W5NC
Houston, Texas
Northwest Amateur Radio Society

NARS NEWS

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

January 2016

Important Dates

Monthly club meeting:
Third Friday of each month, 7:30 pm.
Cypress Creek Christian Community
Ctr. 6823 Cypresswood Drive

Board of Directors Meeting
Tuesday, January 26, 2016, 7:30 pm.
Ponderosa Fire Station
17061 Rolling Creek Drive

VE License Exam:
Saturday, January 23,
Location still to be determined.
Monitor NARS Reflector for info.

Lunch Break—North
Jan 13, Pei Wei
Jan 20, Panera Bread
Jan 27, Jason.s Deli
Feb 3, Baker St Pub.
Feb 10, Sweet Tomatoes
Feb 17, B.J,s Brewery

.**Lunch Break—Medical Center**
Jan 13, Jason's Deli
Jan 20, Buffalo Grille
Jan 27, Southwell's Hamburger Grille
Feb 3, Marco's Mexican Bar & Grille
Feb 10, Silver Palace Chinese Buffet
Feb 17, Pappas BBQ

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.

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

NARS Awards Banquet set for January 15th, 2016….

January 15 will open the new year with our 31st Awards banquet. It is only fitting that we celebrate, once again, our good fortune by gathering together to enjoy good eats, pleasant conversation with our companions and guests and to recognize the accomplishments of those who have worked so hard to keep NARS what it is today.

This year, the Awards Banquet will be held at Nona's Italian Café, 1025 Alma Street, Tomball. The cost is $20 per person. Reservations and payment are required prior the event. We anticipate an attendance of some fifty persons, so make your reservations early.

Seating will begin at 6 p.m. with dinner served at about 7:15 p.m.
Guests will be served at the table, one of the three entries being selected individually from the menu on page 3.

Please mail your reservations and checks to:
NARS, P.O. Box 90387, Houston, TX 77290-0387
Include the names of those attending.
Waiting till the last minute before deciding? Email me at kd5kr@arrl.net and we'll try to squeeze you in….

See map on page 3 for restaurant location.

President's corner….

I have enjoyed serving as president of NARS for the past year and hope that each of our NARS members have enjoyed the past year as much as I have. I would not have enjoyed the year nearly as much without the support of the club members who have assisted me and NARS. Our members and their many talents are what make NARS a worthwhile organization. I hope that the meetings and activities in 2015 were enjoyable and beneficial and that we can continue to have fun in 2016. I am looking forward to the Buffalo Bayou for 2016, Field Day, meetings and other activities this year. The contributions of our membership and the assistance we receive from them contribute to us becoming better ham radio operators and the conversations with other members make our gatherings enjoyable wherever we meet. I expect 2016 to be a great year for NARS.

Brad Nelson – WD5GNI

POW! TO THE MOON, ALICE!

Seventy years ago, a team from the U.S. Army, operating at Fort Monmouth, New Jersey's "Project Diana" site, successfully copied radio signals that had been bounced from the moon using an Army tracking dish. That site is now part of the InfoAge Science History Museum where, on January 10, the EME, or "earth-moon-earth" bounce, will be recreated, marking the date when the historic transmission both left its mark and its signal, in 1946.

In fact, the radio amateurs intend to use that same dish, which has long since been demilitarized and refurbished. The TLM-18 received those first historic signals during its time of active service on that site as a ground station for the TIROS 1 and 2 weather satellites and for Project Vanguard.

The commemorative transmission will occur on 23 centimeters from the station of the Ocean Monmouth Amateur Radio Club, N2MO, sent by members of that club as well as hams from Princeton University and the science museum. The dish's primary role, as used by Daniel Marlow, K2QM, is to help observe radio pulsars as well as radiation from the Milky Way. Marlow teaches physics at Princeton University and serves on the board of InfoAge.

The TLM-18 is being made available for the amateurs' moonbounce on a secondary basis. Nevertheless, promising this group the moon - and then delivering - is going to be just as historic an event as it had been back in 1946.

For Amateur Radio Newsline, I'm Heather Embee, KB3TZD, in Berwick, Pennsylvania.

The 2016 Houston Marathon (and Half Marathon) takes place Sunday, January 17th

The 2016 ABB 5K Run takes place Saturday January 16th Amateur Radio Operators are used extensively to support this event in various roles, but, overall, the main aspect is that of enhancing the safety of participants of the event. If you have the time and availability, please register to help with this event! We need all the help we can get, to better assist the event.

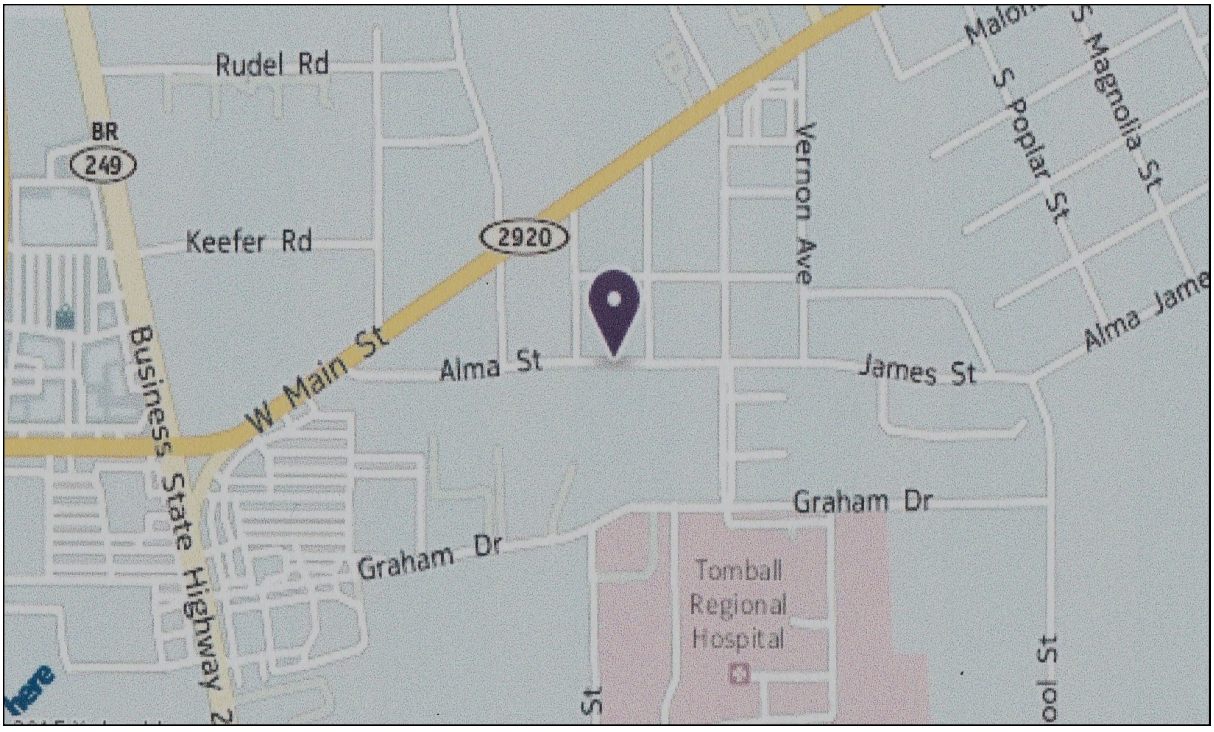
The full marathon is the Chevron Houston Marathon, and the half marathon is the Aramco Houston Half Marathon, and they are run concurrently.

Almost the initial 8 miles are run on the same course, after which a split occurs, with the half event heading back eastward towards the finish, while the full takes a southerly then westerly course that extends out to Memorial Dr and Chimney Rock before heading eastward to the finish line. Lee Gaspard WA5QXE and Frank Robichaux N5EJX are the co-coordinators of Amateur Radio Operator support for this event.

Equipment Requirement: Be capable of 2 meter and 70 centimeter band operation . Hand-Held Transceivers Only!

Visit: **www.hmhams** for further information.

Nona's Italian Grill, 1025 Alma St, Tomball, TX 77375



Menu

Salads

Greek salad:
Mixed lettuce, celery and bell peppers
Cucumber & feta cheese in vinaigrette dressing
Caesar salad:
Traditional garlic & anchovies dressing
Croutons & parmesan cheese

Main course

Pollo Paisano
Stuffed with spinach & cheese topped with mushrooms
Sun dried tomato, capers & onion in a vodka
Crème sauce served with vegetable & potato
Trout Capri
Grilled trout lemon butter white wine sauce capers
Served with vegetable & potato
8 oz. Sirloin steak
Grilled steak topped with green pepper corn
Served with vegetables & potato

Beverages

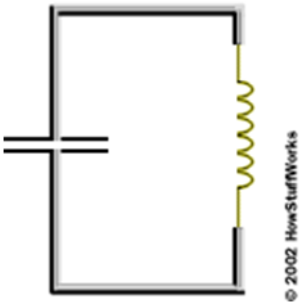
Ice tea, water, coffee

The Awards banquet will replace the regular general meeting normally held on the third Friday of each month. If you show up at the Cypress Creek Christian Community Center, you've just squandered a perfectly good Friday evening….

Oscillation Basics

As licensed radio operators, many of us already know pretty much how oscillators work, but how do you explain it to some guy just starting out? Well, try this approach….

One of the most commonly used oscillators is the pendulum of a clock. If you push on a pendulum to start it swinging, it will oscillate at some **frequency** -- it will swing back and forth a certain number of times per second. The length of the pendulum is the main thing that controls the frequency.
For something to oscillate, energy needs to move back and forth between two forms. For example, in a pendulum, energy moves between **potential energy** and **kinetic energy**. When the pendulum is at one end of its travel, its energy is all potential energy and it is ready to fall. When the pendulum is in the middle of its cycle, all of its potential energy turns into kinetic energy and the pendulum is moving as fast as it can. As the pendulum moves toward the other end of its swing, all the kinetic energy turns back into potential energy. This movement of energy between the two forms is what causes the oscillation.



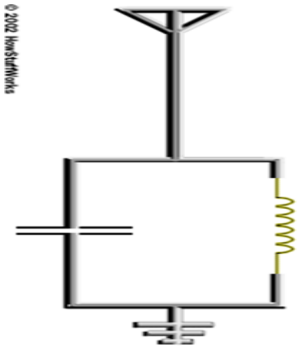
Eventually, any physical oscillator stops moving because of **friction**. To keep it going, you have to add a little bit of energy on each cycle. In a pendulum clock, the energy that keeps the pendulum moving comes from the spring. The pendulum gets a little push on each stroke to make up for the energy it loses to friction. An electronic oscillator works on the same principle.

Oscillator Circuits
Energy needs to move back and forth from one form to another for an oscillator to work. You can make a very simple oscillator by connecting a capacitor and an inductor together. A capacitor stores energy in the form of an electrostatic field, while an inductor uses a magnetic field.
Imagine the following circuit:
If you charge up the capacitor with a battery and then insert the inductor into the circuit, here's what will happen:

- The capacitor will start to discharge through the inductor. As it does, the inductor will create a magnetic field.
- Once the capacitor discharges, the inductor will try to keep the current in the circuit moving, so it will charge up the other plate of the capacitor.

Once the inductor's field collapses, the capacitor has been recharged (but with the opposite polarity), so it discharges again through the inductor. This oscillation will continue until the circuit runs out of energy due to **resistance** in the wire. It will oscillate at a frequency that depends on the size of the inductor and the capacitor.

Resonators
In a simple crystal radio, a capacitor/inductor oscillator acts as the **tuner** for the radio. It is connected to an antenna and



ground like this:
Thousands of **sine waves** from different radio stations hit the antenna. The capacitor and inductor want to resonate at one particular frequency. The sine wave that matches that particular frequency will get **amplified** by the resonator, and all of the other frequencies will be ignored.

In a radio, either the capacitor or the inductor in the resonator is **adjustable**. When you turn the tuner knob on the radio, you are adjusting, for example, a variable capacitor. Varying the capacitor changes the resonant frequency of the resonator and therefore changes the frequency of the sine wave that the resonator amplifies. This is how you "tune in" different stations on the radio!

Maybe it's a mite too simple an explanation, but at least it lays the foundation for further discussion. Besides, you're never too old to learn….

Check out this site: www.howstuffworks.com for more cool info on a variety of stuff!

NARS in rewind….

November, 1990 - October meeting recap.

Bob Chmielewski N5PJI, showed us all about radio controlled airplanes with model planes and videos. Barbara Peat KB5GEZ, was elected as the new NARS secretary to take over the unexpired term of Curt Furtado KI5AK. She then won the door prize, a 2 meter antenna donated by Madison Electronic Supply, Houston.

Elections set for 1991 NARS officers:

NARS will hold elections for 1991 at the November meeting. The following candidates were selected by the nominating committee:

President:	Paul Frantz KF5SB
Vice Pres.:	Bob Chmielewski N5PJI
Secretary:	Barbara Peat KB5GEZ
Treasurer:	B.T. Burk N5QVS
Director:	Brad Nelson WD5GNI

K5ZTY Show-n-Tell recap….

Every year, the K5ZTY Show-n-Tell entries indicate that do it yourself projects are still very much alive. This year we had a variety of entrees. George Edwards, K5VUU entertained us with his demonstration of an antenna and described in detail on how to construct a Balun out of coax and pvc pipe.

Then there was Peter Brown KE5IOV and his daughter Sarah KF5LFK showing off the results of their 3-D printer. This increased their *aussumness* by tenfold! Jerry Whiting, KB5VGD did a presentation on his latest class project, having students building a digital clock. And of course, Skip Furguson, K5LRR entertained us on something we're still scratching our heads over…. Rob Nixon KD5BXZ, presented his version of a Hula hoop antenna. Yikes! At least that's what it looked like.

Marty Fitzgerald , W5MF buzzed the crowd with something resembling a drone. It was promptly shot down by those licensed to carry a firearm! (Just kidding, Marty….) So many more entries made this program a complete success.

Skip Furguson K5LRR explaining his , uh, circuit

Peter Brown KE5IOV and Sarah Brown KF5LFK and The results of their 3-D printer operative.

Rob Nixon, KD5BXZ expounding on his loop antenna

Close to a sell-out crowd, well, maybe a few short….

So much for security….

During the time that the Atomic bomb was being hatched by the United States at Alamogordo, New Mexico, applicants for routine jobs like janitors were disqualified if they could read. Illiteracy was a job requirement.
The reason: the authorities did not want their rubbish or other papers read.

Welcome, Congratulations and Condolences

Welcome new members,
Kenneth Peabody KF5PJA, Bill Hielscher KG5WPH and Jerome Istin KG5GIV
We note with regrets the passing of the mother of Ron Horton KF5LFL.

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
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NARS Public Info. Officer
Joe Sokolowski KD5KR
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NARS Information

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Send changes in address, phone, or email to:
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Houston, TX 77290-0387

Nets
2 meter Wed. 8 pm. 146.660, tone 100
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g_whiting@sbcglobal.net

Web site
URL: http//www.w5nc.net
Web Master: Bill Buoy N5BIA
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NARS Reflector
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Coordinator: Keith Dutson NM5G
281 516-1466 keith1@dutson.net

Texas QSO Party
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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.