



# The Repeater

February 2011

Sponsored by AA5RO

*Alamo Area Radio Organization, Inc.*

Benny Martinez, NU5P, Trustee

P.O. Box 380032, San Antonio, TX 78268



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## Andrew's Code \_ \_ \_ \_ from Andrew Watson, President

This has been a great January! Radio Fiesta was a big hit. They had over 750 Hams from all over the state and many vendors.

A big thank you for all the AA5RO volunteers. Your board of directors manned the AA5RO membership table from 7:30AM to 2:00PM and during that time sign up over 10 new members!

Moving into February, your meeting will be at the new location *Mamacita's Mexican Restaurant*, 8030 West Interstate 10 near Callaghan. Dinner at 6:30 PM, Meeting at 7 PM.

We will have many topics to talk about. Location of Field Day, equipment, stations, antennas, food, setup and break down crew.

See page 5 for details of our program for the February 9th meeting.

We still need many Volunteers. **Mike** "AE5WT" is your Field Day Chairman for 2011. Please contact him at [mike@ae5wt.com](mailto:mike@ae5wt.com)

To volunteer for the Field Day Event, **Tony** "KE5ZUP" will provide the newest update on the field day site location.

Please go to the AA5RO web-site and check your contact information and make sure it is correct. If not please contact us for your correction.

We will be working on updating the AA5RO web site, so you, as a member, will have the most updated information at your finger tips. Also in case of club emergency we can get in contact with you.

AA5RO members have always been great volunteers. So if you know of any hams in need of help with hanging up a new antenna or moving a old one or just need some help with their equipment.



Please contact me or your board so that we can make it happen.

Up and coming events across the state will be the Brazos Valley Amateur Radio Club Hamfest at the Fort Bend County Fairgrounds 4200 highway 36 Rosenberg, Texas. The Keynote speaker at that event will

be **Harold Kramer** "WJ1B" Chief Operating officer of ARRL. For more info [www.houstonhamfest.org](http://www.houstonhamfest.org)

The date for this event will be Saturday, March 5, 2011.

Please remember your AA5RO meeting on February 9, 2011. Be a Great Communicator and tell your fellow Hams.

Bring a new guest. Make 2011 the biggest and the Greatest year for AA5RO.

See you there.

73's

*Andrew*  
KD5NNN



## Spotlight on Software Defined Radio

A software-defined radio system, or SDR, is a radio communication system where components that have been typically implemented in hardware (e.g. mixers, filters, amplifiers, modulators/demodulators, detectors, etc.) are instead implemented by means of software on a personal computer or embedded computing devices.

While the concept of SDR is not new, the rapidly evolving capabilities of digital electronics render practical many processes which used to be only theoretically possible.

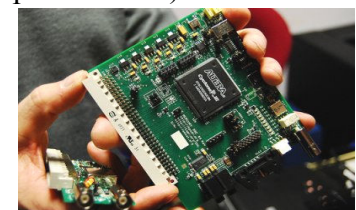
A basic SDR system may consist of a personal computer equipped with a sound card, or other analog-to-digital converter, preceded by some form of RF front end. Significant amounts of signal processing are handed over to the general-purpose processor, rather than being done in special-purpose hardware.

Such a design produces a radio which can receive and transmit widely different radio protocols (sometimes

referred to as waveforms) based solely on the software used.

A typical amateur software radio uses a direct conversion receiver. Unlike direct conversion receivers of the more distant past, the mixer technologies used are based on the quadrature sampling detector and the quadrature sampling exciter.

The SDR software performs all of the demodulation, filtering (both radio frequency and audio frequency), signal enhancement (equalization and binaural presentation).



Uses include every common amateur modulation: morse code, single sideband modulation, frequency modulation, amplitude modulation, and a variety of digital modes such as radioteletype, slow-scan television, and packet radio.

More information is available at [Wikipedia.com](http://Wikipedia.com).

## AC Powerline Interference Tracking Tips Given

In remarks made by **Bob Rodriguez (K5AUW)**, there are two main sources of AC power interference. They are: *Homes and Power Lines*.

To determine the basic source and propagation method, turn off primary power to the house and operate your radio on batteries.

If the noise disappears, the source is either in your house or your neighbor's house. If not, look at power lines.

Home sources can include, but not limited to: Heating pads, aquarium heaters, doorbell transformers, any device using a bi-metallic thermostat, light dimmers, or electric blankets.

Power lines sources include arcing/sparking/and or corona.

For assistance is locating AC noise, contact Bob at 887-6618.



## Tidbits

AARO member **Walt DuBose** has been working on an article detailing various data modes.

This is a detailed article and will be here soon.

As **Tony** said, he'll have more information about possible locations for the 2011 Field Day activities scheduled for June 25. Meanwhile, AE5WT **Mike Brown** will be Field Day Chair.

The AARO **Elmer Pool** has been formed. The program is designed to get new hams engaged in helping to learn some of the intricacies of the hobby. This includes the use of new digital modes, etc.

The pool consists of hams who have been licensed at least 10 years and have a General Class or above rating.

For more information on this, call **Andrew** at 340-6154.

Membership dues are now being accepted. Send them to PO BOX 380032, SA TX 78268.

## The Repeater

### WELCOME NEW AARO MEMBERS

- Michael V Brown
- The Check Family:  
Mike, Ginny, Chris &  
Jonathan.
- Martin Herrera
- Tony Gallardo
- Robert Renfro
- Wade Martyn
- Ken Lemanski
- Richard Wyman
- Larry Standlee
- Wesley Standlee
- John Watson

### Upcoming Hamfests

2/12/2011 Williamson  
County Amateur Radio  
Club

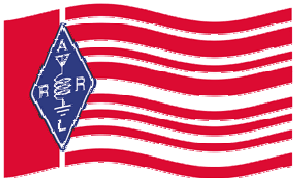
Location: Georgetown,  
TX

Sponsor: Williamson  
County Amateur Radio  
Club

Website: [http://  
www.wcarc.com](http://www.wcarc.com).

4/2/2011 Belton  
Hamfest. 8AM-2PM.  
Admission \$5.

*An ARRL Sanctioned  
Hamfest*



**Talk-in Freq: 146.82-  
(PL 123.0).**



**FIELD DAY 2011 - SCHERTZ TX**  
Pictures courtesy Andrew Watson & Stanley Waghalter

56<sup>th</sup> Annual St. Patrick's Day Hamfest  
and  
ARRL West Texas Section Convention  
March 19<sup>th</sup>, 2011  
Midland Lions Club  
200 Plaza Ave.  
Midland, Texas

### *Silent Key*

**Ivan Anton Mangold**  
(WA5RNV) passed away on  
Thursday, January 6, 2011, after a  
short illness.

He was an avid participant in the  
HAM Radio community.

Ivan was 90 years old.

# The Repeater

## Another Guess Who?



This Thomas Jefferson High School graduate (circa 1967) is active in the Ham Community.

His ID will be revealed at the February 9th AARO meeting.

At the end of 2009 there were 682,497 Amateur Radio licensees in the USA.

There are approximately 2.5 million Amateur Radio operators in the world. The numbers, while believed accurate, can vary because of different systems to count licensees.

## Got Ears?

On Wednesday, Jan. 19 at 11:30 a.m. EST, engineers at Marshall Space Flight Center in Huntsville, Ala., confirmed that the NanoSail-D nanosatellite ejected from Fast Affordable Scientific and Technology Satellite, FASTSAT.

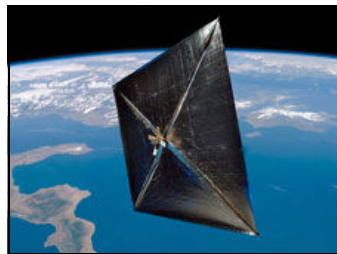
The ejection event occurred spontaneously and was identified when engineers at the center analyzed onboard FASTSAT telemetry.

The ejection of NanoSail-D also has been confirmed by ground-based satellite tracking assets.

Amateur ham operators are asked to listen for the signal to verify NanoSail-D is operating.

This information should be sent to the NanoSail-D dashboard at: <http://nanosaild.engr.scu.edu/dashboard.htm>.

The NanoSail-D beacon signal can be found at 437.270 MHz.



# The Repeater

## Severe Weather Conference & SkyWarn Training

The South Texas Severe Weather Conference is scheduled for April 1 - 2, 2011 at the University of Incarnate Word.

SkyWarn Training is April 2, 2011 at the Bonilla Science Hall.

This year the conference will feature **Bill Read**, National Hurricane Center Director, **Dr. Phil Klotzbach**, Season Hurricane Forecast Researcher, and **Dr. Eve Gruntfest**, Flash Flood - Society researcher.

The South Texas Severe Weather Conference is produced by the Urban Science Initiative Inc. with the support of the University of Incarnate Word and the National Weather Service Offices in Austin/San Antonio, Corpus Christi, and Brownsville, Texas.

There is no conference fee however, registration is required as seating is limited.

## Help needed With Repeater Problem

Just to let everyone know our repeaters are now licensed for another 10 years. I received the new club license.

Also, I just updated our frequency coordination with the Texas VHF society.

Now for some help. If anyone has a spectrum analyzer or could help identify the noise on the repeater usually when it ID's without any traffic.

I am assuming it is some kind of inter-modulation. I live fairly close to the medical center and have monitored the input and cannot see anything on my monitor.

With our VHF repeater having the additional bandpass filter inline, I find it hard to believe something is getting into our receiver. It might be on the output.

Your help in tracking this interference will be greatly appreciated.

**Benny\_NU5P**

## February 9th Speaker details

Our speaker for our February meeting will be **Mr. Joe Thaxton**. Mr. Thaxton is a project manager for United Water, but he is also Major Thaxton of the Texas State Guard, where he is a Military Emergency Management Specialist (MEMS). He is responsible for the management of information during a crisis.

Mr. Thaxton will cover the following: Incident Command System (ICS) ICS is flexible and can be used for incidents of any type, scope, and complexity. ICS allows its users to adopt an integrated organizational structure to match the complexities and demands of single or multiple incidents.

Homeland Security Exercise and Evaluation Program (HSEEP) The purpose of HSEEP Training is to give Federal, State, Tribal, and local governments the

tools and resources needed to build and maintain self-sustaining exercise programs.

And he will talk about the Engineering Section, Texas State Guard, TXWARN, Public Work Emergency Response Team activities.

I will also have some more information on possible Field Day locations for the club.

Setenta y Thres Para Todos. This is KE5ZUP Clear.

**Tony Saucedo Jr.**



**Talk Net**  
**146.420 Simplex**  
**Tuesday nights**  
**7:00 o'clock**

*Check out the "Rainfall Net" every night at 8 o'clock on 146.940. Tone 179.9*

This is your newsletter, too. If you have something you would like to submit for the newsletter, send it to me. [KD5ZSY@satx.rr.com](mailto:KD5ZSY@satx.rr.com).

Submissions should arrive by the third Monday of the month

## Calendar of Events

- February 9 - AARO Meeting at Mamacita's Restaurant. 8030 I-10 West near Callaghan. Dinner at 6:30PM, Meeting starts at 7PM.



### February Birthdays



"Jay" Buck  
Bob Rodriguez  
Stanley Waghalter  
Lee Wingert

Manuel Diaz-Rodriguez  
Lee Besing  
Craig Kennedy  
Michael Brown

Join Us on 147.380+ and 443.875+ (both PL tone 162.2) for *Newsline* and the *InfoNet* - Monday Evenings at 8:30 p.m., followed by a *SLOW "Learn CW" Net* *Saturday Night Code & NightOwl Net* - starting at 10:00 p.m.  
Also check out the club's web site - <http://aa5ro.org>

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