Carolina DX Association

The Pileup

Newsletter of the CDXA

N4PQX	Bob Burton	President
W4WNT	Bill Turner	Vice-Pres.
K4MQG	Gary Dixon	Sec.-Treas.
K4MD	Joe Simpkins	Sysop
AE4PB	Jerry Moore	Webmaster
K8YC	John Scott	Editor

Presidential Ponderings

I'd like to thank everyone who came out on Monday May 15th to meet and hear John Devoldere, ON4UN, give his presentation on radials. We had approximately 40 people attend and all that attended enjoyed John's presentation and learned something from it. Thanks, also, to those who made the evening possible.

In PacketCluster news, as many of you are aware, W4DXA is back on the air from Young Mountain. An article and pictures are in the pages to follow. Joe, K4MD, continues to work on some new hardware and software for the K4MD node that should improve the overall operation of the node. Thanks, Joe, for all your efforts keeping the PacketCluster system running smoothly.

To show your pride in the CDXA, new name badges and embroidered shirts with the CDXA logo are now available. Details on the ordering procedures are included later in the newsletter. I hope you will take advantage of the arrangements we have made, and show off your pride in CDXA at the next hamfest or event you attend.

The CDXA was founded originally from interest in contesting. That tradition is continuing today when several members recently activated the WY2OOO call in the CQWW WPX CW contest. The recap of WPX activities at Ron Bailey's (AA4S) QTH are given later in the newsletter. Not long after the CQWW WPX CW contest was the ARRL June VHF Contest. There were two major efforts there, one by a group at Paul Trotter's, AA4ZZ, mountain QTH, and a rover operation by Ted, W4VHF, and Gary, K4MQG. Congratulations to everyone who participated and to all of the rest of you who gave them needed contacts.

As you read this month's issue, Gary, K4MQG, and Paul Greaves, W4FC, will become official ARRL DXCC Field Checkers. This means they will be able to check all cards except those older than 10 years old, and 160m cards. We will have more on this next month. With Gary's new responsibilities as a DXCC Field Checker, Gary has informed me that he will not be seeking re-election in 2001. Gary has been the CDXA Secretary/Treasurer for the past 4 years, maintains the CDXA 2m repeater, and will continue to do so. It's been a real pleasure for me to work with Gary for the last 2 years. We are looking for a new CDXA Secretary/Treasurer for 2001. It's time once again for a member to step up to the challenge. Your officers would like to have an early election for this position for 2001 so Gary can make a smooth transition of the books to the new Secretary/Treasurer before the membership dues start coming in at the end of the year. If you are interested in this position contact any of the CDXA officers.
Until next month…73's Bob – N4PQX

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)	

WPX CW Contest Results Using WY2OOO
By Ron Bailey, AA4S

Well, it's over and perhaps the WY2OOO callsign has finally been put to rest. (it sure is an "F4"-full.) Many thanks to the operators who made the operation a big success:

AA4NN, Joe Blackwell, who stayed and operated the whole weekend leaving his Corvette in my driveway so all the neighbors could see it.

N4ZC, Roger Burt, who operated all day Saturday and returned Sunday to help push the 15 meter QSO total past the 20 meter score.

K4ZA, Don Daso, who supplied the 10 meter station and ran either 10 or 20 meters all day Saturday.

W4SI, Rodney Harper, who did a great job on 40 meters Saturday night, allowing Joe to get some sleep.

AA4S, Ron Bailey, who took advantage of outstanding 20 meter conditions all Friday night and filled in on 10 and 20 meters the rest of the time.

Band	QSOs	Band Points
160	1	1
80	27	58
40	286	815
20	1015	2440
15	1035	2636
10	392	996
Total	2756	6946

With 821 prefixes, our point total equalled 5,702,666.

Preparations took a bit more time than estimated. In the end we were not able to resolve RF problems with the ten meter station in the garage while running computer contest software. This was due to having the 10m antenna directly over the equipment. My apologies to Don for this unexpected problem. Operation was basically limited to just two transmitters—one alternating between 40m and 15m, the other doing 10m, 20, and 80m. Much to my surprise, activity on 80m was nearly non-existent.

Everything else ran smoothly. For example, we were able to run full power on 20 and 40 meters simultaneously with the 5 element 20m Hy-Gain only 6 feet above the 4 element 40m KLM on the same mast! (Credit I.C.E. bandpass filters for making this possible!) Both bands were open in the same direction most of the time so beam heading conflicts were minimal.

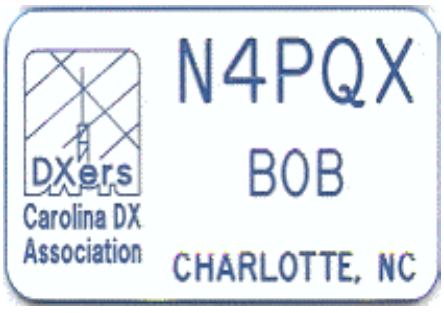
Fifteen meters was especially productive Friday night for the first 3 hours and all day both days. This caused our 40m QSO total to be lower than anticipated, but did not greatly affect total score since multipliers (prefixes) are counted only once regardless of band for this contest. Pileups were never that large—probably because there were so many unique prefixes to be had throughout the bands.

The first 5 hours generated 560 QSOs (112/hour). The best hour was 138 (1300-1400Z Saturday morning) followed by 132 (0000-0100Z Friday night). Seven different hours reached or exceeded 100 QSOs. The 48 hour average was 57 with two transmitters running approximately 80% of the time depending on operator availability. At least one transmitter was on 95% of the time. The best three hours (78, 74, 72) by any single transmitter occurred on 20m Friday night with 72 coming the first hour in the S&P mode!

I hope everyone had as much fun as I did. Thanks again to everyone who made this event possible.

Ready for a new CDXA Badge???

Members stopped by the CDXA booth at the Charlotte Hamfest asking about CDXA name badges. Our President, N4PQX, grabbed the bull by the horns and wrestled the critter to the ground. Below you will find an image of the "official CDXA" name badge. The badge is available as blue letters on a white background or white letters on a blue backround. The badge is 3" x 1-3/4" and carrries a base price of $8.20, including shipping and handling, from "The Signman of Baton Rouge." Optional fasteners other than the standard locking safety pin are available for a modest additional charge. You can order one online by pointing your web browser at: http://www.thesignman.com/clubs/cdxa.html, or by calling 1-888-HAMTAG1 if you are not a web surfer. We'll be looking for you and your badge at our luncheons!



Devoldere, ON4UN, Meets Local Hams
By John Scott, K8YC

John Devoldere, ON4UN, a master of low-band DXing visited Charlotte on 15 May to share a little fellowship with us and address area amateurs. Approximately 40 hams from area clubs listened and learned as John provided us a tutorial on his years of experience with radials for vertical antennas. When you're working the low bands, it is nearly impossible to get a large horizontal antenna structure high enough to deliver the radiation pattern needed for world class DXing, so John "knows verticals".

John made it clear at the beginning of his talk that radials affect the near-field effects of an antenna. There are also far-field effects, but these are really not under the control of the person building an antenna. More about that later.

There was far more material than I can recall. Unfortunately, I did not take notes during the presentation since I was so intrigued with the ease and clarity of presentation that ON4UN possesses for the topic. John made several things very clear. Radials affect only the near-field effect. Longer radials are better. More radials are better. Yet, there is a tradeoff! As a given number of radials get longer, the spacing between tips gets larger. John suggests that tip spacing is an important attribute not to be ignored. And, if one has an irregular shaped piece of property, a far better solution is to run the radials to the edge of the property regardless of the length as long as sufficiently small tip spacing is achieved. My intuition tells me closer tip spacing creates less opportunity for "leakage" of the RF energy to the earth ground plane below the conducting radial ground plane created by the radials. In other words, John seemed to say the density of the radials is at least as important as the size of the area covered by the radial pattern. Chew on those ideas for a while. Maybe it IS time to buy John's latest edition of Low Band DXing.

The far-field effects are controlled by the physical conditions of the site—those more than several wavelengths from the radiating antenna—which are not under one's control. For example, a vertical antenna in the middle of a salt flat near the ocean will have a decidedly different radiation pattern than one on lossy non-conducting soil in a mountain canyon. About all one can do is to pick an antenna site carefully to improve far-field effects.

Bill Turner, W4WNT, gets an autographed copy of Low Band DXing from the ON4UN!

Young Mountain Upgrades

On 13 May, a team of DXers met at Young Mountain to set the CDXA PacketCluster station right. Our Primary System Operator, Joe Simpkins (K4MD) led the charge assisted by Gary Dixon (K4MQG), Bob Burton (N4PQX), Paul Sturpe (W3GQ), Gary Branch (N5BI), and John Scott (K8YC). Our Professional Climber, Lamar Davenport brought all his gear to make the climb to replace our antenna and install several hundred feet of replacement 7/8th inch Heliax hardline, donated by Gary Branch.

Young Mountain is a 500 foot high knoll about 12 miles NNW from Moorsville. Atop Young Mountain is a 670 foot shared communications tower which supports our antenna at about the 210 foot level. Several other antenna structures reside atop Young Mountain as can be seen in the accompanying photo. The new antenna offers slightly less gain than its predecessor, but is rated to withstand 140 mph winds. The new Heliax offers minimum loss for 2m and 70cm signals in the cable run.

The day was quite warm at the base of the tower. All worked through their water containers in the course of the day. After carefully installing the end connectors on the Heliax and preparing the new antenna and stub, Lamar gathered his gear. (One does not want to climb back down for a tool from the 210 foot level!) Fortunately, there was a gentle breeze up where Lamar was working, but he was in the full sun for the 3+ hours he was on the tower. The accompanying picture shows Lamar at work removing the old 5/8th inch hardline as he worked his way up the tower.

Our antenna is at the 210 foot level near the platform above the top of the fleecy cloud.

We all worried a bit when the buzzards started circling Lamar at the 130 foot level.

The newly installed feedline was pulled to the equipment bay and our gear was checked for out-of-band products with a spectroscope brought out by Gary Branch. We had received some complaints from the commercial sites on the tower about interference from us, which had prompted the work effort, and we wanted to ensure we left a "clean" installation. All checked out okay. The accompanying picture shows our equipment bay in the equipment room. Keeping all this gear running has been a passion for Joe Simpkins, and it is a constant effort. We all owe Joe a vote of thanks for the work he does in support of our PacketCluster equipment.

To the left, our equipment bay in the secured building at the base of the tower. The new 7/8ths inch heliax was routed to the top of the cabinet.

The Strange BIG RTTY Signal
By Roger Burt, N4ZC

I was at Navy radio-op school in Norfolk, VA for four months from October to January 1957-58. I operated the club station K4NDC a good bit after classes. Each day, I would find a BIG RTTY signal on 21.340 mhz. I never thought that much about it at the time but did remember it some months later after I was sent to Puerto Rico. After radio school I was sent by Navy ship from Norfolk, VA to San Juan, Puerto Rico with a stop off at the Navy Base at GTMO Bay, Cuba along the way.

I arrived in PR by ship on March 1, 1958. WOW! For a kid from Michigan, it was GREAT....warm sandy beaches, swaying palms, and a GREAT place for ham radio. My first sight as the ship came into San Juan harbor was the giant El Morro castle on the left, some swaying palms on a sandy beach to the right, and a Navy flying boat taking off just inside the harbor. Boy, what a sight. After a cold winter in the states, this was heaven.

Even though I finished radio op school with a score of 99% at 30wpm, they put me on mess cook duty for three months. The comm officer was really mad. He needed good CW ops. After a few weeks I got my old SX-71 and DX-100 sent down from home. Hey, there's that BIG signal on 21.340 mhz—still there.

I couldn't get permission to put up anything but a random wire antenna. I found out I would be able to put up a real antenna, or even use some navy antennas at the navy transmitter station at the end of San Juan bay. I had heard that the base personnel officer was a ham. I went to see him and asked to be transferred to the transmitter station when my mess cook duty was over. The personnel officer (KP4AB) granted my wish. More about him later.

After getting on the air at the navy transmitter station..... W O W !!!!!! that 21.340 mhz signal is full scale here. What the hell is it? It was on 24 hours a day. OK, what transmitters do we have operating 24 hours a day and what frequencies are they on? BINGO—one of them is a 5 KW transmitter on 5335khz. Hmmmmm, four times 5335khz is 21.340mhz. It was used on an RTTY circuit from San Juan to GTMO Bay, 600 miles to the WNW.

I was new there. I had not yet learned the correct way to tune each of the 50+ transmitters. We had transmitters as small as 500 watts output to 40 KW output. Since they used open-wire feeders to rhombic antennas,

(Continued from page 4)

they would radiate whatever you sent into the feedline. I told the Chief that I thought the 5335 khz transmitter was not tuned correctly because for months it had been putting out a big signal on 21.340 mhz. He checked and indeed found that whoever tuned it up on that frequency months ago had not done a good job. With an 800' long rhombic it had enough RF to do the job on the 5335khz circuit but was sending out a big signal on the 4th harmonic as well.

So ended the strange case of the "big rtty signal on 21.340 mhz". While that did away with the 21.340 problem, there was always a problem with all that RF floating around all the time. I would put small lightbulbs in the RX line which were always shining due to the high RF field.

And what about that personnel officer? One day, some 30 years after that request, retired from the USCG, living here in NC, I was talking to a K6 who was telling me that he used to be a Navy personnel officer in San Juan back in the late 50s. Something clicked in this old head, and I said, your call back then wasn't "KP4 American Boy" was it? "Wow, how in the world did you know that?", he asked. I told him about the lowly seaman radioman who had asked to be transferred to the navy transmitter station. A small world isn't it.

Tower Construction Notes for Mecklenburg County
By Bob Burton, N4PQX

I have uncovered some new facts about putting up a tower in Mecklenburg County because one of my neighbors, who is on the Planning Commission for Mecklenburg County, registered a complaint with the Zoning Department about my tower. After discussing the issue with the Zoning Inspector, I found that the tower needed a Zoning Use Permit.

In Mecklenburg County in a residential zoned area, minimum setback is 6 feet and any structure over 40 ft. in total height requires a Zoning Use Permit. The regulation excerpts below are straight from the Zoning Code Book.

Page 9-27 Item #6

"A building in any of the designated districts may be erected to a height in excess of 40 feet, provided the minimum side yard is increased 1 foot for every 2 feet of building height in excess of 40 feet. However, a building which abuts a residential use or zoning district may not be erected to a height in excess of 40 feet unless the side and/or rear yard abutting the residential use or zoning district is increased 1 foot for every foot of building height in excess of 40 feet. Height requirements for other permitted structures are set forth in Section 12.108."

Page 12-13 Items #5 & #6

" (5) The following structures are permitted above the height limit on lots in the research, institutional, office, business, and industrial districts which do not abut lots in any residential district: towers, steeples, flagpoles, chimneys, water tanks or similar structures. If this type of structure is on a lot which abuts a residential district, the the part of the structure above the height limit must be separated from any such abutting lot line by a distance equal to its height measured from the ground."

" (6) The structures listed in subsection 12.108(5) above are also permitted above the height limit in residential districts. However, any part of such structure which extends above the height limit must be separated from any abutting property line by a distance equal to its height measured from the ground. **Television, amateur radio operators, and similar antennas, which extend above the height limit, may be separated from any abutting property line by one foot for every two feet in height above the permitted height.** Otherwise, the structure will be subject to the usual requirements for the particular district."

Based on this zoning information, for example, a tower complete with antennas that has a total vertical height of 80 feet must be located at least 6 feet + [(80 feet – 40 feet)/2] = 26 feet from a side or rear property line. This setback is only the tower and does not include guy anchor points for guyed towers. Also note this is side and rear setbacks. A tower can not be located in front of your home.

Although I now live in Mecklenburg County, this also applies in Charlotte. Check with the local city zoning rules for other cities in the county.

To apply for a Zoning Use Permit , go to the zoning office on 700 N Tryon St. The permit costs $30 and should be applied for before construction begins. Final inspection is done after tower completion including antennas. All of the zoning personnel have been quite pleasant and helpful. You should approach them the same way. Permits expire if work has not started and been inspected within 6 months, or if work is discontinued for a period of 12 months. Any questions can be directed to zoning at 704-336-3569.

What's Happening At Discovery Place
By Bob Southworth, KI4YV

Well, the restructuring has taken effect and guess what? Amateur Radio is still here and will be here in the future.

The Restructuring will now see a number of hams that have never operated anything but a hand-held FM radio move into a large new spectrum known as HF radio. The opportunities are almost limitless. While many opportunities were available in the VHF and up spectrum, few took advantage of them. I personally blame the amateurs holding general class or above for not introducing the new ham to the opportunities he had available to him. Let us not repeat this failure at this new juncture in Amateur Radio.

To that end, we at Discovery Place Amateur Radio Education Center are making major changes in selection of operating modes available. Here are some of the things we are doing:

1. Installing a totally digital operation bay.
   a. A Ten-Tec Pegasus transceiver operated by computer.
   b. A computer to control the Pegasus and run supporting programs.
   c. Programs to run PSK31, AMTOR, PACTOR, RTTY and High Speed CW.
2. Upgrading the APRS Facility so we can use better maps and more easily track selected mobile units.
3. Improving and adding to our slide show presentations, mainly "how-to" shows.
4. Installing access to the Internet so that we can:
   a. Review specifications on new equipment coming on the market.
   b. Test Shareware to see if it does what we want.
   c. Download data and programs that we can use in the radio room.

These are but a few of the improvements we are undertaking. But our main purpose is to introduce these operating opportunities to all amateurs and provide an operating station(s) for those that have antenna and other deed restrictions.

Another reason for purchasing the Pegasus was the possibility of remote operation of the unit. The continued construction of buildings around Discovery Place will eventually deteriorate the operation of the station. With the new buildings also come more pagers, cellphones and computer hash.

One of the projects for future experimentation is operating the Pegasus via wire and/or microwave links. We will be working with Ten-Tec staff to find the requirements and best method. At present Ten-Tec sees no problem when interfaced with a proper modem. It is felt that currently-produced modems will do the job. We have also had meetings with the museum staff and determined the Nature museum location could be used for the equipment to be operated remotely from the radio room at Discovery Place.

Exciting things are happening!! Come and be part of it and let us show you a whole new world of operating adventures.

More Discovery Place Doing's

Things have been humming over six Fridays this spring as nine home school students from the Huntersville-Davison area each constructed a four band short wave receiver. The units were purchased as kits and were student assembled in the Amateur Radio Education Center located at Discovery Place. Each student took their radios home Friday, May 19th for the smoke test.

Seven Amateur Radio Operators from the local area helped the students and answered their questions. They made periodic inspection of each unit as the students completed each phase of the work. We ran into a dilemma in testing the radios in the last session of the project when the airways became absolutely dead.

Each of the students received a certificate of completion of their project signed by Tiffanny White, director of Outreach, for the museum and by R. V. Southworth, manager of the Amateur Radio Education Center. The following students of Wings Home School participated in the project: Aaron Knight, Jacob Morgan, Mark Huggins, Lindsey Jackson, Alex Phipps, Christina Goebelt, Eric Calloway, Robby Mackercher and Caleb Moore

The Elmers guiding the students during the period were: Jeff Blythe, KA4WYC; Blair Foster, KD4TAQ; Ervin Hoechne, KF4KFN; Bob Southworth, KI4YV; John White, WB2NHQ; and Mac Wood, W4PVT.

The radio room at Discovery Place is entirely volunteer operated, and volunteers are always needed and welcomed. If interested, contact Mac Wood, W4PVT for details.

Adventures of Millie and Mike

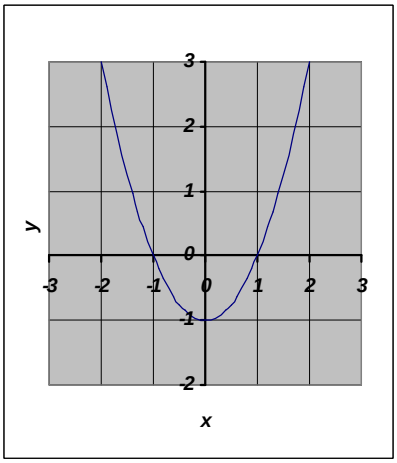
Rrrrrring. Mike Farad was expecting Bill Ohmstead, and the doorbell was no surprise. Mike was "elmering" Bill by helping him get ready for his license upgrade exam.

"What's the deal with 'imaginary' numbers I keep seeing when working with reactances?" asked Bill as they sat down for their session.

"It's really a convention adopted by mathematicians," responded Mike. "Let's say you have an equation as follows," began Mike as he wrote on his scratchpad:

$$y=x^2-1$$

"The graph of that equation looks like you see here. If we set $y=0$, and solve for the values of x which satisfy the equation, we say we have found the "roots" of the equation. In this case, the roots are +1 and –1. You can check this by putting each of these two values for x separately in the equation and solving for y. As you can see, the values for x are 'real' numbers," noted Mike, "but, what if the equation was $y=x^2+1$? What would the roots be then?"

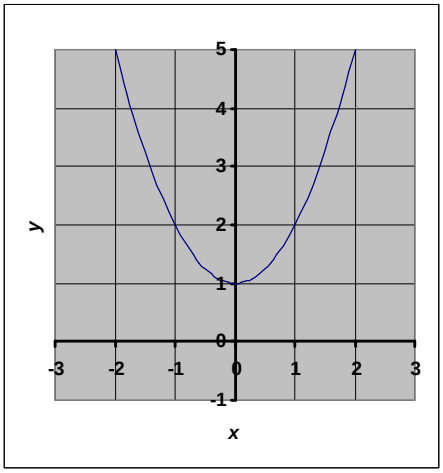


Bill started by writing $x^2+1=0$ on the scratchpad. By solving that equation, Bill found that $x^2= -1$. Solving for x by taking the square root of both sides of the equation led to:

$$x=\sqrt{-1} \quad \text{or} \quad x=i$$

"That's what the books tell me is the imaginary number, 'i'," sighed Bill, "but I still don't understand."

"The square root sign identifies a number which if squared will result in the number under the sign. Yet, squaring any number always results in a positive number. There's the dilemma!" offered Mike. "The mathematician identified an imaginary number, equal to the square root of minus one to fill the bill. If i equals the square root of minus one, then $i^2=-1$ and plugging that back into our example equation above we find –1+1=0 satifies our equation meaning i is indeed a root of the equation, even though it is not a 'real' number." Mike went on, "Grahically the second equation looks like this. As you can see, there are no real values of x for which y equals zero, yet there is an imaginary value of x which does satisfy the equation. In the general case the roots of an equation may be of the form $a\pm bi$. This is called a complex number made up of a real and imaginary part. Do you want to see how that works?", asked Mike.



" Whoa, I don't have time today," shuddered Bill. "Gotta go. I'll have to think about this for a while."

12m and 17m Beacons
by Ron Bailey, AA4S

The other day I stumbled on the beacon systems on 24.930 and 18.110MHz. This note is for the benefit of those who may not know these exist. Every 10 seconds a different one IDs and transmits a series of tones at decreasing power levels. There are 18 beacons and the cycle takes 3 minutes to complete. It didn't take very long for me to ID most of them. The calls, in order, are as follows: ZS6DN, 5Z4B, 4X6TU, OH2B, CS3B, LU4AA, OA4B, YV5B, 4U1UN, VE8AT, W6WX, ???? (KH6 perhsps), ZL6B, WK6RBP, JA2IGY, RR9O, VR2HK, & ???? (Asian?). Wonder if they QSL?

Address Changes???

Has your address changed? Please note that all address changes for ANY reason should now go to Gary Dixon, K4MQG who will keep track of you for roster purposes as well as for mailings of the PILEUP. Please check your address, phone number and email information in the roster on the CDXA web site and provide any changes to Gary at the address on the back page. Also, let Gary know if you're willing to accept only the on-line version of the Pileup.

CDXA Embroidered Shirt Order Blank

Use this Order Blank to order shirt(s) from Lands End with the CDXA logo embroidered on the breast.

1. Embroidery fee of $5.30 per item is based on an aggregated minimum order of six items.
2. Color selection of shirts is limited to shades of blue to fit color scheme of the logotype.
3. Logotype has a medium blue background, yellow letters, and silver/gray antenna structure.
4. Your completed order may be picked up at the weekly luncheon OR it may be shipped directly to an address of your choice. A shipping charge of $1.50 per item ordered should be remitted if you'll pick up your order at the luncheon. Orders for items requested to be sent to an address of your choice (no P.O. Boxes, please) must include a UPS ground shipping fee of $4.95 (up to four items in one shipment).
5. **Order and check for FULL amount of payment should be made out and sent to: John Scott; 16212 Walcot Lane; Cornelius, NC 28031 to arrive no later than July 31,2000.**
6. Orders received by July 31, 2000 will be grouped to ensure minimum order quantity and forwarded to Lands End for processing. Expected delivery is about three weeks later subject to availability.
7. All products cited below can be viewed on-line with a web browser at Lands End Corporate Sales site. (http://www.landsend.com, then pick the "Corporate Sales" tab, then "Products".)
8. If you want a womans shirt (for your XYL) or a tall shirt not listed below, please contact John Scott at (704) 896-9841 (evenings only) (email: jascott@ix.netcom.com) for special handling.

PRODUCTS AVAILABLE ON THIS ORDER

Style	Color	Product No.	Cost
Denim Long Sleeve	Light Indigo	31102	$36.00
Chambray Long Sleeve	Antique Indigo	51963	29.50
Chambray Short Sleeve	Antique Indigo	51656	26.50
Mesh Polo—Hemmed Short Sleeve (Hemmed Sleeve is turned and stitched)	Deep Chambray Heather	61843	19.50
Mesh Polo—Banded Short Sleeve (Banded gives a ribbed constricted sleeve)	Deep Chambray Heather	61848	19.50

All colors above are a light blue, giving the Chambray and Denim shirts a "washed" look. Chambray is a softer, lighter fabric than denim yet is still informal. Ideal for summer in the Carolinas. Mens sizes: S:34-46, M:38-40, L:42-44, XL: 46-48. XXL available in some styles—see web or call.

Prod. No.	Description	Logo No.	Size	Qty.	Price	Logo Fee	Total
		24945				$5.30	
		24945				$5.30	
		24945				$5.30	

Ship to:

Name:_____

Address:_____

City/State/ZIP:_____

Phone: _____

Choose **one** shipping method:

Send to my address at left @ $4.95 for up to 4 items (UPS Ground) _____

OR

Send to John Scott for Pickup at luncheon @ $1.50 per item ordered _____

GRAND TOTAL for order $_____

The Back Page

This month the names of our Principal PacketCluster Sysop, Joe Simpkins (K4MD) and our Webmaster, Jerry Moore (AE4PB) appear on the masthead of the Pileup on Page 1. Both of these guys do a lot of work keeping these services running. It is only fitting that they deserve recognition for the work they do by being included there. Give these fellows an "attaboy" whenever you can. It is amazing how a few positive "strokes" makes it all seem worthwhile for the hours they spend working for you, the members.

At the request of a few of our members, the font used in this month's Pileup is a wee bit larger for your reading comfort. Hope you enjoy it. Don't ask me the name of those making this request. I can't remember!!!

Don Daso, K4ZA, offers the following source for rope. He indicates the prices and service are "terrific" and Brian Shepard is the man. The company is: New River Nets; 140 Charles Creek Road; Sneads Ferry, NC 28460. Phone number is: 910-327-1231.

Don, K4ZA, also reminds us that his hot weather and antenna work has all the attributes needed to induce the two principal forms of heat illness—heat exhaustion and heat stroke. DO NOT TAKE THIS LIGHTLY since death can occur in extreme cases. Headaches, dizziness, nausea, pale clammy skin may be heat exhaustion. Pale DRY skin, hot red skin, seizures, or collapse may result from heat stroke—heat stroke being a medical emergency. In either case, move the victim to a cool area. Do not leave them alone. Lay them on their back. Loosen clothing. Cool them by fanning. A small cup of cool water every 15 minutes is good. Cool with a spray mist or wet cloth. Seek help.

Pssssst! Did you know the pictures in this Pileup are in full color on our website???? Try downloading it using a free Acrobat Reader. Visit the website to find out how easy it is.

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First Class Mail

See something wrong with your address label? Notify K4MQG at once, please.