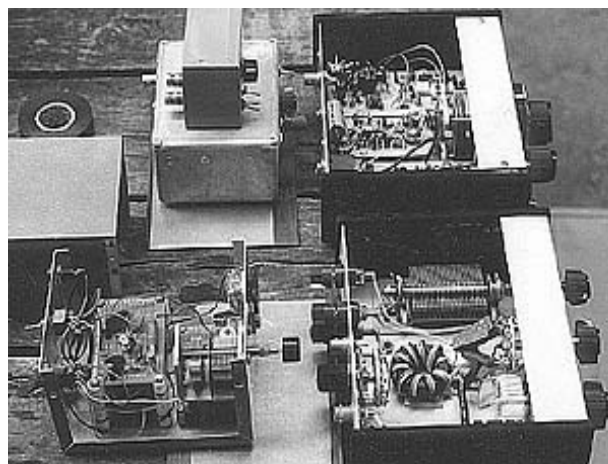
There are two types of people in the world: those who throw junk out and those who collect it. The latter group is affectionately known as the packrats or unaffectionately known as junk collectors. The packrat behavior is particularly highlighted in the Ham radio hobby because of high visibility type events such as flea markets. The early roots of the hobby steeped with the accomplishments of the experimenters who homebrew much of their equipment by scrounging parts.

Packrat behavior was originally a major attribute of the Ham personality. I grew up in a natural packrat environment where my father, Ray, W2ZUN, had the basement filled with all kinds of gadgets and radio equipment along with spare parts. The basement featured a number of Command set surplus radios converted for amateur radio use. There were parts everywhere along with piles of data books and schematics. My father had this excellent knack of understanding how each electronic component worked and was tinkering with electronics since his teenage years. Growing up, I thought it was natural to have a basement filled with radioparts.

My father had a number of packrat friends whom we visited such as Van, W2OQI, who probably had every radio or homebrew design ever built at one time in his basement. The word museum seems appropriate to describe this.

The packrat curse did not bite me right

away. When I got my Novice license in 1971, I originally got in the hobby in order to make contacts and exchange QSL cards. My first setup was a packrat's delight, however, as I used a surplus Command set transmitter pushing out twenty watts and a timeless HRO receiver for 80 and 40 Meter operation. I occasionally built some matching coils and tuners but did not stray much beyond that.



Part of the packrat mentality was that you built your own equipment rather than buy it. Sometimes this philosophy could be expanded to where you could be allowed to buy used gear and work on restoring it into working condition. But to buy new equipment? This went against the grain of being a packrat. However, even this mentality could be taken to the point of being very ridiculous. I have seen people struggle to use really out-of-place equipment to go on some bands rather than shell out a few hundred dollars for something halfway decent. These people do have money but they are trapped in a philosophy that transcends the average packrat.

There is the case of a packrat on Long Island who goes scrounging at 5 a.m. through the garbage left on the curb for pickup. This guy found a printer but no manual, so of course he knocked on the owner's door at 5 a.m. to a chorus of profanity that was captured on the packrat's radio which was an open mike on the local repeater!

Most packrats are a little bit more balanced than this as they will buy new equipment on occasion, but they still get the biggest thrill out of making a pile of random parts from the junk box

work in a circuit. Many of the avid QRP operators are also packrats since the two philosophies overlap. You really can't be a true QRP operator if you have not built a QRP rig from scratch -- operating a commercial rig at QRP power with a Bird wattmeter is not in the true spirit of a diehard QRPer!

There is one line most packrats will not cross, and unless they really have to, they will not buy commercially made antennas. They will generally build their own antennas using whatever material they have on hand in accordance with handbook calculations.

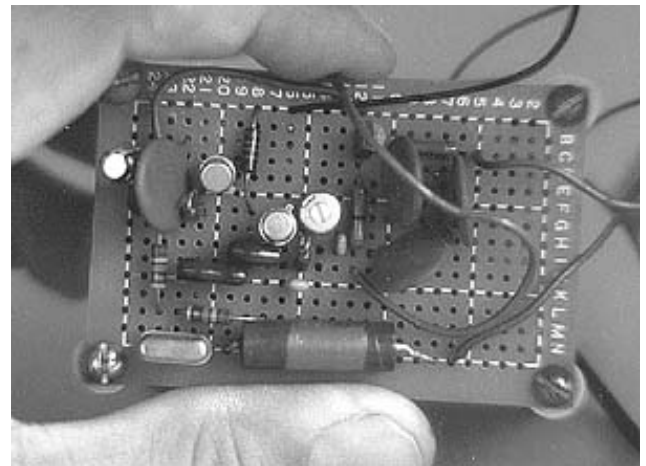
The packrat's Nirvana is the flea market. It's here where he meets his fellow packrats and they compete to find the best bargain on anything related to radio. One will notice after attending a few flea markets that the heaviest trading occurs at the beginning and at the very end of the flea market. When a car or truck pulls in loaded with stuff, there will be at least a half a dozen packrats waiting to make bids on a desired piece of gear before it even gets out of the vehicle! I remember one flea market where my partner sold over \$200 worth of stuff before any of it was unloaded from the van! Then things slow down during the middle of the flea market until the end when people are selling at incredible bargains so that they don't have to take the stuff home! Often, someone will leave a pile of stuff on the ground when they leave so that a whole group of packrats will scream, "Free stuff!" and pick out goodies for nothing. The conflicts between buyers and sellers are the things that legends are made of in packrat lore.

Of course, the ultimate amateur radio flea market is the Dayton Hamvention. I finally had the fortune to visit it in 1998 with my father, fulfilling a life-long dream. The sheer size of Dayton is mind boggling when seeing it the first time. Hams pack the hotels as much as 40 miles away for the three day event. Many a packrat's heartbeat has increased just from the mere mention of the word "Dayton."

The road to becoming a full fledged packrat may vary among different individuals. In my case, I really did not get into the building aspect of the hobby and take full advantage of radio flea markets in my early Ham days until I joined an electronics company in 1987. Prior to that I worked a number

of years for an aircraft company. All of a sudden, I had to get smart in electronics as part of my job and took a number of electronics courses. This gave me the push into building simple devices for musical instruments and QRP transmitters for Amateur Radio. This gave me the push towards getting my Extra class license in 1988. Access to parts was excellent as many junk parts were available not only in the trash bins of my company, but also in the dumpsters of adjacent companies in the industrial park where I worked.

It was in this company that I met the undisputed King of the Pack Rats, Fred Franke, WB2NFO. If you needed a part as well as a description, he was sure to have it somewhere in his basement as well as knowing everything about it. He spent so much time at flea markets and looking for junk parts, he had no time to get on the air. One of the biggest hauls we were involved with was when a hybrid manufacturer moved out of the industrial park and left behind all sorts of switches, transistors, Bud boxes and circuit boards. The feeling was similar to that of the buccaneers looting a cargo ship in the Caribbean. It was a full week of ecstasy for us when searching after work to find new goodies. I even made a few bucks selling some transistors and capacitors to a surplus parts supplier.



As stated before, packrats are born and not made. Sometimes it may take a few years for the urge to collect parts to build something shows up. The metamorphosis is similar to Lon Chaney changing into a werewolf. The packrat will find himself taking out circuit boards from electrical appliances in the junk bin for the purpose of pulling out a certain value resistor. A good packrat will

reach a point where he will not have to buy any new resistors, capacitors, switches and transistors. All he may have to buy is an occasional microcircuit. You won't see many packrats using many store-bought parts on their projects. Part of the fun is pulling off old parts from junk boards and watching them work in another application as a homebrew project.

Sadly, the packrat is becoming extinct in the amateur radio hobby. You will see less and less parts in junk boxes available at flea markets. It seems people are more geared to selling mostly computer and other appliances. Sometimes after one is so accustomed to having it all in a state-of-the art transceiver, it's nice to make a simple transmitter from scratch that puts out all of maybe two watts. It's hard to beat the feeling of building something yourself and then making contacts on the air with it! I got this feeling when I built an oscillator circuit that later developed into a Two Watt crystal control transmitter and got excellent signal reports from Ohio, Virginia and France. It seems that even in countries where homebrewing is a necessity in order to get on the air, there are more commercial rigs finding their way into these places. I would like to see a radio contest where the various participants must use a homemade QRP transmitter for extra points. I think that contests like these might stimulate an aspect of our hobby that is fading and needs a little boost. It is not just an issue of being an appliance operator as much as it is to preserve a spirit of adventure that had been a major part of the hobby in the early days for many years.

Ken Neubeck, WB2AMU/*Worldradio*□

Contesting Calendar

Ten-Ten Intl. Summer Pty.-Phone	0000Z, Aug 5
Europe HF Chmpshp-CW/SSB	1000Z, Aug 5
N. American QSO Party-CW	1800Z, Aug 5
YO DX HF Contest-CW/SSB	0000Z, Aug 6
QRP ARCI Summer DAZE-SSB	2000Z, Aug 6
Worked All Eur. DX Contest-CW	0000Z, Aug 12
Maryland-DC QSO Party-CW/Phone	1600Z, Aug 12
W/VE Islands Contest-CW/SSB	1600Z, Aug 12
SARTG WW RTTY Contest	0000Z, Aug 19
SEANET Contest-All mode	1200Z, Aug 19
Keyman's Club of Japan Contest-CW	1200Z, Aug 19
SARTG WW RTTY Contest	1600Z, Aug 19
N.American QSO Party-SSB	1800Z, Aug 19
New Jersey QSO Party-CW/Phone	2000Z, Aug 19

SARTG WW RTTY Contest	0800Z, Aug 20
SCC RTTY Championship	1200Z, Aug 26
TOEC WW Grid Contest-CW	1200Z, Aug 26
Ohio QSO Party-CW/SSB	1600Z, Aug 26
CQC Summer QRP QSO Pty-CW/Ph	1800Z, Aug 27
All Asian DX Contest-SSB	0000Z, Sep 2
AGCW Straight Key Party-CW	1300Z, Sep 2
IARU Region 1 Field Day-SSB	1500Z, Sep 2
N. American Sprint Contest-CW	0000Z, Sep 3
Panama Anniversary Contest-SSB	0001Z, Sep 3
MI-QRP Club Labor Day CW Sprint	2300Z, Sep 4
Worked All Eur. DX Contest-SSB	0000Z, Sep 9
N. American Sprint Contest-SSB	0000Z, Sep 10
AGB NEMIGA Contest-CW/SSB	2000Z, Sep 15

For more comprehensive listings and rules see:
www.sk3bg.se/indexeng.htm and
www.contesting.com/links/calendars□

Examination Schedule

08/05/2000⁺ (Sat.) Salt Lake City
 Contact: Gordon Smith, K7HFV
 Phone 582-2438; 534-8116

08/16/2000 (Wed.) Provo
 Contact: Steve Whitehead, NV7V
 Phone 465-3983

08/29/2000⁺ (Tues.) Salt Lake City
 Contact: Eugene McWherter, N7OVT
 Phone 484-6355

09/13/2000 (Wed.) Mantua
 Contact: Jim Jones, KJ7VO
 Phone (435)723-1947

⁺Pre-registration required. Contact the contact person prior to the examination date.

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

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





Tom Roling W7GT

....Or Is It The Final One of the Millennium Just Ending?

UARC Jackets and Hats

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