

NARS NEWS

The Northwest Amateur Radio Society

Houston, Texas

June 1997

June 20 Meeting – Field Day Preview

THIS is IT. FIELD DAY 97 is finally here, June 28 & 29. This is one of the biggest events NARS participates in during the year. This is a reason a lot of us are in Ham radio. This is a contest, but also, it is an exercise of setting up and operating under adverse conditions. Providing communications for health and welfare for emergency situations is what a lot of us do best. When no one else can get through Hams can. We don't worry about jammed telephone trunks or power outages. We make our own spark and contacts. In times of disaster, such as after a tornado (Whew! I am glad we were spared on the last one.), amateurs provide communications. Hams go out and survey the damage and look for survivors to help get them to safety.

Field Day is much like that but without the disaster. We get to have a lot more fun while doing it. The other facet of FD is the contest. Who can make the most contacts in a 24 hour period? There are more Ham radio operators on the air in the US on FD weekend than during any other period of time. There are literally thousands upon thousands of clubs and groups on the air that weekend. Our Field Day is held at the Fritsche Family Cemetery County Park and we encourage visitors to come and learn more about us. We will have a visitor table with sign in sheet and information packets. We expect as many as a hundred or so visitors during the weekend. We will have BBQ on Saturday night at 5:00 PM, for a small nominal fee. Many come out just for the eats and to visit for awhile.

Harry N5WIZ, the club's information officer, sent press releases to all the media and a few have already responded. I saw a big write-up in the local rag and guess whose face was plastered all over the front page: El Jeffe himself, Jim KJ5X. Harry even convinced Jerry Eversole to deliver a resolution extending best wishes to all AMATEUR RADIO OPERATORS. Harry where have you been? This is the most ink we have ever had. One of our newest Hams and members is Loyd KD5AIG; he will be out at Field Day shooting video. He will submit it to the local TV stations for a news segment. So come out and be on the TOOB.

A big part of our effort is put on the contest. Over the years we have placed in the top ten nationally. Our effort last year got eighth place, good considering it was the lowest spot in the Sun's cycle. We had about 80 people operating our seven stations. The stations included: HF SSB, HF CW, Novice, 6 meters, 2 meters, Packet and Satellite. We will erect 3 towers with multi-element tri-band beams, a three element 10 meter beam, several wire dipoles for 75 and 40 meters and a tower and beam for 6 meters along with various antennas for the other stations. We get our power from a large diesel generator that will run non-stop from Friday afternoon until Sunday afternoon when we shut down.

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Important Dates

Friday, June 20, 7:30 pm – NARS monthly General Membership meeting, Spring Cypress Presbyterian Church – Eyeball QSO's, 7:00 pm

Tuesday, June 24, 7:30 pm – NARS Board of Directors meeting, Terra Nova Club House, 5200 Woodville.

Friday, June 27, 11:00 am – Field Day Setup Meeting, Valley Ranch BBQ, SH249 @ Spring Cypress

Saturday, June 28, 1pm – Field Day, Fritsche Cemetery Park, Grant @ Fritsche Cemetery Road

Saturday, July 26, 8:30 am – VE License Exam Session, Tomball Community Center, S. Cherry & Market streets (just South of Main) NOTE: NO SESSION IN JUNE

CONTESTS:

June 28-29 – ARRL Field Day

July 12-13 – IARU HF World Championship

July 19-20 – North American QSO Party, RTTY

July 26-27 – IOTA (Islands On The Air)

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 July issue is Monday, June 30.

Annual Picnic



BREAKFAST

at Victors

4710 W FM 1960

Saturdays

8:00 AM

President's Corner

June 1997

OK guys and gals, it's almost time to really show our stuff. Field Day is coming June 28-29. NARS always ranks high nationally in this best of all ham radio contests. I sense a real anticipation and even excitement in many members. It's reported that the NARS CW aficionados, in a fit of deluded optimism, challenged the SSB operators. The outcome involves the drinking of a case of Yahoo Cola. Guess what the loser gets to do! So, come take part in the fun and maybe do some operating. We have a lot of new members from our novice/technician class who shouldn't miss this chance to take part in the most exciting and fun event in ham radio. Come out Friday afternoon, the 27th, to help setup. See you there.

Speaking of the novice/technician class, what a fine one it was. I expect twenty five from the class will be licensed before you read this including an eleven year old YL who had a perfect score on the 5 WPM code test. Much credit for the success goes to the instructors: Jack WA8GHZ, Bill K5ZTY, O.J. K1OJ, Joe KD5KR, Brian N5BA, Ken KA5AKG and Bill W5SB. Special thanks goes to Bill Rister KC5EZQ who handled all the 'necessaries' for the class. Good job guys. Congrats to the hard working new hams and thanks to Bill K8CSG and the VEs who did double duty in the last days of May.

NARS and amateur radio got some excellent coverage recently in local newspapers. And Jerry Eversole, Commissioner of Precinct Four, Harris County, has issued a resolution recognizing 1997 Field Day activities and the accomplishments of amateur operators. More newspaper coverage is expected and possibly some TV coverage. All this good stuff is the result of N5WIZ's efforts as NARS Public Information Officer. Harry has had some expert help recently from Keith WD5DXL and new NARS member Loyd Overcash KD5AIG.

The 1997 NARS picnic is now a pleasant memory. Many thanks to Walter KK5LO for coordinating it and to Keith WD5DXL and XYL for their gracious hospitality and hard work. Thanks John W5PDW for the pix. It was all great fun.

The American Council of the Blind has its convention in Houston July 5-12. They have permission to use the 146.66 repeater to facilitate activities. Please be courteous and accommodating to the visiting hams.

Jim Kirk KJ5X

VE Session Results - May

On Thursday, May 22, the NARS Amateur Radio Class held final exams and graduation for those participating. Twenty-one candidates were examined on 49 elements, of which 35 were passed. Excluding class members who had already taken exams and passed elements or received licenses before the May 22 session, thirteen new hams emerged from the class. Four are Technician Plus Class and nine are Technician Class. NARS participating VEs included Jim KJ5X, OJ K1OJ, Bill W5SB, Rudy KB5ZXO, Tom KK5YU, Bill K5ZTY, and Bill K8CSG. The pass rate for the session was approximately 72%, reflecting on the quality of the students and the NARS instructional group. One eleven year-old young lady became a Technician Plus licensee, as did her father. Together they missed only one question on their written elements and two questions on their code elements. This is the kind of results that make it all worthwhile.

On Saturday, May 24, the regular NARS/Compaq Exam session was held at Tomball. With 27 candidates, it was the largest session most of our VEs have seen. This was also a positive session, with numerous successes. Sixteen individuals achieved either new licenses or license upgrades. Of these successes were six Technicians, five Techs-Plus, three General Class, One Advanced Class and one Extra Class. The pass rate was nearly sixty percent. VEs participating included KJ5X, K5ZTY, W5SB, Walter K5WH, Earl N5TU, Brian N5BA, King KK5LU, and K8CSG. Mike Frank N5OZJ from Compaq provided help with administrative tasks.

The 1997 NARS Radio Class was a great success. Of the original 35 registrants, at least 22 gained new licenses or upgrades. We expect these to also yield some new members of NARS. Numerous members of the class have made very complimentary remarks about the caliber of the program and its instructors.

Bill K8CSG

NARS Board of Directors Meeting 5/27/97

Treasurer's Report - The checkbook balance on April 30 was \$5503.39.

Visitor's Forum - John Ellis W5PDW asked for help in assembling a business directory; see John for information.

Programs - June, Field Day Preview, Walter Hock & Bill Denton; July, HL&P RFI
Repeater Etiquette - Need to remind newly licensed Hams regarding use of appropriate etiquette and courtesy when on the NARS repeater.

Node - Tom Holmes WA5RCZ donated a 440 MHz radio to NARS for use with the Node; still need appropriate DX cluster software.

Novice/Tech Class - 35 registered, 22 received new licenses or upgrades; Board commends Bill Rister KC5EZQ, Jack Dougherty WA8GHZ and other instructors for organizing and conducting an excellent class.

Field Day '97 - Harry Gage N5WIZ asked local TV stations and newspapers to run FD 97 notices, also arranged for a Proclamation from Commissioner Eversole regarding Amateur Radio and Field Day.

Events - American Council of the Blind asked to use the 146.66 repeater on July 5th; recommended obtaining permission from Ken KA5AKG, trustee.

KC5RCC Tech Program - New! A portion of each General Meeting will be devoted to a 15 minute or so presentation of a technical subject regarding Ham electronics.

Bob Argo KC5JZO Secretary

Buy - Sell - Trade

Kenwood TS940 (\$600.00), Kenwood 742 dual-bander w/duplexer and antenna (\$600.00), AOR scanner - 100 - 1300 mcs (\$350), an amplifier, and a few other odds and ends. Robert Payne N5KUC, Work 281-363-7594, Home 281-259-8017.

DX News

DX Notes -- *DX is the embodiment Of everything that's excellent. It has no kind of fault or flaw; DXers always draw the looks of awe...*

Propagation numbers at the first of the month were not good for the big operation from Scarborough Reef. The SFI was 73, the A index 10 and the K index 3, with the indices moving to 15 and 4 later in the day. The net result of these circumstances was poor propagation for those seeking to contact the Reef. When it began on April 30, CW signals were very good that morning and K5NZ made an early score. In the afternoon signals were pretty good, but so good that the pileups were gigantic, on both the calling frequencies and the frequency used by BS7A for transmitting. As the weekend for the WPX contest loomed ahead, the SFI went up to 85, with relatively low indices. Resulting band conditions were very good in both the mornings and evenings. The SFI fell before the contest weekend actually arrived, unfortunately.

After the fiasco of the Scarborough operation, including the hit on propagation via a minor solar storm, things returned to a more normal state. Although the numbers remained low, band conditions continue to reflect improved conditions via sustained openings into Europe in the evenings. Late evening openings into the South Pacific are beginning to appear more frequently, as are the various mixed-bag openings on ten meters. On May 14, the SFI was 74, with A & K indices of 0 and 1. An excellent opening into Asia resulted in the morning, with contacts in Indonesia, the Philippines and Taiwan made easily. The next morning the band was completely dead!

DX Worked: 5V7MD (Togo); J69AZ (St. Lucia Island); SP8BHW (Poland); YB9BV (Indonesia); UX2HX (Ukraine); SP8GQU (Poland); MW0AGE (Wales); M0AND (England-YL); PA0IGM (Netherlands); many Italian stations too numerous to iterate here; HA9RT (Hungary); 9A2NY (Croatia); SP6ENK (Poland); UA2FB (Kaliningrad); DL0MBG (Germany); 8R1WD (Guyana); RW1AC, UA9UST, and RW9USA (Russia); HR2MDP (Honduras); 4X1MO (Israel); JW7QIA (Svalbard Island); EA3EGM (Spain); C31UA (Andorra); RZ9WZ (Russia); YB1XUR (Indonesia); 4F3CV (Philippine Islands); BV5GQ, BV4OB, and BV7GA (Taiwan); DU1KT (Philippine Islands); SM7MPM (Sweden); 9H1EL (Malta); KH7K/N4BQW (Kure Island); TJ1HP (Cameroon); SV1ACK (Greece); GI1UXA (No. Ireland); DU9RG (Philippines); JR7SWL, JH1LPZ and JA1UTQ (Japan); BV4FH & BV4YB h/w- (Taiwan); CN8TW (Morocco); 8R1Z (Guyana); GI3OQR (No. Ireland); LA5M (Norway); ZL2BYD (New Zealand); P29TL (Papua New Guinea); BV4YB (Taiwan); 9V1AG (Singapore); HS1NGR (Thailand); A61AN & A61AJ (Dubai); V85GA (Brunei); VR2KM (Hong Kong); 4X1AD (Israel); A41LZ (Muscat & Oman); KH0AC (Saipan); VK6LC (Australia);

UN7LZ (Kazakhstan); C21NJ (Nauru); KH0I (Saipan); 5B4/RA9JX (Cyprus); XU2FB (Cambodia); E21CJN (Thailand); VK4NSW (Australia); 9M8CC (E. Malaysia); 9V1UV (Singapore); VS97KM (Hong Kong).

DX Heard: BS7H (Scarborough Reef); 4L5A (Georgia); HB9JNS (Switzerland); OE5FBL (Austria); UA9HH (Russia); VS97KM (Hong Kong); BV6DF (Taiwan); C21NG (Nauru); CT1GQ (Portugal); YO2BM (Romania); GI4UJG (No. Ireland); 9V1XQ, 9V1VV, and 9V1RH (Singapore); MW0AGE (Wales); Numerous JA's (Japan); 9K2MU (Kuwait); ON5FE (Belgium); G4FOX (England); 4F4ME (Philippines); BD4RD (China).

QSL Routes: HB9JNS via HB9AZT; 4L5A via IK3HHX; UR5IO (Russia); 4F3CV via HB9CXZ; N4BQW/KH7K via WA4FFW; AH8A via AC7DX; YB0ARA via WA6AHF; M6N via G3WOI; BT7JS via BZ4SAA; KH4/N7TNL via N7TNL; 5B4/RA9JX via RA9JX; XU2FB via N4NR; VS97KM via VR2KM.

The announcement of the planned operation from Kure Island turned out to be invalid. N2NB cancelled it when he could not obtain permission to land a plane on the island and could arrange no alternative transportation. However, on May 14, N4BQW showed up unannounced on Kure, signing his own call KH7K for three days. The operation on Annobon Island is postponed due to visa difficulties for part of the team: rumored now for October. John Ellis W5PDW passes on this bit of G-2; LA1PA plans to operate as JW2PA from Svalbard Island between July 18 and July 27.

KJ5X and I worked YB9BV (Indonesia) on the morning of May 7. Later that day there was a nice opening into Europe which lasted into the evening. K5UEQ worked HR2MDP on May 11. KK5WL worked a VK4 in Australia; Gary was running all of 20 watts. John W5PDW worked BV4YB later in May, and very late in the month worked XU2FB (Cambodia). Walter KK5LO worked 3D2BS On Fiji.

BS7H Scarborough Reef Summary: The scheduled one week operation on Scarborough Reef came to an early and premature end after approximately eighty hours. The group made nearly 13,000 contacts, with the majority in Asia, followed by Europe. The USA did not fare too well, primarily because the expedition operators were not well qualified for their task. You can translate that to read that I did not work them, other than for a few broken contacts which will likely not turn up in their log.

The early termination of the operation is the result of an unusually high level of military naval activity in the South China Sea. After landing on the Reef, they were overflown by fighter planes from the Philippine Islands. Later, two Philippine naval vessels arrived. Discussion revealed that although the Philippines did not argue the ownership of the

Reef by China, they did claim that it lies within a two hundred mile Exclusive Economic Zone (EEZ). They interpret that as a sign that although Chinese vessels may transit the territory they may not stop for sustained periods - such as DXpeditions. Unable to resolve the dispute amicably, the Chinese vessel captain decided to leave the area without further ado - and they did so.

It is disappointing that I was not able to get a good solid QSO with this one of the two remaining DXCC countries left on my list. However, the relatively mediocre performance of this most recent operation and the early departure means that either someone will return within a reasonable time or the Reef may be deleted from the list of countries.

Although three operating positions were established on the Reef, antenna performance left something to be desired. Signals into the USA were relatively poor most of the time. It was frustrating to listen to them work Europeans on 20 meters when we could hear them in this part of the country reasonably well, then hear them work Europeans on 40 meters all afternoon long. As far as is known, K5NZ and N5ET are the only NARS members to work them. Mike and Bob worked them early the first day - nice going, fellows!

NARS' Intrepid DXer recently in Africa is back at home safely with his logs. Jack WA8GHZ did succeed in getting on the air while in Equatorial Guinea (3C). Operating almost exclusively on 30 meters, Jack enjoyed jousting with the pileups from Europe and Japan. Toward the end of his operations, he was able to work one USA station, K4DY (No. Carolina), on 20 meters. "Pileups are like wars and constant noise - unbelievable," says Jack.

Jack applied to the ARRL for accreditation of his operations for DXCC credit. Unfortunately, ARRL saw fit to disallow Jack's operation for DXCC credits. Nonetheless, Equatorial Guinea is one of a relatively few truly rare DX countries. Just getting on the air from there is no small task.

Another old standby has fallen by the wayside. For just over thirty years VE8RCS served as a communications link with the High Arctic Weather and Experimental Station. VE8RCS has long been a dependable source of confirmations for Zone 2 in the Worked All Zones (WAZ) efforts of active DXers, virtually the only Zone 2 station available to WAZ achievers during much of that period. Located at Alert on the northern end of Ellsmere Island in Canada, the station could boast that it was the northernmost ham station in the world, just 437 miles from the North Pole. On May 15, 1997 the last QSOs with VE8RCS marked the closing of this well known (at least to DXers) "landmark station."

Bill K8CSG

Contest Connection

Air Force 50th Anniversary QSO Party

In celebration of the creation of the United States Air Force on September 17th, 1947, the Headquarters U.S. Air Force Directorate of Communications and Information is sponsoring a QSO party for all interested radio amateurs.

0001 UTC 20 Sept 97 to 2359 UTC 21 Sept 97. All bands and modes.

Score contacts by "point identifier." Stations with licensees with no Air Force affiliation have a point identifier of 1, are worth one point, and would identify with the suffix "Air Force One" on phone or "/AF1" on CW or digital modes. If the licensee is a U.S. Air Force veteran, member, or retiree (of any component, active, Air National Guard, or AF Reserve) point identifier is determined by subtracting the year licensee entered the Air Force from 1997. For example, if he or she entered the Air Force in 1947, their point identifier is 50 (1997-1947=50), and they would ID

"AF/50." If he or she entered in 1963, their point identifier is 34 (1997-1963=34), and they would identify "AF/34." Note that the duration of Air Force service is insignificant, the point identifier value is determined solely by the year the member entered the Air Force. Obviously, the most sought after stations will be those brave men and women who entered the Air Force in 1947, whose point identifiers will be "50" and whose contacts are worth 50 points!

Scoring: add total point identifiers for all qualifying contacts.

Multiple contacts: stations may be worked multiple times on the same band if the contacts are on different modes, but only once on each band if on the same mode; stations may be worked and scored on multiple bands.

Logs: send logs by 15 October 1997 to:
K5HOG: Razorback Radio Club
604 Julian Avenue
Honolulu, HI 96818

Logs must have station worked, date, time, mode, band, and point identifiers for each contact. POINTS MUST BE TOTALLED ON EACH PAGE TO BE ACCEPTED. Neither accepted nor rejected log sheets will be returned unless accompanied by a suitable SASE.

Prizes: trophy (plaque) with Air Force 50th Anniversary logo signed by the Headquarters, United States Air Force Director of Communications and Information (Lt General William Donahue) to the overall winner; certificates (signed and with AF 50th logo) to top three finishers in each state and country.

Questions to: Bernie Skoch, K5XS, Colonel, US Air Force, Director of Communications and Information, Headquarters Pacific Air Forces, 604 Julian Avenue, Hickam Air Force Base, Honolulu, HI 96818, e-mail: 75376.12@compuserve.com

Go Air Force, Happy 50th Anniversary!

Field Day Continued from Page 1

For the past 10+ years NARS used the call of Bruce Cline N5FD. Thanks so much go to you Bruce, for the fine Field Day call. This year we will be using the club call W5NC: W5 Nars Club. Its got a good ring to it, Huh? This is history in the making.

Fritsche Park is about 200 acres. It is unimproved with no hook-ups. You are allowed to camp but it is considered primitive. Porta-potties will be provided by BFI for your convenience. You can tent camp or bring your motor home or trailer, or stay up all night like some of us fools. There are really only two major rules and violating either of them will get us evicted from the park. Since this is a county park there is NO ALCOHOL allowed. This rule is strictly enforced. An officer comes by often and checks. The other rule is, stay out of the Fritsche family cemetery. It is behind a chain link fence and is OFF LIMITS. Be sure to bring PLENTY of WATER. It will be very hot and you will need a lot of water. For that matter, bring what you will need to drink and eat except for the Saturday evening BBQ.

On Friday June 27, the day before Field Day, we will be meeting at the Valley Ranch BBQ on SH249 at Spring Cypress Road for lunch at 11:00 AM before going out to the park.

If you plan to help out with setup, come to lunch with us, or meet us at the park by 1:00 PM. Join us if you can.

Station managers will be making up the night time and early morning operating list for the stations. Let them know what hours you can operate. Station managers include: King KK5LU, Larry KC5NVY, and Larry WA5SAJ - Novice; Bill W5SB - Phone; OJ K1OJ - CW; Paul N5NXS - packet; Bill KC5EZQ - 6 meters; and myself KK5LO - Satellite. We will need operators for the 2 meter talk-in station also. Contact any of these people on the hours you would like to operate. The contest runs from 1:00 PM Saturday until 1:00 PM Sunday.

I have heard of a friendly wager between the Phone bunch and the CW bunch; which station will have the most contacts. The word is that the losers have to drink a bottle of Yahoo (YUK!). So come on out and show your support for your favorite mode.

Come to the June 20 meeting and hear more about Field Day 97. We will have sign-up sheets for times to operate and put up or take down. See Ya there.

Walter KK5LO



by Keith Dutson

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Field Day is upon us. If you have never been a part of this major event before, now's your chance. Read all about it in this month's meeting article by Walter KK5LO.

Thanks to Harry N5WIZ, NARS Public Relations Officer, the public has been well informed of our Field Day plans. He got Jerry Eversole to issue a special proclamation for Harris County Precinct 4, and he got press coverage in the Chronicle, the 1960 Sun and the Tomball Sun.

The SIG List has changed this month; the name is now NARS Resource List. Use it when you need special assistance from our list of esteemed volunteers.

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.

What's The Big Deal About Solar Flux?

With all the talk about the new sunspot cycle starting, it may be a good time to clarify just what "Sunspot Numbers" are all about. What are the SFI, K and A indices and what do they tell us mortals? We've all heard the "Old Timer" talk about the SFI being 85 and the A being 16, but what does he mean? Here is a simplified explanation.

The Solar Flux Index (SFI) is related to the number and size of sunspot groups on the face of the sun at a given time of day. The number of sunspots or lack thereof drives the density of the earth's ionosphere. You will remember that the ionosphere is what radio signals bounce off of to create the skip signals that allow us to talk farther than line of sight. The higher the SFI the denser the ionosphere and the better radio signals skip. The MUF (maximum usable frequency) goes up as the SFI goes up. That is, the higher the SFI the more likely a band like 10 meters will be open. Here at the bottom of the sunspot cycle we have seen SFI numbers in the mid 60s. They are starting to go up now and when they go above 100, conditions are considered to be good.

The K and A indices are measures of the earth's geomagnetic activity. The K

index is an indication of such activity over the last 3 hours and the A index is over the last day.

The earth's magnetic field affects the ionosphere, and solar events such as solar flares or coronal mass ejections affect the earth's magnetic field and disturb the ionosphere. In general, low K values, 0-2 and A values 0-15, mean conditions are quiet and settled and the ionosphere should reflect your radio waves pretty well. Higher values of these indices - K can range to 9 and A can go to 100 or higher - means high geomagnetic activity and even geomagnetic storms that can completely black out radio and TV communications even though the SFI is high too. Your radio signals are absorbed into the ionosphere, not reflected. Propagation can be particularly good after these storms pass.

By comparing the relative values of the K and A indices simple propagation predictions can be made. A high K index with a low A index generally means that conditions are going to get poorer, while high K values and high A values probably mean that conditions will remain poor, and low K values and high

A values generally mean that conditions will improve.

In short, with high flux numbers, look for the high bands to be open. With low A and K values, signals should be very good. With high A and K values look for signals to be weak and wavery. With extremely high A and K values look for aurora and get on 6 or 2 meters and point your antenna north.

The sun has a rotation period of about 27 days, so you can expect conditions to repeat in about that cycle. When particularly good or bad conditions appear, go to your calendar and mark it for approximately the same conditions 25 to 30 days in the future.

This has been a simple explanation of the Sunspot Numbers that you hear spewed about. I'm sure that the scientists among us will have a lot to add to this, but I think this is enough to allow most people to use the numbers given on WWV at 18 minutes past each hour.

A very good book on this subject is 'The New Shortwave Propagation Handbook' published by CQ Communications, Inc. It is detailed but easy to read and understand.

Bill K5ZTY

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, 281-288-8424

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

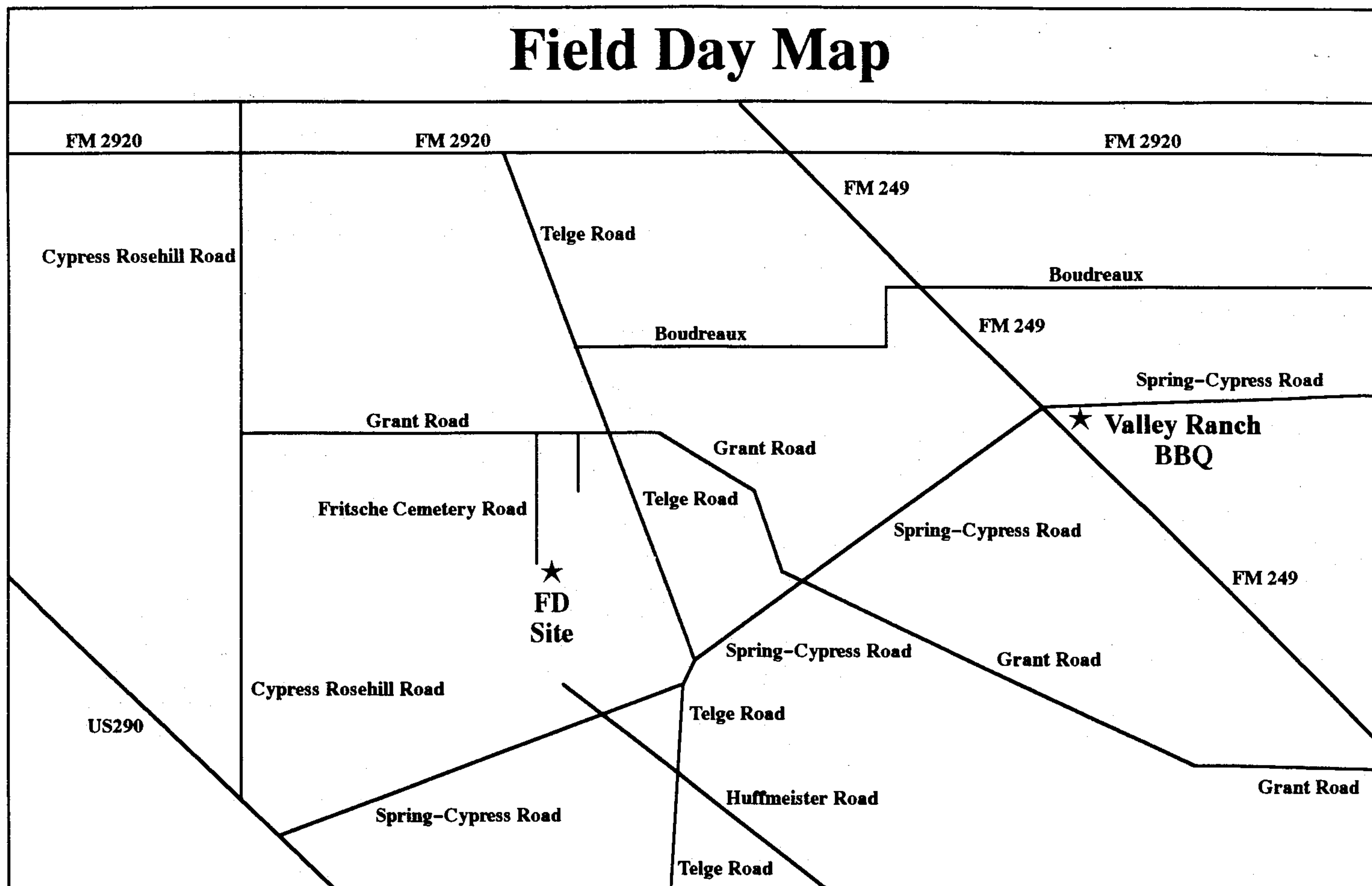
NARS Public Relations Officer:

Harry Gage N5WIZ, 281-370-7488

Annual Picnic



Field Day Map



See you all there!

NARS BOARD OF DIRECTORS

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Jim Kirk, KJ5X 376-0718

VICE PRESIDENT
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SECRETARY
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Walter Hock, KK5LO 350-6633
Rudy Novotny, KB5ZXO 251-4546
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.

FOR NARS INFORMATION CALL

Marian Denton, 469-8331, for General Information and Bill Gary, 537-9240, for VE Exam Information or send E-Mail 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
Digipeter - 145.71 MHz
Call (W5NC) Alias (NARS)

NARS Web Page

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

NARS NEWS is published monthly by Northwest Amateur Radio Society

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Send all Articles and Materials for the Newsletter to: 24415 Deep Meadow, Tomball, TX 77375, (281) 351-7683, EMail kdutson@swbell.net

Northwest Amateur Radio Society is a Special Service Club affiliated with the American Radio Relay League.

ARRL Club No. 2120

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