

NARS NEWS

The Northwest Amateur Radio Society

Houston, Texas

September 1997

September Meeting On Fox Hunting

Earl Morse N5TU is a local ham living in Decker Prairie who has a knack for Fox hunting. He has graciously agreed to tell us about his experiences and share some of his knowledge in locating hidden transmitters.

Come to the meeting Friday,

September 19, and learn from a real pro.

Who knows ... you just might pick up enough info to win the \$100 prize being offered at the hunt during the upcoming Gulf Coast Ham Convention.

Keith WD5DXL

Here Is One Flagpole Antenna That Works Fine

How often have some of us had the advice "Put up a flagpole antenna" when you mention you have tough deed restrictions? But when you go after the how and the what the info sort-of evaporates. Here's one version of a flagpole antenna worked out by Charlie Costa W2SIF of Lady Lake, Fl, which he has graciously agreed to share with us.

I heard Charlie recently on 20 meters talking to another ham about his antenna, contacted him, and he obligingly sent me his data on putting up a flagpole antenna that covers 10, 15, 20, 30 & 40 meters. Charlie's personal preference is to work 40 phone & CW, 30 meter CW & 20 meter phone & CW.

Continued on page 5



Important Dates

Friday, September 19, 7:30 pm - NARS monthly General Membership meeting, Spring Cypress Presbyterian Church - Eyeball QSO's, 7:00 pm

Saturday, September 27, 8:30 am - VE License Exam Session, Tomball Community Center, S. Cherry & Market streets (just South of Main)

Tuesday, September 30, 7:00 pm - S.I.R.E. workers meeting, Terra Nova Clubhouse, 5200 Woodville

Tuesday, September 30, 7:30 pm - NARS Board of Directors meeting, Terra Nova Clubhouse, 5200 Woodville

Contests:

Sept 13-15 - ARRL September VHF QSO Party

Sept 14 - North American Sprint, Phone
Sept 20-21 - Air Force 50th Anniversary QSO Party

Sept 27-28 - CQ WW RTTY

October 4-5 - California QSO Party

October 17-19 - Jamboree-on-the-Air

October 25-26 - CQ WW DX, Phone

Notice:

NARS membership dues is \$20 per year, renewable on anniversary of last year's full payment.

NARS News **deadline** for articles to appear in October issue is Tuesday, September 30.

BREAKFAST

at Victors

4710 W FM 1960

Saturdays

8:00 AM

President's Corner

September 1997

It's time to think about who might be the NARS officers for 1998. If you have any inclination to being an officer or director of NARS, talk to one of the officers or Rudy Novotny KB5ZXO. Rudy is putting together a list of those who are willing to run for office. Or, get someone to nominate you when the time comes at the November monthly meeting. One of the good things about NARS is that we try to keep it fun. I can honestly say that I have had fun being president although my decision to run did not include much allowance for "fun". A very competent and nice bunch of guys on the board certainly helps make it fun. They seem to enjoy it too. Give it some thought.

Here's an update on the NARS node. As you may recall, NARS plans to move its node equipment to another site. A nicely located site with a 130' tower turned up several months ago. It will likely be available to NARS but there is no final word yet from the owner. More recently we learned of another site with a tower more than twice as tall which will likely be available. We are checking out the details of how to avoid interference with other equipment there and what NARS' obligations will be. It looks very promising and is the first choice. Decisions on the DX cluster and its associated considerable expense will be made after the installation of the node at the new location.

There's an update on the NCDXF/IARU International Beacon Project on page 47 of the September QST. The project involves 18 beacons spread around the world which transmit at very specific times and frequencies on the 20, 17, 15, 12 and 10 meter bands. The beacon signals are very helpful in predicting propagation for the day and in finding unexpected conditions. For DXers, this is neat stuff. NCDXF stands for Northern California DX Foundation. More info on the beacons can be found on the web at "<http://www.ncdxf.org>".

I'm sure most of us learned something from the speaker at the August meeting about telephone and other kinds of fraud. Here's another tidbit; there is a big-time service organization that maintains lists for telephone marketers. I sent it a letter saying in plain language that I did not want to receive any more unsolicited phone calls and directed them to delete my phone number, my name and my wife's name (and variances thereof) from all lists and data bases they maintained or controlled. It seemed to help for awhile. Its address is: Telephone Preference Service, Direct Marketing Association, P.O. Box 9014, Farmington, New York 11735-9014. Good luck.

Jim Kirk KJ5X

NARS Outstanding Service Award

It's time to start planning for the NARS banquet that is held on the third Friday night in January of each year. Last year there was apparently some problem finding a suitable candidate for the NARS Outstanding Service Award that we like to give each year, so this year there has been a committee formed to select the next victim ... er ... honoree. Vice President and banquet chairman Paul Owens N5NXS, immediate past recipient Bill Stietenroth K5ZTY and 1996 recipient Bill Denton W5SB were appointed to find this year's candidate. We would like some help from you.

If you have someone in mind that you think has done an outstanding job of serving NARS this year and would like to have this person recognized, please give us your thoughts. We need for it to be in writing giving all the reasons for your nomination. All nominations will remain confidential and the selection will be done by the committee. Give this information to one of the three of us by the end of October so that we will have time to put the presentation together. Send it to Paul Owen, 9310 Walnut Glen, Houston, TX 77064, or if you want to use Email, send it to either Bill Denton <bdenton@tenet.edu> or Bill Stietenroth <k5zty@juno.com>. You could also hand it to one of us at any meeting, lunch or breakfast gathering. Put your thinking cap on and put the pen to the paper and let us know who you think deserves this prestigious award.

73, Bill Stietenroth K5ZTY, for the committee

NARS Raffle, Second Notice

NARS is holding a raffle to raise funds for new Field Day antennas and maintenance of our repeaters. The prize is an IC-2710H, ICOM's top-of-the-line dual band 2 meter / 70 cm portable transceiver with detachable front panel and remote control microphone. Tickets are \$1 each, or a book of 12 for \$10 available from Walter Hock KK5LO (281-350-6633) or Keith Dutson WD5DXL (281-351-7683). The drawing will be held at the Houston Hamfest at 2:00 PM on Sunday, October 19, 1997. The winner does not need to be present at the drawing.

NARS Board of Directors Meeting 8/26/97

Treasurer's Report - The checkbook balance on July 31, 1997 was \$3773.35.

Programs - September: N5TU, Fox Hunting; October: Alan Cross WA5UZB, ARRL Section Manager.

Current Node - Investigate possibility of 440 MHz link to 146.660.

New Node location - Plans underway to set up node on Cypress-Rose Hill tower; Five Forks Road location still a possibility for additional repeater location.

DX Cluster - Beam to be installed on Cypress tower in conjunction with new node to hook into local DX cluster network.

Radio Raffle - More than \$500 has been raised so far which covers much of the expense to date.

Public service events - SIRE, October 18th, looking for 20 workers; Texas Trails Endurance Run, December 13th.

Election - Rudy Novotny named chairman of nominating committee for 1998 officers.

Banquet - Paul Owen and Dianne Hudspeth investigating alternative sites for 1998 banquet.

Web Site - Cost of web site for this year is \$107.17 plus a nominal extra fee for additional disk space.

Bob Argo KC5JZO Secretary

DX News

DX Notes -- In the world's broad fields of battle, In the bivouac of life, Be not like dumb, driven cattle Be a DXer in the strife! . . .

One of the semi-young QRPers visited with The Old Man the other day. It seems he had the itch to buy a new radio. His old radio was working just fine, but he was showing clear signs of the DX itch. The new ones he had worked since putting up his tower and beam had apparently become the source of the itch. After asking The Old Timer about the Kenwood 850 radio, the QRPer went on his way. When next heard from he had acquired a new (for him) Icom radio, and he was boasting about his recent working of 5X1T in Uganda. One wonders what other new revelations will be coming in the months ahead? Illegitimus non carborundum! . . .

The solar flux index climbed all the way to 80 for the weekend of the IOTA contest near the end of July. A few small openings into Asia resulted, and by the end of July the SFI was back down to 71. After being stuck around 70 for a week, the SFI inched back up to 77 on Aug. 6, with A & K indices at favorable lows of zero. As mid-month approached, the SFI climbed back up and reached 80, which yielded a nice long-path opening into South Africa in the morning of Aug 12, despite an A index of 8. By Aug. 14 the SFI was 82, the highest I have seen it for several years. Unfortunately it was accompanied by an A index of 10 -- obviously the numbers are out of sync. On Aug. 17, the SFI hit 76, with A and K indices of 6 and 2, resulting in a very nice opening into Europe late in the day. Nice numbers of 77, 1 and 1 coincided with the New Orleans DX Convention. At month-end, the solar flux index reached a recent high of 96, although band conditions did not reflect it. The gradually declining A index may lead to better conditions early in September.

One of our newer hams is a budding Dixer. Steve KD5AIJ has enjoyed working several new countries on ten meters with his homemade dipole antenna. During the first weekend of August he worked VP2VF--Br. Virgin Is., LU--Argentina, CX--Uruguay, and TI--Costa Rica. Nice going, Steve! Walter KK5LO worked 5X1T on 15-meters, plus HH2LQ and LZ5DB. Conrad W5MN worked FW5IW (Wallis Island); Conrad also touted Mike K5NZ onto a JT1 in Mongolia for a new country and a new zone. Cal WF5W reports he worked three new countries recently -- AP2--Pakistan, JT--Mongolia and SV5--Dodecanese Islands. He also worked TT8WJM (Chad). Mark KM5AO worked a VP8 in Antarctica on 75m and 9M6HIL (E. Malaysia) on 20m for new ones. KK5LO was heard boasting about beating yours truly to HC1XL in the pileup. Guess that will teach me to turn the antenna instead of trying off the back of the beam! KM5LJ (ex-KC5OFI--congrats, Jack) reports a recent contact with KH6--Hawaii on his vertical. Gary KK5WL worked some nearby DX with a KG4 in Guantanamo Bay with 15-20 watts. Rudy KB5ZXO worked KL7--Alaska and OZ--Denmark during the NAQP contest. Jack WA8GHZ worked a JH7 on 30-meters from his mobile early in the

morning and says that "conditions must be getting better." Congrats to Dick W5VHN on his recent upgrade to 322 DXCC countries confirmed (Sept. QST); also to KJ5X for his QSO with RV0AM in Asiatic Russia.

DX Worked -- KH0I (Saipan); ZL1BOS (New Zealand); 5X1T (Uganda); BX0YL (Taiwan); YB2BRW (Indonesia); LA2PA (Norway); RW9XWH (Russia); 9M6HIL (Sabah, E. Malaysia); KH0I (Saipan); TZ6JA (Mali); UT7FA (Ukraine); 5B4/G3LNS (Cyprus); 3F1P (Panamanian Island); ZS6SOA & ZS6AON (South Africa--morning LP); 7Q7CE (Malawi--morning LP); YB5QZ (Indonesia); RA2FBC (Kaliningradsk); V63KU (Micronesia); VK6ACY (W. Australia); ZS5PT (South Africa, morning LP); Z22JE (Zimbabwe); A61AN (Dubai, U.A.E.); 9M6OO (Spratly Islands); VK2IGW (Australia - 15m/ ~0015Z); 9G1BJ (Ghana); V85HG (Brunei); RN3QO (Russia); A61AJ (Dubai, UAE); ZA1MH (Albania); RX1OX/FJL (Franz Josef Land); 9X/RW3AH (Uganda); UN7JX (Uzbek); RV0AM (Asiatic Russia); HS0ZBJ (Thailand); YB1XUR (Indonesia); 4F4IZ (Philippine Is.); UA0WY (Kazakh Rep.); BV5BG (Taiwan); YB2PBX (Indonesia); DU1SAN (Philippine Is.); YB2BRW (Indonesia); SV3AQR (Greece); ZS5BBO (South Africa; morning-LP).

DX Heard -- JT1BG (Mongolia); AP2JZB (Pakistan); 5H3HG (Tanzania); YB1XYR (Indonesia); 9M6PO (Spratly Is.); 3W6KA (Vietnam); XX9AU (Macao); 9V1AG (Singapore).

QSL Routes -- 5X1T via ON5NT; BX0YL via BV4YB; 5B4/G3LNS via POB 1344, Paphos, Cyprus 8133; 3F1P via HP2CWB; 5H3HG via N5HG; 9M6OO via N2OO; 9G1BJ via G4XTA; V85HG via POB 222, BSB1902, Brunei; ZA1MH via Z32KV; A61AJ via IV3TMV; RX1OX/FJL via DL6YET; HS0ZBJ via W8GIO; ZS5BBO via buro.

A multinational group of operators will land on Willis Island on Sept. 11 for a ten-day stay. Willis is an Australian weather station outside of the barrier reef north of Australia. The group includes three YL operators, one of whom is scheduled to handle most of the CW operating. Two callsigns will be used, neither of which has been issued yet. After Willis, the team will move to Holmes Reef (a new IOTA group) and operate from there for about 30 hours. When I first worked Willis in 1972, it was a Sunday morning and I was being tugged in three directions. The family was headed for the car to go to church, and I was listening to both Marion Island (ZS2MI) and Willis Island (VK9ZB), both of which would be new countries. After giving the situation deep thought for about thirty seconds, I sent the family on to church in one car, with a promise I would follow shortly. After listening to both stations, I decided to try for Marion Island first, it being the weaker station and usually the more difficult to work. Within five minutes, I had ZS2MI in the long and was turning the beam to the West. In another five or six minutes, I had VK9ZB in my log and was out the door headed for church, arriving just in time for the beginning of services. Not a bad day's work!

5A--Libya will be on the air for most of the first week in September.

There are generally three categories of DX recognized by most. Ordinary DX is DX that both you and I have worked and confirmed; Good DX which is countries that you have not worked or confirmed but which I HAVE worked and confirmed; and, there is Rare DX which includes DX that NEITHER you nor I have worked. Think about it!

I ran across an old friend August 14 on 20m. The long-path opening turned up Z22JE, Dudley, in Zimbabwe. I first worked this station in 1988 and responded to his request for help with his old TA33 beam which needed new end caps for the traps. I called the Mosley Company and found they still built the antenna and would sell the necessary parts. Since I was to embark on another trip to Indonesia within a day or two, I simply charged the traps to my credit card and asked them to ship them directly to Dudley. A result of this has been an ongoing correspondence yearly with Margaret, Dudley's XYL, who does the letter-writing in that family. Later, when talking with Dudley again, he told me he had formerly been ZE2JE before So. Rhodesia became fully independent and changed prefixes. Review of my 3x5 file card system revealed that we had talked much earlier, including an interesting ten meter bicycle-mobile QSO as he was pedaling through the countryside there in 1971! Ham radio takes many fascinating turns. . .

The Spratly Islands showed up on August 14 in the form of 9M6OO, not readable here in Houston. The next day a massive pileup turned out for them, even though I still could not hear them. Probably the result of an A index at 16. A few days later, 9M6PO turned up on Spratly with barely readable signals in Texas. On Aug. 28, however, they were highly readable for over an hour.

The New Orleans International DX Convention was very worthwhile. Strong technical program, with about 180 attendees and a very nice Saturday banquet. Rick K5UR described some of the probable recommendations which the DXCC 2000 Committee will make to the Board of Directors later this year. There are no plans to "start DXCC over." However there will likely be some wording changes in the rules governing the DXCC Countries List. After some future date, deleted countries will not be counted in a member's DXCC total. However, no current member will lose any of his current credits. There will probably be several more band-DXCC awards. And, the "piece de resistance" will probably be a new DXCC Championship Award based upon one point per country per band per mode, beginning at 1000 points, with additional endorsements in 500-point increments up to 3000. These are all still under discussion, but Rick feels fairly certain some or all of these items will become reality in 1998. Bob Walworth N5ET and I were the only attendees from NARS.

Bill Gary K8CSG

Contest Connection

Over the years I have found CW to be one of the most enjoyable aspects of ham radio. It is great fun to sit and have a long 'rag chew' at 20-22 wpm. In the past year or two I have found myself getting more and more involved in CW contesting. I quickly became aware that my CW skills would have to improve greatly in order to operate comfortably in these high speed, fast moving contests. At field day this year, several people asked how I was able to operate CW at 'those speeds' and made comments such as 'I could never do that.' I assure you that you can operate QRQ CW too! I am still learning and I have a long way to go to catch up with the true high speed contesters, but this is a goal I have set for myself. What follows are practice methods, tried and true, that will allow you to operate QRQ CW. These ideas are from many sources; I have personally used each and every one of them and continue to do so.

1. On the air QSO's

On the air CW QSO's will work wonders for your speed and confidence. Put the microphone, packet, sstv, and everything else that occupies your radio time, in the closet. Dust off the iambic keyer and paddles and get on the air. This is to be pure skill improvement time. Set a goal of two on the air QSO's per day. Not just the 599, Houston, Tx., name is Bill, 73, cul, SK .., but honest conversational exchanges; ten minutes minimum.

2. On the air receiving.

Find a QSO in progress at a speed you can comfortably pencil copy. Now, put the pencil down, and just listen. This is important. Try to recognize the letters as you hear the code and group them into words in your 'minds eye'. It's not easy but keep trying. It may take a couple weeks before you can follow the conversation without writing everything down. Jot down the call, name and QTH then just listen to the rest. Another practice method that goes hand in hand with this requires the help of a partner. Have your partner spell words from a story or newspaper article to you! He is to read the story to you out loud, not the words, but by spelling the words. Have him spell them at a rate of one letter per second. That equals about 12 wpm. This is the same thing that one does when 'copying code in his head.' Words are

spelled out loud to you and you are forming them into words, sentences and thoughts in your head. When you have no trouble following the story at this speed, then double the rate to two letters per second. That is 24 wpm but it's not too fast for plain English. When you can follow the story at this rate then your CW reading speed will be close behind and you will be on your way to QRQ CW. A rate of three letters per second is a rate of 36 wpm CW. This is a good speed for the contest exchanges and should allow you to operate any of the contests with the best of the ops.

3. Computer Practice.

The purpose of the computer programs such as Super Morse and Morse Academy is to teach code from the beginning through 20 wpm or so. These can also be used to practice QRQ CW. Find some straight text such as a story or other non technical article. Keep the numbers and punctuation to a minimum. Find the speed at which you can 100% copy the text with pen or pencil. Now set the sending speed to 5 wpm faster. Start the program, sit back, and just listen for 30 minutes. At first you will only catch a letter every now and then. Keep at it. Soon you will get all the letters of a single word. When you do, congratulations are in order and while you are doing that, you will miss the next 6 words or so. Not a problem! Keep going! In a week or two you will be able to follow the text with little problem. When that happens then just raise the code speed another 5 wpm and before you know it you will be running at QRQ speeds.

4. Contest logging software.

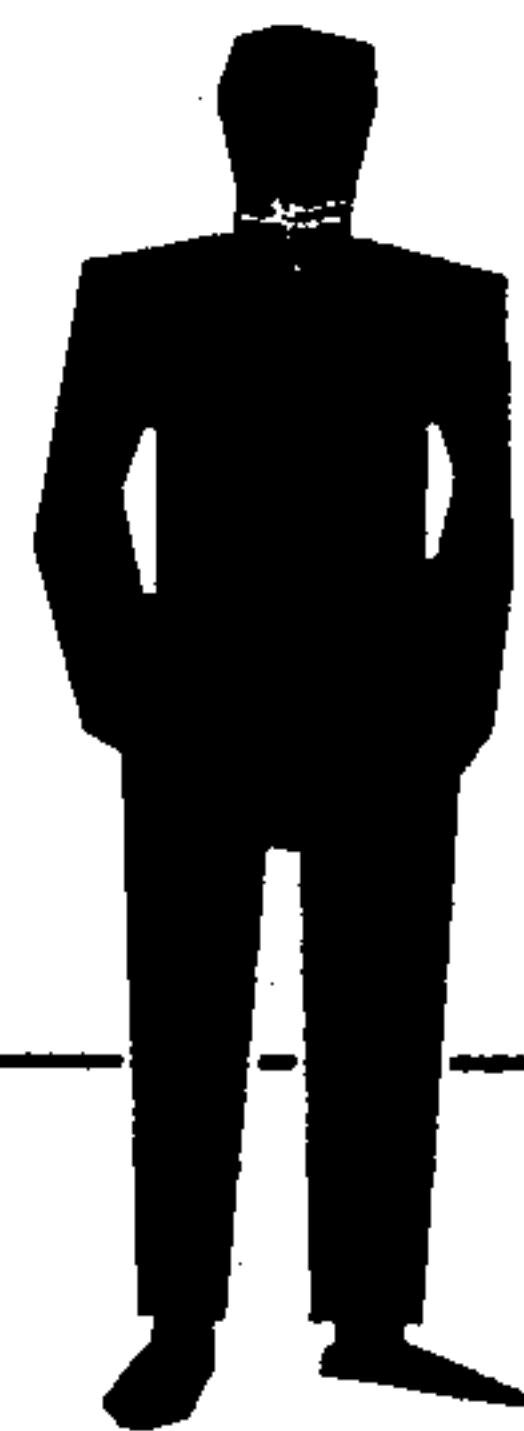
At some point you will have to start practicing with contest logging software. Most of the more common programs such as NA, CT, and TR have a practice mode included. The practice mode will teach you to use their logging program and is also a good method for increasing call recognition. Another good practice program is RUFZ. This program sends a call sign which you have to type. If you entered it correctly the next one will be faster. If it was incorrect the next one will be slower. This program will find your copy speed and always push you a little faster. It's also great fun.

5. Sending practice.

Practice sending code at a fast speed. When sending code you are using the same processes as when you are receiving. You are forming words to express ideas in your mind and at the same time you are converting them into letters and then code. Practice sending fast, clear code. It helps to use a recorder to listen to what you have sent. If you can not copy it then chances are the other station will not be able to either.

At some point you will want to start using the keyboard for plain text copy. Listen to WA1W or one of the software code trainers and learn to copy on the keyboard. Practice typing behind what you are copying by a word or two and then increase the code speed and start typing behind many words. This takes a lot of practice and time but you will be very pleased at the results. Most of all have fun! Make daily CW contacts and get involved in some of the contests.

O J K10J



by Keith Dutson

I can feel Autumn in the air. The high 90's weather seems to be finally on the wane, just in time for the coming ham comms at Belton and Houston, and the S.I.R.E. ride-a-thon (see me if you want to attend).

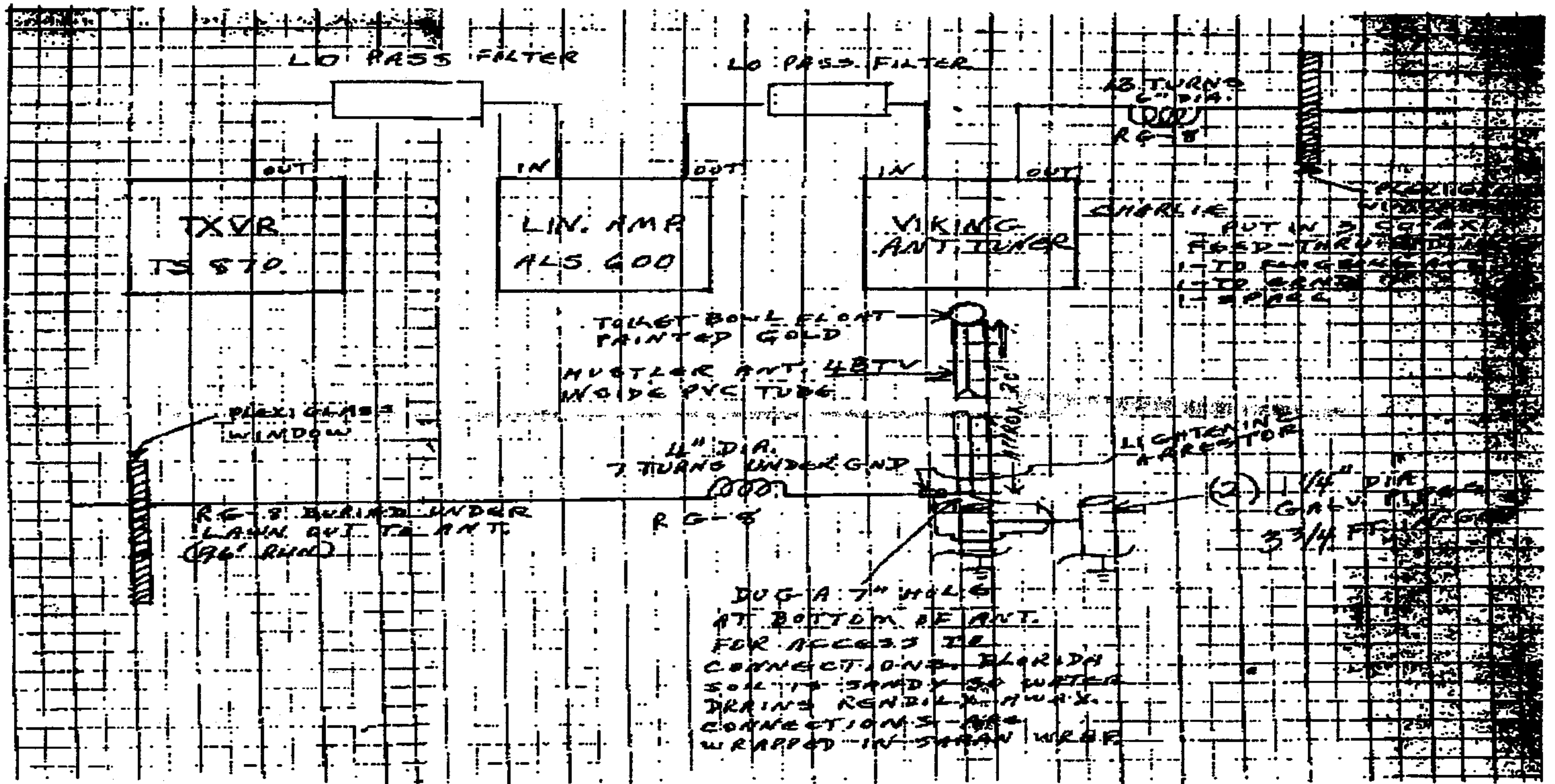
Are you HF legal? Band propagation conditions are steadily improving; check out Bill Gary's column on DX this month. If CW is your bag you will love reading the guiding words of wisdom from O J in the Contest Connection. Yep, there are many good reasons to be operating on HF these days.

Sign up today as a NARS News reporter; see me for details. You do not have to be a writer or photographer, but it will help if you can do either. Call me at 281-351-7683, or send email to kdutson@swbell.net.

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Here Is One Flagpole Antenna That Works Fine – continued from page 1

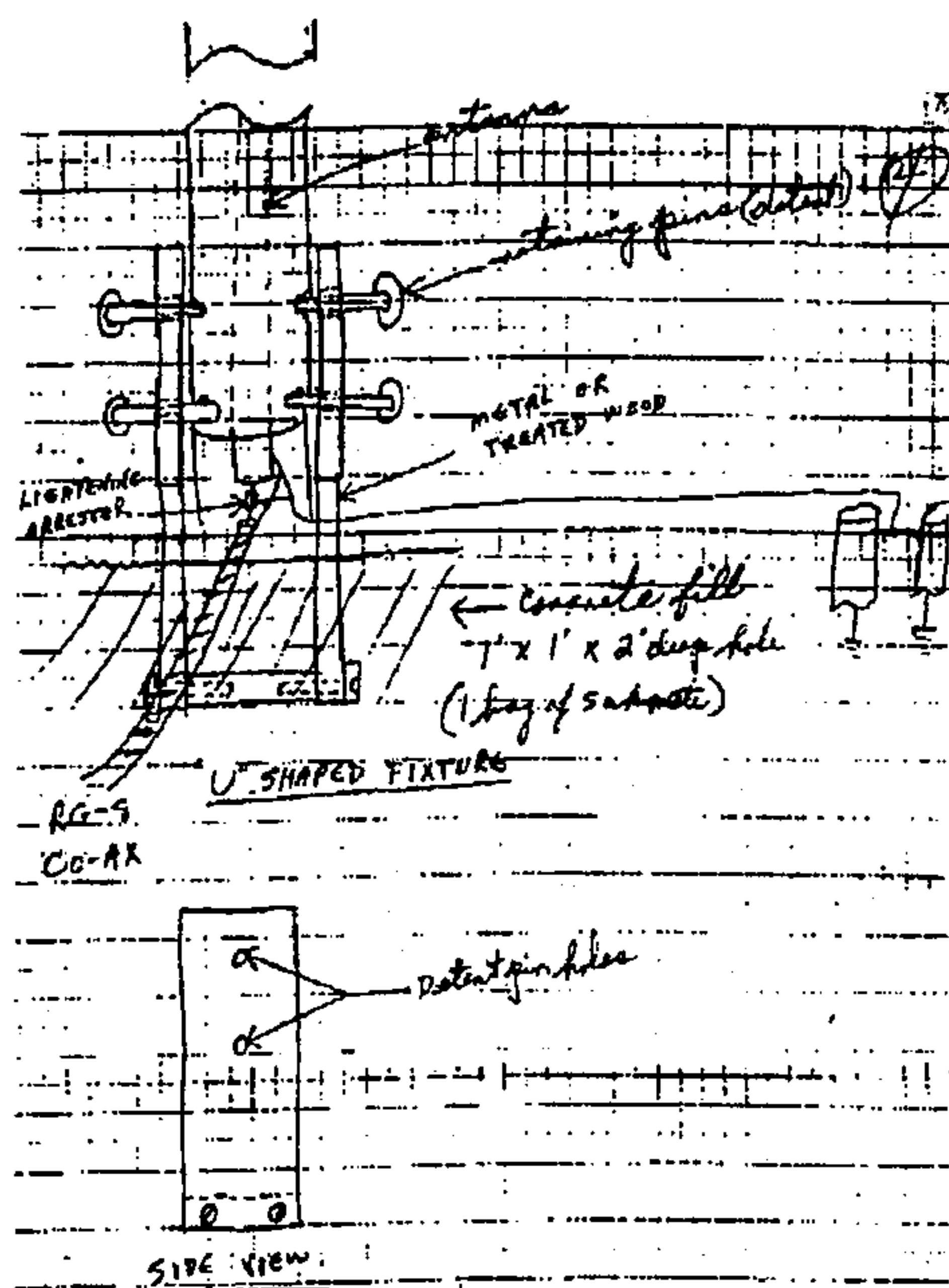


As the diagram shows Charlie uses 2 Low pass filters, one between the transceiver and amplifier and one between the amplifier and the antenna tuner. He Says he has no TVI in his house, and can sit in front of his linear amplifier running full smoke, and it doesn't interfere with his old cordless phone (46 – 49 Mhz). He has people living on both sides of him and in back and across the street with no TVI complaints. Most of his neighbors have cable TV, but those that don't have no complaints.

The antenna is a Hustler 4BTV, 10 – 15 – 20 – & 40 meters. Charlie bought the 30 meter trap and when you add that you do away with the X – hat and that gives you a relatively straight antenna to shove into the PVC pipe. Charlie cautions that you have to buy thin wall PVC at a wholesale plumbing outlet and double check the ID for a snug fit when you slide the antenna in. He says there is a difference.

Charlie's idea of digging a 7 inch deep hole under the bottom of the antenna works fine in Florida as he says the soil

is sandy and the hole never fills with water.



One suggestion (see sketch) for what it's worth is to make a 'U' shaped fixture to fit a 1 x 1 x 2 foot deep hole. Put it in the hole and add a bag of Sakrete. When cured, assemble antenna with detent retaining pins and wire up connections. By pulling out one set of pins antenna

could be lowered or raised easily to gain access. This might allow the antenna to be free standing too. I'm sure there must be other ground-mounting ideas that are better and cheaper that you can design. You may have ideas of your own on how to anchor the flagpole. The ornament on top is a toilet bowl float spray painted gold to top off the flagpole. At the top of the pole he has 2 long bolts that hold the brass pulley for the flag and the 20 lb. test fishing line to guy the pole if you go that route.

Just remember that any antenna no matter how good is still a compromise from the ideal. This antenna covering the bands it does is not bad at all, especially when you consider the deed restrictions and how they limit your other choices. It may mean the difference between not getting out at all, or poorly, or at least enjoying some of the most popular bands and being able to have some quality fun with HF ham radio. We thank Charlie for sharing his rig and flagpole set-up with us. Good luck to all who put up their own flagpole antenna using Charlie's ideas.

73 Harry Gage N5WIZ

Public Service Events

Your radio skills are needed.

SIRE 5th Annual Ride-A-Thon,
Saturday, October 18
Contact: Keith Dutson, 281-351-7683

Here's a chance to take part in an event that NARS members have supported with radio communications since Saddle Up For SIRE started five years ago. With reasonable weather, it is always fun and requires only a 2 meter HT, fresh batteries and a few hours

time. Volunteers are stationed along a ten mile trail near Montgomery where participants ride horses to raise money for SIRE, Self-Improvement Through Riding Education, the charity dedicated to the rehabilitation of children and adults with disabilities. For more information, call Keith Dutson.

Sunmart Texas Trail Endurance Run,

Saturday, December 13
Contact: Walter Hock, 281-350-6633

This will be the second year NARS members have handled communications at this prestigious event with more than 600 participants. It is held in Sam Houston State Park, where the runners circumnavigate the entire park for a whopping 50 mile run. Bring STRONG batteries

NARS Resource List

General Help:

Bill Stietenroth K5ZTY, 713-893-3901
Allen Majeski WA5REJ, 281-353-8652
Bill Denton W5SB, 281-469-8331,
Antennas
O J Quarles K1OJ, 281-955-1555, HF
Larry McCain WA5SAJ, 281-469-6709
Madison Jones W5MJ, 281-350-4330,
CW
Bill Gary K8CSG, 281-537-9240, DX
Bill Rister KC5EZQ, 281-537-8596, ATV

Satellite:

Deral Kent K5WNO, 281-548-7476,
RS12/13
Dick Rooney W5VHN, 281-228-8424

Electrical Design, Troubleshooting:

George Carlson KC5RCC, 281-376-8307

Packet:

Don Bedell KA3BKU, 281-370-6576

VHF:

Brian Derx N5BA, 713-894-5942

Computer Operating, Win'95:

Bob Argo KC5JZO, 281-288-7430

Computer Programming:

Keith Dutson WD5DXL, 281-351-7683

Interference:

Harry Gage N5WIZ, 281-370-7488, Basic
Advice
Mark Tyler K5GQ, 281-587-0256

Card Checking Awards Managers:

DXCC - Bob Walworth N5ET,
Linda Walworth KE5TF, 281-363-0209
WAS, VUCC - Brian Derx N5BA;
713-894-5942

NARS Public Information Officer:
Open

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Mark Condit KM5AO 550-5659
Bill Gary K8CSG 537-9240

MEMBERSHIP CHANGES

Please send address, phone, email and other changes to Marian Denton at NARS, P.O. Box 690342, Houston, TX 77269-0342, email W5NC@juno.com

FOR NARS INFORMATION CALL

Marian Denton, 469-8331, for General Information and Bill Gary, 537-9240, for VE Exam Information or send email to novotny@tenet.edu

NARS BREAKFAST every Saturday
8 AM at Victors, located at 4710 W FM 1960. Informal ragchew.

NARS LUNCH BUNCH every
Wednesday - location decided Tuesdays
on the informal morning 2 meter net.

NARS NETS

NARS RAGCHEW - MONDAY 8:00 PM
28.444 MHz
Net Coordinator Jim KJ5X

NARS INFO - WEDNESDAY 8:00 PM
146.06 / .66 MHz
Net Coordinator Bill K8CSG

*All telephone #'s are 281 Area Code

NARS REPEATERS

2 M - 146.060 / 146.660 MHz
Digipeater - 145.71 MHz
Call (W5NC) Alias (NARS)

NARS Web Page

<http://www.flash.net/~nars/>
Coordinator H O WA5MLT
Trustee Walter KK5LO

NARS NEWS is published monthly by
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Editor: Keith Dutson WD5DXL
Send all Articles and Materials for the
Newsletter to: 24415 Deep Meadow,
Tomball, TX 77375, (281) 351-7683,
email kdutson@swbell.net

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American Radio Relay League.

ARRL Club No. 2120

NARS Mailing Address: P.O. Box 690342,
Houston, TX 77269-0342