

DXer

N O R T H E R N
C A L I F O R N I A
D X C L U B



The Editor's Keyboard

Soap(box) Opera: Visalia Revisited

In the *President's Soapbox* in the May SCDXC BULLETIN, Bob Selbrede, W9NQ, commenting on the recent Visalia convention, said "I don't want to perpetuate a war between the NCDXC and the SCDXC, but we sure demonstrated how to put on a proper DX convention compared to last year's show."

That, thought I, was worth a letter in response. Excerpts from that response follow.

"I am well aware that there are those who consider a proper DX convention to be a series of slideshows bound together by alcohol and rotten food. There are also those who believe that creativity and the expansion of personal awareness are desirable objectives for a gathering of individuals sharing a common interest—even DXers. These views are not necessarily mutually exclusive. Personally, I like slideshows, but—As Groucho Marx once said to a man who had fathered 11 children—'I like my cigar, but I take it out once in a while.'

Last year's Chairman—Jim "Knock" Knochenhauer, K6ITL—saw the deteriorating propagation conditions of the mid-nineties and the ho-hum format of (some) prior conventions as an opportunity to present new facets of the DX jewel to the light. This bold step meant fewer slideshows and a lot more work for Knock and his committee: slideshows, after all, are much easier to put on than forums. Most attendees appreciated and enjoyed the EME, mobile DXing, 160m and RTTY forums. Not all did, of course...

You will recall that Knock presented...*entertainment!* A banquet speaker (Chod Harris) who rolled the crowd in the aisles. A breakfast show (IRMA) that had people falling out of their chairs. People were chuckling all the way out to I5. Slideshows just don't get that kind of response, Bob!

Suffice to say that I do not comprehend your concept of a 'proper' convention, but rest assured that you will not 'perpetuate a war,' since no war was being waged. Remarks like yours, however, may well start one!"

To his credit, W9NQ replied promptly via packet, apologizing for the thrust of his remarks and stating that he was just trying to instill some spirit in his own membership. He praised our club and its efforts, and noted the friendly competition that has existed between the two groups.

It just goes to show that these newsletters do go beyond their immediate membership!

—N16T



"Knock", K6ITL

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June (Election) Meeting

The NCDXC monthly meeting will be held on Friday, June 10, in Room H1 of the Cubberley Community Center, 4000 Middlefield Road, Palo Alto.

Election of 1994-95 Officers and Directors will be the primary business. The BoD will offer a slate, but floor nominations will also be solicited.

From Highway 101, take the San Antonio Road exit and proceed south—away from the Bay. Turn right at Charles-ton Rd. and left at Middlefield. Cubberley is on your right.

Room H1 is at the end nearest Charles-ton Road. There is parking both in front of and behind the facility. The meeting will begin at 7:30 PM.

This is not a restaurant: plan to dine before coming to the meeting.

The program will be "Round Table Story Night"—an exchange of stories of the "good old days," people, equipment, situations, incidents, etc. !

N O R T H E R N
C A L I F O R N I A
D X C L U B

Club Officers:

President: George Allan, WA6O
 Vice President: Craig Smith, N6ITW
 Secretary: Ron Panton, W6VG
 Treasurer: Dewey Churchill, KG6AM
 Director: Jim Knochenhauer, K6ITL
 Director: Louese Bloom, KA6ING

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 2520 Heather Lane
 San Bruno, CA 94066
 (or via DXPSN)

Roster Manager: Garry Shapiro, NI6T

Club Repeater, W6TI/R, (147.36+)

Trustee: Bob Vallio, W6RGG

Comm. Chairman: Ralph Hunt, AG6Q

Club simplex: 147.54 (suggested)

Thurs. Net QTR: 8 p.m. local time.

Net Manager: Ralph Hunt, AG6Q

DX News: Dave Pugatch, KI6W/P

Propagation: Al Lotze, W6RQ

Contest Manager: Rich Hudgins, WX6M

Westlink: Craig Smith, N6ITW

Swap Shop: Ben Deovlet, W6FDU

933 Robin Lane

Campbell, CA, 95008

(408) 374-0372

QSL Information: Mac McHenry, W6BSY

W6TI DX Bulletins:

W6TI Station Trustee Bob Vallio, W6RGG, transmits DX information at 0200 UT every Monday (Sunday evening local time) on both 7.016 and 14.002 MHz.

Club address: Box 608
 Menlo Park, CA
 94026-0608

The DXer is published Monthly by the Northern California DX Club and sent to all club members.

Unless otherwise noted, NCDXC permits re-use of any article in this publication—provided *The DXer* and the article's author are credited.

Board of Directors Meeting

The May 18, 1994 meeting of the NCDXC Board was held at the home of W6VG. Present were WA6O, George Allan; KG6AM, Dewey Churchill; KA6ING, Louese Bloom, & W6VG, Ron Panton. Guest was NI6T, Garry Shapiro, *The DXer* Editor. Despite the absences of K6ITL and N6ITW, there was a quorum. A quorum is now three: KN6J—now an Absentee member—is no longer a member of the Board. Meeting was called to order at 7:40 P.M. by George, WA6O.

- The cost of dinner meetings, and alternatives to recent meeting places were discussed. WA6O and KG6AM will pursue this and finalize the June meeting.
- A letter from K6ITL—absent due to family commitments—was read, concerning *The DXer* and offering opinions re editorial latitude, page-count and publishing costs. NI6T being present, Knock's concerns were butted and rebutted. Garry submitted an itemized list of his monthly costs, and the Board finalized the "target guidelines" called for in the Procedures Manual. \$800 was budgeted for the Editor's annual expenses, including photography and scanning. Additional or extraordinary expenditures must be approved by the Board.
- Treasurer Dewey, KG6AM, read his report (without the repeater fund info), which was approved. The Board will meet June 1 to finalize the club's 1994-95 budget. Meeting adjourned at 10 PM.

—Ron Panton, W6VG

General Meeting

The Blue Dolphin Restaurant at the San Leandro Marina was the location for the May meeting. Approximately 50 members and guests were in attendance, and it was wonderful to see some of our old friends from the East Bay and from the Central Valley. The convivial hour was well-filled with eyeball QSO's.

- At 8:15 PM the meeting was opened by President George, WA6O. Guests were introduced, with K6UWD (a member, but rarely an attendee) mentioned along with the rest of the guests.
- Brad Wyatt, K6WR, Pacific Division Director, spoke briefly on the 13 cm proposal and other subjects. The FCC is moving rapidly on the call sign situation.
- Phil Kane, N6SP, was introduced as the speaker of the evening. Phil has spent 28 years with the FCC in San Francisco, and has been licensed for 42 years. Phil delivered a humorous but serious talk on the relationship between ham radio and the rest of the world. Ham radio is important to the United States, but the rest of the world thinks us unnecessary. We must meet outside challenges to our frequencies. Phil is on the road to becoming an attorney, which should enhance his effectiveness as a proponent of ham radio.
- After a break, the meeting was resumed at 9:38 PM with Knock, K6ITL, presenting the DXer of the Year award to Ted Algren, KA6W. (Ted was not present at the Visalia Convention.)
- Gordon, W6NLG, spoke on vanity call signs and the software at Gettysburg. Do *not* call W6NLG, K6WR, or the FCC re new call signs.
- The Life Membership application of John Brand, K6WC, was read by WA6O and unanimously approved. Congratulations, John!
- A First Reading was held for Eveline Noyes, KM6KO, sponsored by W6NLG and ~~K6AYA~~ **K6BRK**
- The raffle was conducted by Steve, W6MKM, and the Heil Pro Headset was won by Howard, WZ6Z. Raffles will be held occasionally at future meetings.

Meeting adjourned at 10:40 P.M.

—Ron Panton, W6VG

By George! de WA6O

This month, the NCDXC holds its annual elections for officers and directors. If you are interested in being part of the BoD's slate, contact W6DU, W6CF or KA6W before the meeting. Nominations from the floor are also solicited. Please consider serving your Club and help to shape its future! Please!

This month, we break with the tradition of holding meetings at restaurants. Several members have expressed displeasure over the cost and limited choices of a regular "sit-down" meal; others have opted to return to the Palo Alto *Harry's Hofbrau*—which is closed for remodeling. We have decided to take the advice of some of our other members, who have been advocating a regular (*sans* food, *sans* alcohol) meeting in a public facility. See the details on the front page.

I hope to see you in Palo Alto on June 10.

—George Allan, WA6O

Treasurer's Report

Bank of America Checking Account

Beginning Balance		\$2,317.51
Receipts	Dues received & deposited	\$0.00
	Account interest	2.12
	Subtotal	\$2.12
		\$2,319.63
Payouts	DXer printing & mailing, April.	\$211.07
	DXer postage, April	121.37
	DXer of the Year Award	56.57
	Subtotal	\$389.01
Ending Balance		\$1,930.62

Eurekabank Savings Account

Beginning Balance		\$18,694.42
	Account interest	\$36.99
Ending Balance*		\$18,731.41

*Includes \$3500 seed money set aside for 1995 IDXC

Repeater Fund

Balance per AG6Q (6 Apr)	\$1,612.18
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EurekaBank Life Members Fund Select/Jumbo CD	
Balance at Maturity (4 March '94)	\$10,432.73

Roster Changes

Change of Membership

John Brand, K6WC has been elected a Life member.

Change of Telephone

Charles K. (Rusty) Epps, W6OAT
(B) (415) 365-5918 (same as home)

It's DX Ladder Time

The next DX Ladder will be published with the July issue. It's time to update your DXCC and WAZ "brag lists". Send your updated list of confirmed countries

and zones (for all DXCC and WAZ awards) to Larry Bloom, KD6XY, by DXPSN or mail, on or before June 20.

FCC Adds Weapon Against Radio Pirates

WASHINGTON—Three years in the making, a new weapon is part of the radio police's arsenal in combatting pirates of the airwaves.

The Federal Communications Commission showed off a car equipped with two computers, a color printer and a satellite receiver in the trunk. Driven through cities and neighborhoods, it can detect unlicensed radio signals and signals that may cause interference.

"This will give us a lot of advantages against the bad guys, no doubt about it," FCC Chairman Reed Hundt said, standing next to a dusty blue Chevrolet Caprice.

By June, the FCC will have 10 such cars, each installed with \$75,000 worth of equipment. The commission would not say which of its 35 field offices will be the first to receive them.

The goal is eventually to give each field office at least two cars. How soon that happens, Hundt said, depends on Congress' appropriations to the agency.

—Noted in the *San Mateo Times* by NG6X

Coming Events

- Livermore Swap Meet, 1st Sunday each month, Las Positas College, Livermore, 7 AM-noon
- Foothill Flea Market, 2nd Saturday each month, Foothill College, Los Altos, from 7 AM
- Portugal Day Contest, SSB, June 6
- ARRL Natl. Convention, Arlington, TX, June 10-12
- ANARTS W/W RTTY Contest, June 11-12
- SACW W/W CW Contest, June 11-12
- All-Asian DX Contest, CW, June 18-19
- SP QRP Intl. Contest, June 25-26
- ARRL Field Day, June 25-26

I Remember Don

Hugh Cassidy, WA6AUD

Cass recalls the notorious DXer who changed the face of DXCC forever. Part 1 of 2.

Twenty seven years ago this June 9th, the NCDXC held a monthly meeting at the *Fork and Cork* in San Mateo. Don Miller was the speaker of the evening.

Up to that time, it was possibly the largest attendance ever at a Northern California DX Club meeting. Ninety four true-blue DX types came from far and near to meet Don Miller, W9WNV, and hear of his adventures. It was a time of change—although this is probably realized more in retrospect than it was at the time. DXing was going through a wrenching internal soul-search, the ARRL being driven into a major study of its corporate navel; things never would be the same again. It was Don Miller who brought about the changes—he and no one else. He was a superb operator who brought many new countries to the Deserving. Just ask any Old Timer about Don, but don't stand close: some are still angry! And they intend to stay that way, so just don't argue with them. They were there and they are the ones who bear the scars of those years. It was a terrible time and even today some of the elders have difficulty in talking about it.

We first worked Don Miller as HL9KH in Korea where he was a captain in the U.S. Army Medical Corps. Don Miller was a physician. He was in every contest and ran up big scores. He would operate a key with his left hand and simultaneously log with his right hand. He was among the best—if not the absolutely best operator. Never let anyone tell you anything less about Don Miller as an operator!

Back in those days—not too long after WWII—DXing was not the 800 pound giant that it is today. It was, as some would often note, an aberration. The heart and soul of amateur radio was elsewhere. If you really understood, you could find the real meaning of amateur radio in the traffic nets, the emergency preparedness organizations and all those other good endeavors. DXers were weird. The ARRL DXCC Desk was a minor chord in a minor opus. DXing was a peripheral operation

and seldom recognized or even understood by the real amateurs. Truly, many of these could never recognize nor understand the mystique of DXing. Many still don't. Only DXers understand DXing, and only DXers understand other DXers.

He was a superb operator who brought many new countries to the Deserving. Just ask any Old Timer about Don, but don't stand close: some are still angry!

In those days, the ultimate praise for an amateur was: "...he's a good traffic man." When the biennial elections for ARRL Directors were held, the general consensus was that the one who was "a good traffic man" came with the highest qualifications. In the ARRL itself, all activity was under the control of "The Communications Department." To study the organizational setup of the ARRL in those days was to quickly recognize that the ARRL was: 1. The Communications Department: 2. QST and everything else. And DXing was handled by the Communications Department—whose main interest was traffic handling. And don't try to argue on this: this is the way it was. Absolutely. (Just don't try to argue with history. You will always lose.)

In those days, the DXCC desk was primarily interested in the authenticity of QSL cards. Then, it was not smart to try to slip any bogus counters past the DXCC Desk. They had their "black light" and any card that was at all suspicious brought a hot warning that any future transgressions would be dealt with by banishment to the outer darkness—with no avenues of appeal available. Slip, and you were gone. Permanently. There was no argument or opportunity for any explanation.

All amateurs were considered to be absolutely honest. They had to be or they would not be holders of an amateur license! Normally, if you said you were in a country, that was sufficient. Even for countries where amateur radio was prohibited, good DXCC counters could be had from working surreptitious operations. The DXCC criteria clearly said that cards would be honored from countries where "amateur licenses were not issued in the normal manner." When Benito M. was the Italian tyrant, amateur radio was prohibited. But underground stations were operating from the sacred Italian soil and they were accepted for DXCC. After all, DXers were amateurs and amateurs were honest—they said they were there, of course they were there.

In short, DXing was different: a strange crowd with strange rituals. Don Miller changed things. It was never the same after Don. Don got out of the service and took off to make life a bit happier for DXers. He started showing from new countries. Don did his research and compiled a list of places which should qualify for country counters; a good many never had been considered before, as even wild possibilities. Don knew the rules and he exploited them. He even worked from Okino Tori-Shima long before the JA-jubilee year. His operation from there was not accepted.

Don showed from places that had been on the nautical charts for years but which sailors had had difficulty in finding again. Don showed from places where amateur radio was forbidden. Don showed from places that were practically inaccessible in those days. And Don worked twenty or thousand contacts at every stop.

Don was DX personified and no one would dare argue with that premise. There naturally were some malcontents. One has to expect these even in the best of times.

Some said that Don was charging for his contacts, that if you were high on the DXCC Honor Roll listing, you were expected to pay accordingly. If you did not help with the great work, Don would have difficulty hearing your signal. Some DXers were outraged at this. Here they had this big cloud of aluminum in the sky and all the power the mains could supply and sometimes a bit more and Miller could not hear their signal. But if they used the call of the non-DXing XYL or other members of the family, Don could catch it on the first call. Recognize the fact that working Don using an in-family call did not help with the DXCC counters; it only helped drive up the blood pressure.

It was a time when more than one big-gun DXer was driven to the wall and beyond. It just was not fair!

Don showed from places like Burma, China, Thailand, Heard Island, Spratly, the Laccadives, Navassa, Serrano Bank, St. Peter and Paul Rocks, Chagos and Blenheim Reef. Most of these were either prohibited countries or possibly new ones that Don had discovered. He showed from just about every needed country known and a good many places which had not previously even been considered as DXCC possibilities. He proved they were.

Don even showed from Minerva Reef, Maria Theresa and Baja Nuevo. He was everywhere. And the fact that was hard to dispute was that he often mailed his QSL cards for operations right from the country where he had been operating. Who could dispute such clear evidence of his authenticity? Who would even dare?

But some in the ARRL and elsewhere started to ask questions, possibly with prompting from some knowledgeable DXers. The easy-going, *laissez-faire* days of DXing were nearing an end. For years, you could still trace a record of Miller's activities in the ARRL Country List. These could be recognized in the Deleted Countries List by the notation: "Deleted because of lack of supporting documentation." That happened so long ago that the current DXCC Countries list no longer has such notations.

The glow of those happy days and the misery that followed are long gone. In

June, 1967 Don was on a grand tour of the States. He worked his way across the country, telling of his adventures in foreign lands and the excitement encountered in bringing new countries to the needy Deserving.

It was a good show! The NCDXC crowd that heard it that June evening enthusiastically cheered Don at every possible occasion. The opportunities were many.

It was a jammed meeting, far more than the usual dining room could accommodate. The late arrivals had to dine in remote splendor out in the main dining room.

Some said that Don was charging for his contacts, that if you were high on the DXCC Honor Roll listing, you were expected to pay accordingly. If you did not help with the great work, Don would have difficulty hearing your signal.

From there, they could hear the background noise from the good times in the regular meeting room, the voices raised in loud and good and long cheers. But Don Miller did not forget the DXers in the outer darkness; he came out to the main dining room to greet and shake the hand of every single DXer there. Don was the great friend of every DXer. Believe that! A real handshaking DXer!

Then the regular meeting room was jammed as everyone crowded in to hear Don speak. He told of his recent adventures and some of his older and more memorable ones, and made only a passing reference to the troubles developing with the ARRL. There in downtown Newington, they just did not get it. Possibly they never would.

Don told of some of his recent operations from the Indian Ocean and especially from the needed Laccadives. This was a needed one for DXers because India would not allow amateur operations there. Don had a fine slide show: he showed the approach by boat to the Laccadives, with coconut palms sticking up out of the sea. Then there was a crowd of natives waiting on the coral strand, with Don assuring the meeting that this was the headman and chief in this part

of the Laccadives and he was waiting to welcome Don to his domain.

There were pictures of Heard Island. One showed the glacier-covered mountain, Big Ben, that towered behind the old cable station and the old and decaying buildings of the station itself. Don noted one of the more habitable buildings that was the base for his activity. He was careful to note the feed-through connections that brought the old Australian cable service into the building. Heard Island was one the ARRL was moving to disallow.

Don also talked of some of the other stops along the Indian Ocean in East Africa. He told of arriving at one backwater shipping port in a small country to learn that the elder son and heir of the ruler was seriously ill at the inland capital with an arm infection. Don told of immediately gathering his doctor's satchel and traveling through the jungle and across hardly-charted mountains all night long, arriving at the bedside of the sick youngster at dawn. He immediately applied his wide medical knowledge and pulled the youngster through what had promised to be a fatal illness.

It was a touching story. Amateur radio had not been permitted in this backward country but now, as Don told it, the ruler was so grateful for the saving of the favored son that he was going to allow Don to operate there any time he wished and that there would be steps taken to lift the ban on amateur radio operations in that country.

Unfortunately, because of the delicate nature of the matter, it was neither feasible nor possible to tell the name of the country at the NCDXC meeting. But—as soon as the word was received—Don would be on the way to the New One and the NCDXC would certainly be the first among equals to know. Absolutely!

It was a joyful meeting. Don was cheered and the ARRL condemned. Taking firm action in the Don Miller matter, the club had previously adopted unanimously at a regular meeting (six ayes and no nays) a formal resolution advising the ARRL that their action in suspending credits for some of Miller's operations was premature. That resolution has never been rescinded.

Part 2 will appear in the July issue.

DXer Interview

The Bright Side of the Force

*A Conversation With Force 12's Tom Schiller, N6BT, Part 2 of 3**

In addition to the old, established HF antenna companies like HyGain, Telrex, Cushcraft, the last decade has produced companies like KLM, M², DX Engineering, Create, Sommer. What do you bring to the party?

You know, the whole thrust of Force 12 ...is to provide what I think is the most efficient antenna with the lowest profile and the easiest construction...the old KISS principle.

I was really frustrated with antennas that I felt were way too heavy for what they were. Even a 204BA—which we use as our gain figure-of-merit antenna: why does this antenna have to be so heavy? I looked at Telrexes over the years...The elements don't have to be that big: all you are trying to have is an airborne conductor that will hold up in the weather. I got hold of Kurt Andress and got his mechanical package (*YagiStress*), and that's how we came up with the very light design, but it is extremely strong. We got his original release...

I used to think: "...why do I need a heavy-duty boom? Is this one going to break?"...In our stuff, using Kurt's software, everything is done as a package, but the boom is always stronger than the weakest element. No sense having it stronger or heavier than it needs to be. Actually, if you plunk in some of the designs that are around, you will find out why they break. HyGains, by the way, were done very well. Whoever did those had the right math. *Leeson said that also, in his book. He makes several references to HyGain as a good example...*

Right. Telrex, on the other hand—that was just brute-force stuff and it doesn't have to be that heavy. *How have all the recent software design packages and books like Dave Leeson's influenced you?*

The primary one is really *YagiStress*. As far as the antenna design packages ...none of ours are automatically iterated. Every one is manually done, and we actually go and put it up, to make sure it gets what we think it is supposed to get. The first dual-bander I did, I did over 5000 manual iterations; it took me over a half-

year before I built one. The trick was trying to use the available tools to make something in the real world, and they don't always track. A better example is our linear-loaded dipoles; I built 36 dipoles before I had one that I thought was right and I lost track of how many models I tried before I had one that tracked what the real antenna turned out to be. Yet the real one and the model are not on the same frequency, but I know the offsets.

Computer models?

No, physical models. 40 meters.

You spent a lot of time on the tower?

Yeah, probably too much! Everything is really tested: I really tried to break stuff! I really tested Kurt's software—and it's very good! The only that ever broke was an eyebolt on a truss—it was too small for the load. One of our 80m dipoles got bent up at K6KM, but is only rated at 80 mi/hour and he said the wind was blowing logs off his woodpile!

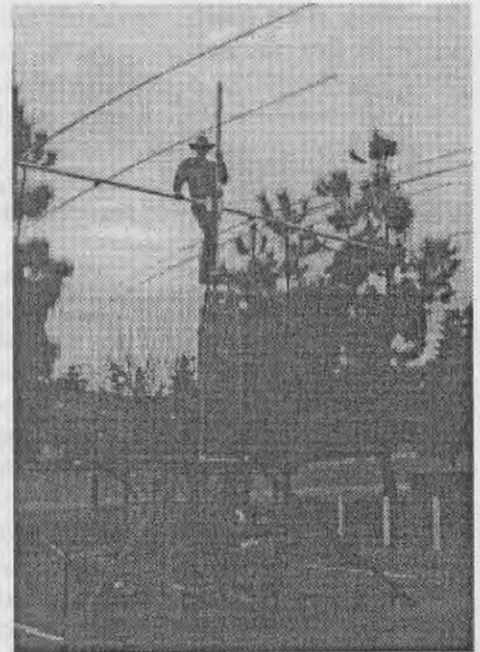
He's got a helluva signal. Where does he live?

North of Oroville, on Yankee Hill, about 3000 feet...

I think that guys who live in places like that shouldn't be allowed to do business with you!

(Laughs) He was our original test site, and still is...

The things that will mess up a design a lot are the plate sizes; the way the element gets to the boom is very critical. If you don't compensate correctly, even on 15m...one time I forgot to, and I was off 4"/element; that was how much difference it makes. *YO* did not make those compensations (it can now). I did my own measurements as to how to compensate...



Tom Schiller, N6BT

(Conversation proceeds to the disadvantages of trapped designs.)

...That's how we got to the NOMAD (NO-loss Multiband ADaptable) designs—multiband antennas with no traps.

Why did you choose the "Military" nomenclature that you are so fond of in your catalog?

First of all, "Force 12" comes off the Beaufort Wind Scale. In coming up with product names, you need a family of related names, and somehow we wound up relating everything to the word "Force." The other key is to have single-syllable names if possible.

**Editor's note: due its length and the amount of other material in this issue, the conclusion of The Bright Side of the Force will appear in the July issue.*

Is that because DXers aren't very bright?

(Laughs.) Naw, it just tends to stick in your mind better.

My 20/17/15m model went together with a pop riveter, and without a tape measure, tubing clamps, or a choice of tunings. The VSWR in the air was fine, but the linear-loaded 30m dipole over it—which did require a tape measure—detuned 2% in the air. Is this always to be expected?

The proximity to other stuff is important, and sometimes it is hard to predict. The more combinations I set up, the more I will know.

Do you see Force 12's product line expanding above 50 MHz?

Right now we are building some six meter antennas and we will eventually get up there. We are market-driven and will do a lot of research to see if we can be competitive higher up. Our primary focus is still HF.

As of now (February), your product line has monobanders and multibanders, but no traditional 20/15/10 tribanders. Were you targeting the upcoming sunspot minimum or do you just react to requests for custom designs and add them to your catalog?

Our marketing approach was to set up a series of modules. Recall that the original ad was for the Strike Force 5B, which was a stack of 3 antennas covering 5 bands. You could substitute monobanders. Then we went to a horizontal stacking arrangement. The tough problem was to figure out how to make a 20/15/10—what we call the Classic three bands. The DXer (20/17/15) was actually pushed by WBØPOP: he wasn't interested in 10 meters with the declining sunspots and that worked right in with our plan, because it was a horizontally-stacked pair of antennas that we already had. Trying to figure out the right combination for 20/15/10 was not real easy and it took a long time to do it, but again utilizing our modular approach, those antennas will be available in the 2nd quarter. There is an 18 footer called a C3: two elements on each band in a forward-stagger arrangement, with a single feedline or three feedlines; (*This was shown at Visalia—ed.*) moving from there to the C3X—three on 20 on a 24-foot boom and unchanged on 15/10, and finally the

C3XL—3 on 20, 3 on 15 and 4 on 10 on a 33-foot boom. Then there will be a C4 on a 33-foot, which is a C3X plus 2 on 40. *Are there special problems in interlacing harmonically-related antennas on one boom?*

Depends on where they are. With a forward-stagger design, as long as the harmonically-related bands are essentially behind the reflector—or at least the driver of the higher-frequency antenna—it usually doesn't see them.

You should be pushing about 50 different models now?

Yeah, about 50.

Is this creating manufacturing problems?

Every one is documented. Assembly instructions are pretty much generic, but tailored to each model, and a plan view of each antenna is included. Because we ship the antennas in sub-assemblies, we don't include a parts list. Sometimes, the subassemblies vary...

I would suggest a list for the bagged parts, at least...But the modularity is impressive. Mine went together like a TinkerToy...

One of your competitors emphasizes his patented matching system, but you use a very simple split feed...

The driver's main purpose in life is to excite the array. To keep it simple, split it and use a hairpin match; it makes the whole thing one part and far as differences in performance or radiation from the hairpin are concerned, I have yet to see that demonstrated...It's a balanced antenna being fed with unbalanced line: that's the only real issue here. I could never see going through a complicated matching system to achieve the same result.

The more elements, the lower the inherent radiation resistance. Regarding the larger arrays: are any of your stepup ratios radical?

We have a lot of antennas with direct feed, and no stepup, like the 6-element 20. *How do you do that?*

A lot of work. If you arrange the elements correctly—that's one reason why that antenna has six elements instead of five, because it steps up the feedpoint impedance and increases the efficiency of the antenna. Most of our antennas start out at least in the low 30Ω range. Another reason for the sixth element is that it peaks

the gain in the center of the band and carries it and the front-to-back through both band-edges. And the wind balance is better, which is something we spend a lot of time on. I wrote my own wind-balance software back in the late 80's to do my own stacks. Right now I've got up our six-element 20, 6-element 15 and 8-element 10. Before that I had a 54-foot boom with 4 on 20 and 3 on 40, a 6 element, 48-foot boom for 15, and a 6-element on a 36-foot boom on 10. Both of these were rotated with a TailTwister. It will rotate in any wind, if you balance it right. The issue is overcoming the inertia. *How far along do you consider the linear-loaded designs to be, especially the multi-element, multiband designs?*

The only problem still being addressed is bandwidth control. We can now offer an option to increase bandwidth more than 50% by substituting 8 feet of galvanized wire for copper on the jumpers (on the 80m antennas)...

But you are adding loss!

You are inserting 8 feet of galvanized among 150 feet of copper, so it's a very small amount of loss, but in this case it is controlled and the customer can make the decision.

How much loss are you talking about?

I'm not really sure. It is hard to know. We did a lot of testing with different materials, starting at 24 MHz; the only measurable difference there was with stainless. It's a skin-depth thing. We finally built two full-sized dipoles for 80—of copper and galvanized—and the galvanized one added about 12.5Ω, which calculated as 0.8 dB loss—over the entire length, so 8 ft is pretty small. In the real world with the full-sized dipoles, switching between antennas and listening, the average change in background noise was 5 to 6 dB for the 0.8 dB computed loss. I have not seen any papers on the subject, but it appears to be a non-linear relationship between computed resistive loss and apparent received loss. Both Rich (AB6ZV) and W6RJ have done a lot of on-the-air comparisons.

To be concluded next month.

DXer Book Review

3YØPI *The 1994 DXpedition to the Most-Isolated and Most-Wanted Country in the World*

by Bob Schmieder, KK6EK. (Reviewed by Garry Shapiro, NI6T)

The Peter I DXpedition was exceptional in many respects, both obvious and subtle. It was minutely planned, and logistically complex. It was expensive (~\$200K) and grueling (a month-and-a-half from beginning to end with two weeks of operation on Peter I). And, when it was over, there were 60,000 QSO's in the log.

Bob Schmieder, KK6EK, leads a double life: nominally a full-time physicist, he also heads his own nonprofit marine research group, Cordell Expeditions, with its own sailing vessel, the *Cordell Explorer*. This entity provided the means to activate five IOTA New Ones, before Bob volunteered for Peter I. Widely published in technical and popular journals, he was the logical choice as the expedition's environmental manager and also its chronicler.

Schmieder has produced a first-rate account of this singular DXpedition—much more than the usual chronology of preparation, travel, setup, operation, takedown and return. One of the eight operators, his perspective is from the inside, and we see the expedition taking form and gathering momentum from the furious efforts of its early participants.

These included Ralph, KØIR (chosen as Expedition Leader), Tony, WA4JQS, and Terry, W6MKB—all members of the 1992 VP8SSI DXpedition—and Peter, ON6TT, on a roll from FOØCI and AH1A. Added to the core group were Luis, XE1L, Bob, KK6EK, Bob Wilber, N4GCK, and Willy, HB9AHL. For Willy, this was to be his third #1 Most-Wanted DXpedition. The final participant was Martin Tossey, a Belgian bank manager and a non-ham, who came along to realize his own dream of an Antarctic expedition, and served as cook. The group would later be criticized for being top-heavy with SSB operators, and 2/3 of the QSO's would be on that mode.

Peter was to figure prominently in the great crisis that occurred when the Russians, with whom the group had contracted for transportation to and from Peter I, announced that they could not commit to picking them up from the island. The planned pickup ship, the *Mikal Sumov*, had gone in for repair. The dramatic events that

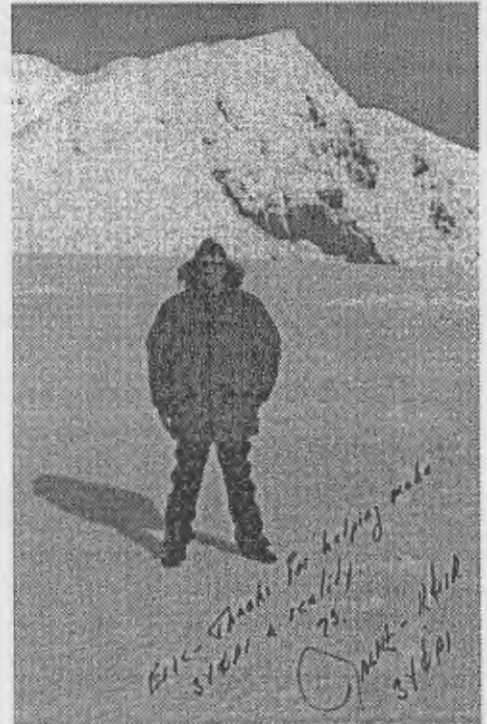
followed were subsequently well-chronicled by Peter on DX PacketClusters, world-wide, but more of the detail and drama of the successful negotiations for another Russian ship are to be found here.

Other near-disasters appear in print for the first time. Heaters/stoves, tanks and lines used a mix of European and American fittings standards, and great care had been taken to ensure that the proper adapters were brought. Then Murphy struck: despite careful co-ordination, the fittings did not mate! But KØIR had brought another set—just in case. A miracle! The group found all its kitchen gear missing: it had been in the one crate too large to lock up on the *Khlebnikov*, the Russian ice-breaker that had brought them from the Falklands; a “not-too-deep mystery,” relates KK6EK. Another miracle: the group produced replace-ments from spares and personal items.

An almost fatal event occurred when KK6EK's polar clothing, hanging to dry in front of a propane heater, caught fire, as he dozed. The team had not brought fire extinguishers!

Another problem was the damaged digital gear. The group had planned 10,000 digital QSO's, but, when Tony opened the crate with the satellite and RTTY gear, “his heart leaped: the radios looked like they had been dropped out of an airplane!” An heroic effort to fix the RTTY equipment eventually resulted in 1175 RTTY Q's; alas, the satellite gear was beyond repair.

Among the great successes was the use of Pilot stations in the U.S. and Europe, as had been done with AH1A. The feedback provided by these was deemed invaluable, and it is expected that future major DXpeditions will also avail themselves of this aid.



Ralph, KØIR, at Peter I (from W6DU)

And what of the interactions between nine distinct personalities living close together in a stressful situation? Schmieder recalls the first meeting as a group—just prior to boarding the *Khlebnikov* in the Falklands for the trip to Peter I. “It was not an easy meeting. For the first time, the participants' personal goals, ambitions, opinions, constraints, limitations, assumptions, strengths, and weaknesses were exposed, and not everyone liked everything he saw. There were words. Some kept quiet while others became agitated. No one was killed.” The group developed a saying: “Don't worry. Be happy. Be quiet.” Later, he observes: “We began to encounter the rough edges of people's capacity for close cooperative living.” He muses that it

continued next page

from previous page

might have helped to have been able to assemble the group before the actual expedition, but for this group, that option had not been available. By the end of the stay on Peter I, some were ready to leave at any price, but Peter, ON6TT was ready to stay another six months!

Several appendices form the last third of the book. Among the most interesting material is the Radioscience: statistical analysis of the 60,000 QSO's. The propagation gods smiled the first few days, but the A-index then soared to over 50 and generally stayed high for the rest of the operating period. Weather also played a part, with storms occasionally suffocating the generators and closing down radio operation. With the benefit of a direct north-south path, North America got the best of the deal, logging more than 3/4 of all the QSO's. In contrast, the Far East accounted for only 1/16—fewer than 4000 Q's. No JA pilots were used. While considerable European commentary from JN4UN and others is found in the appendices—there are no comments from JA's, who appear to have been the primary victims of the deteriorated propagation conditions.

The book is remarkable for the lucidity of the narrative, for it is well-written and will captivate any reader whose life was touched by the adventure. But it is even more remarkable for having been published less than two months after the expeditioners' return: copies were available from the participants at Dayton! It is less-than-perfect technically—many typos and other errors were missed—and it is hoped that these mostly minor but annoying imperfections have since been screened, but the overall format—typography, photography, line graphics, etc.—is quite attractive.

"3YØPI" was written to commemorate the expedition—and to raise money to help pay its enormous cost. The soft-cover volume is available for \$20 (plus \$2 shipping) from Cordell Expeditions, 3925 Walnut Blvd, Walnut Creek, CA 94596, as well as from HRO stores in Oakland and Sunnyvale. All profits (more if ordered direct from Bob Schmieder) go to the 3YØPI DXpedition.



KA6W Is DXer of the Year



Ted Algren, KA6W, has received the NCDXC's prestigious DXer of the Year Award for 1993-94. Licensed as a teenager, Ted has long been known as an outstanding DXer. His on-the-air operations have been lauded by observers who note his ability to crack pileups without stepping on any toes, relying upon skill and finesse rather than brute power. Another side of Ted has not been as obvious: he is known as "the quiet man" who helps new and not-so-new DXers to work that rare one. His behind-the-scenes assistance to others with antenna design, equipment evaluation and in general operating practices has been matched by few.

Ted has well-served the NCDXC during his fourteen years' membership, including terms as President and Director. He has contributed much time to the International DX Convention during years of NCDXC sponsorship, and greatly assisted in obtaining sponsors and speakers. He has always been willing to go that extra mile to make the Convention and any other NCDXC activity a success. He is someone to be counted upon when help is needed.

Despite the time spent in volunteer efforts, he has amassed awesome DX totals from 10 through 160 meters, with more than 320 countries confirmed overall, and 100 on 160 meters! As a newly licensed ham in the early '60's, Ted earned WAS, WAC, WAZ, WPX and DXCC before he even knew what a hilltop could do for a ham signal. Over the last several years, he has spent considerable time developing simple but effective antennas for 160 and has become a 160 meter propagation guru. His demonstration during the 160 Meter Forum at the 1993 DX Convention in Visalia converted many to the "30-minute window."

The Northern California DX Club is proud to have selected Ted, KA6W as its 1993-94 DXer of the Year.

—"Knock" Knochenhauer, K6ITL

The DXer's Devil's Dictionary

Ambrose Bierce was a misanthropic 19th Century writer who disappeared in Mexico in 1913, during the Revolution. He is remembered for stories of the dark side of the human experience. His *Devil's Dictionary* contained biting satiric definitions reminiscent of the great 18th Century lexicographer, Samuel Johnson. We shall endeavor—from time to time—to provide a few definitions in that vein, but for and about DXers and DXing. Member contributions are solicited.

- ARRL** *n.* An electronic book-publishing business with a paid membership list, disguised as a national advocacy and lobbying organization.
- Contesting** *n.* A reputedly “social” activity in which adults completely withdraw from the world for up to two days to “communicate” via radio in short, arcane utterances, with as many other participants as possible.
- DX** *n.* A collective term for all amateurs not residing within one's own country, which accident of birth or fate endows them—not unlike royalty—with a degree of desirability and celebrity not otherwise earned or justified.
- DXers** *n.* A group of likeminded optimists, separated from their senses and by great distance, generally employing hoary technology to exchange superficial pleasantries more efficiently accomplished by almost any other means.
- DX Net** *n.* An on-the-air séance in which DX stations are reputedly contacted through a conductor or medium called a “net control.” Only the medium can certify the contact, since the two stations frequently are unable to hear one another. Note that, in this context, “Net” and “Gross” are synonyms.
- Flea Market** *n.* A piece of ground, used at regular intervals for the ritualistic transfer of electronic junk between participants' garages.
- Hamvention** *n.* A large tribal gathering of radio amateurs, identifiable by such artifacts as rubber antennae attached to funny hats. Participants may be noted communicating through small radios, even when in very close proximity, while engaging in such tribal rituals as exchanging junk (see “Flea Market”).
- Maximum Legal Power** *n.* An imaginary number, observance of which is toothlessly enforced by the FCC, and ignored by insecure grown men determined to reach the top of the “Honor” Roll or contest listings at any cost, including their self-respect.
- PacketCluster™** *n.* An electronic means of working DX without ever actually having to tune for it. Often combined—at the user's terminal—with software to eliminate almost all other required skills.
- Pileup** *n.* An ostensibly sporting gathering of Many, in pursuit of One, often marked by conduct reminiscent of caged, starved animals struggling over a single morsel of meat.
- QRM** *n.* A general term for all stations in a pileup except the successful candidate; i.e. what *you* were in the pileup before the DX station came back to *you*.
- SysOp** *n.* 1 One in control of a PacketCluster™ node or nodes. 2 An individual chosen by God to rule a kingdom accessed via a frequency on the 2 meter band. A Sysop may occasionally solicit dialogue from his wretched subjects regarding PacketCluster™ innovations or procedures but is then likely to reject and punish any perceived criticism.
- 160 meters** *n.* A spectral region wherein gather two or more hopeful fools for the purpose of listening to static crashes.
- 6 meters** *n.* A spectral region wherein gather two or more hopeful fools for the purpose of listening to white noise. See “160 meters.”

—Garry Shapiro, N1GT

It's the '90's...

Your contributions to *The DXer*—your newsletter—are appreciated. However, they will be even *more* appreciated if they are submitted on disk (preferred), sent by modem, or unloaded to PacketCluster™, from which they can be downloaded to my computer. I will soon have an Internet mail address, as well.

Submissions produced by typewriter or by hand are “more work for Mother.” If a typewriter or a pencil is all that you have, that is fine, but if you have a DOS, Windows or Macintosh computer, or are connected to the DXPSN, *please* spare me the necessity of re-typing—even on short pieces.

I can directly utilize or convert material in almost any Mac or IBM format. If in doubt, send ASCII files. Please send your submissions by the 20th of the month.

—N1GT

Moscow Mail Thieves Nailed

A recent article in a Russian newspaper announced the discovery and arrest of the elusive mail thieves at Moscow's Central Post Office.

Four expeditors (one woman, four men—all in their 20's) would pick up mail at Sheremetyevo International Airport (near Moscow), then drive their truck into the nearby woods, open the bags and rip envelopes open, seeking valuable enclosures (i.e. dollars and IRC's). The piles of torn envelopes were then dumped on the spot, as trash. They were caught only when they became careless and started opening mail at the Post Office warehouse. The newspaper notes that Postal Service security people were absolutely helpless to combat the thievery and pretty much missed the whole thing. Let's hope that the above will go a long way towards improving international mail delivery throughout Russia, although I doubt it will cure the problem completely.

—Ed Kritsky, NT2X in NJDXA Newsletter, May 1994

East Bay Dinner Meeting

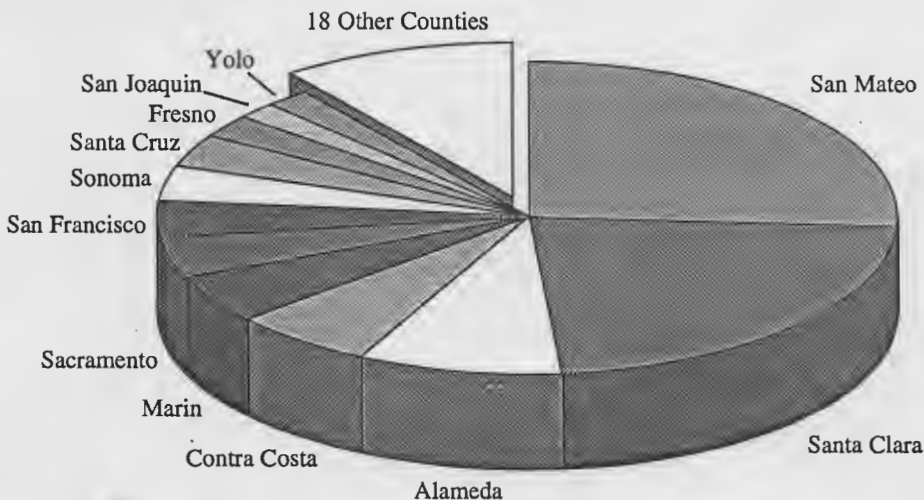


Dayton '94



NCDXC by County

Following up on *In Retrospect*—his opinion piece in the May issue of *The DXer*, Hugh Cassidy, WA6AUD, dug through the last printed *Roster*, and has compiled the NCDXC membership by county of residence. The pie chart shows the 12 counties having at least six members, and lumps together the 18 counties which each have fewer than four members.



The Bay Area is home to almost three-fourths of all voting members, with San Mateo (86) and Santa Clara (73) Counties having the largest contingents—by far. However, San Francisco is home to only a dozen of us, compared to 14 in Sacramento—testimony to the difficulty of DXing within the City of Hills?

Yes, Virginia, this is—no big surprise—primarily a Bay Area DX Club.

—NI6T

How to Know When You Are An Oldtimer

- You feel like you were up all night working DX, but you weren't.
- You get winded changing bands.
- You finally reach the top of the DX ladder and find it leaning against the wrong wall.
- You sit in a rocking chair at the operating desk and can't get it going.
- You know all the answers about how to work DX, but nobody asks you the questions.
- You walk with your head high, trying to get used to your tri-focals.
- You get your exercise by acting as pallbearer for your friends.
- The first thing you look at in QST is Silent Keys.
- Your favorite part of QST is "50 years and 25 Years Ago."
- The little grey-haired lady you help across the street is your wife.
- Dialing long distance wears you out.

Being 83 years old, I can attest that most of the above is true, hi! 73

—Hal Godfrey, N6AN