



A DXpedition To 3B7-Land

Where is 3B7-Land, anyway? Why would anyone want to go there on a DXpedition? 3B7 is the prefix for a small group of tiny islands known as St. Brandon located in the Indian Ocean. St. Brandon and another nearby, similar group of islands (Agalega, 3B6) count as a somewhat rare DXCC entity, last operated in 1991. Prior to May 1998 it was the 16th most wanted entity in the world. St. Brandon is located to the northeast of Mauritius Island in the Indian Ocean. In May last year an international team of amateurs operated a very successful DXpedition from St. Brandon. A number of NARS DXers made contacts with that team. Members of the team included two old friends of mine, Walt Marshall, W7SE (a former ARAMCO employee), and George Wagner, K5KG, (a former employee of Exxon here in Houston). A slide show of the 3B7RF DXpedition, narrated by K5KG, will be presented at the November meeting.

-- Bill Gary, K8CSG

ELECTION FOR YEAR 2000

Here is the slate of candidates for year 2000 identified by the Nominating Committee, which consisted of Jim Kirk, KJ5X; Jack Dougherty, WA8GHZ; and Joe Sokolowski, KD5KR:

President --

George Edwards, K5VUU

Vice President --

George Levandoski, KD5AYF

Secretary --

Tom Hoherd, KK5YU

Treasurer --

Keith Dutson, WD5DXL

Director, Past President --

Bill Gary, K8CSG (replacing
WA5MLT)

Director, Past President --

Joe Sokolowski, KD5KR (2nd yr)

Director at Large (2 yrs) --

Steve Niles, KD5AIJ

Director at Large (1 yr) --

Bill Stietenroth, K5ZTY

Additional nominations may be made from the floor at the meeting.

Important Dates

Friday, November 19, 7:30-9:30 PM

NARS General Membership Meeting at
Spring Cypress Presbyterian Church, 6000
Spring Cypress Road

Saturday, November 27, 8:30 AM

License Exam Session. Tomball Commu-
nity Center, S. Cherry & Market streets (just
South of Main Street)

Tuesday, November 30, 7:30 PM

NARS Board of Directors meeting, H.O.
Townsend's home, 16880 E. Maglitto Circle

Contests:

November 13-14

WAE RTTY Contest

Japan Int'l DX Contest, Phone

OK/OM DX Contest

November 19-22

Six-Meter Annual Winter DX Contest

LI/NJ-QRP Doghouse Opera'n Sprint

ARRL Nov. Sweepstakes, Phone

Sixth Annual NA Collegiate ARC

Championship

LZ DX Contest, CW

RSGB 1.8 MHz Contest

November 27-28

CQ WW DX Contest, CW

December 3-5

ARRL 160 meter Contest

December 11-12

ARRL Ten Meter Contest

Deadline for articles to appear in November
issue - **Tuesday, November 30.**

BREAKFAST at Victors

4710 W. FM 1960

**Saturdays
8:00 AM**

President's Corner

November, 1999

Howdy all...

A big round of thanks to George, KD5AYF, for arranging the October meeting on space communications with Craig Davidson, WB5BDX, NASA's Deputy Communication Director for the International Space Station. And, certainly, thanks to Craig for a most interesting program. Maybe we can finish this program in the months to come.

Mark the November club meeting as one of the most important of the year. It's election night for the officers for the next year. A great slate of folks have agreed to stand for the various positions. The floor will be open for additional nominations.

As I mentioned last month, don't forget to sign up for the Sunmart Texas Trails Endurance Run scheduled for December 11 to be held at the Huntsville State Park. Mark your calendars and get ready for a good time. Contact Walter, KK5LO, or Paul, N5NXS.

Also, be thinking about the home brew project you can bring to show off at the December meeting. This is always a fun event with some very interesting gadgetry. I remember Jack's, WA8GHZ, potato-gun antenna, or something like that from a couple of years ago. And of course who can forget Joe's, KD5KR, "big-foot" power supply? There's never a dull moment at the December meeting. I believe it's the weird mix of ham radio and the holidays.

DX has been fairly good the past month. I received a couple of cards (counters) from the buro and some from a couple of QSL managers. I enjoyed working the CQWW contest, my first. Thanks to both Bruce, N1LN, and Laurie, N1YXU, for the hospitality and Laurie's contest chili. The contest was nothing short of a good time. Thanks to the others on the team -- Mike, K7LEX, Mike K5UO, and Marty, WD0BCE, for a great time.

73 es Gud DX, H. O., WA5MLT

I guess most of you have heard me ranting and raving about my new kit transceiver and you're probably tired of hearing about it. But, just in case I missed someone, here it is again.

There is a new transceiver kit on the market for hams that want to melt some solder and build their own radio ala the Heathkit days. It is sold by Elecraft in Aptos, CA., a new company founded by Wayne Burdick, N6KR, and Eric Swartz, WA6HHQ. Wayne and Eric have been designing the kit radios for the Northern California QRP Club for years, and they founded Wilderness Radio. That part-time business offered those kits commercially when the Club was through with them. Their NorCal 40 and NorCal Sierra are two of the most purchased and used QRP kit radios available.

In the Spring of 1997 Wayne posted a question to the QRP-L e-mail reflector and asked about 2000 subscribers what features they would like to have in their dream QRP rig. He received a lot of replies and it was a topic of discussion on the reflector for a long time. Out of this discussion and the daydreams of Eric and Wayne, over the next year the K2 prototype was born. Both guys are CW ops, both like to contest, and both like to take a radio along when they travel. This was all taken into consideration in the design.

Jim Kirk and I saw the prototype rig at the Dayton Hamvention QRP open house in May, 1998. Eric and Wayne were both there, obviously proud of the radio and had it powered up for demo. After a few minutes of hands-on tinkering with it I wanted one right then. They had none for sale, only the prototype, but they were taking names to see how much interest there was. I put my name on the list as did several hundred others before the hamvention was over. I brought home some sales flyers and sent one to Dan, KK5LD. He looked it over and wanted one, too. Over the next eight months the fellows produced 100 Beta kits and sent them to 100 people from the Dayton list. The

Beta builders paid full price for their kits and worked hard to kill all the bugs in the kit and rewrite the manual. They apparently did a great job, as the first production kits had very few minor problems, which have been corrected, and the manual is first class.

They started taking orders in January, 1999 and were swamped. It took until June to get the ball rolling and start shipping the basic kit. Meanwhile, Dayton came and went again. They couldn't take any kits to Dayton to sell because of the huge backlog of orders they already had, so they took more orders. They finally caught up with backorders and started shipping from stock in September. So, for \$549.00 plus \$10.00 shipping and handling you can get a basic kit in about a week now.

The basic kit is 0 to 10 watts CW only. There are a lot of options planned and some are available now. The internal battery, noise blanker, and SSB options are ready now. The 160-meter option with separate receive antenna will be out soon. The automatic antenna tuner will probably be next, with the host control RS232 I/O and high power (100W) PA to follow. Other options planned for later are a real-time clock, additional RX crystal filters, external power supply and speaker combo, low noise multiple bandwidth analog audio CW filter, SWR/Power meter and A/B antenna switch, fixed bandwidth narrow CW crystal filters, and blank crystal filter circuit boards for user-designed filters. This kit will keep you busy for a long time.

A complete K2 with all accessories will only need to have an antenna and a key or microphone attached to be on the air. Built-in battery supply and antenna tuner inside the 2.9"Hx7.8"Wx8.2"D case make for a very compact travel radio. Built-in memory keyer, smooth QSK keying, dual VFOs with split frequency operation and variable tuning rate, variable bandwidth crystal filters, audio filters, RIT, XIT, variable noise

(concluded on next page)

Contest Results

The most significant thing to report this month is the results of the ARRL International Phone Contest. XA5T was listed in the November issue of QST as finishing in fourth place for DX. The crew operating a multi-two transmitter consisted of K5NZ, WA5SAJ, W5SB, N5RP and KG5U. The score could have been considerably higher had we not had problems with the second radio. It went down in the early evening on Saturday and the rest of the contest was run on a single radio. We also had about two hours of down time due to local power problems. Looks like we could have moved up a couple of places if Murphy had not come calling. This was Larry's first major contest effort and he was thrown to the wolves right off. I think he would say that it was a good experience but not sure if he would do it again.

Our total score was 7619 QSOes for 7,428,525 points.

-- Bill, W5SB

QRP Stuff

(concluded from page 2)

blanker, spot switch, direct keypad entry of frequencies with ten memories, selectable AGC, RS232 remote control, built-in battery voltage and current monitor, and 160 through 10 meter CW, LSB, USB modes with 0 to 12 watts PEP make it a pretty complete rig. For you button counters, there are 23 control buttons or knobs on the front panel and 16 of them serve dual purposes. The tuning knob selects 17 more menu functions when it's not doing its frequency thing. So, you can fiddle with knobs for hours if you like to do that stuff.

If you want some more information on this kit, Elecraft has a web site at www.elecraft.com.

-- 72, Unca' Zed

Receiver Sensitivity

By Howard Leverenz, KD5DJJ

How good is modern receiver sensitivity compared to that of early receivers? How sensitive is the crystal detector or the electrolytic detector or even Marconi's Coherer? I have always been interested in comparing modern receivers with the receivers from the dawn of radio technology. I would like to give you a little insight into how far we have come by comparing several detector technologies, which in their own time represented the best available.

The technologies we will look at are the following:

1. Marconi's Coherer: This was a tube of shavings of various materials that did not conduct when a low voltage DC was applied to it. But when the antenna was also attached to it, RF energy would cause the particles to clump together, or "cohere", and the Coherer became conductive. The DC current could then be used to activate a telegraph sounder. The problem is that it would remain conductive until it was mechanically shaken or struck to "de-cohere" so as to be ready for the next radio pulse. This was accomplished by having the telegraph sounder tap the coherer to reset it to the non-conductive state to be ready for the next radio pulse. This was a commercially viable device that made radio possible.

2. Auto Coherer: This was a version of the Coherer which used materials that de-cohered by themselves. They did not need mechanical shaking to reset. This device was also more sensitive than the original Coherer.

3. Maggie: This was an interesting magnetic detector that used a continuous iron band that was given a DC magnetization before passing through a set of coils. One coil was connected to the antenna and the other went to the earphones. The band of iron acted like the core of a transformer and that the magnetic bias applied to the band resulted in a preferred polarity for the transfer of energy from the antenna to the earphones thus giving rise to the "detection"

function. This device was packaged in a nice wooden box with a spring-driven windup motor that allowed about one hour of continuous usage with one cranking. It was also less trouble and more sensitive than the Coherer devices, particularly for shipboard use.

4. Mineral detector: Also known as a crystal detector, it used any number of natural minerals, such as galena and fool's gold. These were cheap, very easy to build, and were even more sensitive than the Maggie but not as robust mechanically.

5. Electrolytic: This detector is an affair using a liquid electrolyte and metal electrodes. The best is a platinum wire in a cup of nitric acid. It provides for an easy current direction and a hard current direction. A sealed commercial version called the Radioson was in use by radio amateurs around WW-I. It provides the detector function with better sensitivity than the mineral detector.

6. Audion: The first tube circuits used the Audion as the detector. It was a bit more sensitive than the electrolytic detector. Audions were expensive and very fragile, both mechanically and electrically.

7. Regen Audion: The Regen circuit using the Audion was almost twice as sensitive as the Audion used in a simple detector circuit.

8. Modern Regen: The modern regenerative receiver with tube or transistor amplification element is presented as a reference point.

In order to do a comparison we need a common scale. I chose the familiar signal strength system in which S9 represents 50 microvolts into 50 ohms at the antenna input and each S unit below represents a decrease in voltage at the input of 6dB. Larger signals are just measured in dB above 50 microvolts. The technologies presented are placed in this scale to show how they relate to modern devices.

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DX News

*The wind passeth over it,
And it is gone;
And the place thereof shall know it no more.
Deleted!*

Rumor said the Big Bend Sundancers were on one of their rare visits to the Houston area. Thus, the Old Timer was not completely surprised when the Leader of the B.B. Sundancers knocked on his door one day. "I've come to bring you Fall," he said. "I've come to bring you the eternal story of the new season, when nature bursts forth with new and more sunspots, followed by better band conditions. And just in time for the big DX contests," he said. "In short, I've come to dance my Fall Dance for you."

The Old Timer was slightly underwhelmed by all of this, but merely sighed and tolerated the goings-on. There he was, doing a couple of pirouettes, some fast fouette turns and a couple of easy arabesques. With stacks of notes, DX bulletins and propagation forecasts all around, The Old Timer held his breath while ready to burst into relieved applause when he got through with his Fall rites. Unfortunately, it never got that far.

"The best I've saved for last," he said. "Now I shall do my grand jete and no one in Big Bend Country can equal my magnificance in this movement." And there he was, ready to soar. The Old Timer tried to yell a warning, for the ceiling was too low for any grand jete; he knew from experience. But the B.B. Leader tried. He took off like a bird, hit the ceiling and crashed into one of the computers. It was havoc. Later, when he had recovered and was gingerly exploring the bump on his head, he asked how he had done. "Magnificent," said The Old Timer. "Certainly you must have heard our 'bravos' even though you were unconscious." The Leader of the Big Bend Sundancers looked strangely at The Old Timer and slunk out the door, apparently headed back to the barancas and more quiet times.

As observed in an earlier column, the onset of the Fall season has brought about some better conditions on the bands, especially ten and twelve meters. This is happening despite what some consider to be inferior propagation numbers. October started out somewhat slowly, but picked up by the second

weekend. The propagation numbers were also up (no coincidence?). Sunspot numbers were almost double the previous week. After peaking at ~146 on Oct. 5, the solar flux began a slow decline. Through the middle of the month the A index stayed in double digits, mostly above 20. Although this cycle is looking better in the early Fall, suspicions are that it will not be equal to Cycle 22. It is still tracking fairly closely to the conditions observed during Cycle 20. The end of the month brought forth many, many stations accompanied by improved band conditions. Ten meters was the place to be!

LOCAL EVENTS: Congratulations to Walter, KK5LO, who received his DXCC certificate. This is an objective frequently sought by many ham operators, but one that is actually achieved by a relatively small number. DXCC is, indeed, a competition. Members of the DX Century Club find themselves competing on two levels simultaneously, 1) with all of the other DXers of the nation and the world, and 2) with themselves to satisfy their personal interests and ambitions. Gerald, W5BA, reported the benefits of being an up-late father awaiting the arrival of kids out for the evening. He worked Niue Island, ZK2ZL, making up (at least partially) for missing out on Annobon in September. The Double Trouble DXpedition team arrived in the Tokelau Islands and soon appeared on the bands as ZK3CW (CW), ZK3DX (SSB) and ZK3YL (YL). They were quite workable, despite the usual pileups and the ever-present frequency police. Ed, K4VIR, arrived on Chatham and was workable in various places and modes. K8CSG got him on Oct. 8 on 20m SSB. N1LN, K8CSG and WA5MLT worked Z2/PA3HHT in Zimbabwe on 10-meters.

DX WORKED: T31YL (Canton) 10m 2234Z; 5W0GD (W. Samoa) 10m 2300Z; VQ9QM (Diego Garcia) 15m-CW 1805Z; KH4/SM6FJY (Midway Island) 10m 0024Z; BA4DX (China) 15m 0048z; BY4CCM (China) 15m 0050Z; VP6BX (Pitcairn Island) 10m 2050Z; ZB2/W5FI (Gibraltar) 10m-CW 1634Z; R1ANF/A (Antarctica) 20m 0225Z; ZL4IR/ZL7 (Chatham Islands) 20m 1411Z; SC2AEL (Greece) 10m 1553Z; ZK3CW (Tokelau Islands) 12m-CW 2210Z;

ZK3DX (Tokelau) 10m 2102Z; ZK1DKX (So. Cook Is.) 15m 0137Z; ZK3DX (Tokelau) 12m 0141Z; ZK2ZL (Niue) 12m-CW 0154Z; ZK3DX (Tokelau) 17m 0231Z; FO0SUC (Marquesas Is.) 10m 1920Z; 5X1T (Uganda) 10m 1932Z; Z2/PA3HHT (Zimbabwe) 10m 1955Z; A35RK (Tonga) 10m 2332Z; KH5/DF6FK (Palmyra) 20m 1321Z; Same on 10m 2346Z; KH5/DL2ZAD (Palmyra) 10m 0141Z; VK9LM (Lord Howe) 20m 1301Z; 3B8AD (Mauritius) 20m 1345Z; ZB2JO (Gibraltar) 20m 1353Z; 9H1DE (Malta) 10m 1404Z; 6A1A (Libya) 10m 1552Z; T30Y (Tarawa-E. Kiribati) 10m 2239Z; OD5NJ (Lebanon) 10m 1445Z; VQ9CV (Diego Garcia) 20m 0252Z; 5H3/K8LEE (Tanzania) 20m 2221Z; SV9ANH (Crete) 10m 1357Z; 3V8BB (Tunisia) 10m 1504Z; EK9AA (Armenia) 20m 1247Z.

QSL ROUTES: Z2/PA3HHT via PA3HHT; A35RK via W7TZQ; ZK1DKX via HB9DKX; ZK3DX via SM0AGD; TU2KC via P.O. Box 54, Abidjan, Ivory Coast; ZL4IR via W8WC; ZB2/W5FI via W5FI; VK8PY/6 via K9PPY; KH5/DF6FK via DF6FK; KH5/DL2ZAD via DL2ZAD; VK9LM via W1HEO; EK9AA via W6QKB; 9H1EL via LA2TO; 5H3/K8LEE via K8LEE.

KH5/DF6FK (Palmyra Island) came up on 20m early on October 12 with less than a super signal. However, he attracted a considerable following in a very short time. K8CSG worked him readily before he went QRT for a while. He came back on the air on ten meters after dinner, and was met with the usual frequency cops. NARS did well. KJ5X, N1LN, K5VUU, K5ZTY, KD5AJ, WA5MLT and K8CSG all worked him in fairly short order. Later on, Judith, a YL operator (KH5/DL2ZAD) appeared and began a long string of contacts. K8CSG also worked this one. The next morning at 0500-local he was up again on 14195, working steadily at a 4-QSOs-per-minute rate. Loyd, KM5OE, got up early and worked him, as did KM5LA. Unfortunately, the group was unable to obtain permission for operation from Kingman Reef during this trip. Norbert came back up on ten meters during evening drive time. K5WNO worked him shortly after getting home. W5PDW was overheard working them on 15m on Oct. 14.

It is noted that Jim Dionne, K1MEM, the

DX News (Concluded)

national WAZ Awards Manager for CQ Magazine, has become a Silent Key. Some of our NARS members were slow in receiving their WAZ awards due to Jim's serious illness last year. Apparently he was more seriously ill than any of us realized. He had long-endured kidney ailments, including a transplant from his father some years ago.

The plans for operation on St. Peter and St. Paul Rocks by the Brazillians have again been postponed. Now, they plan to depart Natal on November 3. Three days later they should be set up on the Rocks and ready for the onslaught. No info regarding how long they will be there.

Planning for the DXpedition to Clipperton Island is moving forward, but funding is still falling short. A substantive web site has been established at <http://www.qsl.net/clipperton2000>. If it comes off this will be a good DXpedition for Texas hams.

East Timor is not expected to make its way onto the DXCC List anytime soon. Indonesia has not renounced its sovereignty yet, despite the vote of the people on the island. Contacts with the former Portuguese Timor (CR8/CR10) will not count for any new entity.

Some Venezuelans planning to operate from Aves Island are spinning their wheels in the sand. Although the operation may come off as planned, it will NOT count for DXCC, since they do not have a proper license for the operation.

A group of German hams turned up with the T30 prefix in W. Kiribati (formerly the Gilbert Islands) on October 18. They appeared on 10m on Oct. 19 at evening drive-time. K8CSG worked them and broke the news to those on the repeater. K5VUU promptly worked them, also, followed by others.

-- Bill, K8CSG

VE Session Results

The October examination session was lightly attended with three candidates attempting five elements. Everyone went home with something -- one new Technician licensee, one new Tech-Plus licensee and one with an Element 2 CSCE. VEs included K8CSG, W5MGG, KF5ND, KK5LO and KJ5X.

-- K8CSG

NARS Members Work

Dee Logan, VK9LM

Dee Logan, W1HEO, was one of the founding members of NARS, and is its only Life Member. As noted in last month's DX column in NARS News, Dee recently visited old friend Dick Hoffman, VK9LH, on Lord Howe island. He also operated Dick's station under his own VK-callsign, VK9LM. I caught up with him on October 27 on 20-meters. He first appeared on the DX cluster at 1226Z, working a pretty good East coast pileup. Unfortunately, he was not yet readable here in Houston. I stayed with him on 14192.7 kHz until he began to be readable here. I first worked him when he was about 3/3 and asked him to stick around until we could copy him better. Finally, at 1257Z he became solidly readable and I called him again. We exchanged signal reports and I advised I would try to round up some more NARS members. Sadly, most of them were on their way to, or at, work. I did roust out Jim Kirk, KJ5X, Joe Sokolowski, KD5KR, and Dick Rooney, W5VHN, all of whom are retired colleagues. Dee was able to work all of them. I relayed information regarding his frequency via the repeater, but of course the guys on then were en route to work. It was great to work Dee on Lord Howe and I hope some others were able to do so before he departed on October 30.

Sunmart Texas Trails Endurance Run

Looking forward to a nice Saturday in the park? Well, I have a deal for you. For the fourth year in a row we have been asked to provide radio communications for the SUNMART TEXAS TRAILS ENDURANCE RUN. We are looking for volunteers and their ham radios. We need about twelve people to help with this event.

About 1000+ runners traverse a course through the tall pine trees of Huntsville State Park. They will be running in two races -- one is 50 kilometers, and the other is 50 miles. Yes, I said miles. This will last all day long. All of the runners, ages 18 to 80, have been most appreciative of our continued help with this event.

Twelve volunteers will allow us to work in relief. Half will be needed in the morning and the other in the afternoon. You don't have to worry about refreshments or lunch. These will be provided by the race committee.

All volunteers and spouses have been invited to attend a pre-race banquet at the Crowne Sheraton on JFK Boulevard between Beltway 8 and Greens Road (near the airport). The time is Friday, 4:30 to 7:30 p.m. Dress is extremely casual. With this one you can have a dinner, too! What a deal!!!

So, mark your calendars for December 11 and contact me to sign up for a most enjoyable time. If you don't believe me, ask someone who was there last year.

-- Walter, KK5LO

Receiver Sensitivity

((continued from page 3))

Detection limits	Sensitivity	Device
S9 +36dB	3200 microvolts	
S9 +30dB	1500 microvolts	
	1400 microvolts	Coherer
S9 +24dB	800 microvolts	
S9 +18dB	400 microvolts	
	316 microvolts	Auto coherer
	224 microvolts	Maggie
	212 microvolts	Crystal
S9 +12dB	200 microvolts	
S9 + 6dB	100 microvolts	
S9	50 microvolts	
S8	25 microvolts	
	18.7 microvolts	Electrolytic
S7	12.5 microvolts	
	12.2 microvolts	Audion
	7.07 microvolts	Regen Audion
S6	6.25 microvolts	
S5	3.125 microvolts	
S4	1.57 microvolts	
S3	0.78 microvolts	
S2	0.39 microvolts	
	0.224 microvolts	Modern Regen
S1	0.195 microvolts	

The conclusion of "Receiver Sensitivity" will appear in the December issue of NARS NEWS.

Welcome, Congratulations and Condolences

NARS welcomes these new members:

Gaylon Harwell, Technician, KD5HWU
Cliff Satterfield, Extra Class, KB5UPL
Mary Satterfield, Technician, KC5AIG

Jim Morin, Advanced Class, KE4YUK
Wally Anderson, Extra Class, AA5BC
Sam Mercurio, Advanced Class, WA5KRJ

Welcome back former member Ronald Blair, W5WJB

Congratulations to: Scott, ex N5KEU, on his new callsign, KM5WE, and Bob Southard on his upgrade to Tech-Plus

NARS Resource List

General Help:

Bill Stietenroth K5ZTY, 281/893-3901
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, 281/288-8424

Electrical Design, Troubleshooting:

George Carlson KC5RCC, 281/376-8307

Packet:

Don Bedell KA3BKU, 281/370-6576

VHF/UHF:

Brian Derx N5BA, 713/894-5942

Computer Operations:

Bob Argo KC5JZO, 281/288-7430

Computer Programming:

Keith Dutson WD5DXL, 281/351-7683

Interference (Basic Advice):

Harry Gage N5WIZ, 281/370-7488
Mark Tyler 281/587-0256

Card Checking for Awards:

DXCC - Bob Walworth N5ET, and Linda
Walworth KE5TF, 281/363-0209
WAS, VUCC - Brian Derx, N5BA
281/894-5942 N5BA@arrl.net
WAZ - Bill Gary K8CSG, 281/537-9240
CQDX - Bill Gary K8CSG

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*Call Marian for general information
about NARS. Send address, phone, e-mail
and other changes to:*

NARS Administrative Secretary
P O Box 690342
Houston, Texas 77269-0342

NETS

10M Ragchew: Monday 8:00 PM. 28.444
Coordinator: Jim Kirk KJ5X
jrkirk@wt.net 281/537-0718

2M Information: Wed. 8:00 PM. 146.66
Coordinator: Bill Gary K8CSG
k8csg@arrl.net 281/537-9240

WEB SITE

URL: <http://www.flash.net/~nars/>
Webmaster: Ben Worell KM5OT
km5ot@bfwweb.com 409/773-4484
Trustee: Walter Hock KK5LO
kk5lo@flash.net 281/350-6633

REPEATERS

2M -- 146.060/146.660 (KA5AKG)
70 cm -- 449.375/444.375 (KA5AKG)
Digipeater -- 145.710 (W5NC alias NARS)

MEETINGS

Monthly General Membership at
Spring-Cypress Presbyterian Church
6000 Spring Cypress Road
Third Friday each month -- 7:30PM
Saturday Breakfast at Victors Restaurant
7:30 AM
Wednesday Lunch Bunch at various
locations 11:30 AM (Info. on 146.660)

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