

Newsletter of the
Twin City DX Association

Volume 1, Issue 2
June, 2004



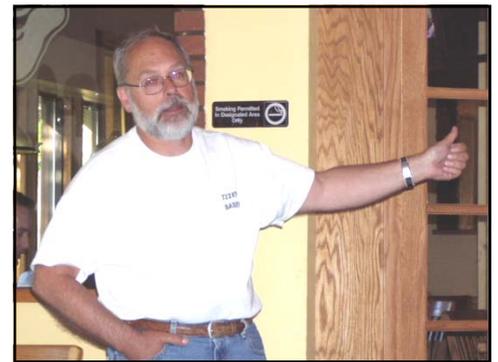
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NØKV Presents
Christmas Island, 2003
at the TCDXA May Meeting

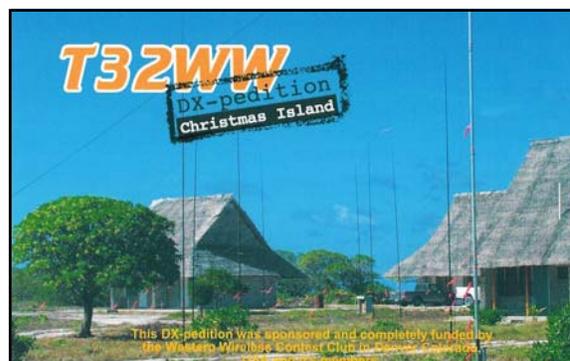


Barry Mitchell, NØKV, traveled from Parker, Colorado with his wife Pat, NØLFV, to present the story of the November, 2003 T32 DXpedition to the TCDXA membership, at the May 18th meeting. Barry was one of eight members of the Mile High DX Association (MHDXA) and the Western Wireless Contest Club, who engineered and executed the DXpedition to Christmas Island, in Eastern Kiribati.

This DXpexpedition was particularly interesting, because Barry and Bill Leahy, KØMP, designed very lightweight and low-profile 2-element Parasitic Vertical Dipole Arrays (PVDAs) for each band, from 20 to 10 meters. These highly-effective DXpedition antennas were inspired by the dipoles described in the *Microlight DXpeditions* book. The other antennas included traditional phased 2-element vertical arrays for 30 and 40 meters. And, a top-loaded Gladiator vertical with tuned, elevated radials was used for 80 and 160.

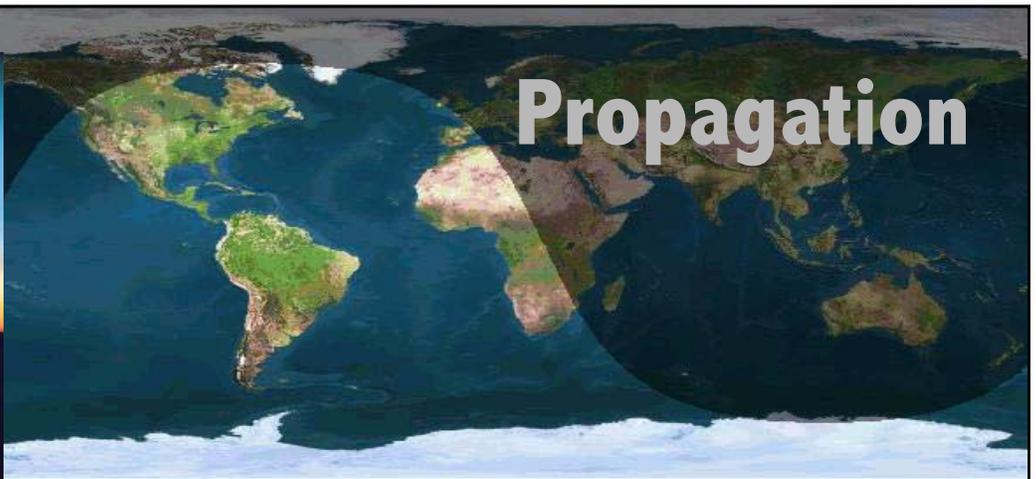
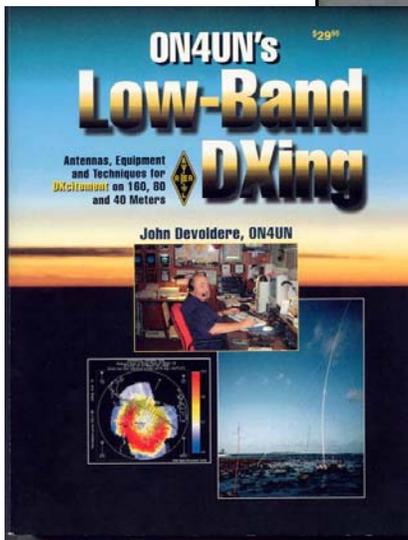
The DXpedition ran from November 24th, until December 8th, and included entries in the CQWW DX CW and the ARRL 160m contests. The group scored 10.7M points (7684 Qs) in the CQWW, and 46K points in the ARRL 160 contest. Overall, they logged 31K QSOs, including almost 1,000 Qs on topband.

This group included a few first-time DXpeditioners, including Cheryl Muhr, NØWBV, who handed out several thousand YL contacts, as T32YL.



If you missed the meeting, or if you'd like some great information about this DXpedition, see page 33 of the March/April DX Magazine, and page 48 of June QST.





Low Bands and High Angles

by John Devoldere, ON4UN

ed. - Full-size quarter wave verticals are nice to have for 80 and 160m DXing. But, not all DX is worked with antennas that radiate at low angles. John Devoldere, ON4UN, explains an interesting phenomenon, which often takes place shortly after sunrise, and provides an opportunity to work lowband DX, using simple "cloud burner" antennas.

“During the day, the lowest ionospheric layer is the D layer, at an altitude of 37 to 56 miles. The D layer absorbs low frequency signals, rather than noticeably refracting them, because it is much denser than the other higher ionospheric layers.

The density of neutral, non-ionized particles, which make up the bulk of the mass in this region, is 1000 times greater in the D layer than in the E layer. For a low-frequency signal to propagate through any layer without large losses, the number of neutral atoms should be small. Statistically speaking, a free electron in the D layer during the day would collide with nearby neutral atoms about 10 million times per second! Electrons are thus not given much of a chance to refract signals in the D layer and absorption occurs instead. The “collision frequency” is high, resulting in high levels of signal absorption

During the night, the ionization level of the D layer drops dramatically but some very small level persists. It is the degree of this remaining ionization of the D layer that determines the attenuation on the lower bands during the night. This effect is of course, mostly pronounced on 160 meters. Small variations in D layer ionization can cause large fluctuations in signal absorption on Top Band. This is especially important in the multi-hop propagation

modes where the signal has to traverse the D layer twice for each hop.

The absorption level is inversely proportional to the arrival angle of the signal, so high-angle signals pass through the D layer relatively unattenuated. This is one reason our high angle (low-to-the-ground) dipoles work so well for local traffic on 80 meters, during the daytime.

I think that this mechanism also plays a role in the **often reported phenomenon** where, for periods shortly after sunrise, high-angle antennas often take over from the low-angle antennas for working very long (long path) distances. Signals cut through the D layer, and are reflected by the E/F layers. How might the sunspot cycle affect this phenomenon? When sunspot activity is low, the formation of the D layer is slower; D layer build-up before noon is less pronounced. This is because there is generally less energy from the sun to create and sustain the high ionization level of the D layer. This means, in turn, that at a sunspot minimum, absorption in the D layer will be somewhat less than at a sunspot maximum, especially around dusk and dawn.”

Reprinted, with permission from the ARRL, from ON4UN's book "Low-Band DXing", available at Radio City or directly from ARRL www.arrl.org/shop.

TCXDA Treasurer's Report - YTD Jan 1 thru May 31, 2004

reported by Jim, KØJUH

Income

Balance Jan. 1, 2004	\$ 604.56
Annual dues collected	1,989.00
Door prize raffle ticket sales	41.00
Miscellaneous	<u>12.00</u>
Total income	\$ 2,646.56

Expenses to date

MWA donation	\$ -75.00
KØWV funeral flowers	-101.18
3B9C donation	-300.00
T33C donation	-250.00
T32 Program expenses	-200.00
Dinner for guest speakers	-39.45
Materials - member certificates	-43.47
Postage/envelopes	-99.11
Service fee - checking acct.	-15.00
Checks and service fee	<u>-5.25</u>
Total current expenses	\$-1,128.46

Current balance - May 31, 2004:
\$1,518.10

Packet Cluster Escrow Account

Balance Jan. 1, 2004	\$1,498.35
Computer upgrade ACØX node	-100.00
Balance May 31, 2004	\$1,398.35

Future planned expenses

NCDXF donation	\$ -250.00
ARRL Spectrum Defense Fund	-100.00
Peter I 2005 donation	-500.00
TCDXA website hosting expense	-70.00
Service fees - checking acct.	-21.00
Xmas meeting wine & food	<u>-200.00</u>
Total planned expenses	\$-1,141.00

Projected year-end balance:
\$ 377.10

DX Quiz

The following well-known DXpeditioners put the 7 most recent DXCC entities on the air for the first time. Match the new DXCC entity to the DXpeditioners who put the new one on the air. (Answers on page 14.)

Here are the new ones:

- H4Ø** Temotu Province - 1998
- FO/M** Marquesas Island - 1998
- FO/A** Austral Island - 1998
- E4** Palestine - 1999
- FK/C (TXØ)** Chesterfield Is. - 2000
- 4W** Timor - Leste (East Timor) - 2000
- VP6** Ducie Island - 2001

Match the country prefixes to these DXpeditioners:

- | | |
|--|--|
| <u> </u> 9V1YC , James Brooks | <u> </u> OH2BH , Martti Laine |
| <u> </u> JA1BK , Kan Mizoguchi | <u> </u> OH2TA , Pekka Holstila |
| <u> </u> K5VT , Vince Thompson | <u> </u> TF3MM , Thor Stefansson |
| <u> </u> K9AJ , Mike McGirr | <u> </u> VK9NS , Jim Smith |
| <u> </u> N4GN , Tim Totten | <u> </u> VP6TC , Tom Christian |
| <u> </u> N5KO , Trey Garlough | <u> </u> W3UR , Bernie McClenny |
| <u> </u> N7NG , Wayne Mills | <u> </u> W6KR , Robert Ferrero Jr. |
| <u> </u> N9TK , Jim Mornar | <u> </u> W6OSP , Bruce Butler |
| <u> </u> OH1RY , Pekka Kolehmainen | <u> </u> W6RJ , Robert Ferrero Sr. |

Hint: Some of these ops go on many DXpeditions.

The Logbook of the World



by
Rick Borken KØXB
Lake Vermilion
Saint Louis County, Minnesota
køxb@arrl.net

My wife and I thoroughly enjoy living “up north” on beautiful Lake Vermilion. But we’re not crazy. The winters

are severe, so we spent this past February and March in San Diego, where I operated on 15 and 20 meters as KØXB/6, using my 20-watt Ten-Tec Argonaut V transceiver and a portable vertical antenna. My friend Steve, WØHT, also lives on the lake, and we had several QSOs, while I was in California. At one point, the temperature difference between our locations was almost 100°F, but that’s a story for another day.

When I was first licensed, amateur radio operators were required to keep a log of all contacts, and I have been in the habit of doing that, ever since - at least for my HF contacts. I started using an electronic log fifteen years ago, and I began regularly uploading my log to ARRL’s new Logbook of the World (LoTW) system, as soon as it was available, last year. WØHT uploads his log files too. But, none of our QSOs showed up as QSLs (confirmed QSOs) on LoTW. Was it a system error, or was it my error? It took a while to figure out what was going on, but it turned out the LoTW system confirms a QSO between two submitted logs, only if the QSO times are within 30 minutes. Steve and I usually talk longer than that, and my habit is to record the QSO at the start, and his is to record it at the end. LoTW was doing exactly what it was supposed to do. The problem was with the operators.

LoTW is an internet-based system, designed to make it easier for amateur radio operators, worldwide, to submit their logs, in order to obtain credit for operating awards. Many of the most popular awards, such as DX Century Club (DXCC) and Worked All States (WAS) have maintained a high degree of security and accuracy, to ensure no one could falsify QSLs. LoTW has also been set up with a high degree of security, using digital certificates, and the ARRL will be using it for these awards, and others.

I have found LoTW to work, as advertised, and it is reasonably easy to use, once you get used to it. It had bugs, at first, but that’s the purpose of a beta testing phase. Ever since it was released for general use, it has worked well for me. I have more than 13,500 QSOs on the system, with approximately 775 QSL’s, including rare DX such as VK9XG, JW7QI, ZD8K, T31MY, ZA1A and even P5/4L4FN. Clearly, it allows me to confirm QSOs much sooner than waiting to receive paper QSL cards.

We all know that we are supposed to regularly back-up our computer logs. But, knowing something, and doing something about it, are two different things. One feature in LoTW lets you select QSOs from your log, based on certain criteria, such as band, mode, time, etc., and then download these data. This is meant for award tracking, but it also provides a built-in backup system for your log data. Just clear all the selection filters, and download the entire log back to your computer.

There is no charge to use the system, but you will have to pay, if you want to obtain credit toward an award. LoTW is available to all licensed amateur radio operators, and there are already approximately 7,250 users, who have submitted more than 41 million QSO records.

To get started, go to the LoTW webpage at www.arrl.org/lotw. Be sure you have your FCC license available, and also be sure you have a place to record several passwords. LoTW requires as many as four different passwords, and you have to start all over, if you ever forget any. The passwords are case-sensitive, too.

From the LoTW webpage, you first download and run the latest version of “TrustedQSL.” There are versions for both Windows and Mac OS X computers. I have not used the Mac version, but I assume it’s similar to the Windows program. (Yes, I am an avid Mac user, but I moved over to the dark side for my ham radio computing.) This will install the programs “TQSL” and “TQSLCert.” They can be found under the Start/Programs/TrustedQSL menu. It should also place two shortcuts on your desktop for TQSL and TQSLCert.

Run TQSLCert. When TQSLCert asks you to request a digital certificate, say “yes”, and follow the instructions. Be sure to write down the password it asks you to establish for the certificate request. I’ll call this “PW1”. You must use the callsign and mailing address on your current license to create this first, primary certificate. If you have operated using other callsigns or portable identifiers, you will subsequently set up separate certificates for each of them. But you need to get your primary certificate set up, first.

When it asks you to digitally sign the certificate request, choose “unsigned” this first time. Later, if you set up additional certificates for different callsigns, you will digitally sign those requests with your first, primary certificate. Finally, it will ask you to save the certificate request file (called a .tq5 file), which you can either email as an attachment to the LoTW team or upload it to them from the LoTW webpage. They then mail a postcard with a second password (I’ll call this “PW2”) to you, at the address on-file with the FCC.

Once you get the postcard, go back to the LoTW webpage and follow the link in the yellow box to get to the page where you will enter PW2. Finally, you will receive an email message containing your username, which is normally your callsign, a third password (let’s call this one “PW3”), and your primary digital certificate, as an attachment. This will be what they call a .tq6 file, which you should double-click. This will import it into TQSLCert.

No one can have too many passwords. So, you can create a fourth password, if you want to save or back-up your digital certificate to a floppy disk or some other storage medium. This password prevents others from gaining access to your certificate by reading it off the disk.

Now you are ready to enter your log data into LoTW. This is easy, compared to getting set up on the system. First, use your logging program to select

the QSOs you want to upload, and create and save them as an Amateur Data Interchange Format (ADIF) or Cabrillo format log file.

If this is the first time you are entering data into LoTW, you need to define your station location using the “Station /Add Location” wizard in TQSL. Then, use the “File” menu in TQSL to digitally sign the log file. This will convert it into what they call a .tq8 file for you to save. The TQSL program will ask you for PW1, before it creates the .tq8 file.

Finally, log into the LoTW User Web Site (www.arrl.org/lotwuser) by using your username and PW3. Get this right; use PW3, not PW1 or PW2. (Don’t you love it?) Click the “upload file” link, use the “browse” button to find the .tq8 file you saved, and upload the .tq8 file. Piece of cake.

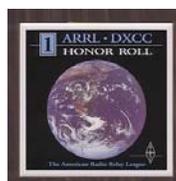
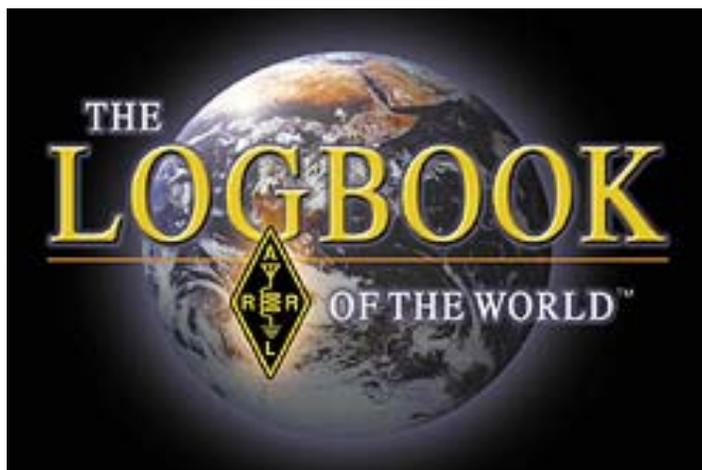
Once that is done, you can check the status of the upload for errors, QSLs, etc., by clicking on the “your account” link. A summary of your data are also shown at the top of your user page, after log-in.

I generally upload new data every week, or so, depending on how many new QSOs I had.

Each time you only need to upload additional QSOs, not your entire log.

I can honestly say I am pleased with how the ARRL has implemented LoTW. It sounds complicated, but it is really straightforward, once you become familiar with the process. It will speed up the process of confirming QSOs for awards, such as DXCC, by months - maybe years. If you already use a computer-based logging program, and have internet access, I encourage you to become a LoTW user.

Vy 73 de Rick, KØXB



COOKING-UP A DENTAL CLINIC

The ZK1XN Story

by John Baumgarten, NØIJ

“Why don’t you go with us to the Cook Islands and help build the dental clinic,” was the question asked of me by my friend, Dr. Maris Smalley, a retired Duluth dentist and fellow member of the Downtown Duluth Rotary Club. It sounded wonderful, but I barely considered it at first, in that I had a real plateful at the time – running a business, president of that Rotary Club, and lay leader of St. Paul’s Episcopal Church in Duluth. I still had one kid at home, and knew my wife wouldn’t be thrilled with the whole concept.

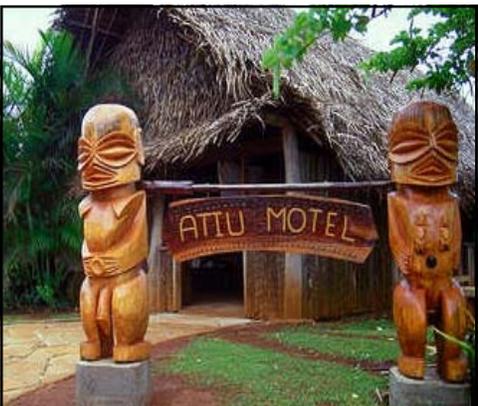


Thinking about all of this, I still thought—well, maybe! Surprisingly, my wife wasn’t really against it, and I was in the home stretch of both big volunteer jobs. Also, would I be a liar, if I didn’t admit that the prospect of a mini DXpedition wasn’t driving the idea in my mind, even though the public position was one of contributing to the good of mankind!

I signed on, with the understanding that it would be a one-month commitment. The project would take 3 weeks and a total 4 days traveling, plus a 3 day R&R at the end. We would do our building on a small island in the South Cooks called **Atiu**, about 100 miles from the main Island of Rarotonga (“Raro”, to the locals).

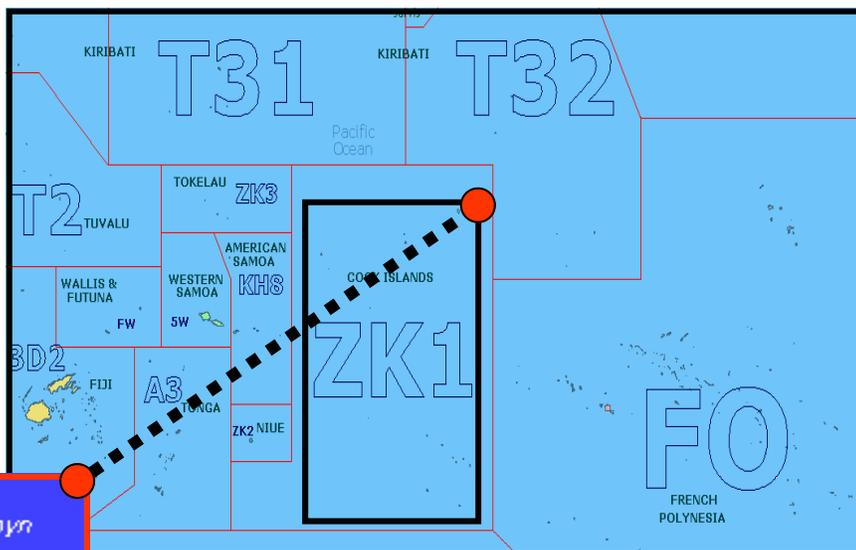
The South Cooks are scattered over a hundred thousand square miles of area, in the southern Pacific Ocean, on the same longitude as Hawaii - the same distance south of the equator, as Hawaii is north. The Cook Islands are a protectorate of New Zealand, which basically keeps them going. There is little for the Cooks to offer to the rest of the world that can’t be found closer to all of the major markets. Tourism is growing, but it’s not as big of a contributor to the economy, as they would like.

About 1 nanosecond after I agreed to go, I started thinking about what radio equipment I would bring, and how I could carry it. There was one lodging place on Atiu - a group of 4 small A-frame cabins called the Atiu Motel. There were no phones on the island, no full time power, and no email in those days. We were to be on the island nearly the entire month of March, 1990.



I immediately wrote the Atiu Motel with a plea for some place to operate, and permission to put up some antennas. I got the information about licensing from ARRL, and applied. It took 28 days for mail to turn around! This was the absolute peak of the previous sun-spot cycle, and with the location so close to the equator, it was clear that I should concentrate on 10 meters.

While waiting for a response from the Atiu Motel, I moved forward with blind optimism! I purchased a 4-el 10 meter beam from K3LR's LTA antenna company and a Butternut HV6VX. Paul, WØAIH, gave me a big roll of #18 ga covered wire, and I started prefabricating a radial system. I cut twenty 100 ft foot wires, all soldered to a 2 ft diameter #8 wire for the center, and I soldered spikes on to the other end of each wire.



started out: “Dear John, I have been a licensed radio ham for 15 years, but have never had the opportunity to do much operating. I am really looking forward to working with you!” WOW, could it get much better than this?!

He basically had nothing that I could use, except, (and this was a BIG except), a good battery system with solar/AC/generator chargers. He also allocated a spot for me in the loft of a shed, away from the sleeping cabins, with a workbench. This was about 40 ft from a small 18 ft-high water tower building with a flat roof. Perfect! The location of the beam was clearly to be the flat roof of that building, and I immediately added the necessary mounting paraphernalia to my list of things to bring.

I figured out how to get everything I needed, including two 5 ft masts, a small rotor, switches, as much feed line as I dared carry (all RG8X), keyer, paddle, etc. into a heavy-duty canvas bag, weighing 68 lbs. And, the antennas went into one 6 in x 6 in x 6 ft box.

I expected to buy a battery and charger, so I had to get a 12-volt rig. Picked up a new Omni V with filters, which began my longtime love affair with Ten-Tec. I had three items to check, and I was real glad that Northwest let me get by with the extra item. I carried all of my clothes in a carry-on.

One month prior to leaving, I received two letters back from Atiu: one from the Post Office, telling me to pick up my license upon arrival in Raro (no hint of callsign), and the other from the Atiu Motel! The letter from the motel



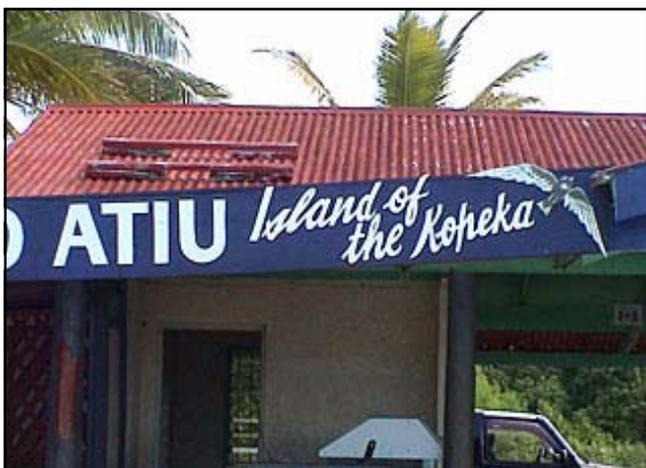
We had applied to Rotary International for assistance in this goodwill project, and very fortuitously, received a grant which covered all of our air expenses. It just kept getting better.

We were a group of 10 from Duluth and Superior. Our project involved building an office for the Island dentist to practice and live in. We purchased a packaged building from New Zealand, and it was all to be there when we arrived. It was!

Our leader also shipped over a small container, containing all of the dental equipment, and some of the tools we would need. We had a good cross-section of folks, who collectively had the skills needed to complete this job. As the sitting president of the sponsoring club, I was elected the spokesperson, and I enjoyed presenting our program to the Raro Rotary Club, and to the government of the Cook Islands, who invited us to a session of their governing body.

We flew from Minneapolis to Hawaii, and then on to Rarotonga, arriving there in the middle of the night on a flight that goes from Honolulu to New Zealand. It was really strange, arriving about 2:30am, local time, in total darkness. About 5 minutes before touchdown, they turned on the runway lights, and there it was! Sure glad the generator started.

After taking care of the necessary activities in Raro, we flew on to Atiu the following day. Talk about airport security - the guy next to me in the small Air Rarotonga plane had a large spear, which he just layed in the aisle. It was really sharp, too.



The terminal buiding at Atiu International Airport.



The waiting lounge at Atiu International Airport.

A hurricane went through, just a few days prior to our arrival, and no one knew how we would find things on Atiu. We were advised to “bring your own food!” For a month!?! By the time we were ready to go, we had about 4 times our weight limitation, but, fortunately, a large New Zealand Air Force Hercules showed up and flew all of our stuff over. I was mighty glad when I saw all my gear come out of the belly of that big airplane. Seeing this huge aircraft on a relatively short, gravel runway was amazing. To take off, they literally backed up, so that the tail was hanging over water, revved-up the 4 engines with the brakes locked, and let her rip!

We got there on a Friday, and everyone agreed that all we would do was to assemble things at the sight, and begin work on Monday. I was issued the call **ZK1XN**, and now was the perfect time to set up antennas.

My host, Roger, ZK1AW, was fascinated by my gear, and was a willing helper in getting things set up. He gave me a grassy field to set up the vertical, which worked perfectly, except that it was a long way from the shack. I utilized all of my remaining 200’ or so of RG8X coax and I was still 25’ short. Happily, he had a very old hunk of RG58U, which I used.

The beam/mast/rotor went up, without a hitch. I brought along a little converter for the 220V island power, to run the rotor. Fortunately, 90% of the world ham population, outside of Japan, is pretty much in the 20 to 65 degree direction, so I didn’t have to turn the antenna, much. It was not something I could do, at night, with the power off.

It was amazing how far away everything was. I ran a little beam heading and direction program, before I

left home, and realized that all of EU and the Middle East are over 10,000 miles, and Africa not much less. From Duluth, the only major city in the world over 10,000 miles is Perth. I brought along a little 12 volt clip-on sailboat light for night time (80% of my operating was at night), which worked well.

JA's come in all the time on all bands! When I first turned the switch, and fired up, the beam was on JA. I signed my call once, and had an immediate pileup. It was the CW JA DX contest, and things were working great. I couldn't even find a pencil and I had guys calling like mad. I got organized, made a few hundred JA Q's, and won a plaque for top Oceania 10 meters!

My regular schedule allowed me quite a bit of operating time, even though we were working 8-hour days on the project. I just didn't sleep much! Because of the heat, we would usually work from 7am to about noon - break for two hours to avoid the noon day heat, and then go back from 2 to 5pm. The noon to 2pm time was 5 to 7pm on the U. S. East Coast, so there was no lack of folks to work during this time.

There was basically no propagation to anywhere in the local mornings. But, the evenings were incredible. There was NO noise, and 10m would be open to somewhere, everyday, until about 2am local time. S1 signals from EU, 10,000 miles away, sounded perfectly Q5, and they could all hear me! Around EU sunrise, 40m would be good to most of the world.

Even with the good radial set up for the Butternut, I never really felt very strong on any of the low bands, and, in fact, was very weak on 80 and 160. The antenna was on a flat, slightly sloping grade, about 20' in elevation below the high point of the island, sloping AWAY from my prime direction (20-65 degrees). I've never understood why it didn't work better: maybe the old RG58 coax, maybe the wrong-way slope.



That's me on top of the water tower building with the 10m beam.

The beam location was on the top of the hill, and it worked unbelievably well. There was about 3 S-units difference between the vertical and the beam on 10 meters, so I knew the long run of small coax was eating my lunch, at least on the high bands. I did work a fair number of stations on 15 and 20m, whenever 10m faltered, but, clearly, 10m was the money band. In those days of new techs and novices on 10m, there seemed to be an endless supply of takers. I pretty much split things 50/50 between SSB & CW.

It was really fun to be able to talk back home, so easily. We had a standing schedule for every Sunday at 6pm CST, and it worked every time. A friend in Duluth came over and operated my station, and the families of the rest of the guys came over to my house, so everyone had a chance to talk back home (remember, - no phones on the island).

My daughter, then living in Crystal, went over to Ron, NØAT's, and I'd have to say that everyone in MN and WI who wanted a good QSO with ZK1 got through. It was impressive how the masses just stood by, and listened, while we had fun. Anyone that could put 1 watt to a dipole got through, with those great conditions. What fun it was to have a big roundtable, including WØAIH, NØAT, my QSL manager KRØB, KØIJL (my station), and so many good friends, back home.

It was very enjoyable to interact with the local Maori people, which we did at every opportunity. There were five "villages" on this little 7 by 4-mile island, three churches (CIC—Cook Island Christian, Roman Catholic, and 7th Day Adventist), and about 800 people. We were invited to dinners at all of the villages, which were wonderful, and attended all of the churches at one time or another. Our location was one of the Islander's favorites, with a weekly dance exhibition, lawn bowling, pub, etc. There was constant activity around us, and around our mission.



Everyone, except for the few Kiwis who had small businesses, worked for the government. So, when the mayor, Papa Tu, (who was also the head of the CIC), ordered help for us, we had plenty! This allowed us to complete a fairly complex little structure, including electrical, (both voltages, to comply with the U.S.-made dental equipment), plumbing, painting and setting-up the dental office, in such a short period.

Atiu is a raised coral atoll. That is, about 100,000 years ago, it was raised up out of the ocean to about 100-200 feet. There are very few picturesque beaches on the island, but, rather, many steep drop offs to the ocean. We had one nearby spot, that we could walk to, that had an accessible beach, with a reef in front, so that you could actually swim, if you were careful. Our location was about a mile, inland, and at 150 ft above sea level.



The night sky was incredible. And, of course, it's very different in the Southern Hemisphere. The brilliance of the Milky Way, and the fact that you could actually see through it to pick out two other galaxies, using only small binoculars, was breathtaking. Seeing the Southern Cross and the upside down Big Dipper, with no North Star visible, was unique. The night sky from a boat on northern Lake Superior is a close second, but still not the same.

During the building period, I continued my daily operating, and managed to get in at least 2, and often 5 hours on the air. I averaged between 50-100 QSOs per hour. I was honestly amazed that I could get along, for so long, on so little sleep, but I was having so much fun, and working so hard, that 5 to 6 hours of sound sleep kept me going.

I was not a serious DXer, prior to this trip. Rather, I concentrated on contesting, with casual DXing. A large component of my activity down there, was being in the CQ WPX contest, in late March. I had been talking about doing the contest, and got encouragement from my buddies back home, during the trip.

Suddenly, I was informed that the dedication of our building was to be at 4:00pm, on the Friday of the contest! The contest started at 2:00pm, local time, so

this couldn't have been a worse time to have to shut down. Ultimately, I was given dispensation, and told that 9 out of 10 at the ceremony would do! Whew, those were big hours. As I mentioned, the morning is very slow, so with the contest being (then) 32 out of 48 hours, I sure didn't want to take my off hours at the worst time.

I did take off some time to attend a gala party that night, which was a blast! I messed up my time calculations (no computer), and was only on for 31 hours, but managed 3100 QSOs, and snuck into the top ten, with close to 6M points.

At one point during the contest, I about lost it, when, with 2 hours to go, Roger came in and said I was going to have to quit using the beam, as it was interfering with some students who were running a clandestine shortwave radio station in his house, using his converted Yaesu transceiver. I would have to be off for 1-1/2 of the remaining 2 hours. I switched to the vertical, and the pile up disappeared within 2 minutes. I was in hyper mode, at the time, making up for time lost during the party, and really cruising, at close to 200 per hour.

Roger was willing to do anything for me, except let me transmit on the beam. I decided to move the whole shack down to the grassy field, complete with a fresh battery, and plug right into the vertical tuning stub! We found a table, pulled the battery, grabbed the Omni V, and ran the 300' down to the field. I was up and running, with only a 10 minute shut down. Signals were much louder, and the pile-up returned, albeit a bit smaller. Life was good.

Suddenly, after about 20 minutes, the wind picked up, clouds came in and it started raining! Not to be discouraged, Roger ran to get a big blue tarp, which he threw over me and the table with the rig. The wind and rain picked up, and turned into a regular gale. Someone actually tied one of the ends of the tarp to my leg. I was having a hard time operating, between the noise and listening to the gales of laughter coming from the group, a couple of who were under the table. But operate I did, and still kept a reasonable rate going through all of this.



Finally, the word came down that the kids were through, so everything went into reverse, and we moved back up to the regular shack and the beam. It had become tougher with the vertical, so getting back to the beam was a welcome change, and I finished the last 45 minutes with a great run, then in super-hyper mode. The group gathered with a magnum of champagne at 00:00 UTC. I will never forget those eventful 2 hours.

After the contest, I operated less, as my QSO total was now up to 8000 - far more than I had hoped for, and I was a bit burned-out. It was fun exploring the island in my off time with these same guys who were so supportive of my operating. I finally wrapped things up a day in advance, with a nice run to UAØ - UA6 over the pole on 10m, and closing the logbook with a huge smile.

I gave the beam to Roger, and sold the vertical, with all its coax and radials, to ZK1WL in the North Cooks, who I occasionally talked to, and who was a rep for Air Rarotonga. He sent down a wad of cash, and I loaded all the stuff into one of his planes! Roger bought almost everything else I brought along. I left with only the radio, keyer, and Heil headset.



An Aitu-Taki beach. R&R at its best!

The R&R that followed was a trip to the sandy beaches of Aitu-Taki, the Emerald Isle of the Cooks. It was beautiful there, and a real treat for a couple of days. Then it was back home. This was the trip of a lifetime!

73 de John, NØIJ

IARU #63 IOTA #OC 83		SOUTH COOK ISLANDS ATIUI ISLAND			ZONE 32		
ZK1XN							
CONFIRMING QSO WITH	DATE			UTC	MHz	RST	MODE 2-WAY
	DAY	MONTH	YEAR				
NØBG	25	3	90	2342	28	59	SSB
<input type="checkbox"/> PSE QSL <input checked="" type="checkbox"/> TNX QSL				JOHN BAUMGARTEN KØIJL QSL MANAGER KRØB <i>9B</i>			
		<input type="checkbox"/> A WAMPY QSL					

The Hunt for 5-Band WAZ

Going into the last lowband season, Dave, KØIEA, needed only Zones 18 and 22 on 80 meters to complete his 5BWAZ. In his quest for his last two zones, Dave erected a pair of phased 80m verticals to improve his chances. But, 80m conditions, last season, were generally marginal.

After tuning 80m all winter at the gray line, with no luck, Dave was about to say “Uncle”, and give up for this year. But, one morning in March, he heard UAØANW in zone 18, with a good signal. But, he disappeared, before Dave could call him.

It looked like there may finally be some propagation to zone 18. So, Dave decided to try something he *rarely* does – call CQ DX. After calling CQ for a few minutes, Dave hit the jackpot. Vlad, UAØAGI, in zone 18, answered his CQ!

So, on 20 March ‘04 at 1203z, KØIEA finally logged Zone 18 on 80 meters. Vlad even sent Dave a QSL, confirming the QSO, before receiving Dave’s card and green stamps. One down, one to go!

The moral of this story: If conditions seem right, don’t be afraid to call CQ DX !



Dave, KØIEA, poses next to one of his phased 80 meter verticals. Dave now needs only a Zone 22 QSO on 80m to complete his 5BWAZ - after working Z18, last March.

TCDXA Member Profile

Keith Gilbertson, KØKG

wave listening in 1959, while working for his radio merit badge in the Boy Scouts. In 1972, Keith decided it was time to go after his ham ticket. He signed-up for a class in Anoka, which was taught by Dave, WØIRA and Bob, KØQBJ. Keith passed his General in 1973, and earned his Extra ticket a few years later. When he renewed his license in 1980, his callsign was changed from WBØLXM to KSØZ. He held that call, until 1996, when he grabbed KØKG.

During his Boy Scout days, Keith used a National NC-60 for SWLing, which he still keeps on his shack shelf. When he earned his ticket, he started with a crystal-controlled Heathkit HW-16. He then built an HG-10B remote VFO to move around the bands. Over the years, Keith has used a Heath HW-7, Henry Radio Tempo One, and Kenwood 520, 820S, and 440S. He currently uses a Yaesu 1000MP MkV. He has two HF amplifiers: a Henry 2K Classic-X and an Alpha 77D.

After moving to Detroit Lakes in the mid-1970s, Keith met his good friend Bill Wilson, KØCDJ. He credits Bill with providing the DXitis bug, which Keith caught at about that time. Over the years, Bill and Keith have experimented with many antennas, and have assisted other area hams with their antenna and other radio projects.

At his current QTH on Cotton Lake, Keith has a 70 ft. crank-up tower, with a Force 12 model XR-5, which covers the 5 bands between 20 and 10 meters. He uses slopers for 40 and 80 meters. Plans are in the works for a second, taller tower, which has been pre-approved by the Becker County zoning administrator.

Keith's DX accomplishments are really impressive. The current DXCC Honor Roll listing shows him at 341 confirmed - both Mixed and Phone. In addition, he's achieved 5BDXCC and DXCC #1 Honor Roll. On the CQ side, he holds DX SSB Honor Roll and WPX Award of Excellence. He has plans for "more aluminum" in the near future, to help him to complete his 200 zones for 5BWAZ.



TCDXA member Keith Gilbertson, KØKG, chases DX from his beautiful 2-acre QTH on the east shore of Cotton Lake, located about 10 miles east of Detroit Lakes, in Becker County. Keith was licensed in 1973 as WBØLXM, and he has been seriously DXing since the mid-1970s.

Keith was born and raised in Fertile, MN, where he graduated from high school in 1963. The Vietnam war was gearing up, at that time, so Keith enlisted in the U.S. Air Force, and served four years of active duty, plus several more years in the Air Force Reserve.

Keith earned two undergrad degrees, plus a Masters degree from the University of Wisconsin and an additional administrative credential from the University of Minnesota. He has been employed as a professional educator throughout his career, and is currently the Director of Industrial Technology for the Minnesota State Community and Technical College system in Detroit Lakes, Fergus Falls, Moorhead, and Wadena. Keith also works closely with Northwest Technical College in Bemidji, where he's involved with workforce development and training needs for the Northwestern Minnesota region.

Keith has been married for 33 years to Jeannie, and they have two children and two grandchildren. Daughter Aleta, age 32, and son Eric, age 29, are both married, and each have one son. Keith's brother, Mark, who lives in Wisconsin, is WDØANH.

Keith first became interested in radio and short-

In addition to his TCDXA membership, Keith is a Life Member of ARRL and QCWA. He also belongs to FISTS and the Detroit Lakes Area Radio Club. Keith's other leisure interests include playing International Postal Chess, with opponents from all over the world. He's been active in postal chess since 1960, and he's been rated as a Candidate Master by the International Correspondence Chess Federation (ICCF). Keith likens waiting for a chess move in the mail to waiting for a QSL that you need for a new one.

Although he's never tried it, Keith is becoming interested in DX contesting. He says that he may schedule a session with WØGJ, to learn a few of Glenn's secrets for success. In addition, Keith says he hopes to "chase a few band countries, new prefixes, and enjoy the pileups." Expect to hear "KØKiloGolf" much more often, in future pileups!



The beautiful QTH of Keith, KØKG, on Cotton Lake.

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For Sale: Warm your shack in the winter and melt the ice off your coax and antennas! **Henry 2K Classic X** amplifier. Military/commercial 4000+ volt high-efficiency model, built like a tank (200 lbs), with the "special" Henry heavy-duty power supply. One small ding on side of lower console, otherwise pristine. Very low time on matched tubes. Easy and forgiving to tune. 80 to 10m, including WARC. Requires 30 amp 220V (only) service. Original box and manual. \$2000. Pick up preferred (or can arrange meeting within 100 miles or so of Bemidji, MN). **Glenn Johnson, WØGJ.** w0gj@arrl.net or (218) 243-2611

Wanted: Rohn 25G and **Alpha 77D/DX/SX** parts or amplifier in any condition. **Bob, WØEK.** www.w0ek.com or (320) 746-2260

Bill Clark, KØWV - SK

Bill Clark, KØWV, passed away on March 25th, at the age of 52. Bill was a longtime TCXDA member and avid DXer. Bill had achieved DXCC Honor Roll status, and had just a few left to work.

Bill worked 20 years as a welder for American Hoist and Derrick. In 1991, they closed their Minneapolis operation, and moved it to the east coast. Bill returned to school at this point, and earned his Associate degree from Century College, and his Bachelor degree from Concordia College, graduating with honors.

In 1991, while attending school, he began teaching and working with troubled youth, in a special transition program, designed to help them adjust to the rigors of everyday living. Bill was recently honored for his years of dedication to helping troubled youth.

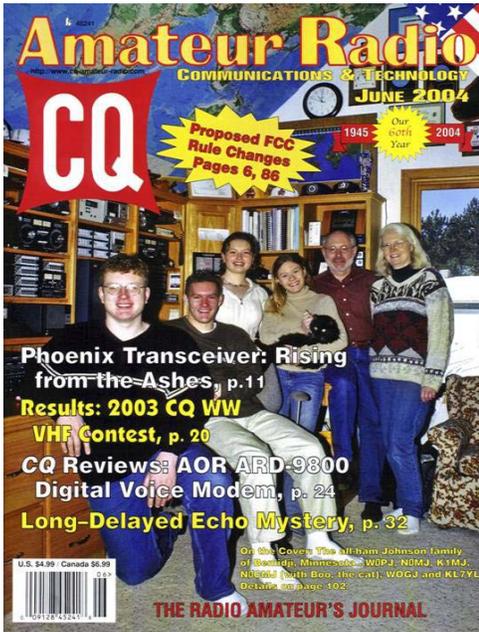
Bill's expertise as a craftsman and welder became useful in some of his other hobbies. He loved street rods. His pride and joy was a 1923 Model T roadster, that he built from scratch. He also designed and fabricated his crank-up tower. It was a real thing of beauty. Among the antennas on the tower was a homebrew 30 meter beam that really worked well - just ask anyone who listened to Bill crack the pileups on 30!

He was not only an expert welder, but also an accomplished carpenter, plumber, and electrician. He completely and extensively remodeled every room in his home, by first gutting each room down to the bare studs. Bill was a true craftsman, and always displayed a great deal of pride in his work.

Bill is survived by his wife Sandi, sons Nathan and Eric, grandson Gavin, brother Christopher, sister Barbara, and many nieces and nephews.

TCDXA Health and Welfare Report

Curt Risvold, WØHY, suffered a stroke on March 25th. After spending several weeks convalescing at a rehab center, Curt is back home and on the air - thanks to fellow TCDXA member Dale Haggert, WØIR, who moved Curt's equipment to a more accessible location in his home. Good health and good DX, Curt!!



How many licensed hams in your family?

Who holds the TCDXA record for the most licensed hams in one family?

Answer: Glenn Johnson, WØGJ, and the Johnson family

Glenn: WØGJ, A51B, A52A, A52GJ, VO2GJ, VP2EZ, ZF2RT

Vivien: KL7YL, A52VJ

Paul: WØPJ, A52PJ

Mark: NØMJ, A52MJ

Melissa: K1MJ, A52YL

Carrie: NØCMJ

Kingdom of Bhutan
CQ Zone 22 • ITU Zone 41 • Grid: NLS7

<input checked="" type="checkbox"/> A52GJ <small>Glenn Johnson, WØGJ</small>	<input checked="" type="checkbox"/> A52VJ <small>Vivien Johnson, KL7YL</small>
<input checked="" type="checkbox"/> A52YL <small>Melissa Johnson, NØMAJ</small>	<input checked="" type="checkbox"/> A52MJ <small>Mark Johnson, NØMJ</small>
<input checked="" type="checkbox"/> A52PJ <small>Paul Johnson, WØPRJ</small>	

A52GJ confirms QSO with WØBV
Date UTC MHz RST Mode
24 JAN 2001 1338 3.5 599 CW

Q.S.O. confirmed

TNX QSL 73 Glenn
The Johnson Family, 14164 Irvine Ave., Bemis, MN 56601 U.S.A.



Answers to **DX Quiz** (on page 3):

<p>H4ØAA = 9V1YC, James Brooks</p> <p>VP6DI = JA1BK, Kan Mizoguchi</p> <p>VP6DI = K5VT, Vince Thompson</p> <p>VP6DI = K9AJ, Mike McGirr</p> <p>H4ØAA = N4GN, Tim Totten</p> <p>4W/N5KO, TXØDX = N5KO, Trey Garlough</p> <p>H4ØAA = N7NG, Wayne Mills</p> <p>VP6DI = N9TK, Jim Mornar</p> <p>E44DX, H4ØAA = OH1RY, Pekka Kolemäinen</p>	<p>TXØDX, E44DX, H4ØAA = OH2BH, Martti Laine</p> <p>E44DX = OH2TA, Pekka Holstila</p> <p>4W6MM = TF3MM, Thor Stefansson</p> <p>H4ØAB = VK9NS, Jim Smith</p> <p>VP6DI = VP6TC, Tom Christian</p> <p>4W/W3UR, E44DX = W3UR, Bernie McClenny</p> <p>FOØFI, FOØFR = W6KR, Robert Ferrero Jr.</p> <p>H4ØAA = W6OSP, Bruce Butler</p> <p>FOØFI, FOØFR = W6RJ, Robert Ferrero Sr.</p>
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THE 2004 DAYTON EXPERIENCE



Jim, **KØJUH** and Bob, **WØEK** take it easy, while Gary, **KØGX** (standing) is busy wheelin' and dealin'.



World-class DXer Jim Smith, **VK9NS**, stopped by to chat. He's still very active at 75 years young!



Keith, **KØKG** and his good friend Art, **KØQQ** from Minot stop by TCDXA fleamarket HQ to say hello.



Glenn, **WØGJ** (l), and Ron, **N5IN** (ctr) smile for the camera, as Mike, **KØBUD** ponders flea strategy.



The ever friendly Gulli, **TF8GX**, invites anyone interested operating/vacationing in Iceland to get in touch with him. Gulli is QRV on all bands.

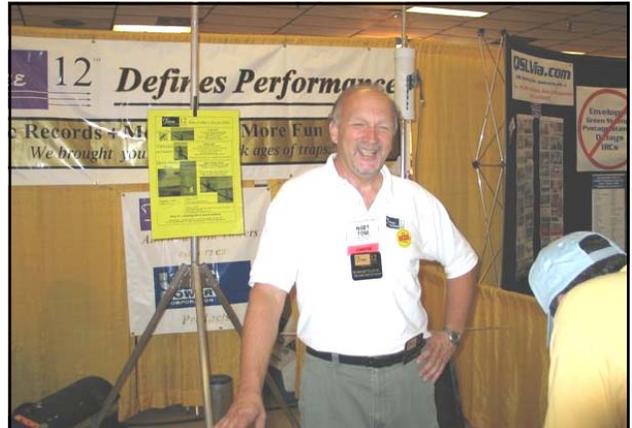


Jim, **KØJUH**, compares notes with Eric, **K3NA**, who was one of the lowband ops at **3B9C**. Eric recalled the night that topband opened for Zeros.

THE 2004 DAYTON EXPERIENCE



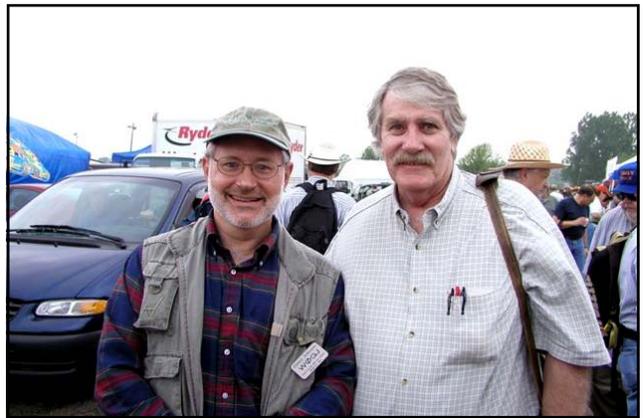
Randy Gawtry, **K0CBH** explains Timewave's newest technologies to intrigued DXers.



Force 12 owner and Minnesota native Tom Schiller, **N6BT**, enjoys a pause in the action.



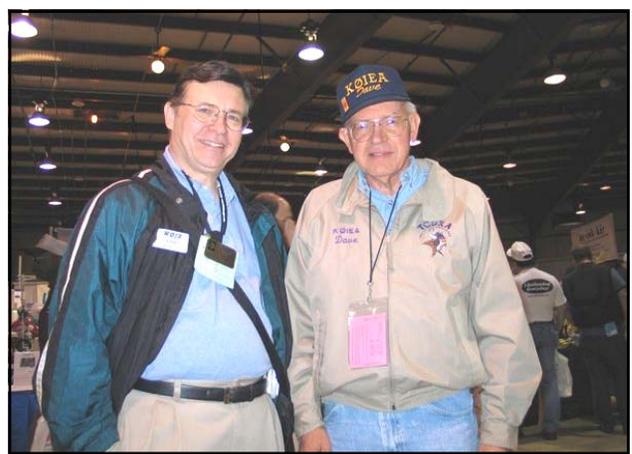
ARRL Membership Services Manager, Wayne Mills, **N7NG** with ARRL International Affairs Vice President Rod Stafford, **W6ROD**.



Glenn, **W0GJ** hooks up with fellow world traveler and legendary DXpeditioner Vince Thompson, **K5VT**. Are they maybe planning a DXpedition???



Long-time friends Bob, **W0EK** and Martti, **OH2BH** connect at Dayton for a great eyeball Q.



Dennis, **W0JX** (left) now resides in Ohio, but maintains his TCDXA membership. Dave, **K0IEA** updated Dennis on his MN DXer buddies.