

The island in question. See page 5.

# The Microvolt

November 2003

Please Send Dues to:

UARC

c/o Gregg Smith

7546 S. Uranium Drive

West Jordan, UT 84084-3942

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## Prologue

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

**Meetings:** The club meets each month except July and August. The meetings are held on the first Thursday of the month at 7:30 PM in the University of Utah Engineering and Mines Classroom (EMCB) building, Room 101.

**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, K7APW, 7546 S. Uranium Dr., West Jordan, UT 84084-3942. ARRL membership renewals should specify ARRL Club #1602.

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

**Repeaters:** UARC maintains the 146.62- and 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 (uarc@xmission.com), but other means including diskettes and typewritten submissions can be mailed directly to: Tom Schaefer, 11678 Littler Rd., Sandy, UT 84092. All submissions are welcome but what is printed and how it is edited are the responsibility of the Editor and the UARC board. Reprints are allowed with proper credits to *The Microvolt*, UARC, and authors. Changes in mailing address should be communicated to the Club Secretary: Gregg Smith, 7546 S. Uranium Dr., West Jordan, UT, 84084-3942.

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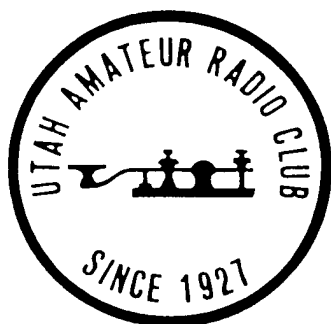
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For late breaking news listen to the UARC Information Net Sundays at 21:00 on 146.62 or set your browser to:  
[www.xmission.com/~uarc/announce.html](http://www.xmission.com/~uarc/announce.html)

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





## QST from the Prez

**Brett Sutherland, N7KG**

This month, let's start with a few items of great interest. ARRL President Jim Haynie (W5JBP) recently bemoaned the lack of support in congress for the Amateur Radio Spectrum Protection Act, HR-713. That, as well as S.537 and HR-1478 will need a great deal more support before they can be expected to pass. I've written my letters via the easy email method, and received the expected responses. As with all things politic, the squeaky wheel gets the grease. Here's the contact info from the ARRL letter:

*Sample letters are on the ARRL Web site for the Amateur Radio Spectrum Protection Act of 2003 and for the Amateur Radio Emergency Communications Consistency Act, Radio's role in public safety and emergency communication, and for guidance on the best methods of contacting your members of Congress, see "Communicating with Congress," by Derek Riker, KB3JLF, on the ARRL Web site ([www.arrl.org/news/bandthreat/0304046.pdf](http://www.arrl.org/news/bandthreat/0304046.pdf)) or in the April 2003 issue of QST (p 46).*

*Additional information--including the bills' texts and information on how to write your congressperson or senators--is on the ARRL's "Amateur Radio Spectrum Protection Act of 2003" Web page ([www.arrl.org/govrelations/arspa.html](http://www.arrl.org/govrelations/arspa.html)) and on the "HR 1478, The Amateur Radio Emergency Communications Consistency Act of 2003" Web page ([www.arrl.org/govrelations/hr1478/](http://www.arrl.org/govrelations/hr1478/)).*

# The Microvolt

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Volume 47, Issue 9, November 2003

*Those writing their lawmakers on behalf of either bill are asked to copy their correspondence to the League via e-mail: Spectrum Protection Act, HR 713/S 637 <[specbill03@arrl.org](mailto:specbill03@arrl.org)> or Amateur Radio Emergency Communications Consistency Act, HR 1478 <[ccr-bill@arrl.org](mailto:ccr-bill@arrl.org)>.*

**Don't read another word of this Microvolt until you've written your letters!**

Now, on with the more items of interest. It is time to run for office! If you are serious about the hobby, you have to be in an office. I contend that you can learn more about the hobby in one year as an officer than in 5 years in the hobby. In addition, you can provide a tremendous service. I implore you to take your turn helping out the club and the hobby. If you enjoy the club and the friendships you've made, or if you are new to the hobby and want to expand your knowledge and resources, then run for an office. It is great fun and there are jobs for every level of commitment. Please call Gary Openshaw (KC7AWU) and tell him you would like to help. He can inform you of all of the positions available for nomination and you can choose one to fit. There are also many positions that aren't board position and require only a short-term commitment. You can ask about that as well. Make this your year to make a difference!

Also, I heard something disturbing about '62 the other day. And no, it isn't that it is still on air! I heard that someone tried to break into a conversation with a few "non-regulars" with a triple break. The breaking station was weak, almost inaudible but was denied a second chance to get their traffic through. I don't know all of the details. I would however be interested in particulars if you happen to know them. In any case, emergencies always take priority, regardless of where or how the traffic is being generated. So, please stand by for emergency traffic.

With that, our year is winding down. I wish you all the best and look forward to seeing you at the next club meeting.

73 de N7KG Brett



## Member of the Month

**Linda Reeder, N7HVF**



This month we are featuring Bryan Mogensen (KD7LEA). Bryan is the new assistant editor of the *Microvolt*. Bryan saw the announcement on the reflector and wanted to help. Bryan said he really enjoys the *Microvolt*. There is just something about receiving the printed copy in the mail and being able to sit down and read it. Bryan said that he could probably save UARC some money on printing costs.

Bryan has been in the hobby for two years and has his general class license. However, Bryan has been interested in amateur radio since High school. His electronics teacher at Murray High School was in the hobby. But, things came up and amateur radio got put on the back burner for a while. Years later one of his friends were taking Ron Speirs' (K7RLS) class so he decided to take the class too. A year later Ron was teaching a general class. Bryan took that class and passed the general theory and the code test.

Bryan likes everything about amateur radio, but one of his favorite facets of amateur radio is amateur television. Bryan is into model rocketry and he and his friends sent up a rocket with a camera and transmitter inside the rocket. They were able to watch what was going on inside the rocket while they were on the ground. Bryan is also interested in microwave transmission. He has been working with Ron Jones (K7RJ) and getting equipment ready so he can participate in it. Bryan is building a tower, which will cover all aspects of amateur radio. Bryan gave a PowerPoint presentation on his tower at Homebrew night. He also showed the antenna in the picture above. Bryan is a member of UARC and the VHF society.

Bryan works for JC Penney as an electrician. Bryan and his wife Cindy have three children: two girls and one boy.

Bryan we wish you the best in all of your endeavors and thanks for your help with the *Microvolt*.

## Upcoming Testing Sessions

Date	Location	Contact
11/05/2003	Farmington	Fred Villanueva 295-6560
11/19/2003	Provo	Steve Whitehead 465-3983
11/19/2003	St. George	Ron Sappington 435-673-4552
11/20/2003	Roosevelt	R. Chandler Fisher 435-722-5440
11/25/2003	Salt Lake	Eugene McWherter 484-6355
12/06/2003	Salt Lake	Gordon Smith 582-2438

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**Bob Wood, W7OAD  
UARC Member**

## Second Time's the Charm

(The Fremont Island Expedition)

### Part 2: Maybe We Can Get it Right

Gordon Smith K7HFV

In part one we told about setting off for an island DXpedition and ending up experiencing shipwreck instead. Some days go better than others. Our next step was to try to undo the damage so we could get back to square one.

Our ill-fated trip to Fremont Island had been on a Friday. On Saturday, Ron took a plane ride with Mike Mladejovsky, WA7ARK, and looked down on the island from above. He was able to confirm that all our gear and Brett's sailboat were still there and clearly visible. (Not that we were worried someone might run off with the boat in its current state.) The weather was clear and sunny. It almost seemed as if the Friday forecast for a chance of storminess for the whole weekend had, instead, guaranteed the remainder of the weekend would be beautiful.

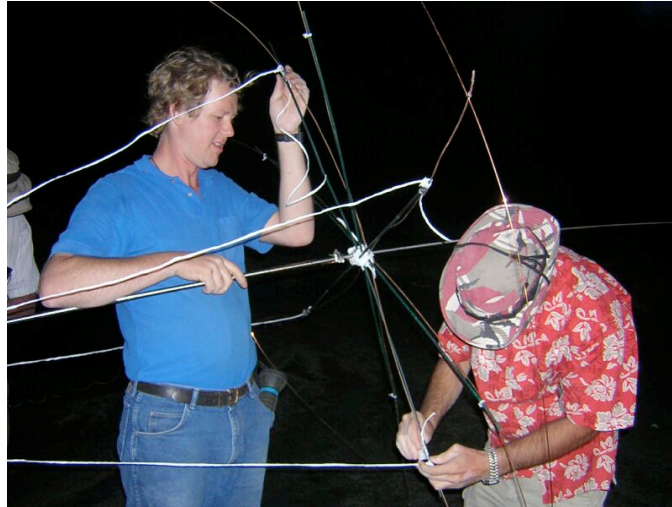
Sunday morning was the magic day when all the right people and equipment were available to attempt a rescue operation. In addition to the rangers and their motorboat with 400 horsepower, the all-time expert on the ways of the lake, Dave Shearer, was signed up for the party. Dave lives aboard his boat in the lake's south marina, works at a marine supplies store, and also works part-time as a ranger. He plays an important part in many of the rescues that the lake makes necessary.

Brett, Kelly, and Clint, along with Kevin Rasband, KG7AV, completed the rescue crew. The party made its way to the island first thing on Sunday morning. The first job there was to unload the top 2000 pounds or so of gear so that the boat would be light enough to have some chance of coming off the rock on which it was resting. After three maneuvers using harnesses and the rangers' boat, Brett's boat came free and slid into the water. Best of all, it seemed to be still seaworthy. An inspection of the rock where it had recently rested revealed paint that had been scraped off, but no pieces of hull. Paint removal isn't an entirely trivial matter -- bottom paint goes for about \$100 a gallon. But hull damage would have been much worse news. There was even more important good news as well: there was still ice in the cooler with the steaks.

The crew now got to load all the gear back in Allegro, the party returned to the marina, and all the pieces of the DXpedition kit were returned to their owners.

Within two days of the rescue the group assembled at Ron's house to deal with the extremely important matter now before

them: how to eat all the food purchased for the trip before it went bad. We had a great steak dinner and found volunteers to take home the cheesecake, the fruit, and the five pounds of Gatorade.



And, oh yes, we almost forgot about one more thing that might have been worth considering. Maybe, we thought, we should go back to Fremont Island sometime. Ah yes, going back. Maybe we could drain enough salt water from our gear to give it another try. It turned out to be impossible to accommodate the whole group on any one date in the following month, but five of the seven could go for the latter half of the Labor Day weekend. So August 31 and September 1 were declared the new target dates. Mike and Mac had to send their regrets (why were they smiling?), but Brett, N7KG; Clint, KA7OEI; Kelly, KV7V; Ron, K7RJ; and the author, K7HFV, were ready to give it another go.



Although we never had a chance to use it, a fair amount of antenna planning had preceded our first trip. After hearing the stories about Kenny Silverman, K2KW, and his famous "Team Vertical," we couldn't help but think about a vertical for operation from the shore of the Great Salt Lake. The flat, conductive surface of the lake sounded like it should be just what a vertical would need.

It would have been nice to put up a 65-foot insulated mast to make a quarter-wave on 80 meters, but reality intervened with limitations on time, weight, space, and ambition. So Clint did



a bit of modeling with some antenna software and discovered that a top-hat with a one-meter radius would do wonders for the club's telescoping vertical. Particularly on 40 meters, it would increase the radiation resistance substantially, meaning more power would be radiated and less thrown away in ground losses.

When Sunday arrived, our loading effort was somewhat less burdensome than on the first trip. We had two fewer operators, no generators, fewer backup rigs, and provisions for only one day instead of three. The time saved allowed us not only to get to the island before sunset but also to explore further north along the western coast than we had done on the first attempt. Helped a bit by information from Ron's aerial reconnaissance from the week before, we found a small bay with a road leading out and a beach that was actually rock and sand rather than the lake's famous aromatic mud. Best of all, there seemed to be no darkening to the west or approaching white lines on the water.

On this trip, Brett's nine-year-old son Nathan, who seemed the most eager of all as we started making dinghy trips to shore to unload the equipment and supplies, had joined our five operators.

By the time all the gear and people were ashore, it was almost dark. We attended to dinner, sunset pictures, and then remembered that we had also been planning to set up a ham station. The biggest job needing to be done before we could get on the air was probably building of the top hat. A radius of one meter didn't sound too large while we were calculating and talking on the telephone, but handling a wheel about six feet and seven inches in diameter wasn't entirely trivial, especially in the dark. The design involved heavy copperweld wire with reinforcing bamboo stakes for the spokes, and lighter copperweld for the outer ring.

Our landing site provided a small peninsula -- just the right size to hold the antenna and run radials on three sides directly into the salt water. Remembering, "A vertical is only as good as its ground," we ran plenty of radials.

At this point Brett and Nathan were ready to turn in for the night and, with Kelly, were planning to sleep aboard the sailboat. Kelly, however, wanted to see the antenna project through and do some operating. Kelly, it was decided, would go out to the boat with Brett and Nathan, and then bring the dinghy back to shore.

This strategy sounded simple enough, but it turned into an unexpected adventure. The first problem was trying to find the sailboat in the dark, but the party navigated well. A stiff breeze had come up, and there was now a strong current going out from shore. This made rowing the dinghy easy -- maybe a bit too easy. While trying to maneuver into position, the party went a bit past the sailboat. Kelly started to row back toward Allegro but discovered that was easier said than done. Rowing for all he was worth, he could just barely stay put and avoid being swept out into open water. Brett, seeing the problem, added his hands to the oars, pushing while Kelly pulled. Between the two of them, with a monumental effort, they just barely made it back.



If they had drifted another ten feet, they likely would not have made it. What would have happened then? Surprisingly, they had no radio with them and no other means of signaling. Even if they had gotten the shore party's attention, there may have been nothing that group could do. The group in the dinghy might well have been miles away by sunrise and the group on shore would have been puzzled by their disappearance. Perhaps

this segment of the lake would have become known as "The Wouff Hong Triangle."

Back on shore, radials, feedlines, tuners, and SWR bridges were being connected up. Someone commented,

"I wonder why Kelly didn't come back? Maybe he decided he was tired too."

The vertical was up, but the tuner was not tuned, and no one was quite sure if the antenna was functional at all. Clint hooked up his Yaesu FT-817 and heard strong signals on 40 meters. When W6NL called CQ, it was just too tempting not to try answering. Clint called him back and almost immediately the first QSO from Fremont Island was underway. It was 11:20 P.M. and the operator, Dave, in the San Francisco area, gave us a good signal report. We had no sooner finished that QSO when Gene, XE2EEQ, called us from Rosarita Beach in Baja California. We already had one of our two required DX contacts and we were running QRP on an untuned antenna!

Finally things quieted down sufficiently that we could tune the antenna using the tuner at the base and master the necessary incantations to get an IC-706 on the right band. The 706 was

initially troubled by terribly distorted receive audio. Brett, the owner, wasn't available to ask if this was normal or if the speaker had suffered salt-water damage. Finally, Clint discovered an external speaker in the box with 706-related gear and concluded he wasn't the first person to notice an audio problem. As soon as the speaker was connected, operating became a lot more pleasant. The extra power and tuned antenna had resulted in better signal reports as well.

The author gave up and went to bed at this point, but Clint and Ron kept on working stations and trying the antenna on new bands until about 4 A.M. The antenna worked acceptably on 80 and 20 meters, but conditions favored 40, which continued to deliver contact after contact. One of the contacts was a VK who appeared to be operating outside the portion of 40 given to his region. Not having a copy of the Australian rules handy, they logged him and went on.

It seems that neither Ron nor Clint had or could find a pencil, so they did their logging with a piece of solder. Solder does, I found out, make faint lines that can be read easily using some of the ultraviolet techniques developed by those who decipher ancient papyrus scrolls.

One other problem was that none of the operators they worked were actually involved in the US Islands Award (USIA) program or were looking for a rare island. Nevertheless, the contacts kept coming. (If we do this again, we must remember to write down the spot frequencies for USIA!)

I returned to the scene a bit after 6 A.M. hoping there would be a chance to work some JA's on 40 CW. The JA's were there, but we lost a battle with the 706's menu system and were not able to transmit. The 817 went on CW with no problem, but didn't quite have enough power to get back to the stations we could hear. Finally, Brett came on two meters from the boat and gave us the secret code to get the 706 into CW transmit mode ("Hold the F2 button with your left elbow..."), but by that time conditions had changed and we had to settle for some QSOs with W6's.

As the sun got higher, 20 came to life and we took advantage of it. This was the one band for which we actually knew the location of the USIA frequency segment. Before long we had genuine pileups calling us including some folks looking for USIA contacts. The fierce outbound water current of the night before had subsided, so Brett, Kelly, and Nathan were able to join us. (After spending a night on the boat, Kelly still swears it's haunted.)

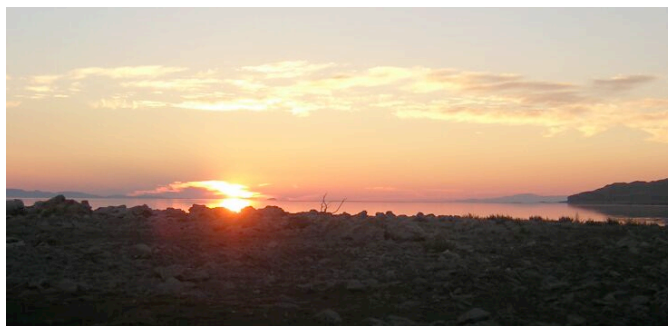
Everyone got some time to operate. Some went at it ragchew style, while others zipped through stations at two or more a

minute. We worked at least two other notable stations on USIA-recognized islands. One was on Kodiak Island in the Gulf of Alaska, and the other was on Battersby Island in the St. Lawrence River. Just before we shut down, we worked three UARC members: Mark, AC7XR; his son Mike, KD7UUB; and finally Linda, N7HVF.

We'd have been happy to keep going, but Brett, who had been keeping his eye on winds and waves, suggested we had a window when we could ferry gear back out to the sailboat, and there was no guarantee we would have another. By this time we had learned to pay attention to such pronouncements from Brett, so we started tearing down. Altogether we had worked a little over 100 contacts in about 12 hours. That doesn't compare well with, say, the Bouvet DXpedition, but at least we had a comfortable margin over the 25 contacts required to activate an island.

Just before taking it down, we tried measuring our antenna's impedance on different bands. We measured with an MFJ analyzer and with a noise bridge. We learned that the man with one measuring device knows the characteristics of his antenna, but the one with two is never sure, except on 40 meters.

Finally, we and most of our gear were on the boat, we had lifted anchor (it was still attached this time), and there was a breeze worthy of flying sails. Soon we were actually sailing. It was a great feeling to glide quietly over the lake's surface, powered by mother nature. But there seems to be some law that states when sails appear, wind dies. After the first mile or two we found that we had ground to a halt and no amount of trimming seemed to improve things a great deal, so we gave up and started the engine.



Having read about what DXpeditions were supposed to be like, we knew we still had one duty to perform: serve the caviar. Soon, the delicacy had been passed to everyone

with comments like,

"Now you're going to eat this and enjoy it, no matter how much you hate it."

So there we were, relaxing, reflecting, and returning, enjoying sunshine and calm waters. The lake presented an entirely different personality than the one it had shown us a week earlier. It seemed as if all the trouble and been worthwhile. Now, if we could only figure out why we missed the palm trees and the dancing girls.

# November Meeting

## Gordon Smith K7HFV

What do hams like to talk about more than new rigs with lots of knobs, lights, and readouts? We believe that this is exactly what our November program will be about.

Thanks to Bob Wood (W7OAD) and the CPI store, arrangements have been made for Matt Yellen (KB7TSE) of Icom, to speak at UARC's November 6 meeting. Matt lives in the Seattle area and is a Technical Sales Specialist. He will tell us about the current state of amateur gear and specifically about Icom's offerings. One hot Icom item that will receive attention is the D-Star system for sending digital voice and high-speed data. Matt has recently become the lead of the U.S. development program for D-Star. He will also tell us about HF rigs and the new dual-band radios. The program will include time for questions.

That's Thursday, November 6<sup>th</sup>, at 7:30 P.M. in room 101 of EMCB on the University of Utah campus. For details on getting to the location, see page 2 or the UARC website.

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

- Availability of ARRL books from Fred, the "book lady";
- A chance to sign up for badges, hats, and jackets;
- An opportunity to join UARC or renew your membership
- The chance to meet face-to-face the people you talk to on the air
- The "Elmer Hour," a chance, after the meeting, to get your questions answered by those who have been in the hobby a while; and
- The "Meeting(s) after the meeting": A chance to enjoy pizza or other gastronomic delights with other hams.

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