

The eKilo - What

Monthly Newsletter of the San Angelo Amateur Radio Club

February 2014

San Angelo Radio Club Officers

President: Tom Austin/KT4OTM

Vice President: Hughbert Robinson/KC5NPC

Secretary/Treasurer: Bob Freeman//KD5PDX

Activity Director: Gary Chaffin/W5ETJ

Emergency Coordinator: Mike Dominy/KD5URW

Grounds Chairman: Open

Appointed Positions

SAARC Trustee: Charlie Campbell/KC5GKC

Registered Agent: Charlie Campbell/KC5GKC

Public Information Officer: Matt Healy/W5MAT

Club House Location

Mathis Field

5513 Stewart Lane

Mailing Address

P.O. Box 4002

San Angelo, TX 76902-4002

World Wide Web

www.w5qx.org

SAARC COMING EVENTS

ARES Meeting

March 21, 7:00 PM at the Clubhouse

General Membership Meeting

March 13, 7:00 PM at the Clubhouse

Other Events

Skywarn Seminar—9:00 AM, March 8th
Trinity Lutheran Church

June 28 & 29th - ARRL Field Day

September 20th - Lily Fest

October 11th - SAARC Club's Birthday Party

December 6th - Skywarn Recognition Day

National Weatherman's Day

On February 8th, Weathermen were honored with an open house, food, and drink at the Clubhouse at Mathis Field. A Special Events Station was in operation on 14.243 MHz using W5QX call sign. A total of 61 contacts were made.



Dr. Steve Lyons from NWS attended, as did Hector/KC5BRB, seen watching Ralph/KA5ULE cooking.



Inside the was something for all ages, Mike/KD5URW, with his family, and Gary/W5ETJ, and Hughbert/kC5NPC operating the Special Event Station W5QX.



There was lots of good food with chili provided by Hughbert/KC5NPC,



and lots of talk of radio and the weather. A good time was had by all! - Ed.

Of Interest

Hughbert/KC5NPC sent the following:

As I was digging through my reference library I came across a link from the ARRL which is **actual recordings of the many types of noise and best of all the source...**The page has recordings listed by category such as "Household" "Computer" "Utility" and "Misc"...

Here's the link:

<http://www.arrl.org/sounds-of-rfi>

73 de NS5F

This is a good reference site. - Ed.

Skywarn Webinar



Skywarn Webinar

Storm Spotter Training - NWS Norman - 2/20/14
Location for Webinar
San Angelo EOC



The Webinar was well attended and a great success. Organized by David/KB5EDB, the location chosen was the best location possible for this educational experience.

The attendees included Tom Green County Judge Steve Floyd and Commissioner Rick Bacon, San Angelo Mayor Dwain Morrison and Councilman Rodney Fleming.

Tom Green County Emergency Management Coordinator Steve Mild spoke to the EMC task and Amateur Radio contribution.

Dr. Steve Lyons and Hector/KC5BRB with the NWS were also present.

The media was represented by Anne Flipper of the Standard Times and Joe Hyde, President of San Angelo LIVE. Kris Nation, meteorologist at KIDY, also attended.

Jonathan (Jon) Jennings with the weather mod group at Mathis field was present.

Hams from Brownwood, Bill/KD5HEJ and Ray/N5SR, drove over to attend.

The Norman Forecast Service of the NWS presented the material in a professionally done series of slides. Although the material focused on recent tornado events in Oklahoma, the nature of these storms was used to illustrate the dangers and erratic nature of tornados. Cloud characteristics were illustrated and discussed. The role and contributions of Amateur Radio were emphasized.

Thanks to David/KB5EDB for soft drinks and to Matt/W5MAT for providing pizza.

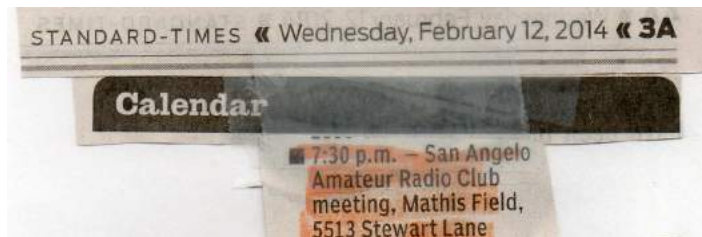
An Advanced Skywarn Webinar will be offered on Tuesday, April 1, 2014, at 6:30 PM. For more information: sr-oun.spotter@noaa.gov

Local Sky Warn training will be provided on Saturday, March 8, 2014, at the Trinity Lutheran Church on YMCA Drive between Sunset Drive and Loop 306, in San Angelo. The presentation will be made by the local ARES Group and NWS and starts at 9:00 AM. Arrive early to get a good seat.

Thanks to David/KB5EDB for pictures and editing. - Ed.



Our PIO is on the job:



The Calendar announcement appears on the day before the meeting and on the day of the meeting.

Good work, Matt! - Ed.

Technical

Repurposing Meters

Often a meter is needed that is not in the parts box. The following is a brief description of modifying existing meters for another application.

Most meter movements are the D'Arsonval type: A common implementation consists of a coil, with pointer attached, suspended in a magnetic field provided by a horseshoe magnet. Passing a DC current through the coil creates another magnetic field which causes the coil to deflect. A spring, or springs, are used to return the coil and pointer to a zero position. A scale on the meter face indicates the current flowing through the coil. The meter schematic can be drawn as in Figure 1.

The meter coil has resistance, R_M , so there is a voltage drop across the coil. If the meter is a $100\ \mu\text{A}$ movement (full scale) and the coil resistance is $1000\ \Omega$ then the voltage drop is $100\ \text{mV}$. If a 5V meter is needed, then a total of $50\ \text{K}\Omega$ is required to produce full scale deflection when $50\ \text{V}$ is applied. A $49\ \text{K}\Omega$, R_E , resistor in series with the meter is required to bring the total resistance to $50\ \text{K}\Omega$ as in Figure 1.

If a $10\ \text{A}$ meter is needed, a shunt resistor is needed as shown in Figure 2. Using the same meter is used as before, the shunt, along with the meter coil resistance must produce the same $100\ \text{mV}$ drop across the meter in parallel with the shunt: $100\ \text{mV}/10\ \text{A}$ is $10\ \text{m}\Omega$. This would be great for a meter with the parameters stated, but this never happens. The meter coil may have soon odd resistance like, say, $753\ \Omega$. A "calibration", R_C , resistor must be added as in Figure 2. In this case a $247\ \Omega$ must be added. Fixed resistors may be wired in series and parallel or a variable may be used for R_C .

In the ammeter described, the current through the meter is insignificant compared to the current being measured. As the current to be measured approaches the meter full scale value, the meter current must be considered when selecting the shunt. Remember that an ideal voltmeter uses zero current and the ideal ammeter produces zero voltage drop.

For an ammeter, disassemble the meter, remove the shunt and the calibration resistor and replace the terminal hardware with $1/4 - 20$ hardware or whatever fits. A commercial shunt with a calibration resistor is shown in Figure 3.

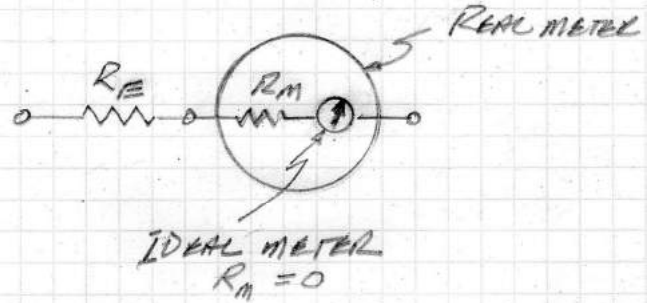


Figure 1. Voltmeter schematic.

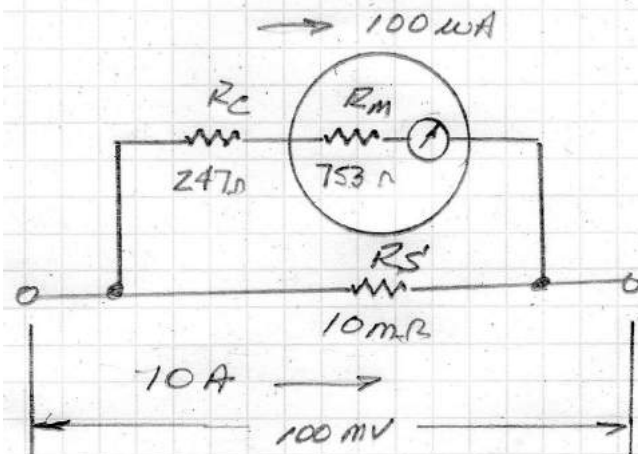


Figure 2. Ammeter schematic.



Figure 3. Shunt and R_C .

Several repurposed meters are shown in Figure 4. The new shunts are made from Nichrome heater wire, which is available from a discarded heater or may be purchased from some hardware stores. Calibration resistors may be fixed or variable and may mounted on the back of the meter or elsewhere. The shunt resistor may be mounted externally as shown in Figure 5.

Questions or comments? Contact Pete/KJ5SS at noispeter26@gmail.com or 325-617-4387.

Note: Magnify page to see mods to meter faces.

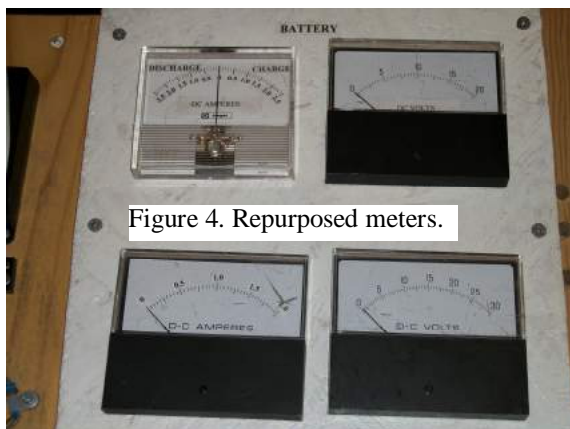


Figure 4. Repurposed meters.

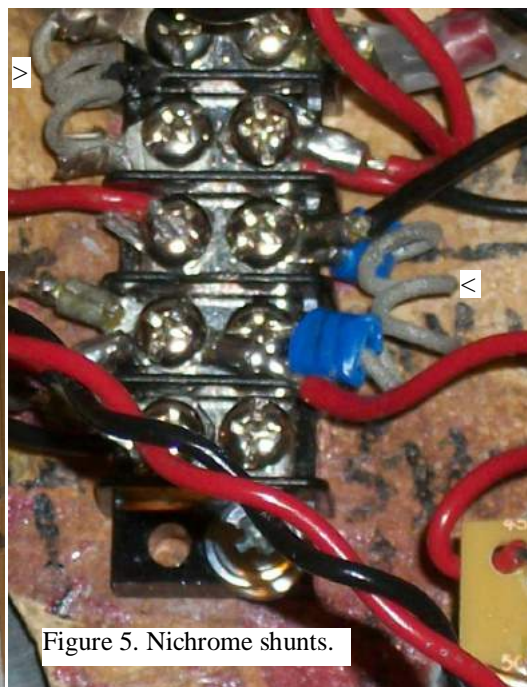


Figure 5. Nichrome shunts.



Scanner Jack's Corner

For severe weather and icy road conditions monitor these frequencies
 NWS 162.550
 AMATEUR RADIO 146.940 AND 444.225
 ATIS (AM) MODE 128.450 AND (AM) MODE 319.000
 W.TX WX MOD 451.775 AND (AM) MODE 122.850
 SAFD INTERCOM SYSTEM 460.600
 (NEW) TGC FIRE DISP 151.2725
 ASU PD 155.8275
 TX DOT 151.0175 AND 151.0550
 DPS 155.445, 155.460 AND (NEW) 155.7525
 TGC SO 155.700, 154.115, 156.090, 156.210, AND 155.5875
 REACT 462.6750
 SAISD MAINT 461.375 AND BUSES 461.050
 HOME MOTERS 152.270
 TAXI BASE 152.390 AND MOBILES 157.650
 REPUBLIC SERVICES 855.2875
 REECE ALBERT 151.490 AND (NEW) 461.475
 GOODFELLOW P25 TRS 138.0375, 139.3375, 139.9375, 142.0375, AND (NEW) 138.7125
 TGID
 4619 SUPPLY, GUN RANGE, AND ARMORY
 TGID ALARM MAINT 4604 AND FIRE TAC NET 4607

NOTE
 FOR MORE ROAD CONDITIONS CALL TX DOT AT 1-800-452-9292

From **SCANNER JACK ROBERTS KB5TMY**

Free

I have the following free items for anyone interested:

- 1: diplexer set for 1090 MHz with 5 pole tuned cavity filter on transmit and 7 pole tuned cavity on receive. Tunable, should tune to 1200 MHz or 900 MHz with a screwdriver;
- 2: signal monitor probe 2 ports 30 db attenuation, about 6 n connectors appear to be silver plated for 1080 MHz;
- 3: 2 meter Yagi 100 feet long on two pieces of 200 pound nylon line. about 44 elements and 19 db gain. This antenna is really ugly but it works. I made it out of aluminum ground wire so the elements are flexible and sort of droop a lot.

James Fisher -kd6iwd@gmail.com

For Sale

For sale from the estate Silent Key W7ND (Frank Connelly Carlsbad, New Mexico), a MA 40 crank up tower with a CX2M stand-off arm set and with a CD Ham IV rotor system (CDE transmit/receive direction control Model H-IV/CD-45 -11 120 VAC 60 HZ 3.0 AMP). Asking \$1415.00 for all. In Carlsbad, NM -- cash, dismantle and carry. Tower is upright in the back yard. Per Texas Towers March 2013, the price for just the MA-40 was \$1489. The value on the arm set is about \$70.00 and the CD transmitter is around \$300. Marilyn Connelly <wmailhtml:catmom3@earthlink.net>

Tower for sale: 4 or 5 sections of triangle design with each section going up a couple of inches smaller than the lower section, about 25 to 30 feet in total height.

Jerry M. Huffman, [325-513-2618](tel:325-513-2618) cell, [325-223-6892](tel:325-223-6892) office
jerry.huffman@dps.texas.gov

BETSY JAMAL betsyjamal@gmail.com

I am the daughter of Marvin Strong (W5NUS) who lived in Lovington, NM. He passed away in early September, and I am charged with the responsibility of selling his ham gear. My Dad wasn't "on" for several years but he did have the following items:

Lodestar Signal Generator SB-4160B, Drake Model T-4xc Transmitter. Drake Model MS-4 Speaker, Drake Model DC-4 Mobile Power Supply, Drake TV-3300-LP Low Pass Filter, Tram 1180 Antenna 144-148/430-450 Mhz, Very old Western Electric Key. Books for the equipment.

I am located in West Houston in the Westheimer/Kirkwood area. If you are interested in any of this equipment or know someone who would be, please call me at [281-844-5709](tel:281-844-5709) (cell phone) to arrange a time to view it.

Betsy Jamal [281-844-5709](tel:281-844-5709) (cell)

Upcoming Hamfests/Conventions

Date	Event	Location	Information
3/1/2014	Irving ARC Hamfest 2014	Irving, TX	http://irvingarc.org/iarchasmfest.html
3/1/2014	25th Elk City Hamfest	Elk City, OK	n5neb1988@gmail.com
3/7/2014	West Gulf Division Convention (Green County Hamfest)	Claremore, OK	http://grencountyhamfest.org
3/8/2014	Williamson County ARC Hamfest	Georgetown, TX	http://warc.com
3/15/2014	West TX Section Convention (59th St. Patrick's Day Hamfest)	Midland, TX	http://hamfest.w5qgg.org/
3/22/2014	South Texas Section Convrntion/Greater Houston Hamfest	Rosenberg, TX	http://houstonhamfest.org
3/29/2014	HamEXPO	Belton, TX	http://tarc.org

Hamfests are listed for all Texas, Oklahoma, and New Mexico. -Ed.

SKs

Austin Amateur Radio Supply Owner Johnny Paul, WA5BGO, SK

The owner of [Austin Amateur Radio Supply](#), John E. "Johnny" Paul, WA5BGO, of Austin, Texas, died December 10. He was 74. Paul was the proprietor of Austin Amateur Radio for 45 years. First licensed in 1960, Paul was a past president of the Austin Amateur Radio Club and was an avid photographer of nature and landscapes. Services were December 16. Survivors include his wife Grace and a son and daughter.

Charlie Royall/WB5T became a Silent Key on February 7th and he will surely be missed. Charlie was a longtime contributor to the San Angelo Amateur Radio Club and a valued participant in club activities including Field Day and Special Events.

HF Nets of Note de Gary Chaffin/W5ETJ

NET	DAYS	LOCAL TIMES	DIAL
Concho Valley Ragchew Net	S-M-T-W-T-F-S	0600	1900
Concho Valley Ragchew Net	S-M-T-W-T-F-S	1700	3825
7290 Traffic Net	M-T-W-T-F-S	1000 - 1200	7290
7290 Traffic Net	M-T-W-T-F	1300 - 1400	7290
Texas Traffic Net	S-M-T-W-T-F-S	1830 - 1930	3873
Central Gulf Coast Hurricane Net	S-M-T-W-T-F-S	1900 - 2000	3935
Texas ARES Net	Monday	1930 - 2000	3873
Big Bend Emergency Net	Sunday	0830 - 0930	3922
Texas Trader's Net	Sunday	0900 - 1000	7245
Concho Valley 6 M Roundtable	Sunday	2100	50.135

Emergency Communications

de Mike Dominy/KD5URW - Emergency Coordinator

Tom Green County ARES Net

Meets every Monday night at 8:30 CST (2030 hr) on the 444.350 MHz (PI 162.2) (N5SVK). The net can also be reached by EchoLink at WB5VRM-R or Node 412402. Other frequencies are announced on the Concho Valley Net at 8:00 pm.

ARES meets the 3rd Thursday of each month at the Clubhouse unless announced otherwise on the Monday net.

ARES Net Report

Date	Net Ctrl	Check-ins	Time	Freq
2/3	KD5URW	10	12	444.350
2/10	KD5URW	10	14	444.350
2/17	KD5URW	12	8	444.350
2/24	KD5URW	8	10	444.350

Concho Valley

Two Meter Net

<u>Date</u>	<u>NCS</u>	<u>Check-ins</u>	<u>Duration</u>
2/3	KB5FNK	11	20 min
2/10	KB5TMY	11	20 min
2/17	KB5FNK	17	21 min
2/24	KB5SBE	12	18 min

This net meets every Monday night at 8 p.m. on the club's 146.94 repeater. All amateurs licensed to operate on that frequency are invited to participate.

Concho Valley Open FM Repeaters

2 Meter

145.27- San Angelo PL 100
 146.88- San Angelo PL 88.5
 146.94- San Angelo PL 103.5
 147.06+ San Angelo No Tone
 147.30+ San Angelo PL 162.2
 146.72- Eldorado PL 100.00
 147.34+ Robert Lee PL 88.5
 146.90- Brady PL 162.2
 147.36+ Brady PL 114.8 (Echo Link Node)
 145.785 Simplex Brady PL 88.5 Node
 920069 San Angelo Echo Link
 147.39+ Eden PL 114.8

70 centimeters

441.750+ San Angelo PL 162.2

442.250+ San Angelo PL 162.2

444.225+ Robert Lee PL 162.2

444.350+ San Angelo PL 162.2

444.875+ Brady PL 162.2 Linked to 444.225

6 M

53.63- San Angelo PL 88.5 Linked to 442.25 Repeater

New Member Application/Membership Renewal

Membership renewals are due in January 2013. Regular memberships: \$20-, Each additional family member: \$5, Seniors (age 65+) and Juniors (under age 19): \$10, Renewal package deal: 5 years for \$80, Associate members: \$20

Dues may be paid to the secretary at any club meeting or mailed to the club's post office box.



Application for Membership

Last Name:	First Name:	Call Sign:
License Class:	Year First Licensed:	Previously Held Calls:
Mailing Address:		
Physical Address (if different from above):		
City:	State:	ZIP:
Home Phone:	Work Phone:	Cell Phone:
E-mail address:		
I hereby give permission to publish the above information in the club's membership roster which is distributed to all club members. Check here <input type="checkbox"/> if you do not want your e-mail address linked on the club's Web site.		

Signature	Date
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