

# 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



## Great DX-pedition Planned

This month brings glad tidings. Plans are afoot for the most sensational expedition of all time and, with the proper support from you, it is bound to succeed.

For a long time the DX contingent has been moaning because certain countries have no amateur stations so it has been impossible to add these countries to their "worked" list. However, under the present plan, stations will be set up in the rarer countries and, by the end of the five-year program, all countries will have been operated from.

The plan has five operators from each of the U.S. call districts, operators selected because they exemplify everything correct and proper in operating. These operators will be elected by popular vote.

Each will be equipped with a complete station—1 KW transmitter, etc.—and given

an itinerary which must be followed closely. All expenses will be paid from a fund established by the amateurs staying at home.

The price will be \$1 per country, so if you contribute \$10, you will be entitled to contacts in ten different countries. No contact will be made with stations who have not contributed and those who have not contributed are not supposed to call the expedition stations.

This DX program will feature novel operating procedures. DX stations will start tuning from the middle of the bands instead of the edges, thus giving the fellows on the inside of the bands a chance.

While the new procedures will be unfamiliar at first, it is felt one can gradually get used to them.

—from an article in the April 1937 issue of *QST*, sent in by Knock, K6ITL.

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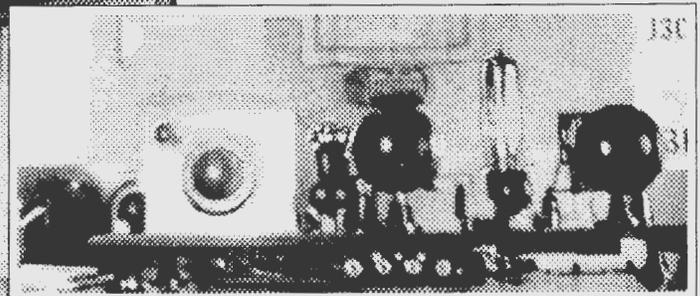
## Hamming During "The Real Depression"

"Uncle Vern," W6ERS, put the "TPTG" rig, shown in the background picture—on the shelf above the window—on the air in 1930. It featured a pair of VX250's Vern bought for 89¢ each, despite being "an inauspicious depression boy," as he puts it. To the left, on the wall, is a "pole pig" transformer destined to power a later rig. Below, the workbench holds an unidentified contraption with two dials on a metal panel—another receiver?

The inset shows Vern's 1931 three-stage rig. The metal box at the left contains a crystal oscillator based on a 245 tube. The middle section is a frequency doubler built around a 250 and the 203-stage at the right provides the 50-Watt output. The plates of



the 203 glowed white-hot with the key down. The jacks below are for monitoring meters—a classy touch for the time. At the far left, behind the oscillator, is a super-regenerative receiver—also typical then.



The operating position, with the items in the inset photo, was in the same room as the workbench, but against the wall to the right and behind the camera.



**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: Bill Fontes, W6TEX  
 Vice President: Bob Artigo, KN6J  
 Secretary: Stan Kuhl, K6MA  
 Treasurer: Bob Wilson, NQ6X  
 Director: Ron Rasmussen, NG6X  
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 2520 Heather Lane  
 San Bruno, CA 94066  
 (or via DXPSN)

Membership Data: John Cronin Jr., K6LLK

**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, KI6WF  
 Propagation: Al Lotze, W6RQ  
 Contest News: 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 2:00 zulu 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.

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## *Board of Directors Meeting*

The BOD meeting was held March 13 at Harry's Hoffbrau in Mountain View. W6TEX presided and others present were W6DU, NQ6X, WA6O, and K6MA.

- NQ6X gave the Treasurer's Report.
- The committee chairperson for the 1993 International DX Convention was approved. The selection will be announced at Visalia.
- There was no report on the "Charlie Criteria," so the issue was tabled until the next meeting.
- The Farmhouse Restaurant noise situation was discussed. The only solution, other than finding another restaurant, is to start early so the meeting can be over by 9:30, when the band starts.
- The club officer nominating committee will be chosen in April.
- The Visalia Convention was discussed. One point: there are some big doings and some start on Friday.
- The board voted to donate \$500 to help defray transportation costs of surprise guest Agin Muco, of ZA1A fame. The money will be sent to N7NG, who is handling the arrangements.

## *General Meeting*

The general March club meeting was held on the 13th at Harry's Hoffbrau in Mountain View. W6TEX presided and about sixty members and guests attended.

- The new Peavy PA system was used for the first time.
- A first reading was held for membership applicant Terry Smith, K7YNO, of Los Altos. There were no second readings.
- DXer-of-the-Year Award Committee chairman W6SZN reminded those present that the deadline for nominations was March 20. This year's selected DXer will be honored at Visalia.
- Bob Vallio, W6RGG, proposed that NCDXC show its appreciation for the successful WARC-92 efforts of K1ZZ and his the group of delegates he led. The vote was affirmative and a plaque will be made for presentation at Visalia.
- The program was a humorously narrated slide presentation by Bob, W6RGG, of the 1985 Clipperton expedition.

## *Roster Changes*

Burley, **K6AAL**, and Jim, **KA6DXY**, recently upgraded—both to Extra class. Doesn't that mean they buy a round at the next meeting, or some such?

N6ST has a new work phone: 408/943-6688

## New Members

Tony Young, WA3YLO

Both a new ham and an old timer who join a club, knowing they are "the new kid on the block," hesitate to volunteer for anything. Many attend two or three meetings and then drop out. Is this tragic? Yes, because new members bringing enthusiasm and new ideas vitalize a club. Without new member energy, clubs ossify.

Prevention means you gotta:

GET 'EM WHILE THEY'RE HOT,  
NOT WAIT 'TILL THEY'RE NOT!

So save the frustration. Implement a plan to actively draw on new members and find new ways to team them with old hands; that way, the work gets done and new members get integrated into the club at the same time.

## Unenlightened

DUE TO THE CURRENT DIFFICULT FINANCIAL SITUATION, THE LIGHT AT THE END OF THE TUNNEL HAS BEEN TURNED OFF.

*from the April '92 'W8VM Log,' the newsletter of the West Park Radiops of Cleveland, OH.*

### ROBERT C. SMITHWICK,

one of the founding fathers of the Foothill-De Anza Community College District, was honored last week at a Foothill College Fine Arts Department production, "Celebrating Gershwin and the Arts." And what a way to be honored! By the time he left, the Foothill Main Theater had been rededicated as the Robert C. Smithwick Theater. ... He spent more than 34 years on the board of trustees and was the board's first president. And it probably helps that he hasn't missed a Foothill Fine Arts production in 34 years.

*from the Peninsula Times, Mar. 21 (Mr. Smithwick is well-known and active club member Smitty, W6JZU)*

### Standing Orders:

Ideas for future club programs: provide topic, contact name and telephone number to any club officer. —*de KN6J*

Articles for the DXer: see the October issue, page 6, for details. —*de AF6S*

## NCDXC '92 ARRL DX Contest, CW Results

(summaries received by 28 February)

Call	QSOs	Mults	Score	Power
<b>Single Operator, Not Assisted:</b>				
K6MA	440	177	233,640	>200W
AA6QY	424	135	171,720	low
W6FAH	260	157	122,460	>200W
<b>Single Operator, Assisted:</b>				
N3AHA	973	287	837,753	>200W
N6IP	853	267	683,253	>200W
NI6T	501	255	383,265	>200W
W6BIP	470	241	339,810	>200W
WA8LLY/6	103	78	24,102	100W
AJ6V	31	21	1,953	>200W

(no multi-op entries were received)

If you haven't done so, please send your summary sheet to: Ace Jansen, N3AHA  
51 Kenbrook Circle  
San Jose, CA 95111

## I'll Chase DX in the Morning

Give me a key to send my code.  
Give me tower with beam.  
Give me a rig, with CW mode.  
Give me a solar stream.

And I'll chase DX in morning  
Before dawn's show royale  
And, if I may, in evening too  
By burning midnight oil.

Take the TV; I don't need it—  
Don't want it near.  
Persuasive—ad-man's greed—it  
Robs DXing time held dear.

"What if bands are dead," you say,  
"What if flux flows not,  
Or flares hold ether in their sway,  
With ions glowing hot?"

I reply, "Those aren't dilemmas!  
Time put on my hands  
Can be spent on new antennas  
For the lower bands.

Then when night again reigns long,  
With star-limned ancient nobles,  
I will hum a happy song,  
While raising low-band totals."

"But DX is a single fare!"  
You say in consternation.  
"You should learn again to share,  
In family recreation."

"Truth indeed, fair turn-about,"  
I answer without ration.  
"But rare DX was just called out!  
It pulls me to my station."

Alone again in pileup's din  
I tune and spot and call.  
Knowing trapped I'll surely be  
Until I've got 'em all.

So give me a key to send my code.  
Give me tower with beam.  
Give me a rig, with CW mode.  
Give me a solar stream.

And I'll chase DX in morning  
Before dawn's show royale  
And, if I may, in evening too  
By burning midnight oil.

—Dave Barton, AF6S (1991)

## New Element Discovered

Physicists at the FCC recently discovered the heaviest element yet. Tentatively named Administratium, it has no protons or electrons—its atomic number is zero. Administratium falls outside the normal pattern of elements in the Periodic Table.

Administratium does have a neutron—just one—along with 125 assistant neutrons, 75 vice-neutrons and 11 assistant vice-neutrons, for a total atomic mass of 312. And the 312 particles are held together by the continuous exchange of meson-like particles called memos.

Lacking protons and electrons, Administratium is inert. But it can be detected chemically; it impedes every reaction in which it is present. According to its discoverers, even a minute amount of “Ad” slows reactions from seconds to days.

Administratium has a half-life of three years. It doesn’t exactly decay though; it reorganizes instead. Some vice-neutrons become assistants and vice-versa. Why Ad’s

mass increases with each reorganization isn’t yet known.

Another peculiar property is that the more closely one tries to observe the motions of vice-neutrons inside Ad, the more uncertain these motions become.

Laboratories around the world confirmed Ad’s existence within hours of its discovery. A team of University of Utah physicists held a press conference to announce their synthesis of Ad in fusion reactions conducted at room temperature. They monitored the reaction using a highly sophisticated device that measures streams of memos emitted from a FAX. Called a FUBAR, the instrument has registered more memos being emitted by Ad at room temperature than were consumed . . . .

More information will follow from the Media Administration Division (MAD) of the University.

*from the Westlink Report, 28 June 1991*

## Now That Was Fun!

*by Dale Martin, KG5U*

Have you ever stumbled into a pileup you knew was going to take a lot of quality time? I thought I had the other night.

I came to the shack about 4Z, looked at the long list of DX spots on packet (every band but 80m had a listing), hit the 3.5 MHz band button on my TS-930, and did a quick spin through the bottom 10 KHz.

A 579 station was calling “CQ DX” and I stopped to listen. I was sure it was stateside, but after four CQ’s the station signed A22BW. And I needed that!

Figuring there must be a huge pileup building for him, I glanced at my trusty amplifier; it was off, the power plug was pulled out, and I didn’t have time to fix it before his CQ would end. So as he signed the third time, I prepared to toss my call into the maelstrom. I took a deep breath, hit the function switch over to A-B, hit the A=B

button, pressed the T-F Set button and tuned the B-VFO 350 Hz below his frequency.

But he continued to CQ. Not knowing how soon my chance to call would come, I decided to brave it without the amplifier. He had a solid signal so mine must be good there, I reasoned. But I still thought it would be a long night when he finally sent “K.”

I sent my call twice. Then, in the ensuing and long-continuing pileup, I could just hear A22BW’s reply through W[ JAH’s third set of triple calls (“fitting suffix,” I thought). I copied 579 and A22BW’s name, Larry. I had decided to use the amplifier after all and just as I was crawling under the desk I heard “KG5U K.”

That certainly made my day, but it’s a miracle I didn’t do serious damage to my person coming up from under the desk to grab those paddles!

*from the Feb. 92 issue of ‘The Bullsheet,’ the paper of the Texas DX Society, Houston.*

## New DXCC Countries and Deletions

*by Jim Maxwell, W6CF*

Year	Country	Action
81	SMOM	added
82	Kamaran Island	deleted
82	Serrana Bank	deleted
82	Bajo Nuevo	deleted
82	Saudi/Iraqi Neut. Zone	deleted
85	British Cyprus	added
87	Peter I Island	added
88	Aruba	added
88	Western Sahara	reinstated
89	M-V Island	added
89	Rotuma Island	added
90	Conway Reef	added
90	Banaba Island	added
90	Walvis Bay	added
91	Rep. of Yemen	added
91	P.D.R. of Yemen	deleted
91	Yemen Arab Rep.	deleted
91	German D.R.	deleted
91	Penguin Islands	added

Currently, 324 countries are on the active DXCC list and 51 have been deleted, for a grand total of 375. 

## DXCC Endorsements at Visalia Convention

*by Jim Maxwell, W6CF*

Chuck Hutchinson, K8CH, will be available to check DXCC endorsements on the spot at Visalia. So if you haven’t submitted cards lately, locate any you might have tucked away and check them against the additions/deletions list above.

Maybe you already have a new one or two and aren’t even aware of it. Bring these, and any other cards you’ve been waiting to submit, with you to the DX Convention. But get there early; there’s bound to be a pileup at Chuck’s desk! 

# The QSL System Needs Reform

by Ron Levy, K2AIO

Several NJDXA members have asked me to expand my proposals about QSLs. But first let me say that my intention is not to force my ideas upon those DXers who enjoy exchanging cards with foreign hams. Rather, I would like to stimulate thinking in the DX community; perhaps this will lead to a better QSL bureau system.

Having distributed hundreds of thousands of QSLs over the last 12 years, I can empathize with those who have been handling cards for 35 years—such notable DXers as W2AGW, W2BXA, W2BHM, WA2DIG, W2LV, W2TQC, and W2OKM.

They have rarely complained and they continue to do the job with a smile and a kind word. Two of them are now nonagenarians.

But realistically, many of the cards we distribute each month are worthless. They are duplicates or from easily worked countries. Only a few hams keep every card; most cards end up as landfill—a terrible waste of effort, not to mention paper.

I once traced the number of hands a card went through; it was a lot. And what an insult it is, to all those who carefully coaxed that card along, to see it thrown in a dumpster!

My point is that redundant or unwanted cards are choking the bureau system and

creating unnecessary work for our dedicated volunteers. We need to establish a new system based on common sense and consideration for its workers. As a first step, we can reduce the volume of cards by eliminating the unnecessary ones.

I have previously recommended ARRL require League membership of incoming bureau users (currently, membership is required only for outgoing). The effect would be immediate and two-fold. The number of incoming bureau subscribers would drop immediately.

That's not bad or wrong. The U.S. is the only country in which membership in the national ham organization isn't a requirement for incoming bureau service. So my suggestion isn't unique. It would also stimulate ARRL membership.

Further reduction in volume is possible. The rates charged for incoming bureau service are break-even. What would happen if we increased the rates to almost equal regular postal service? Many would quit using the service, but those who really value it would continue. But even they would be more careful about asking foreign hams to QSL "via the buro."

Generated funds could be used for the ARRL scholarship fund or the league's

political action fund (which can use all the support it can get these days—*ed.*).

Ben Stevenson, W2BXA, once proposed creation of a new Q-signal: "QSL NNN." It means, "Don't send me a card and I won't send you one either—and we can each contribute to the reduction of trash paper pollution in our respective countries."

DXers know that the best way to get a QSL card from a station is to QSL direct or to the station's manager. Generally, an SASE is sent along with IRCs or a "green stamp." Nearly every DXer uses this method for "new ones;" we all played the game with the recent ZA operations.

But now that ZAs, for example, are on the air often, the need factor has gone way down. Despite this, I've seen cards for every ZA station operating since ZA1A. After receiving a card for every band and mode, why would anyone want more? They are redundant and useless.

I realize my opinion will probably "bend a few noses out of shape." This is, ladies and gentlemen, a controversial issue. Nevertheless, it is time to seriously consider the establishment of a new "QSL Etiquette." Once agreed upon, it will take time to implement, but I'm certain the end result will be worthwhile.

*from the Feb. '92 'NJDXA Newsletter' of the North Jersey DX Association*

## Rosetown of New Zealand "Grand Award"

by Peter Watson, ZL3GQ

At the Basic, Centurion, and Addict levels, this award is available to hams worldwide. Applicants must be licensed Amateur Radio operators and their stations must be operated in accordance with their country's radio regulations. Good operating manners and practices are encouraged and only one QSO per callsign is permitted over the program's three award levels.

No individual contact is barred, regardless of mode. Even contacts by repeater are allowed. QSOs on nets, whether automatic or manual, also count.

The object is to contact grandparent operators. Points may be claimed as follows:

<u>Each QSO with a</u>	<u>Points</u>
grandparent	10
great-grandparent	20
great-great-grandparent	50
great-great-great-grandparent and each grandchild, great-grandchild, etc. earns	110
(e.g. 2 grandchildren, 1 great-grandchild, and 2 great-grandchildren earn 5 plus 40, for a QSO subtotal of 45 points)	1

Double each QSO's subtotal if it is with a member of a national ham organization (NZART, ARRL, RSGB, etc.).

Log dates must start January 1992. Original log forms and rule sheets may be freely copied. All awards will be sent by

ordinary post. If you wish your award sent by airmail, please enclose the appropriate number of IRCs.

<u>Award</u>	<u>Points to Qual.</u>	<u>Size</u>	<u>Cost</u>
Basic	1,000	QSL	N.Z.\$3
Centurion	10,000	8x9 in	N.Z.\$5
Addict	100,000	8x12 in	N.Z.\$7

Award points at each level count toward those at higher levels. Each award is a beautiful photo of the rose gardens of Te Awamutu, New Zealand. Being laminated, they make ideal wall hangings.

For log sheet and rules, send SASE (or IRC) to:

Awards Manager, Te Awamutu ARC  
 NZART Branch 40  
 Box 583  
 Te Awamutu 2400, New Zealand.

## DXPSN Users Group

by Tom McShane, NW6P, and  
"Smitty" Smithwick, W6JZU

More than a year ago, the Users Group formed to assume some of the DXPSN sysops' workload, and to help with funding.

The UG now has 255 contributors and funds continue to drift in—to Box 1077, Los Altos, 94023-1077. We don't have members, as such, because contributions are voluntary and there isn't any expiration date. Just the same, some people have sent a second check, noting that their last contribution was a year ago. Contributions have ranged from \$5 to \$250.

We use the funds only to reimburse direct expenses and to support improvements in equipment, software, maintenance, and—sometimes—rental of mountain-top sites.

### Projects Supported To-Date:

The old 220 MHz equipment used in the "backbone" to Nevada has been replaced with a new Icom IC-38A.

The UG purchased all the equipment for DXC in the North Sacramento Valley, including an IC-27A, a Hustler G7 antenna, and an Astron power supply.

Printing and distribution costs of the new manual were covered.

The UG bought the latest update of the software, Pavillion Version 5.6

Royalties were paid to Pavillion Software.

The UG leased the site at N6IXX (DXD).

### Future Projects:

Higher baud-rate: When reliable 9600-baud equipment becomes available, the UG expects to help fund its purchase (part of the current system already uses 2400 baud).

The UG may help fund a new digipeater to support parts of Santa Cruz and Monterey counties that formerly connected to KN6J. As you probably know, N6ST has taken over for KN6J but Steve's coverage in some areas is not as good into some areas.

### To get UG Info on DXPSN:

For UG Bulletins, type: SHOW/BULLETIN.

For a Users Group Bulletin file, key in: TYPE [filename].

User Manuals from Pavillion Software are in stock and can be obtained for \$10.

## FCC to Revise Amateur Exams

### DXer Scoop Brings You the Story First

by David M. Barton, AF6S

WASHINGTON, D.C. — Top level FCC officials, who asked not to be named, have leaked plans for radical changes to the written exams for Amateur Radio licenses.

In recognition that hams no longer build their own transmitters and receivers, questions on internal radio equipment circuitry will be eliminated. Arcane electronics such as Ohm's law, DC and AC circuits, and vacuum tube amplifiers are to be deleted.

The new tests will not be shorter, however. Questions relevant to today's technology and operating practices will replace the deleted ones. Tests for all levels will contain more questions on operating practice, for instance.

Prospective Extras will be asked DX-related questions, such as how to tell when DX is operating split and how to set up split-mode on a transceiver.

Advanced class seekers will face questions on HF propagation and antennas, television and telephone interference, and how to treat neighbors' TV and telephone interference complaints.

Novice and General tests will ask when, if ever, punctuation should be spelled out on CW; how long one should send CQ before listening; and the meanings of Q-signals.

The General class test will have questions on packet communications, personal computer usage, interfacing a PC to radio equipment, and VHF and UHF propagation.

The new tests will encourage good operating practices. The FCC wants to improve operator efficiency by reducing redundancy in ham QSOs.

"Such fatuous practices as sending 'My QTH is ...' and 'Best 73s' can be eliminated by testing on the exact meanings of ham abbreviations," the FCC spokesperson stated emphatically.

VEs will receive the new tests in August, according to current plans, and must start using them on September 1, 1992. A compendium of sample questions will—under the Freedom of Information Act—be made available. Its cost and publication date will be announced "shortly."

Our source also stated, "The current administration recognizes American Amateur Radio operators as a major asset and it is taking these steps to ensure the continued well-being of the hobby.

"Advancing technology has brought positive change, which our new testing program reflects. The agency especially wishes to promote interest in ham radio among the young. Today's kinder, gentler FCC cares about hams!"

April fools!



## Pony Express

by George Uebele, WW7E

SIERA (Sierra Intermountain Emergency Radio Assoc.) sponsors the ham communications for the part of the annual Pony Express Rerun that crosses Nevada—the only state whose hams cover the event.

Our activities in this unique event, in which we provide coverage 24 hours a day for 13 days, were the subject of a January 1990 QST article. Most of the route is in remote country where the hams operate independent of commercial power,

providing a real test of emergency equipment—both HF and VHF.

I have also used the event to refine my portable HF gear for better propagation. I power my IC735 transceiver with a deep-cycle 12-Volt battery.

Other challenges are fatigue and weather. Last year it was extremely dry in our sector, but the previous year was rainy. All the roads in the area are dirt. It turned to mud that rainy year, and our four-wheel drive pickup gave service beyond the call of ham duty, pulling horse trailers out of that mud.

# An Idyl of KPH

by Edward Walden

He was being broken in for the third watch at KPH. Everything was new to him as he listened closely to the regular operator's instructions.

The hours wore away... Press was finished; the trans-Pacific ships had cleared and, as he sat listening in with the other operator, his mind had an opportunity to dwell on the other side of the picture.

A howling sou'easter was blowing, shaking the building and straining the cables that held it on the hillside. He began to think that perhaps he would not fancy being alone in that isolated place in the dead of night.

When he thought of the long black box in the back room he concluded the "graveyard watch" was well-named. Why had they put that transformer in a box so suggestive of our final habitation? He could not get the thought out of his mind.

Suddenly he was startled to find he was alone. Only one pair of headphones was connected, the one on his head. Evidently he was now the operator in charge.

The wind subsided and all was still. The door to the little back room was open and the thought of that long black box came again.

He heard the cracking of wood and knew instinctively that a figure was emerging from the transformer case. A shuffling sound, a footstep, and a superannuated man stood in the doorway.

Reassured by his harmless appearance, the young operator asked what business brought him to the station. The visitor just pointed to the phones and said:

"With those instruments, you hear signals your ears can't discern unaided, but I have a pair of glasses that will let you see the sparks as they fly through space."

He took a pair of dark-colored spectacles from his pocket and, handing them over, said, "Come outside and try them."

Stepping out into the now-clear night, the young operator adjusted the glasses and instantly saw a sky filled with balls and streaks of fire. Looking more closely, he saw

that they moved in trains, in various directions, from horizon to horizon.

There were brilliant series coming over Twin Peaks from the north; both balls and bars looked to be a foot in diameter as they followed one another at irregular intervals. He quickly realized the balls were dots and the bars dashes; he could read the code! He spelled out:

"DONT X JJC MSGS. CAN CPY DIRECT. KET"

Turning to the east, he saw the plain covered by Berkeley and Oakland erupt in sprouting geysers of fire. He read a few of them, but they all seemed the same:

"HOW IS MY SPARK? WHERE ARE YOU LOCATED PSE?"

Coming over the Berkeley hills was a scintillating continuous streak of pulsating fire which he could make nothing of. The old man noticed his perplexity and, handing him another pair of glasses, said: "Try these. The alternations are too rapid for those."

Changing glasses, he saw the continuous streak as balls and bars connected in a hazy arc. He read:

"WE LSN FER U AT 6AM WGG."

He changed glasses again and, looking south, was confused by the numerous trains of flying sparks. He tried to read them and this is what he got:

"ARRIVALS NERA AT 50 LBS"

... "CABIN COFFEE TEN CASES"

... "MILK CLEAR NW 1 48" ...

"WE KNOW YOU ARE

BRAINLESS OR YOU WOULD

NOT INTERFERE WITH A

COMMERCIAL STATION" ...

"TERRIBLY LONELY WITHOUT

YOU" ... "TWO GUNNERS

MATES SECOND CLASS TEN

ORDINARY" ... "903 MILES

SOUTH" ... "HATCH NR 5 764

BAGS COFFEE" ... "TEN POUND

BOY" ... "FLAG FGYQ, DRTW,

FYNT, GRQX, ..."

He gave it up and turned seaward. Fiery trains from the west were traveling slowly;

evidently their force was spent. He read, "RAS DE JOC," just before one dropped into the sea.

Looking up at the aerial above his head, he found it curious to watch the balls and bars strike the wire and run down the leads like billiard markers. Four balls followed by two balls now struck the aerial but, instead of following the leads down, they clung for a moment and then dropped on his head.

He felt himself clutched violently—it was the arm of the regular operator, who said with a growl: "The first thing to learn on this watch is to stay awake!"

*from Feb. 92 'Siera,' the bulletin of the Sierra Intermountain Emergency Radio Assn. The story, supplied by Bruce, N7CPP, was originally printed in March 1917 'Wireless Age'. Bruce reports that KPH, located just north of San Francisco on the Marin County coast, is still operating.*

## From Lloyd & Iris:

28 February 1992

Dear Friends,

We just completed our V85KGP. There aren't many hams here, so our QSOs were in demand. We've worked more countries from Brunei than from anywhere else on this trip, but we worked more than 100 countries from each and hope all will qualify for DXCC.

Our lifetime number of countries visited is now 221 and we have DXCC certificates for more than half of that total.

Brunei is oil-rich, so prices are high. Our hotel was \$80 per day; others range from \$230 to \$1500, and you must add a ten percent tax besides.

A sultan heads the government; he must provide for his two wives equally. Most people here are Muslims; we hear the call to prayer four times a day—starting at 4 A.M.!

Stores keep short hours, though the Brunei government has ordered changes.

Hope to CU from Macao.

73 and 88,  
Lloyd, W6KG, and Iris, W6QL



# Electrical Facts Shocking

## Circuits Closed to Some but Open to Others—Frequency Discrimination?

What is electricity and where does it go after it leaves the toaster? You can do a simple experiment to find out. On a cool dry day, scuff your feet on the carpet and then reach into a friend's mouth and touch a filling.

Did he twitch violently and cry out? Good. You've learned that electricity is a powerful force that shouldn't be used to cause pain unless there's a lesson to be learned.

You also learned about closed circuits. When you scuffed your feet, they picked up electrons. Electrons are small objects that manufacturers weave into their carpets so they will attract dirt. The electrons traveled through your bloodstream and collected on your finger, where they sparked onto your friend's filling and traveled through his bloodstream to his feet and back to the carpet—completing the circuit.

Although in this age we take electric lights, radios, mixers, etc. for granted, hundreds of years ago people did not have such things. That was just as well because they didn't have any electrical outlets to plug them into anyway.

Then along came electrical pioneer Benjamin Franklin, who flew a kite in a storm—a shocking experience. He learned that lightning has the same force as a carpet, but he also suffered brain damage. After that, he started speaking only in maxims like "A penny saved is a penny earned." Eventually, they silenced him by making him a

bureaucrat—giving him his own post office to run, which explains ... well, you know all about the post office.

Later, a herd of other electrical pioneers appeared, and soon became part of the terminology: Meg Volt, Milly Amp, Kelly Watt, Polly Fay Transformer, Wan Wey Diode, and Red Resistor.

They performed lots of experiments. One of them, Luigi Galvani, noticed that when he attached two different kinds of metal to a dead frog's leg, the leg twitched (this is the truth—and it works even better on live frogs!). Galvani's famous discovery led to advances in the field of amphibian medicine.

Today skilled veterinary surgeons can implant pieces of metal in the muscles of an injured frog and then watch it jump back into the pond—just like a healthy frog. The added weight does cause the frog to sink like a stone—but the science is good and the operation must be considered a success.

Thomas Edison overcame the lack of a formal education to become the greatest electrical pioneer—despite his living in New Jersey. Edison's first major invention, in 1877, was the phonograph. It soon found its way into thousands of American homes, where it sat until 1923 when the first record was produced.

But Edison's greatest achievement came in 1879 when he invented the electric company. This design is far more brilliant

than his electric light. An adaptation of the simple closed circuit, the electric company sends electricity through a wire to a customer, who immediately sends it right back on another wire. Then, and this is the brilliant part, the company sends it back again, selling the same product over and over each time it passes through the customer's hands (figuratively speaking).

And in all the time since, very few customers have detected the fraud and none have brought effective legal action; they just blissfully pay their electric bills. Surely no underwater Florida land scam can top that!

In fact, the last year in which electricity was manufactured in the United States was 1937. Since then, the electric companies have simply recycled the same old "juice." That's why they have so much free time to apply for rate increases.

Today—thanks to Franklin, Edison and Galvani's frog—we enjoy many benefits from electricity. For instance, scientists have developed a laser that produces a beam of light powerful enough to vaporize a bulldozer. Lasers are also used to perform operations on the human eye. Surgeons usually remember to change the power setting from "bulldozer" to "delicate."

*—adapted from story in BCARA 'Tell-A-Ham', August 1991 issue. The author is unknown.*

### Answers to:

## "What Was the Year"

(in Feb. DXer)

by Jerry, W8MEP

The current calls of the listed novices, in the same order, are WA6AHF, WA6AUD, W8MEP, and KN6LLK. They were listed in the 1958 Callbook (what a year!)

And...tsk, tsk...no one guessed right, so no one gets the promised catperson point (What were you doing that year?).

## 70 cm Weather Radar

by Paul Maserang, N5PCA

After January 1, 1992 NOAA is authorized to operate its wind-shear doppler radar system on 449.0 MHz. Wind-shear presents a deadly threat to aircraft and has been implicated in a number of fatal crashes.

The radar emissions are pulse-mode using transmitters having peak output power of about two kilowatts but gain antennas will produce much higher effective radiated power (ERP). Amateur use of the 70 cm band is legally secondary to such services.

The system is operational at several major airports and will probably be installed soon at many others.

Since wind-shear mainly threatens aircraft operating at low altitudes, the system's range is only a few miles, but the signal can be detected from much farther away.

Amateur operations are not expected to interfere with the system because of its broadband pulse-detecting nature, but the system may interfere with Amateur repeaters and other systems.

*from the January '92 'USAF MARS - Kentucky Newsletter.'*

# Quasi-Humorous Drive

by Brian Underwood, N6QHD

QHD: "This month we are honored to host a distinguished panel. Today we'll be talking about the future of ham radio with my guests Mr. Wilson P. Wilson, a local repeater operator:"

WPW: "Hello,"

QHD: "Ms. Claire Voyant, the country's leading futurist:"

CV: "Hello."

QHD: "Mr. Randy MacNally, a map publisher:"

RMN: "Hello."

QHD: "And Chester Gold, treasurer of the League of Hams Seeking Money:"

CG: "Ding Ding"

QHD: "I'm sure the readers are now asking themselves, 'Why does this panel seem so fake?'"

WPW: "It's because of the writer."

QHD: "That seems likely. He's usually the one to blame."

WPW: "We'd be better off with an ad for Radio Shack."

QHD: "If that's not proof of authenticity, I'd like to know what it. Now, moving to today's topic for discussion, I'd like to hear what each of you think is in store for Amateur Radio. Mr. Wilson?"

WPW: "Well, it'll get more crowded, what with all them no-coders. Who passed that law, anyway?"

QHD: "The FCC. But surely you don't want to put no-coders down. They're hams just like the rest of us."

WPW: "Well, I can copy 95 words per minute in good conditions and I'm still looking for a 95-net. Now I'm working on copying that 9600-baud packet off the air, but it's tougher than it looks. I only got about 60 percent last time I tried."

QHD: "Maybe your TNC is too slow."

WPW: "TNC?"

QHD: "Never mind. Mr. MacNally?"

RMN: "Hams boost my sales, talking to places they didn't know existed, and the ARRL pays us to invent obscure

little countries—which we're happy to do.

QHD: "Do you think hams will keep buying your maps?"

RMN: "Sure. In fact we're starting a new subscription program this year. People send us their dough and we automatically send them each a new map as soon as it's out."

QHD: "Well, that should prove quite useful. Mr. Gold, what do you see in ham radio's future?"

CG: "If we ever get rid of that stupid rule about no business on the air, then we'll get somewhere. Hams need to be able to order pizza and pizza places sure won't mind."

QHD: "What if the pizza places use the repeaters for dispatching?"

CG: "Then the hams will demand more pizza. It'll all work out."

QHD: "Whatever you say. Ms. Voyant?"

CV: "Maybe it will help if you press 'record' on that tape recorder."

QHD: "No, I'll just fake it."

CV: "Just what I thought. I predict the FCC will try to take away more ham bands, but will be miraculously stopped by a school of intelligent fish."

QHD: "Fish?"

CV: "Don't ask why I think so. I get premonitions; I wouldn't make something like that up."

QHD: "I see. Now, I'd like to ask you each one more question. Is the future of ham radio a promising one?"

WPW: "I don't know. Tubes are sure getting hard to find."

QHD: "I think we can take that as a positive sign. Mr. MacNally?"

RMN: "The future is definitely looking pretty good. More countries, more DXers, what more could you want?"

QHD: (under his breath) "I can think of a few things. Mr. Gold?"

CG: "Have you priced an HT lately? We've got radios that cover all bands and frequencies not even assigned to

hams. I guess we're planning to lobby for those frequencies too."

QHD: "That sounds practical. No need to lug a microwave oven on a camping trip anymore. And Ms. Voyant, I'll give you the last word. Would you like to sum up?"

CV: "Sure. The future of ham radio will be bright as long as hams are willing to make it so. We must work together to ensure a prosperous future, though these humor columns may not get much better."

QHD: "Or much cornier. Before closing, I'd like to mention the rally at next Saturday's flea market by NAFTPUH—National Association for Fair Treatment of People Unhindered by Height. They will demonstrate against a term hams use that they find offensive—*shortwave*. Thank you all and good night."

*From the Feb. 92 'Relay,' the bulletin of the Electronic Museum ARC (at Foothill College, Los Altos, CA).*

## Rising Tide

A rising tide is said to raise all ships;  
The solar cycle likewise DX lifts.  
Lofting signals both for gun and pistol,  
Raising totals high, like wind on thistle;  
Toward that magic number ever striven,  
Breaking Honor Roll's exalted ribbon.

A falling tide may float ships down to sea,  
Bound away, their choice of harbors free.  
Solar tide, when low, leaves bands in torpor;  
With hardly any DX there to score for.  
So hams play softball games, or go to root.  
And some may even learn to play the flute.

From ebb the flow of tide must flood again;  
To bring, perhaps, a ship from Darien.  
As sun's magnetic forces twist below,  
New spots appear and DX blessings flow.  
Again, DXers tune their seven-league bands  
And call with joyful lips and eager hands.

—AF6S

## Royal Mumford, W3CU, Silent Key

Royal Mumford, a radio pioneer, died in his sleep January 4th, 1992.

His family traveled the Oregon Trail by covered wagon in 1853 and settled in Oregon. Royal was born in West Jordan, UT, but grew up in Vancouver, Washington.

In 1912 he and his brothers Harold, W6CU, and Bill, W2CU, began "wireless" experimenting. By 1916 Royal had assembled a 500-Watt spark rig and begun using it on the air.

He received a bachelor's degree in theology and physics from Willamette University (Salem, OR) and taught science and mathematics at McMinnville (OR) High School until he joined the Navy at the start of World War II.

After graduating from radar school at MIT he headed the radar school at Mare Island, CA and later became an instructor at the U.S. Naval Academy.

After Navy retirement in 1951 he did technical writing for Westinghouse for ten years.

A Boy Scout for 50-years, he served as scoutmaster and later as District Commissioner for the Capital District. He led the Baltimore-area contingent to the 1950 National Jamboree in Valley Forge, PA.

As a favored speaker at (Anne Arundel, MD) club meetings, he held listeners spellbound with stories of early radio.

Royal was also well-known as a beekeeper, earning the appellation "Honey Man" in Anne Arundel County, where he helped organize the county Beekeepers' Association and started the honey booth at the county fair. The Commander Mumford Perpetual Trophy is awarded annually to the honey exhibit judged "best of show."

He was a member of the Anne Arundel Radio Club and the Maryland Mobileers Amateur Radio Club as well the Society of Wireless Pioneers, the Old Timers Club, and the Civitan Club.

Royal is survived by two daughters, two sons, seven grandchildren and three great-grandchildren. Memorial contributions may be made to the Henry Weaver Fund of the Civitan Club, c/o Basil Moore, Box 711, Annapolis, MD 21404.

*from The Ham Arundel News, Feb. 1992*

## The Furland Scale-All Lightning Calculator

by Jack D. Brooke, WA6CBU,  
and Roy Bjaanes

Shortly after leaving a convention of the ABD (Association of Boon-Dogglers\*), where he consumed a considerable quantity of homebrew, Rufus T. Furland's brilliant (some say) mind gave birth to the concept underlying the Scale-All Lightning Calculator. It took long months of intense and heart-rending development but he is ready at last to present the first working model to the world. The calculator will be shown publicly for the first time at the April meeting of the Tube Engineers and Associates Seeking Employment—in Menlo Park, California.

The Lightning Calculator is a fine instrument, one that no engineer, technician, ham, boy scout, or housewife should be without. The instructions which follow also demonstrate the instrument's utility.

First, pick an appropriate scale and turn the slide to select whichever symbol looks most attractive. Then, by simple subtraction,

multiplication, addition of logarithms, and subdivision by a factor of ten or more, you can prove the earth is flat.

By using appropriate scales, the length of any line can quickly be determined—once its overall dimension is known.

Using the calculator in conjunction with "Weldon's Law" (surely you know what that is), you can instantly determine the distance to the nearest men's room or powder room—whichever you prefer.

But the best feature of the Furland Scale-All Lightning Calculator is the slide-rule portion. Using it and interpolating, you can quickly convert Hertz to cycles-per-second, mhos to Siemens and Coulombs-per-second to Amperes. The instrument will pay for itself in a few hours use of this last time-saving feature alone.

\*Boon-dog-gle — to do trifling, valueless work; i.e. take nothing, make nothing from it, and get paid for it ... *anonymous*.

—from the Lockheed ERC Amateur Radio

## Meteor Propagation

by Mick Lindley, KB4UPI

Your next 6-meter, 2-meter, or 70-cm DX contact could be via a meteor trail. Meteor propagation is exploited by just a few patient and dedicated hams, but it's fun.

A meteor, or "shooting star," enters the earth's atmosphere at about 40 miles per second, leaving an ionized trail high above the surface which can reflect VHF or UHF signals over distances of hundreds or even thousands of miles, giving you a short-lived "repeater in the sky."

A meteor trail doesn't last long, but you have time for a quick exchange of call signs. Meteor work is usually done with schedules. Your best chance is during "meteor showers," when the earth's orbit intersects debris from comets.

The table lists expected dates and times for 1992 after May 1. The date can vary by one or two days, so begin trying at least one day before that listed. The "radiant" is the place in the sky that meteors in a shower appear to be coming from, so point your beam in the direction indicated in the table.

Date	Best	Name	Rate	Dir.
May 4	4 a.m.	Eta Aquarid	10-40	SE
July 30	2 a.m.	Delta Aquarid	10-35	S
Aug 12	2 a.m.	Perseid	50-100	N
Oct 9	9 p.m.	Draconid	10	NW
Oct 20	4 a.m.	Orionid	10-70	S
Nov 9	1 a.m.	Taurid	5-15	S
Nov 16	5 a.m.	Leonid	5-20	S
Nov 26	10 a.m.	Andromedid	10	S
Dec 13	2 a.m.	Geminid	50-80	S
Dec 22	5 a.m.	Ursid	10-15	N

from the March 1992 'The Birmingham,' the paper of the Birmingham (AL) ARC.

## Famous Friendly Kiwi's Tower Unusual

by Dave Barton, AF6S

Peter Watson, ZL3GQ, wanted high antennas but didn't relish importing commercial towers (ham towers aren't readily available in New Zealand). So he built his own by bolting used steel utility poles together. The tower, pictured at left, has several utility poles "in parallel" for each of its three spans, which are side-lapped to reach the total 100-foot height. The big square rings are for climbing safety. The tower looks unusual, but it was designed by a civil engineer—Peter; it's been up for many years now, supporting that big quad, so the design can safely be pronounced a smashing success.

Peter also has three 100-foot wood poles on his sizable property. They support a pair of double-Zepps. The Zepps, each a half-wave long on 160 meters and oriented at right angles to each other, are used on both 80 and 160. Peter's VHF antennas are on a small Rohn-25 tower.



Beneath the antennas is a flat, green "ground plain"—the green part kept neatly trimmed by the New Zealand national lawn mower—a flock of sheep. Out front, the street margin is kept in order by a New Zealand weed-eater—a goat. This environmentally balanced system, apparently common throughout New Zealand, has advantages. Aside from the obvious—that you can sell the wool—in an emergency you could eat your lawn mower.

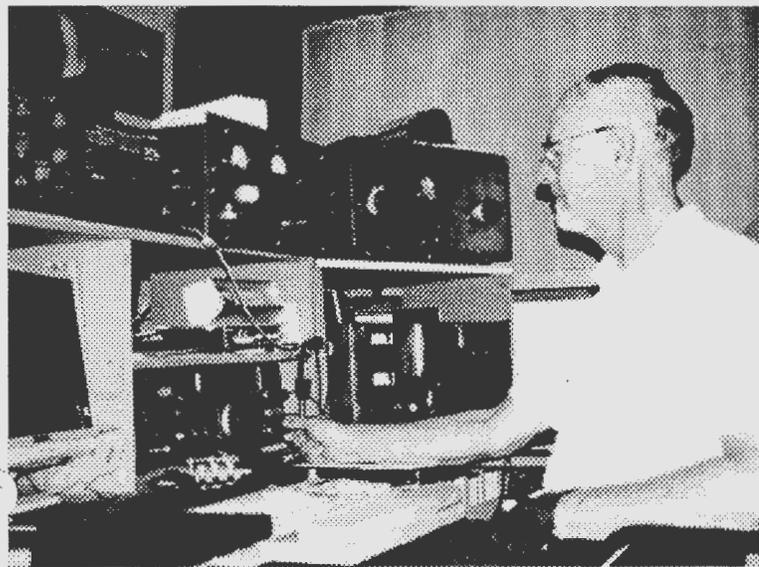
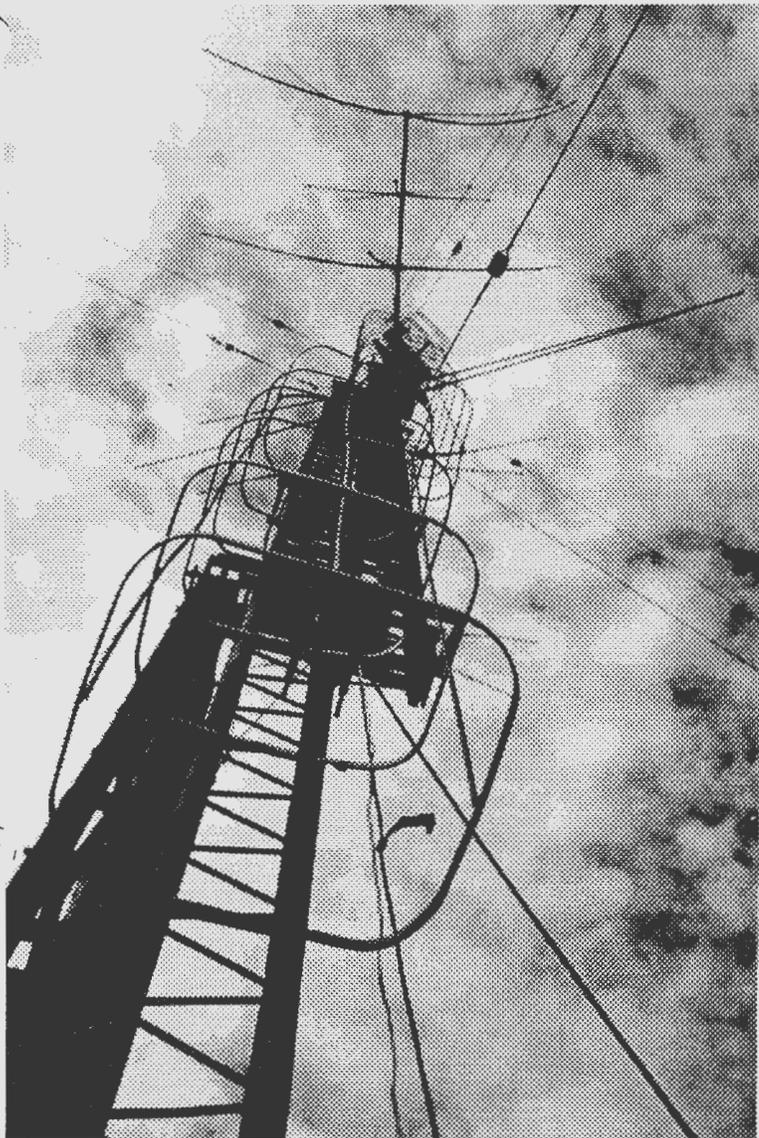
Peter has award plaques and certificates all over his walls. He enjoys contesting, particularly the annual FOC contest and the CQWW-CW. Although he has nearly everything confirmed, he still enjoys DXing—mostly on CW. And Peter is the ZL you'll probably work on 160.

The other two photos, in counterclockwise order: Peter in his shack, with his homebrew linear, IC765, and 286 computer—for packet and contesting; and Peter hooking on an extra counterweight—to increase tension on one of his Zepps.

Peter plans to attend the Visalia Convention this year. So if you get the chance, say hello to "one of the grand gentlemen of DX"—in the words of Ron Wright, ZL1AMO.

After Visalia, Peter and his wife Maire will tour the U.S. Southwest by car for several weeks.

Peter and Maire very graciously put up (with) AF6S and KA6SEH for two nights during their recent very enjoyable vacation in that beautiful country under the Southern Cross.



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