

The eKilo - What

Monthly Newsletter of the San Angelo Amateur Radio Club

April 2014

San Angelo Radio Club Officers

President: Tom Austin/K4OTM

Vice President: Hughbert Robinson/KC5NPC

Secretary/Treasurer: Bob Freeman//KD5PIX

Activity Director: Gary Chaffin/W5ETJ

Emergency Coordinator: Mike Dominy/KD5URW

Grounds Chairman: Open

Appointed Positions

SAARC Trustee: Charlie Campbell/KC5EZZ

Registered Agent: Charlie Campbell/KC5EZZ

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

May 8, 7:00 PM at the Clubhouse

General Membership Meeting

May 15, 7:00 PM at the Clubhouse

Program: Building a 2m twin
lead antenna - Bob/W7IKT

Other Events

June 28 & 29th - ARRL Field Day

September 20th - Lily Fest

October 11th - SAARC Club's Birthday Party

December 6th - Skywarn Recognition Day

Congratulations to:



Susan Whitiker/KG5BQG for successfully passing the Technician Exam.

Jeff Schonberg/KG5BPZ for successfully passing the Technician Exam.

Meeting Minutes

April 10th, 2014 Minutes

The meeting was called to order by Hughbert Robinson, KC5NPC followed by the pledge and then introductions of all in attendance.

A motion was made by Matt Healy, W5MAT and seconded by Ralph Stout, KA5ULE to accept the minutes as reflected in the eKilo-What. The motion carried with no errors or corrections.

Bob Freeman, KD5PIX presented the financial report. A motion was made by Matt Healy, W5MAT and seconded by Ron Mechlenburg, KD5WXJ to accept the report as presented. The motion carried with no errors or corrections.

Old Business

Beam Antenna Update: The trees on the east side of the club house need to be trimmed before the bucket truck can come back out and with Gary Pittmans' help complete the repairs to the antenna. Gary will be available on May 2nd.

The club will be migrating to the rebuilt 145.270 repeater as of May 12th. This will be the primary repeater for Tom Green County with the 146.940 repeater as secondary. It should have better coverage to the county and much better coverage going west of town.

New Business:

The 442.250 repeater is now linked to the 6 meter repeater.

Field Day will be held on June 28th & 29th.

Split the pot was won by David Behrend, KB5FNK who donated most of the winnings back to the clubs radio account.

The meeting adjourned at 9:00 pm.

Bob Freeman, KD5PIX Secretary submitted by Matt Healy, W5MAT

ARES Training at NWS

On April 17th the ARES Group had their monthly meeting. This month it was held at the National Weather Service at Mathis Field. There were about 15 in attendance.

Charlie Campbell, KC5EZZ, gave a very good overview of the repeaters in our area; where they were linked, and why they are set the way they are set. He reviewed a number of scenarios where net control could use features that might enhance the operation at the weather service on any given event.

Mike Dominy, KD5URW, reviewed the nuts and bolts of net control. He showed all participants the actual radio systems currently being used at the weather service; what computer programs to bring up during severe weather events; and he reviewed the operation manual that should be followed during any storm.

Hector Guerrero, KC5BRB, of the National Weather Service updated the alert or recall roster at the weather service. Hector then sent a test message to ensure all were able to receive the message from the NWS.

The meeting was quite a success because we were able to cite a number of deficiencies in the current system, address those issues and improve our service to the spotters in the field, the National Weather Service, and to the public in the 22 counties our National Weather Service serves.

Submitted by Matt/W5MAT



On the Importance of Training and Practice

The following was submitted by Matt/W5MAT shortly after the session described on Page 2. - Ed.

Lessons Learned – or Re-Learned

Recently San Angelo experienced two different severe weather events. This article will cover the first of those events.

Mike Dominy, WD5URW, called Matt Healy, W5MAT, and asked him to go to the National Weather Service to open the Sky Warn Net. Matt told him that he and Leslie, W5IFE would take the net but it would take him about 25 minutes to get to the NWS. Matt immediately sent a text message to area ham operators to let them know of the imminent weather situation and asked them to prepare to provide critical weather reports to the NWS. While enroute to the NWS, Matt contacted Hughbert Robinson, KC5NPC, and asked him to start taking check-ins to the net in an effort to get a jump on the storm.

While en-route to the NWS, Matt monitored numerous stations checking in with Hughbert. Once at the NWS, Matt opened the Skywarn Net, took the ckeck-ins and their locations from Hughbert and accepted more weather spotter check-ins. The storms were really beginning to build!

At the weather service, Matt found one of the net control radios as well as the computer system for net control were out of service. In addition, he found he was not 100% proficient in operating the dual band ICOM. It took him a few minutes to get up to speed on the radio and to get somewhat comfortable working between the VHF and UHF bands as both bands were quite busy with the surrounding storms.

During the severe weather net there were several problems. The storm in the immediate San Angelo area had blown through and the skies were clearing while just 6 miles north of Eldorado, they were experiencing heavy hail with a possible tornado just west of highway 277. There were two weather spotters in that immediate area!

While this scenario was going on near Eldorado, there was quite a bit of “chit chat” going on between some local operators on the 94 repeater forcing net control at the NWS to constantly bounce between the two active net control frequencies. The problem: our storm spotters were in imminent danger with the approaching storm system, and net control was forced to check the 94 repeater to ensure all critical traffic was passed to our local meteorologist while trying to keep our spotters south of town safe.

Net Controls’ shortcoming: he failed to announce our area was in “condition red.” Under this condition there will be a net control. That person will direct the net operations. Please observe radio silence unless you are called by the net controller or unless you have an emergency or observe severe weather condition in your immediate area

The blessing in this weather event was that no weather spotters were injured nor was there any physical damage as a result of the storm. It wasn’t that long ago when several weather spotters were killed in OK area in the El Reno Storm while serving the community and the NWS there.

LESSON LEARNED: As net control, make sure you are proficient with all of the radio equipment as well as the computers at the NWS. And as net control, work with what you have, sometimes that second radio simply won’t be available and the computers that helps with your situational awareness may be out of service. When the net is activated, make sure all on frequency know we are under a severe thunderstorm/tornado watch or warning and ask for a clear frequency. As a radio operators, you always need to be sensitive to the weather situation in and around Tom Green County because net control could be working issues in surrounding counties. **Let’s all keep our weather spotters safe.**

The National Weather Service and our local communities want to thank each of you for all of you work and willingness to serve during our severe weather events. Without each of you they couldn’t do their jobs as well as they do.

Matt Healy

W5MAT

Condolences



Anita, wife of Jim DeLong/K5LOZ passed on April 10, 2014. Our thoughts, prayers and condolences go out to Jim.

For details see:

<http://obits.dignitymemorial.com/dignity-memorial/obituary.aspx?n=Artie-DeLong&lc=7512&pid=170608148&mid=5927466>

Technician Class and Testing April 11-13



Mike/KD5URW started the instruction session Friday evening . . .



. . . with Ralph/KA5ULE following through on Saturday.



Students confident after instruction!



A total of 14 were present for the instruction . . .



VEC Glenn/AA5PK and VEs Jack/KB5TMY, Don/N5SVK, Dave/W5DLL and Joe/W5UI grading tests.



. . . with 18 taking tests on Sunday, while VEs monitored the test session.

This class was a great success. Results of testing will appear in future issues as they are made available. Additional classes are planned for later this year and the schedule will appear as soon as possible. - Ed.

Technical

Bluetooth GPS for APRS

Generally speaking, when you connect a GPS mouse or hockey puck to an APRS unit it is by using a serial cable. When I got a tablet PC, I discovered the joys of being cable free by using a Bluetooth GPS. I thought that there must also be a way to use a Bluetooth GPS with an APRS so I did some research on the net. I couldn't find where anyone had a specific solution so I bought a cheap Bluetooth to RS232 board and set about figuring out how to make it work. The board is made by Bolutek as a demo board for their line of Bluetooth modules. It features a mini USB connector that can be used to provide power, a connection for a rechargeable battery, a male DB9 RS232 connector, and a switch for setting the Bluetooth module to either Master or Slave mode. The onboard circuitry runs on 3.3 volts but the board includes a voltage regulator that allows use of a 5 volt input. It also has a MAX3221 chip which converts the serial stream to RS232 levels.

I had no luck finding documentation on the Bolutek website but a search online turned up a schematic and an English version of the AT command set used to communicate with the board. The board comes preset for 9600 baud, 8 bits, 1 stop bit, no parity, and no flow control. It is also preset for a pin of 1234 for the Bluetooth. The board connects to a standard computer serial port without using a null modem cable and you can use a standard terminal program like HyperTerminal or Putty (I've used both). Most of the commands can be sent with the board in either Master or Slave mode but a few require being in the Master mode. For my purposes I changed the baud rate to 4800 to match what my APRS expects, and changed the Bluetooth pin to 0000 to match my GPS. The board is preset to automatically connect to a Bluetooth device that is transmitting on the expected pin number.

If you connect power to the mini USB port of the board it will light a red LED and a blue LED will periodically flash as it searches for a Bluetooth connection. With the board in Master mode and the Bluetooth GPS turned on, the blue LED should stop flashing and go to a steady on condition. The red LED is not a "power-on" indicator and only lights if power is supplied via the mini USB. If power comes from the battery or is hardwired to the board, then only the blue LED will light. If you still have the board connected to your computer you should begin to see the NMEA GPS messages being received by your terminal program. I also use a free program called GPSInfo to test all of my GPS units. If all of that works, then you can disconnect the board from the computer and use a female/female gender changer (not a null modem) to connect to the APRS. You will still need a power source initially but a minor board modification can be made to allow use of power from the APRS (if provided).

My APRS is a TinyTrak3+ which can be jumpered to provide either 12 volts or 5 volts on pin 4 of the DB9 connector GPS port. You will want it set for 5 volts to power the Bluetooth board. The easiest way to modify the Bluetooth board to use power is to jumper from pin 4 of the male DB9 connector to the + pin of the battery connection on the bottom of the board. If you do this, make sure that you do not plug in a battery. I also found that I needed to change my TT3+ configuration file to have it output a high level on the serial output pin (pin 3). Otherwise the RS232 chip on the Bluetooth board will go into an auto shutdown state. If your APRS does not allow for a high output on the serial port, then you will need to make your own gender changer which does not connect the serial output of the APRS to the Bluetooth board. Instead, provide a pullup resistor (1000 ohms should work) from the power input to pin 3 of the DB9 on the Bluetooth board.

The Bluetooth to RS232 board (model BLK-MD-BC04-B) was less than \$16 delivered from a US seller. For \$8 more I got a second one to play with just in case I blew something up. I've also bought Bluetooth GPS units for less than \$20 on eBay. If you are interested in specifics of where I bought these items, or want copies of the schematic and AT command document, or have other questions, you can send e-mail to: W1JTL@outlook.com.

Tom Lillevig W1JTL

Thanks Tom. Items of interest are always appreciated. - Ed.

Amateur Radio Club holds training class

San Angelo Amateur Radio Club will hold an Amateur Radio Emergency Service training at 6:30 p.m. Thursday at the National Weather Service at Mathis Field, 7654 Knickerbocker Road. The emergency radio training for severe weather is open to all amateur, ham radio operators who regularly participate in emergency communications/operations.

■ 6:30 p.m. — Technical class training, SAARC Clubhouse at Mathis Field, 5513 Stewart Lane

■ 6:30 p.m. — Amateur Radio Emergency Service Training, National Weather Service at Mathis Field, 7654 Knickerbocker Road

These, which appeared in the Standard Times, plus TV publicity, are contributing to the community's knowledge of amateur radio and our SAARC.

Thanks to all who are participating in these efforts. Keep up the good work! - Ed.

Of Interest

Phil Kothmann/W5RP was kind enough to offer a tour of his place west of San Angelo to SAARC. The technology seen included wind power generation and an outstanding antenna installation with rotating towers, . . .



. . . but the animals stole the show. Thanks, Phil, for your hospitality and tour. Hughbert/KC5NPC



Photos supplied by Chuck/K5QZQ and Gary/W5ETJ. - Ed.

Scanner Jack's Corner



THESE ARE THE VHF INTEROPERABILITY TACTICAL SIMPLEX FREQUENCIES.

- 155.7525 V TAC 10 CALLING
- 151.1375 V TAC 11
- 154.4525 V TAC 12
- 158.7375 V TAC 13
- 159.4725 V TAC 14
- 155.475 NATIONWIDE POLICE CH

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
5/10/2014	14th Annual PARC Picnic/Swapfest	Amarillo, TX	http://www.worgsites.com/tx/w5wx
6/13/2014	Ham-Com 2014 - Regional ARRL Centennial Event	Plano, TX	http://hamcom.org
7/24/2014	Central States VHF Society Conference	Austin, TX	http://csvhfs.org
7/25/2014	Oklahoma State Convention (Ham Holiday 2014)	Oklahoma, OK	http://www.hamholiday.org
8/1/2014	Texas State Convention (Austin Summerfest)	Austin, TX	http://www.austinsummerfest.org
8/8/2014	Rocky Mountain Division Convention	Albuquerque, NM	http://dukecityhamfest.org/
8/30/2014	Alamogordo ARC Hamfest	Alamogordo, NM	http://www.qsl.net/k5lrw/index.htm
9/13/2014	Ada Hamfest 2014	Ada, OK	kd5nqa@yahoo.com

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

OF INTEREST

Let's Eat!

This is a new section appearing in this issue and following issues of the *eKilo-What*. Talking to Don/N5SVK, a regular at T-Bears restaurant, it was decided to include the times and locations where Hams gather on a more or less regular schedule to eat. The current "Eating Schedule" for TGC Hams is:

Wednesday, 8:00 AM, T-Bears Café, 2105 Knickerbocker Rd

Thursday, 9:00 AM, McDonald's (Wal-Mart), 5501 Sherwood Way

Saturday, 7:30 AM, T-Bears Café, 2105 Knickerbocker Rd

HF Nets of Note de Gary Chaffin/WSETJ

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
4/7				444.350
4/14	KA5ULE	9	11	444.350
4/21				
4/28				

**Concho Valley
Two Meter Net**

<u>Date</u>	<u>NCS</u>	<u>Check-ins</u>	<u>Duration</u>
4/7	KB5FNK	16	17 min
4/14	W5MAT	11	12 min
4/21			min
4/28	KB5FNK	19	19 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	70 centimeters
145.27- San Angelo PL 88.5	441.750+ San Angelo PL 162.2
146.88- San Angelo PL 88.5	442.250+ San Angelo PL 162.2
146.94- San Angelo PL 103.5	444.225+ Robert Lee PL 162.2
147.06+ San Angelo No Tone	444.350+ San Angelo PL 162.2
147.30+ San Angelo PL 88.5	444.875+ Brady 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)	
Echo Link: N5TBR-L Node#920069	
145.7850 Simplex PL-88.5	
	6 M
	53.63- San Angelo PL 88.5 Linked to 442.25 Repeater
147.39+ Eden PL 114.8	

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 if you do not want your e-mail address linked on the club's Web site.

Signature	Date
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