



# NARS NEWS

October 2016

The Northwest Amateur Radio Society  
an ARRL Special Services Club #2120

## Important Dates

### Monthly club meeting:

Third Friday of each month, 7:30 pm.  
Cypress Creek Christian Community  
Ctr., Youth Center 2nd. Floor, # 203,  
6823 Cypresswood Drive

### Board of Directors Meeting

Tuesday, 25, 2016, 7:30 pm. Ponderosa Fire Station  
17061 Rolling Creek Drive, Houston

### VE License Exam:

Saturday, October 22, 2016  
Tomball Regional Hospital, 1st floor,  
Conference Room, 8:00 am.

### Lunch Break—North

Oct 12, Spring Creek BBQ  
Oct 19, Pei Wei  
Oct 26, Panera Bread  
Nov 2, Jason's Deli  
Nov 9, Baker Street Pub  
Nov 16, Sweet Tomatoes

### .Lunch Break—Medical Center

Oct 12, Silver Palace Chinese Buffet  
Oct 19, Pappas BBQ  
Oct 26, Morningside Thai  
Nov 2, Pronto Cucinino  
Nov 9, Jason's Deli  
Nov 16, Buffalo Grille

### Tail Dragger's Lunch Bunch -

Mondays, 11 am.  
Aviator's Grill, Hooks Aerodrome

Notice: NARS membership dues are  
\$20 per year, renewable on anniversary date.

## Original Modes, Raspberry Pi & Arduino

By

*Skip Ferguson, K5LLR*  
*Friday, October 21st.*

The **Raspberry Pi** is a tiny and affordable computer that you can use to learn programming through fun, practical projects.

Join the global **Raspberry Pi** Community.

**Arduino** is an open-source project that created microcontroller-based kits for building digital devices and interactive objects that can sense and control physical devices.<sup>1</sup>



**Breakfast at  
Denny's  
Saturdays, 7 a.m.  
6504 FM 2920, Spring, TX  
Just a few blocks west of  
Kuykendahl at the intersection of**

*Coming attractions:  
November  
Elections, TQP preliminary results,  
Awards Banquet announcement  
December  
Annual KSZTY Show & Tell*

## Saturday, Aug 27 VE Test Session Results at Tomball Regional Hospital

We had 8 candidates taking 14 tests.  
Element 2 tests given: 7; passed 7  
Element 3 tests given: 6; passed 1  
Element 4 tests given: 1; passed 1

### Congratulations to:

Steven Drabbant KG5DKX - upgrade to Extra  
Jeffrey Blessing - new Tech  
John Vaughan - new Tech  
Jody Christensen - new Tech  
Robert Jones - new General  
Gary Urie - new Tech  
Justin Davidson - new Tech  
Robert Callicotte - new Tech

### Thanks to the VE's in attendance:

Mike Bowen N8ILU  
Mike Bragassa K5UO  
Ron Horton KF5LFL  
Brian Derx N5BA  
Skip Ferguson K5LLR  
Stephen Protz K5AUD  
William Hielscher KG5WPH  
Martin Rogoff N5GPS

The next monthly session will be held 0800 Saturday, Sep 24, at Tomball Regional Hospital, 1st floor conference room. Anyone who wants to observe and/or participate in a session is always welcome. Just let me know if you want to learn more about becoming a volunteer examiner.

73, Keith Dutson NM5G  
NARS VE Session Manager



4721 Watonga Blvd.  
Houston, TX 77092  
[www.ofarc.org](http://www.ofarc.org)

V.E. Exams every 4th Saturday of the month at 9:30 a.m.  
Contact: John Westerlage

## HOUSTON AMATEUR RADIO SUPPLY, INC.

HAM | CB | COMMERCIAL | DIGITAL SCANNERS | ELECTRONICS  
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[houstonamateurradiosupply.com](http://houstonamateurradiosupply.com)

**Dave McCombs, NA5CW**  
Owner

281-355-7373  
[contact@harsradio.com](mailto:contact@harsradio.com)

2558 E. FM 1960 Rd.  
Houston, TX 77073

## President's Report –VP

NARS is seeking a candidate to run for Vice President. You need no experience. You will learn the duties of president as you serve for a year. You will also have the opportunity to plan for the Awards Banquet to be held in 2018. If you are willing, we would love to have you join the board. Or, if you could recommend someone for this position, please contact me or any Board member. Thanks. The next meeting, on October 21, will be a presentation on the Raspberry Pi and Arduino microprocessors, and how they fit into ham radio. Professor (retired) Robert (Skip) Ferguson K5LLR will tell us all about these devices and how they can be used.

On a sad note, I have been following the health of Danny Richards N5BE for several months, and learned that he became a silent key on September 30. Danny was a big influence on me and many others in the club. One of my favorite memories is his excellent performance in many Field Day operations. His beautiful and energetic wife Christy also participated by organizing the food at these events.

He was also an excellent guitar and fiddle player, and joined the NARS Pickers meeting then at Captain Kirk's KJ5X (now SK). What wonderful talent he brought to the group. One year we played some songs during the annual NARS awards banquet, held on Cutten Road. We all wore striped overalls, which worked perfectly for the song Folsom Prison Blues. Danny missed this year's Texas QSO Party. For years he operated CW while Matt (Sherriff's Deputy - don't remember the call) drove around to many counties. If you would like to share some other memories, please send them to me. Thanks.

The NARS repeater list below has caused some confusion:  
146.660=, tone 141.3 – Houston, ID KA5AKG - Motorola  
146.660=, tone 100.0 – Stagecoach, ID NM5G – Kenwood (hot standby)  
146.660=, tone 77.0 – Tomball, ID W5NC – Yaesu (digital)  
146.660=, tone 77.0 – Tomball, ID NM5G – Kenwood (backup)

KA5AKG is functioning properly, but has a big noise covering up the signal. I believe this is caused by the position of the antenna, which is directly in the path of a microwave dish. I have a new antenna mount and extension hardline to move the antenna the next time I get access to the site.

NM5G is up and running at Stagecoach, thanks to Jerry Green K5IHK. One person who lives in Galena Park said he can hear it from his house. He has a 17-foot vertical antenna. W5NC is not up. All the pieces except the repeater are at my home.

73, Keith Dutson NM5G

The word "Goodbye" first came into use in the late 1500's as an alteration of the phrase "God be with you." Similarly, the Spanish sign-off "adios" is a contraction of the phrase "a-Dios" and literally means "to God."

Source: [English.stackexchange.com](http://English.stackexchange.com)

## Ham Radio Outlet Refurbishes, Reopens Former AES Milwaukee Location

Ham Radio Outlet (HRO) opened its latest Amateur Radio retail outlet at the site of the former Amateur Electronic Supply (AES) headquarters store at 5710 West Good Hope Road in Milwaukee on August 27. AES closed its Milwaukee, Las Vegas, Cleveland, and Orlando outlets on July 28, following a surprise announcement 4 weeks earlier that it was going out of business after 59 years as a ham radio equipment supplier. A couple of weeks later, HRO announced plans to make over the Milwaukee outlet and reopen it as its latest "super store" -- now HRO's largest. Several former AES Milwaukee employees are now working for HRO, which undertook a rapid remodeling project to make the store over in its own brand. Dan Vanevenhoven, N9LVS, visited the HRO Milwaukee location on opening day, camera in hand, and he posted video of his brief tour on YouTube.

"One of the first things that caught my eye was the radio demo area," Vanevenhoven says in his video. "They've actually got



radios that you can try out." A row of eight carrels, each with a different piece of gear ready to use, stretches along part of one wall in the store.

The Milwaukee store is 5000 square feet of Amateur Radio equipment, antennas, books, and accessories.

A family-owned business, HRO is the world's largest Amateur Radio dealership, with 14 locations from New England to the West Coast. It opened a new outlet in Plano, Texas, in early 2015 and relocated and expanded its Portland, Oregon, store, which opened in late July.

HRO has planned the weekends of September 10, 17, 24 and October 1 for the grand opening of its Portland store, and October 1, 8, 15, and 22 for the grand opening of the new Milwaukee outlet.

## New Satellites with Amateur Radio Payloads Launched, Monitored

The [AlSat-1N](#) and [Pratham](#) satellites, both carrying Amateur Radio payloads, have both been heard and identified following the India Space Research Organization (ISRO) PSLV-C35 mission launch on September 26. Reports are requested. Reports on AMSAT-BB indicate the *Pratham* CW beacon on 145.980 MHz is active.

The 3U *AlSat-1N* CubeSat was built in collaboration with the Algerian Space Agency, the UK Space Agency (UKSA), Surrey Space Centre (SSC) staff, and Algerian students as a technology transfer and demonstrator for Algeria.

*AlSat-1N* is also hosting three UK payloads from various institutions and aims to take images of the Earth and send back data from the UK payloads. The IARU coordinated downlink is 437.650 MHz (9,6 FSK). Downlinked [data reports](#) are welcome, both decoded hex files and recordings.

The *Pratham* satellite, built by students at the Indian Institute of Technology-Bombay, also is a 3U CubeSat. It was designed to measure total electron count at an 800 kilometer (approximately 500 mile) altitude sun-synchronous orbit. The CW beacon (35 WPM) will transmit continuously at 145.980 MHz, and the Institute seeks post-launch reports. The satellite's 1200 bps FSK downlink is on 437.455 MHz.

## Saturday, Sept. 24 VE Test Session Results at Tomball Regional Hospital

We had 6 candidates taking 9 tests.

Element 2 tests given: 3; passed 3

Element 3 tests given: 4; passed 1

Element 4 tests given: 2; passed 2

Congratulations to:

Aristoteles Villamil KG5PKU- upgrade to Extra

Alan Mabry - new Tech

Cecil Powers - new Tech

Thomas Loftis - new Tech

Gary Urie KG5PEI - upgrade to General

Michael Payne KG5PKV - upgrade to Extra

Thanks to the VE's in attendance:

Ron Horton KF5LFL

Stephen Protz K5AUD

Sheree Horton KF5LMJ

Martin Rogoff N5GPS (acting session mgr)

The next monthly session will be held 0800 Saturday, Oct 22, at Tomball Regional Hospital, 1st floor conference room. Anyone who wants to observe and/or participate in a session is always welcome. Just let me know if you want to learn more about being a VE.

Keith Dutson, NM5G



## DANNY H. RICHARDS N5BE SK

**B**orn March 19, 1950 in Freeport, Texas to Hubert and Catherine Ailene McGarr Richards. He went to be with our Lord September 30, 2016 after a long five-year battle with throat cancer and its resulting complications.

Survived by Christy Richards his devoted wife of thirty-five years. Danny is also survived by his adoring children and grandchildren; daughter Regan Richards; son Cliff Coker; daughter-in-law Stephanie Coker; grandchildren Christiana, Beatrice, and Vivienne Coker; sister, Shirley Lodan; in-laws,

Charles Ray and Kathy Schoch; sister-in-law, Jeannie Walker as well as cousins and friends across the world. Their loss and pain are indescribable.

First and foremost, he loved his family. His relationship with Christy grew from a love-at-first sight affair into a loving, sustaining friendship where both partners became one-half of the other.

Danny had a knack for making strangers feel

special and important. He was a real asset as an electronic salesman for Kruvad which was a special company that became a second family to him. "Dangerous Dan", as he became known, made people laugh at his jokes with countless "Bubba" impersonations, far-fetched stories, and an easy smile. His love of life and eagerness to try different hobbies made him a renaissance man who learned to be a Hamm Radio Operator with worldwide friends; semi-professional as a Blue Grass guitar picker, fiddle, banjo, mandolin player and singer; avid hunter; salt and fresh water fisherman; bowler, golfer and bicycling enthusiast; square-foot gardener; and photographer. His easy nature masked his competitive drive and perfectionism. He would drive Christy crazy playing the same guitar riff literally hundreds of times until he had it perfect!

He loved animals with four dogs and three cats of his own. Much of his TV viewing included the Houston Astros, Animal Planet, and exploration themes. One bucket list item left undone was a trip to Africa which was not to hunt, but to observe nature in its purest form.



de NARS

## *DX Tips and Tidbits from the Grumpy 'ol Ham*

### October DX Excitement

**W**ell, I must apologize, although I had nothing to do with it, propagation in September remained terrible. While there were glimpses of improvement, you had to be glued to your receiver to notice that any band was active.

It appears that the nasty Communists are still sending spaceships, packed with massive quantities of Clearasil to crash into the sun and ruin our chances of DX. Unfortunately, most propagation prognosticators are in agreement that conditions won't improve until we hit the bottom of the sunspot cycle, and that won't happen until after 2020.

The one thing the sun is churning lately are solar storms. All the "space weather" web sites note an increase in these events. Here on our planet Earth, these get manifested in Aurora. The Aurora Borealis has been quite spectacular lately. It was reported that Reykjavik, Iceland turned off their streetlights because it was so bright at night. If you want to see the "Northern Lights," this may be the time. You won't have much luck here in the Houston area. We are only 7 degrees latitude from the Tropic of Cancer, and a long way from the Arctic Circle. The lights very seldom are visible this far south. The other obstacle to us here is light pollution. In the Houston area we are lucky to see Orion and the Big Dipper. On a clear night, you can see Polaris, the pole star, but are hard pressed to make out the constellation of the Little Dipper.

For VHF operators, they can point their yagis at the curtain of the lights and bounce their signals to work DX. There may be enough propagation for a well equipped six meter operator in this area to avail themselves of this mode, but I can't recall anyone south of Oklahoma reporting on this.

The exciting operating event for October is the CQ World Wide DX Phone Contest. This is one of the granddaddy's of DX contests. The 29 and 30<sup>th</sup> of October UTC. That means it starts for us on Friday night at 7 PM Central Daylight Time, and end on Sunday at 7 PM. This is a contest where it's DX versus DX. There are many Dxpedititions that prepare to be on for this contest. It's a great time to add to your country list. There are lots of little islands in the Caribbean that count as separate entities, and since they are relatively easy to get to and operate from, they are almost all on the air for the contest.

It's a phone contest, so if you are a Technician with no code abilities, they still want to work you. Another factor to consider is that everyone wants to work folks of all the bands. That means that their will be folks on TEN Meters. Frequently, having activity on a band will let people know that there actually is some propagation. I make NO guarantee!

Warm up your rigs. Get on the air. Work DX

73 & DX

*Grumpy*

## *NARS Board Meeting Action*

### *NARS Board Meeting Action*

**Tuesday, Sep 27, 2016, 7:30pm**  
**Ponderosa Fire Department Headquarters – Station 61**  
**17061 Rolling Creek Dr**  
**Houston, TX 77090**  
**281-444-8465**

#### **President's Report**

Texas QSO Party early report.

#### **Secretary's Report**

Minutes approved as submitted by Martin Rogoff N5GPS.

#### **Treasurer's Report**

Reviewed details of last month deposits and disbursements.

#### **Membership:**

Renewals sent out. New member Rick Braddy.  
News deadline Oct 14.

#### **Membership Meeting Programs Planned:**

Completed

Feb – TQP Final Results

Mar – DVD showing of K1N Navassa Island DXpedition

2015

Apr – Solar Weather & Propagation (Richard Nelson

KF5WRD)

May – Field Day Preliminary Planning (George Paxson

AG5CZ)

Jun – Field Day Final Planning (George Paxson AG5CZ)

Jul – ARES (George Edwards K5VUU)

Aug – AMSAT (Andy Macalister W5ACM)

Sep – BSA Jamboree on the Air (Les Mignerey KB0MEF)

Texas QSO Party 2016 Preparation (Keith Dutson  
NM5G)

Proposed

Oct – Digital Modes and Raspberry Pi (Skip Ferguson

K5LLR)

Nov – Elections, TQP 2016 preliminary results, Awards  
Banquet 2017 Announcement

Dec – K5ZTY Annual Show and Tell

Jan 2017 – Awards Banquet

#### **Old Business:**

Repeater status reported by Keith NM5G (no response as yet from Yaesu).

Still looking for VP candidate. This position is crucial to continuation of NARS club.

W5NC club call renewal being overseen by Ron Horton  
KF5LFL.

#### **New Business:**

None.

Board meetings are held the last Tuesday of each month. Members may attend to observe and/or present requests for action. See any board member for more information. Visit <http://www.w5nc.net/> for current club information.

## **King of Thailand Bhumibol Adulyadej, HS1A, SK**

**T**hai King Bhumibol Adulyadej (Rama IX), HS1A, died on October 13, after a long period of declining health. Born in Cambridge, Massachusetts, while his physician father was at Harvard University, the king, whose name translated as “strength of the land, incomparable power,” was 88.

According to noted DXer Fred Laun, K3ZO/HS0ZAR, the king “was never very active on the air, and, to my knowledge, the only QSOs he ever made were from a handheld on 2 meter FM.” He said HS1A was often “pictured using a handheld.” He also was pictured with a camera, as photography was one of his passions, and he was a jazz enthusiast, who played the saxophone.

The Radio Amateur Society of Thailand ([RAST](#)), the country's [IARU](#) member society, said on its website that the king was “presented the call sign HS1A by the Ministry of Communications at Chitrlada Palace” in 1989 in a ceremony witnessed by RAST officers. He was the ninth monarch of the Chakri Dynasty, having ascended to the throne in June of 1946, and was the world's longest-reigning monarch. — *Thanks to The Daily DX and other media outlets*

## **PATCHWORK STUDY PAYS OFF FOR SCOUTS**

**JIM/ANCHOR:** Here's some good news for Girl Scouts who also aspire to be YLs. The newly launched Scouting patch for their radio studies has proven to be very popular, as we hear from Newsline's Neil Rapp, WB9VPG.

**NEIL:** In May, the ARRL announced a new initiative to educate young ladies about ham radio and other wireless technologies. The Radio and Wireless Technology patch program is now in full swing. In the 4 months since the initial announcement at Hamvention, the ARRL has received reports of over 170 girls who have met the requirements for the patch, according to Education Services Director Debra Johnson, K1DMJ. A troop leader from Troop 772, Bernadette Purnell from Antelope Valley, California, reports that she had 10 girl scouts complete the patch program with the help of a local ham radio ARES group.

**BERNADETTE:** 'We hunted on Google, and we found our local club. And, the ones out here were the ones that did the emergency services for the hospital if there's a national disaster. So they have a whole communications program that they do throughout the hospital. When we contacted them, we said, you know, 'We want you to come and explain to the girls what you do because some of them don't even know this radio exists.'

**NEIL:** So this program has created an awareness of ham radio. But, it didn't stop there.

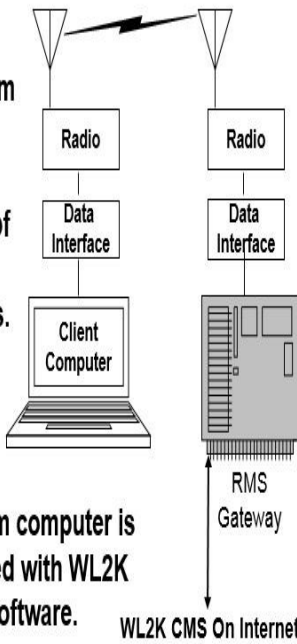
*Continued on page 7*

# E-MAIL VIA HAM RADIO

## Winlink Basic User Overview

### Introduction and Overview

A typical ham radio digital station is composed of simple components.



In order to do e-mail, it is necessary to link to a WL2K Radio Mail Server (RMS) station.

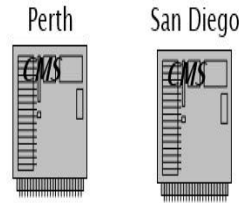
RMS Gateway stations must have internet connection.

RMS links to the WL2K Central Mail Server (CMS)

The Ham computer is equipped with WL2K Client software.

# E-MAIL VIA HAM RADIO

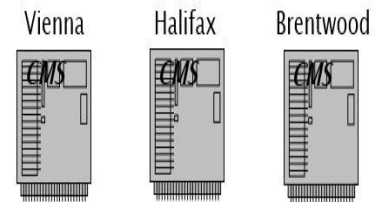
## Winlink CMS Overview



They are located well-apart around the world and any one of them can easily support the whole WL2K system if one or more should go offline.

The WL2K system has redundant, mirror-image servers connected together on the internet.

We call them *CMS* or *Common Message Servers*.

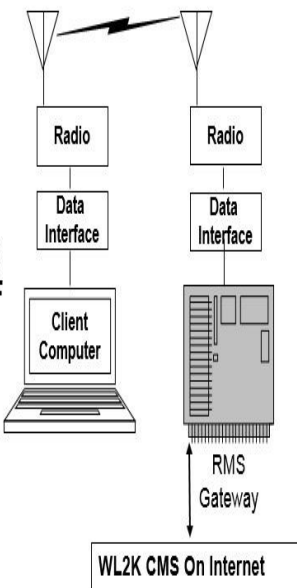


# E-MAIL VIA HAM RADIO

## Winlink

### RMS Packet Gateway

Where short range (up to 30 miles) communications are possible VHF may be used to provide E-mail over Ham Radio.



# E-MAIL VIA HAM RADIO

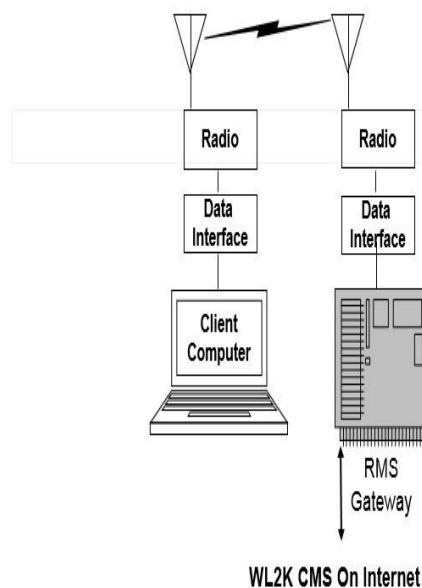
## Winlink

### RMS Packet Gateway

Where the incident is not within VHF range the radio link must be made on High Frequency.

Any network station in the world that can be reached may be used.

There are more than 50 HF RMS Sites in North America.



# Winlink 2000: User Software

There are currently three principal programs users can use to access the Winlink 2000 system:



Airmail



Paclink



RMS Express

Next month, we will discuss the RMS Express program.

## *NARS in rewind.... August 2003*

ICOM Presentation ICOM presents their newest radios at the NARS August meeting. Pat Marcy, W7PZ, is the Amateur District Sales Manager for ICOM America. She will tell us about the ICOM 208H rig and the ICOM 703 QRP rig. Her sales responsibility is everything west of the Mississippi River plus the states of Wisconsin and Illinois. This is roughly one half of the United States. She has worked for ICOM for 20 years.

Pat's presentation will include details of the new ICOM radios. She will tell us about ICOM's future direction of their radios. She promises to answer all of your questions about the products that ICOM makes for Ham radio use. She is prepared to discuss the newest features of amateur radios.

Attendees will receive an ICOM discount of \$10 off on purchase of an ICOM HT, \$20 off on purchase of an ICOM mobile, or \$50 off on purchase of an ICOM base radio. This discount will be good for two weeks after the ICOM presentation.

And to coincide with the biggest mobile event of the year (TQP), NARS held the drawing for the YEASU FT-100 and ATAS antenna system. The winning ticket this year was purchased by Bob Mennel WB5IUU and was sold by the famous John Ellis W5PDW. Congratulations to both.



## *Patchwork study.... continued*

BERNADETTE: 'The girls were like - this is actually kinda interesting to hear about. We didn't know. We asked because it was when they first came it was right around September 11th. So we asked them, and we're like going, 'Well, what happened? Were you guys used during the World Trade Center attack?'

And he said, 'Ham radios were the only ones available for the first 72 hours after the attack. And we were like, wow!'

So it was just interesting to see. And then I think right around that time, we had a brush fire that was not too far away from us that burnt almost like 60,000 acres. And we were just like - Where you guys used then? He goes, 'Yeah, cause we sometimes when you go in there, there 's no radio communication whatsoever. So they use us as a backup and the girls were like that was just cool!'

NEIL: So after earning the patch and hearing all about ham radio, five of the ten scouts are preparing for the Technician license exam.

BERNADETTE: 'They offered a free radio to the first girl that passes her test. So all the girls are in competition right now to pass the test.'

NEIL: Troop 772 reports that the patch program went very smoothly, and the girls thought learning morse code and talking on the radio was a very cool thing. The Troop plans on promoting their participation in the patch program to other girl scout troops, and are considering expanding their program to the Daisies and the Brownies. So look out world, there's a new set of YLs on the way. Reporting for Amateur Radio Newline, I'm Neil Rapp, WB9VPG in Bloomington, Indiana.

JIM/ANCHOR: We also remind you that October 15th and 16th are the dates for the world's largest Scouting event, Jamboree on the Air, or JOTA. You have the whole weekend to make contacts. According to the World Scout Bureau, nearly 1 million Scouts and nearly 20,000 amateur radio operators were involved in last year's event. This year, make sure you are among them.

# Welcome, Congratulations and Condolences

We regretfully announce the passing of Danny Richards N5BE-SK on 10/01/2016

## NARS Resource list

### General help:

Allen Majeski WA5REJ  
281 528-0673 wa5rej@yahoo.com

Deral Kent K5WNO  
281 548-7476 k5wno@juno.com

Al Manard N6VQO  
281 292-3113 almanard@gmail.com

### Digital modes:

Marty Fitzgerald W5MF  
281 251-4301 fitz6@swball.net

### VHF/UHF:

Brian Derx N5BA  
281 251-4301

### PC Programming & Ops:

Keith Dutson NM5G  
281 516-1466 keith1@dutson.net

### Building Electronics & kits:

Mark Tyler K5GQ  
281 587-0256 k5gq@juno.com

### Interference (Basic advice):

Terry Myers KQ5U  
281 443-6042 tmyers1031@sbcglobal.net

### Card checking for awards:

Bob Walworth N5ET—DXCC  
281 292-2221 rwalworth@charter.net

Brian Derx N5BA—WAS, VUCC  
281 894-5942

Bob Walworth N5ET—WAZ

281 292-2221 rwalworth@charter.net

### NARS Public Info. Officer

Joe Sokolowski KD5KR  
281 353-2196 kd5kr@arrl.net

## NARS Information

### President & Board Chairman

Keith Dutson NM5G  
281 516-1466  
keith1@dutson1.net

Ron Matusek WA6TQH  
281 205-3068  
ronml@att.com

### Vice President

Richard Nelson KF5WRD  
281 257-1279  
Richard-nelson@hotmail.com

Mike Bowen N8ILU  
281 954-0940  
mike5664g@yahoo.com

### Treasurer

Sheree Horton KF5LMJ  
281 890-4038  
sher5456@gmail.com

### Administrative & General Info.

Joe Sokolowski KD5KR  
281 353-2196  
kd5kr@arrl.net

### Secretary

Martin Rogoff N5GPS  
281 890-4538  
N5gps.tx@gmail.com

Send changes in address, phone, or email to:

NARS  
P.O. Box 90387  
Houston, TX 77290-0387

### Directors

Lester Mignerey KB0MEF  
281 257-6580  
kb0mef@arrl.net

### Nets

2 meter Wed. 8 pm. 146.760, tone 103.5  
Coordinator: Jerry Whiting KB5VGD  
g\_whiting@sbcglobal.net

Ron Horton KF5LFL

281 890-4038  
ron.horton88gmail.com

### Web site

URL: <http://www.w5nc.net>  
Web Master: Bill Buoy N5BIA  
281 370-3510 n5bia@arrl.net

### NARS Reflector

NARS@mailman.qth.net  
Coordinator: Keith Dutson NM5G  
281 516-1466 keith1@dutson.net

### Texas QSO Party

Co-coordinator: Chuck Sanders NO5W  
832 657-4832  
no5w.chuck@gmail.com

Co-coordinator: Keith Dutson NM5G

281 516-1466 keith1@dutson.net

### VE Session (ARRL) Manager

Keith Dutson NM5G  
281 516-1466 keith1@dutson.net

### Meetings

Monthly General Membership 3rd. Friday  
each month (except January) at 7:30 pm.  
Cypress Creek Christian Community Ctr.  
6823 Cypresswood Drive

### Saturday Breakfast

Denny's 6504 FM 2920, Spring  
(Just a few blocks west of Kuykendahl)

### Wednesday Lunch-11 am.

Various places. Info on front page.

**NARS News** is published monthly by the Northwest Amateur Radio Society. Send all articles and materials for the newsletter to:  
Editor, Joe Sokolowski KD5KR, 281 353-2196 kd5kr@arrl.net Deadline for articles to appear in the next newsletter is the last day of  
each month.

Northwest Amateur Radio Society is a Special Services Club affiliated with the American Radio Relay League, ARRL Club No. 2120.