# The Pileup
## Newsletter of the CDXA

**Carolina DX Association**

**DXers**

| | | |
|---|---|---|
| W4WNT | Bill Turner | President |
| W4JG | Jack Guion | Vice-Pres. |
| W4NZC | Ken Cannaday | Sec.-Treas. |
| K4MD | Joe Simpkins | Cluster Mgr. |
| - | Lloyd Burt | Webmaster |
| K8YC | John Scott | Editor |

### Presidential Ponderings

It's been a busy month in June. Our "Mountaintoppers" led by Paul Trotter, AA4ZZ, participated in the June VHF contest from their location above Boone, NC. Included in the group were Ron Bailey, AA4S, Scott Douglass, K2SD, Ken Boyd, K4DXA, Gary Dixon, K4MQG, Tim O'Rourke, KG4CHX, Bill Fisher, W4GRW, and Roger Webb, W4MW. They are continually adding equipment to the station, which is a small building on Paul's property next door to the home of Roger Webb. From what I've heard, the working conditions have greatly improved from the old days when the nearest motel was miles away down the mountain.

Our globe trotting QSL Bureau Manager, Joe Blackwell, AA4NN, is planning another trip. He has been invited to Myanmar for the DXpedition, which will get underway between August 10 and 22. The team website is:

http://www.dx-pedition.de/myanmar2002/index1.html

The full operating schedule is shown at the website. The team will be activating a new IOTA island during this trip. This is also highlighted on the website. We'll try to get Joe to fill us in for the Pileup next month.

As I mentioned last month, the USPS is raising its rates again. Beginning June 30, one ounce of First Class mail will be 37 cents. Each additional ounce will be 23 cents, which remains the same as before. There is also listed a "Card Rate" of 23 cents, which looks like the postcard rate, so put 23 cents on a QSL card to mail it in the US. There does not appear to be any change in international rates at this time. Please provide your QSL sorters with some extra 3 cent stamps in order not to hold up your cards. Sorters are working to get cards out before June 30 to beat the deadline with existing stamps.

73, Bill Turner, W4WNT

| CDXA PacketCluster & Other Communication Systems | | |
|---|---|---|
| W4DXA Young Mountain | 144.93 MHz  (1200 bits/second) | 441.00 MHz  (9600 bits/second) |
| K4MD Charlotte, NC | 144.91 MHz  (1200 bits/second) | 441.075 MHz  (9600 bits/second) |
| Digipeater near Wingate, NC | 144.91 MHz   (DXWIN) | |
| CDXA Repeater 147.18 MHz (+600 ) | W4DXA, Near Fort Mill, SC | |
| World Wide Web Homepage | www.cdxa.org | |
| Wednesday Luncheon  (11:30 AM) | Shoney's,  355 Woodlawn Road, Charlotte, NC    (704-525-4395) | |

## Packets, Protocols, and What-nots
By John Scott, K8YC

*(This is the third in a series of articles providing a background to the "mysticism" of internetworking.)*

In the April, 2002 issue of The Pileup I discussed the notion of a communications protocol. You'll remember that the protocol "stack" consists of a series of layers, each layer being added as a message is assembled for transmission, and peeled off as the message goes through the process of being "received" at the distant end. Recall, also that any particular layer of the stack is used by both the layers above and below it at the near end as well as by its comparable layer at the distant end.

The Internet Protocol, or IP, consists of a suite of protocols. You've probably heard of the more familiar TCP/IP. Yet there are others—UDP, ICMP, Telnet, FTP, HTTP, TFTP, SNMP among them. These "rules of transmission conduct" operate at different layers of the stack. TCP (Transmission Control Protocol), for instance, operates at the transport layer and is designed to ensure error-free communications between two points. UDP (User Datagram Protocol) also operates at the transport layer but only provides "best effort" communications, the trade-off being reduced communications "overhead". FTP (File Transfer Protocol) and HTTP (Hypertext Transport Protocol) operate at the application layer of the stack and provide the rules to ensure the error-free transmission (using TCP) to fulfill the specific needs of file transfers and world wide web data displayed by your favorite browser, respectively. (Now you know why that "http" is in front of your Uniform Resource Locator (URL)).

Associated with the movement of all data on the internet is an IP address. Just like that required by the U. S. Postal Service, the Internet needs an address to find you and deliver its messages. In assembling a message through the stack, the destination address and origin address are included in the "header" of the information frame, along with other information needed by other layers of the stack. The current IP addressing structure (IP Version 4) defines a 32 bit address. A 32 bit structure allows for almost 4.3 Billion unique addresses. Yet, those who develop and administer the Internet standards feel we're running out of addresses and they have developed a 128 bit addressing scheme called IP Version 6. (I guess this will be needed so everyone's cellphone and toaster will be IP addressable!) Because of the way the IP addresses are partitioned into at least two parts—network addresses and host addresses—not all of the 4.3 Billion addresses can be used solely to address a specific end-user device. I'll talk more about network and host addressing in a coming article.

So what of those numbers we see in our PC setups to define our IP address—numbers like 198.216.142.83? I don't know about you, but I'd soon get lost if someone wanted to provide me an IP address as a string of 32 zeros and ones. Yet that is how the electronics on the Internet handle an IP address using binary arithmetic. For us mere mortals, it is easier to break the 32 bit string into four octets (8 bit binary numbers) and provide the decimal equivalent of each octet separated by decimal points—read as "dot" when verbally reading an address. Since eight bits can represent a decimal number no larger than 255, you'll never see a "dotted decimal address" with a number larger than 255 in it.

Restricting our attention to the first octet of the dotted decimal address, we find that the Internet divides the addresses into classes. All addresses with a binary zero in the first bit position (first "dotted decimal" addresses 0 through 127) are called Class A addresses. Addresses with a binary "10" in the first two bit positions (decimal addresses 128 through 191) are called Class B addresses. Addresses with a binary "110" in the first three positions (decimal addresses 192 through 223) are called Class C addresses. A company or entity applies for and receives a designated class address giving them exclusive rights to that address range on the Internet. That's one reason not all 4.3 billion addresses can be used. Getting confused yet? More to come.

### Mods for Alpha Linear Amplifiers
From Bob Thomas, N4BX

Below are some website addresses I found when checking out some things on linear amplifiers.  You may want to put it in the Pileup for others to check out.

www.alpha.amps.com/html/lowdrive.htm

www.alpha-amps.com/html/lowdrive_photo.htm

I had heard there were some modifications needed for my Alpha amplifier.  I went to the above site.  As a result of that search, all requested information was sent to me.  I came to find out that my amplifier was one for which the mods were recommended.  Perhaps there are others within CDXA who may want or need to apply

### CDXAers on the Move!

Pick up a magazine any month, and you'll find members of CDXA being recognized for their achievements.  In the June 2002 issue of CQ, Bob Burton (N4PQX) was recognized for earning his WAZ on 40 meters SSB.  In the same issue, Jack Jackson (N4JJ) earned his WAZ for 160 meters.

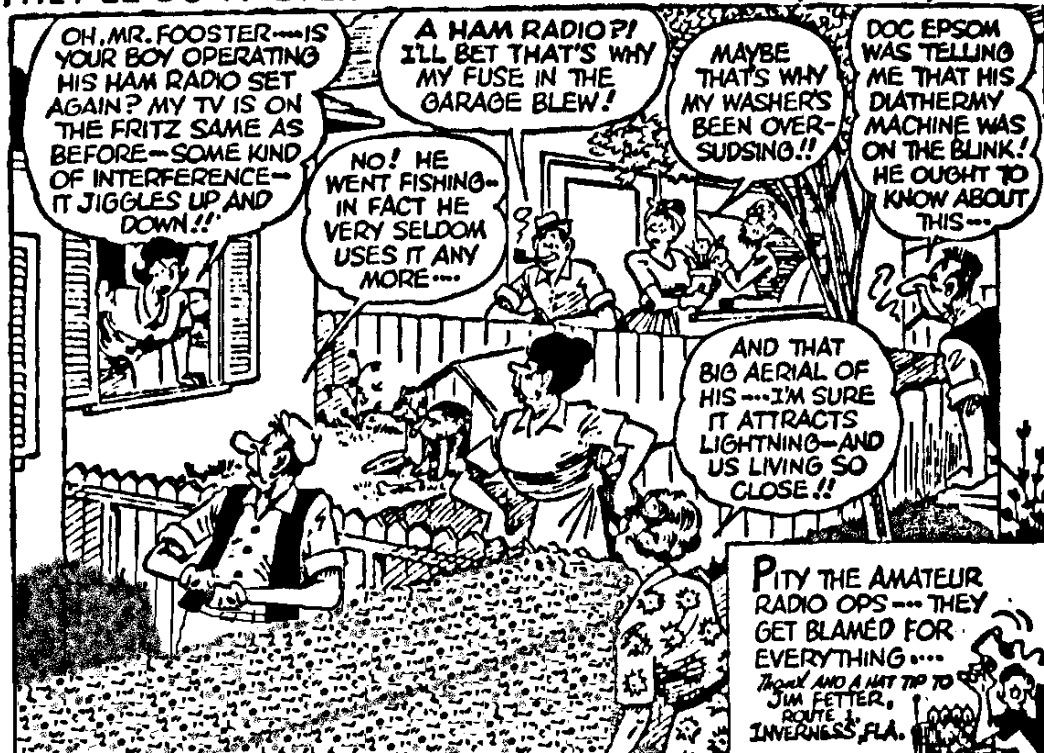Moving along to the July 2002 issue of CQ, we find Don

the "Top Gun Rover".  Will it be hard to live with Ted now that he's been given that moniker?  We'll we'd better get used to it because the proof is shown on page 15 where Ted is proclaimed top rover in the world for this contest with 85,008 points, eclipsing his closest competitor by 55,752 points!  Great job, Ted.

### Get your DXCC Cards Ready

Your editor hasn't had a formal request from Gary Dixon as yet to advise you to start getting your cards ready for your 2001-2002 DXCC submission, but "crunch time" is nearing.  It is now July, and Gary can't check all cards in the last week of September.  For those of you like me who will be looking for cards from Trindade, Cocos Island, Ducie Island, San Felix, Mellish Reef, and Baker-Howland, it might be a good idea to get all the other cards together so that late arrivals need only be inserted.

When asked last year,  Gary told me year that entries need not be manually written on the forms provided by ARRL.  As long as the *format* of the entry sheet is the same, a spreadsheet program such as Lotus 1-2-3 or Microsoft Excel, makes a wonderfully easy task of preparing your DXCC entries when it comes to sorting and inserting late-arriving QSLs.

Daso (K4ZA) on the WAZ list for 40 meters CW.
Oh yeah, did I forget to mention Ted Goldthorpe (W4VHF) pictured in the June 2002 issue of CQ in the writeup of the results of the 2001 CQ WW VHF Contest?  The caption on the picture on page 21, calls out Ted as

*Thanks to Frank Dowd, Jr. for, first, saving this wonderful old cartoon shown to the right, and, second, for sharing it with us. We can all relate to the message therein!*

## A Note to John Kanode, N4MM
### By Gary Dixon, K4MQG

*(The note below was prepared by Gary Dixon, K4MQG, and sent to John Kanode. John recently stepped down from his role as a Vice President of ARRL.)*

Hello John, N4MM:

John, I don't know whether to say congratulations or condolences on your retirement from your many years of GREAT ARRL service!!!!!

Your input and guidance to many of the trials and tribulations that surfaced while you were in office will certainly be missed. You were always the most supportive officer for DXers and we appreciated your support. Your accomplishments were many.

Thanks for your appointment of me in the late 1980s as the Roanoke Division DXAC Representative and your continued support in the program. As you know, DXAC activities are way down, but it is still a good program to belong to. Oh, yes, you never did get around to "firing me" before you left. HI, HI.

Maybe you are going to just enjoy retirement like I am doing. I've had a great time since my retirement 15 months ago. It has given me an opportunity to enjoy 6 meters last year, and I brought my total to 98 countries in about a year. I hope to finish my quest this Spring and Summer with some countries I am lacking in Central America and the Caribbean.

I'm also collecting some old back QSLs and want to apply for the DXCC Challenge Award. I now have about 2650 Band Countries confirmed. I just have to submit them for checking, which is the biggest problem. As an ARRL QSL field checker I can't check my own cards. I really hate to send all these cards away to the League for checking. I wish there was another Checker in the area. HI.

I've heard you in several pileups lately so keep up the good work of DXing. I look forward to seeing you at Dayton if you'll be there.

Again, thanks for ALL your support to ARRL and for the Carolina DX Association over the years.

73s, Gary, K4MQG

## Some Summer Pfun

Here's some phun with puns. It must be summer. Contests are waning and material for the Pileup is hard to come by. So, here are some puns to get you groaning and to encourage you to send me some material for August. (Otherwise, maybe there'll be some more puns!)

Back in the 1880s, the Tates Watch Company of Massachusetts wanted to produce other products, and since they already made the cases for pocket watches, decided to market compasses for the pioneers traveling west. It turned out that although their watches were of finest quality, their compasses were so bad that people often ended up in Canada or Mexico rather than California. This, or course, is the origin of the expression, "He who has a Tates is lost!"

## Welcome New Members

We've had a few new members join us in recent months, and a few others who've rejoined us after a year's or more absence. To all of you, welcome to the CDXA!!

In alphabetical order, the new members are: Josh Fisher (KG4EGC), Ervin Jackson (N4BIG), Mary Holdschneider (KG4OQA), Pat Patterson (KB4WPL), John Surace (W4ACW), Gregg Swaim (KO4MM), Marc Tarplee (N4UFP), and John White (WB2NHQ).

## "Roughing" it at Field Day!



*Ron Bailey, AA4S, has a little fun on Field Day.*

## How I became a Ham
### By Rodney Harper, W4SI

Old-time hams sometimes wax nostalgic about the good old days of Amateur Radio. The memory of the warm glow of large vacuum tubes instills a warm feeling in their hearts for boat anchors and old code keys. Do you remember the day you first heard of Amateur Radio? Those of you who grew up in families with ham radio operators probably don't. It was just something that was always present since childhood. I do remember because I was 13 years old before I learned of Amateur radio's appeal. It was both traumatic and exciting and here is the whole story.

It was May 1962. I was 13 years old. With Sputnik, the nuclear threat, space exploration and having witnessed comets and the aurora borealis in 1957 all the way down here in the south, it was an exciting time to be a kid. The scientific part of my small mind was awakening.

The weather was pleasant and warm. School was still in session, but my neighbor and best friend Steven Privette and I could get permission from our parents to camp out on weekends so we planned a campout for Friday night. On Friday after school we went to Steven's house to gather up his sleeping bag, bow and arrows, firecrackers, frying pan, etc. We then went to my house to gather up my camping gear, hand ax, BB gun and kerosene lantern. Mom and Dad always went grocery shopping on Friday nights and Mom asked if there was anything special that I wanted from the grocery store. I gave her a list—hamburger meat, bacon, eggs, bread. Oh, and maybe a flashlight for when it's dark and the fire has gone out and we can't find the matches to light the kerosene lantern. I had in mind a penlight that would clip to my shirt pocket so that I could always find it.

Steven and I took our camping gear and set off for a hay field about a half mile from his house where we gathered rocks in a circle for our camp fire and then we began gathering fire wood from the nearby woods. When all was in order at the campsite we drifted back to my house to collect the things Mom and Dad brought. Hamburger meat and buns, bacon and 6 eggs, and for good measure chips and cookies. Mom was very thoughtful. The flashlight? Not a penlight but a gigantic 5-cell flashlight with a reflector almost as big as a sealed beam headlight. Complete with a set of five brand new Eveready 9 Lives zinc-carbons in it, this baby was bright. Off we went with our goodies to the campsite.

Later that night after we cooked and ate our supper, which was seasoned to taste with dirt and wood ash. We tended our fire and watched for shooting stars and talked about little green men and steaming holes punched in the ground by falling meteors. Occasionally when we heard a noise in the woods we would fire up the gigantic flashlight and sweep the woods looking for the source of the noise. After the moon arose we wondered about what it would be like to travel to the moon and whether anyone would ever go there. We also speculated about whether our flashlight would be visible from the moon. We both agreed that it wouldn't. Just too far.

Then a small single engine airplane flew overhead traveling roughly from north to south and maybe following Interstate 85. Steven wondered if the flashlight would be visible to the pilot of the airplane. Without even thinking I swung the flashlight toward the plane put the switch in the middle position so that the little red button was enabled and pressed the button in the pattern of the only Morse code I knew. Short-short-short, long-long-long, short-short-short. I sent it again! I had read about the SOS signal in books about shipwrecks and war stories but it never occurred to me that anyone actually knew Morse code in the modern world of 1962. And even if they did what are the odds that this particular airplane pilot knew Morse code? I expected that if he could see our light he would rev his engine or something or maybe even send SOS back to us with his flashlight.

But wait!!!! He didn't rev his engine or flash SOS back to us. Instead, he fell into a circular pattern overhead and flashed a lot of longs and shorts that I had no hope of understanding. His light was really, really bright. Steven was delighted, and he laughed hysterically as he rolled around on his sleeping bag. I, on the other hand, was shocked and more than a little terrified. I leapt to the foot of my sleeping bag and began to roll it up shouting at Steven to shut up and gather up his stuff because we had to get the hell out of Dodge. "What are you talking about", he demanded.

"Right this minute", I responded, " that guy up there is on his radio sending a call for help and probably our location through the Greensboro or Charlotte tower. It is probably just a matter of minutes before this hay field will be crawling with Deputies, Highway Patrolmen,

Firemen and Rescue Squad members and we had better not be here when they arrive". I could imagine what was going through the pilot's mind. He could probably see our fire and a person running around with a flashlight while another rolled around on the ground. He probably thought he had come across a terrible auto crash or maybe something even worse.

Steven had another idea. He jumped up and sprinted across the hay field yelling at me over his shoulder to bring the flashlight. I followed, feeling the stubble in the hay field from last year's cutting and the briars that tore at my bare feet.

"Where are we going", I screeched, but he didn't answer until we reached his driveway. Despite the stubble, the briars, and the gravel of Steven's driveway, we made it to his front porch in about three minutes. "But wait," I protested, "they are going to find our stuff down there, and then they are going to use it to track us down". Into the house we rushed!

Sam Privette, Steve's dad, was watching the Friday night boxing matches on television, as was customary for a Friday night. If the weather had been cold we probably would have been sitting there with him and we wouldn't be in this mess. Steven started to explain to his dad that I had sent SOS to an airplane in the sky with my flashlight. He then had to stop to catch his breath so I picked up the explanation at this point and said, "and now he is circling around up there flashing his light at us!" Sam, who never seemed to get excited over anything, said "gimmie the light", and he then stepped out into the yard to see for himself. He set the switch to the middle position and pointed the light skyward. He pressed the little red button in a pattern that went, short-long-long  short  short-long-short  long-long-long  long-short-long. 'We r ok'. After sending this pattern two more times the airplane blinked a few more blinks and dropped put of his circular pattern and continued on in a southerly direction.

I was stunned to find out that someone in my own neighborhood knew how to use Morse code. And what a demonstration of it's usefulness! Sam had taken the light that I had used to get us into trouble, and he had used it to get us out again. We followed Sam back into the house agreeing with his warning that while it is good to know how to send SOS, we should never, ever use it

unless we had a real emergency. Within a few minutes Sam realized it was going to be impossible to watch the boxing matches and answer the barrage of questions I had for him so he turned off the television. We then chatted until nearly midnight about how he had come to know Morse code and how it was used during WWII. Although Sam had been a radioman in the Army during the war, he was assigned to a tanker ship which traversed the Atlantic time after time hauling oil from Norfolk to Liverpool in support of the British. The German U-boats spent a lot of time hunting for such tankers in an effort to cut the supply lines to the British. I now realize how lucky he was to have survived his service.

For weeks afterward I would tune my old broadcast band radio off the lower end of the dial and listen to the Morse code that I heard there. When there was unusual activity I would dash down to Steven's house with the big old radio under my arm, and Sam would get out his old manual Underwood typewriter without any letters on the keys and he would type up the nice and evenly spaced 5 letter code groups. Occasionally there would be a weather warning or something else in plain text, but I was intrigued by it all—even the 5 letter code groups, which contained real hidden words and had meaning to someone with the key to unlock it.

Eventually, I guess, Sam grew weary of my questions and shifted some of the question burden off to others by telling me about guys he knew in service who were called hams who owned their own radio stations and used them to talk to other hams all over the USA. This tidbit of information really set me on fire. Sam told me I should stop in and visit Allen Smith who lived on South Main Street in Lexington. "Look for the tower with the huge antenna on top" he said.

"Funny", I thought when I saw the tower and antenna, "why hadn't I noticed this before?" Allen's four-legged windmill tower stood close to his house and there was a little wooden bridge that allowed him passage from his third floor attic window to a platform near the very top of the tower.

I begged Dad to take me over to visit Mr. Smith, but he didn't want to trouble a perfect stranger with my questions. Finally one Saturday, after several weeks of pleading, Dad stopped the car in front of Mr. Smith's house and walked with me up to knock on his door.

*(Continued from page 6)*

Allan Smith a tall thin man with graying hair like my dad came out and sat on the front porch with us and explained a little about ham radio.  A person had to take a test to get a license to operate a transmitter and when he got his license he also was given a call sign for his radio station.  Allen's call sign was W4IPP (Ida's Pink Pajamas).  I asked if he played music on his radio station and he explained that music was strictly forbidden.  A ham could use voice on the air but every ham was required to know and be able to use the International Radiotelegraph Code.

Mr. Smith gave me one of his QSL cards and wrote the address of the ARRL on the back in case I wanted to send for some information.  He also advised me to check out both my school library and the public library for books on the subject.  I was a little disappointed that he never invited us in to see his radio station but he seemed to enjoy telling us about ham radio.  As dad and I were leaving he said, "In another couple of years you'll be chasing girls and driving cars and you will forget all about this ham radio business."

Mr. Smith was right about the girls and cars, but he couldn't have been more wrong about ham radio.
—Rodney Harper,  W4SI

## One Stop Shopping at K4MQG

Gary Dixon, K4MQG, has been authorized by the ARRL to expand his QSL card checking capabilities beyond that of checking only DXCC cards.  Gary is now able to check QSL cards for the Worked All States (WAS) award as well as the VHF/UHF Century Club (VUCC) award.  In addition, CQ Communications has authorized Gary to check cards for the Worked All Zones (WAZ) award as well as the Worked All Prefix (WPX) award.  An easy way to catch Gary is at the weekly CDXA luncheon meeting, but give him a call or send him an email to arrange other options for card checking.

For those of you with affiliations with other Amateur Radio Clubs or groups, please pass the word along about Gary's newly bestowed QSL card checking capabilities.
—*The Editor*

## AA4ZZ Team Triumphs, Again!

Now, nobody should get complacent here, but like clockwork, I've just learned that the AA4ZZ team has taken first place in the Limited Multioperator category of the ARRL January VHF Sweepstakes.  Clearly, this gang is a force to be reckoned with in VHF/UHF contests.  They do their work before the contests, have fun, operate intelligently, and in the past several years continue to be a worthy competitor for VHF contesters.

If you'd like to read about their most recent exploit, and you are a member of the ARRL, you can read all about it on the "members only" pages of the ARRL website at: http://www.arrl.org/contest/results.



*Paul Trotter, AA4ZZ, and Bill Fisher W4GRW, operate atop the Blue Ridge in the June VHF contest.  Is that a heater on the floor, Paul???*



*Ron Bailey, AA4S, Tim O'Rourke, KG4CHX, and Bill Fisher, W4GRW, get the 4 x 18 element, 2 meter antenna ready for the recent June VHF contest.*

## The Back Page

**Wanted:** An intrepid soul willing to venture into the lonely world of authorship. The looming of deadlines is well overbalanced by seeing the final product and receiving "attaboys" from the readership. Training included for the candidate who steps forward soon. This position takes effect in January, 2003 unless wishing to assume the role earlier. Pay is zero. Satisfaction is "priceless". Contact the editor of this publication for details.

Don't put away your rig in place of your golf clubs or tennis racquets just yet. There are still a few things worth hunting on the bands over the summer months. Noted in several of the DX bulletins are the following entities to be "caught" for the diligent operator:

| Entity | Prefix | Dates of Operation | |
|--------|--------|--------------------|---|
| Benin | TY | July 15 - August 14 | |
| Ghana | 9G | July & August 2002 | |
| Maldives | 8Q | July 30 - August 11 | |
| Myanmar | XZ | August 4 - August 22 | (Op. from new IOTA in early going.) |
| Togo | 5V | August 25 - August 31 | |

Upcoming **contests** for those who've not yet had enough contesting:

| Dates | Contest | Comments |
|-------|---------|----------|
| July 13-14 | IARU HF Championship | April QST, Page 96 |
| July 20-21 | CQ WW VHF Contest | July QST, Page 85 or www.cq-amateur-radio.com/VHFRU102.pdf |
| July 27-28 | IOTA Contest | July QST, Page 85 or www.rsgb.org |
| Aug. 10-11 | WAE CW Contest | |

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# First Class Mail

*See something wrong with your address label?  Notify W4NZC at once, please.*