



Hams of the Year — Congratulations to Bob and Carol Heiser



2014 Ham of the Year award was presented to Bob and Carol Heiser (W7IKT / N5CBQ) by club president Hughbert Robinson (KC5NPC).

A very active storm year brings hail, record flooding to the area keeps HAMs busy!

By Ken Grimm / KG5BPY

It seemed like a daily occurrence: my phone buzzes and it's a text from Bill Hinds/KG5BQF — "The NWS has requested spotter activation."

Spotters scramble to activate, net control gets check-ins and we're off and running, keeping tabs on the many storm systems that made their way across the Concho Valley and Big Country.

So far 519.75 man hours have been given by the HAMs of the SAARC through TGC-ARES SKYWARN program in public service to the communities we live in during April and May alone. (A detailed report can be found on page 4).

For the first week of June, it looks like we have some breathing room to rest up and go over the year so far, improving our service capabilities in the process. See you soon at a meeting!

Photo above: Storm approaching San Angelo from the west on May 27th, Memorial Day Weekend, brought flash flooding to the area. Credit: Tim L. Vasquez

www.w5qx.org

Concho Valley Two Meter Net

This net meets every Monday night at 8:00 p.m. (2000) on 146.94/103.5 or 145.27/88.5 as an alternate repeater. All amateurs licensed to operate on that frequency are invited to participate.

*NCS = Net Control Station

Date	NCS	Check Ins	Duration (minutes)	
4/6	KB5FNK	16	19	
4/13	KB5FNK	18	11	
(active WX net on 444.225 w/ 2 ops @ NWS and 2 stations in field)				
4/20	KB5FNK	15	23	
4/27	KB5FNK	18	16	
5/4	KB5FNK	17	17	
5/11	KB5FNK	16	15	
5/18	KB5FNK			
5/25	KB5FNK			
6/1	KB5FNK	15	15	

Special edition of eKiloWHAT coming with details!

SAARC Field Day is June 27-28, 2015



San Angelo Amateur Radio Club Officers

President: Hughbert Robinson/KC5NPC Vice President: David Behrend/KF5FNK Secretary/Treasurer: Bob Freeman/KD5PIX Activity Director: Ken Grimm/KG5BPY Emergency Coordinator: Bill Hinds/KG5BQF Grounds Chairman: Ralph Stout/KA5ULE

Appointed Positions

SAARC Trustee: Charlie Campbell/KC5EZZ Registered Agent: Charlie Campbell/KC5EZZ Public Information Officer: Matt Healy/W5MAT

Mailing Address

P.O. Box 4002 San Angelo, TX 76902-4002

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2 Meter

45.27-	San Angelo PL 88.5
46.88-	San Angelo PL 88.5
46.94-	San Angelo PL 103.5
47.06+	San Angelo No Tone
47.30+	San Angelo PL 88.5
46.72-	Eldorado PL 100.00
47.34+	Robert Lee PL 88.5
46.90-	Brady PL 162.2
47.36+	Brady PL 114.8
	(Echo Link Node)
47.39+	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

6 Meter

53.63– San Anglo PL 88.5 Linked to 442.25 Repeater

D-Star

444.550+ KG5CNG



Club House Location 5513 Stewart Lane, Mathis Field, San Angelo, TX

www.w5qx.org



A brilliant West Texas sunset at the clubhouse on Mathis Field. The very active skies this year have generated some spectacular sunsets for San Angelo and the Concho Valley to enjoy. The club meets at this location each second Thursday at 7:30 p.m. Photo by Ken Grimm - KG5BPY

Upcoming Hamfests/Conventions

Date	Event	Location	Information
06/12/2015	West Gulf Division Convention (Ham-Com)	Irving, TX	www.hamcom.org
06/20/2015	Big Spring Swapfest (BSARC)	Big Spring, TX	http://www.qsl.net/w5aw
07/18/2015	Tidelands Hamfest	Texas City, TX	tidelands.org
08/07/2015	South Texas Section Convention (Austin Summerfest 2015)	Austin, TX	www.austinsummerfest.org
10/03/2015	HamEXPO	Belton, TX	http://www.tarc.org/hamexpo/
10/31/2015	South Texas Hamfest	Aransas Pass, TX	http://www.southtexashamfest. org

Hamfests and Conventions are listed for Texas.

Others may be found at http://www.arrl.org/hamfests/search.

Tom Green County Amateur Radio Emergency Service

The Tom Green County ARES group meets the third Thursday at 7:00 p.m. (1900) of each month at the Clubhouse unless announced otherwise on the Monday net.

The Tom Green County ARES group is sponsored by the San Angelo Amateur Radio Club.

April and May were busy months for the SKYWARN public service volunteers

By Bill Hinds / KG5BQF

For the month of April we had four (4) ARES nets with an average check in of twelve (12) for the month. The total time average for the month was thirty-five minutes. Public service with SKYWARN was 230 hrs. for the month.

For the month of May we have had four (4) nets this month with average check in of fourteen (14) and average time of 40 minutes. SKYWARN public service hours as of 5/25/15 are 289.75 hrs. for the TGC ARES SKYWARN program.

Details of the SKYWARN services volunteered

April 2015

230 man hours at a rate of pay according to FEMA of 10/ hr. equals a total cost of 2,300.

Equipment cost including handheld, mobiles, base stations, repeaters — estimated \$2000.

Total cost of public service hours donated by TGC ARES SKYWARN for FEMA — **\$4,300.**

May 2015

289.75 man hours at rate of \$10 according to FEMA equals \$2,897.50.

Equipment cost including handheld, mobiles, base station, repeaters — estimated \$2000.

Total cost of public service hours donated by TGC ARES SKYWARN for FEMA — **\$4897.50.**

This does not include cost of gasoline, vehicles and other necessary accessories.

Tom Green County ARES Net

By Bill Hinds/KG5BQF - Emergency Coordinator

The Tom Green County ARES net meets every Monday night at 8:30 p.m. CST (2030) on the 444.350 MHz (Pl 162.2) frequency.

The Tom Green County ARES group greatly appreciates the use of the N5SVK machine.

Other frequencies may be announced on the Concho Valley 2-Meter Net at 8:00 p.m. (2000).



Bill Hinds (KG5BQF) at the controls of the club's equipment installed at the National Weather Service during a recent net. 2015 has proven to be a very active year for the TGC-ARES group and SKYWARN spotters.

Did you know? Texas floods: Enough rain fell in May to cover entire state 8" deep!



Above: Testing being conducted at the conclusion of the second round of Technician classes held by the SAARC, taught by Ralph Stout / KA5ULE and Mike Dominy / KD5URW. The club will have an event soon to introduce all of the new HAMs to the club and get them initiated to talking on the air!



San Angelo Amateur Radio Club in no way endorses nor implies the condition or usefulness of any item presented here. These listings are a complimentary benefit for club members only.

FOR SALE

Ameritron ALS-600S 600 Watt Power Amplifier - \$950.00

LDG AT1000ProII Antenna Tuner - \$330.00 Analog Meter for LDG AT100ProII - \$75.00

Above equipment in excellent condition. Gary Chaffin/W5ETJ (325) 374-2260

FOR SALE

Kenwood TS 450sat with 20A power supply, manuals, power cord, mic Excellent condition. \$550 K5CMW Alex 325 234 3033

Check your Go-Kits 2015 is proving be an active weather year!

Keep yourself prepared for those emcomm situations, it would be a good idea to check through your Go-Kits: Charge batteries, check the radios, chargers, coax lines, portable antennas, ARES procedure booklets, frequency charts, phone contact lists printed out. Having an up to date phone list kept in your glove compartment sure is a good thing to have!

Chuck Dixson/K5QZQ prepared an extensive Go-Kit List booklet for the club to use! Thank you!



Lightning Protection

Proper lightning protection is an important aspect of designing a safe amateur radio station. With the very active weather we have been experiencing in the Concho Valley, this series of 3 articles is being presented so you can make sure you, your loved ones and your station is protected as best they can be from this deadly force of nature.

Photo: NOAA Series originally published in the QST, June-August 2002

Lightning Protection for the Amateur Station

Part 1—Lightning protection can be a serious issue for amateurs. In the first of this threepart series, the author leads us through the process of developing a protection plan. Next: how to protect your equipment. The final part will cover the process of creating an effective ground system.

By Ron Block, KB2UYT

The Challenge

The amateur is challenged to assemble the best radio station possible, enjoy the benefits of the hobby, and have the station operable during times of need. This can be a significant challenge especially considering the awesome capabilities of Mother Nature's lightning strikes. While she may have the upper hand as far as when and how much energy she delivers, you have the ability to influence how that energy is diverted into the earth. Said another way, you can implement a lightning protection plan that will protect your Amateur Radio station, even from a direct strike!

The commercial radio folks have done this for years; many of them have critical installations located on hills or mountaintops that are great lightning strike targets. They do survive direct strikes and continue to provide important services to the communities that they serve. While this type of solution is possible for the Amateur Radio station, it does cost money and it does take a significant amount of resourcefulness, ingenuity, and effort to implement and maintain.

The plan does work; but you must follow all of the rules— exactly. Any violation of the rules, even just a little one, may result in a violation of the protection plan and damage to your equipment. In some cases the damage to a semi-protected radio station could be worse than if no protection plan had been implemented at all. I'll start with some background.

Lightning Characteristics

The conditions necessary for an old-fashioned summer afternoon thunderstorm are lots of moist air from ground level to a few thousand feet, cooler air above with little to no wind, and plenty of sun to heat the air mass near the ground. As the warm, moist air is heated, it rises quickly to heights where the temperature is below freezing, eventually forming a thundercloud as shown in Figure 1. Within the thundercloud, the constant collisions among ice particles driven by the rising air causes a static charge to build up. Eventually the static charge becomes sufficiently large to cause the electrical breakdown of the air—a lightning strike.

The average thunderstorm is approximately six miles wide and travels at approximately 25 mph. The anvil shape of the cloud is due to a combination of thermal layer (tropopause) and upper high velocity winds that cause the top of the cloud to mushroom and be pushed forward. The area of imminent danger is the area up to 10 miles in front of the leading edge of the cloud.

When a lightning strike does occur, the return stroke rapidly deposits several large pulses of energy along the leader channel. That channel is heated by the energy to above 50,000°F in only a microsecond and hence has no time to expand while it is being heated, creating extremely high pressure. The high pressure channel rapidly expands into the surrounding air and compresses it. This disturbance of the air propagates outward in all directions. For the first 10 yards or so it propagates as a shock wave (faster than the speed of sound) and after that as an ordinary sound wave—the thunder we hear.

During a lightning strike your equipment is subjected to several huge impulses of energy. The majority of the energy is pulsed DC with a substantial amount of RF energy created by the fast rise time of the pulses. A typical lightning strike rise time is $1.8 \ \mu$ S. That translates into a radiated RF signal at 139 kHz. Rise times can vary from a very fast $0.25 \ \mu$ S to a very slow 12 μ S, yielding an RF range from 1 MHz down to 20 kHz. However, the attachment point for a direct lightning strike has a time as fast as 10 nS. This RF content of the strike will have a major effect on the design of the protection plan. In addition to the strike pulses, the antennas and feed lines form tuned circuits that will ring when the pulses hit. This is much like striking a tuning fork in that ringing is created from the lightning's pulsed energy.

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Average peak current for the first strike is approximately 18 kA (98% of the strikes fall between 3 kA to 140 kA). For the second and subsequent impulses, the current will be about half the initial peak. Yes, there is usually more than one impulse. The reason that we perceive a lightning



strike to flicker is that it is composed of an average 3 to 4 impulses per lightning strike. The typical interval between impulses is approximately 50 mS.

Vulnerability

Frequently, amateurs provide an inducement for Mother Nature to find us. For good long distance communications, we put our antennas on the top of towers and place the towers so that they protrude above the surrounding buildings or countryside. While this provides for great signal coverage, it also makes it easier for Mother Nature to find a shorter, conductive path to ground. The probability of having your tower struck by lightning is governed primarily by where you are located and the height of the tower. In 1952, The Weather Bureau compiled a contour map of the US showing the mean number of thunderstorm-days that occur in a year shown in Figure 2.

The counting criterion is relatively simple—a thunderstormday is one in which one or more claps of thunder are heard. This gives us a reasonable view of the country with respect to our exposure to lightning. The other significant factor that affects the probability of being struck is the height of the tower above the average ground level. As you might suspect, the higher your tower, the higher the probability of being struck. Figure 3 shows the estimated number of times per year that a tower of a given height would be struck based on the number of thunderstorm-days in your area.

Now that you can estimate your approximate exposure, you might have one of several reactions. First, you could say the predictions are all wrong—personally, I have never had my 100-foot tower struck since I put it up two years ago. Maybe you are just lucky or the law of averages has yet to catch up with you. Another reaction you could have is, "Wow! This explains what has been happening and I had better do something about this right away."

In either case, this article shows what you need to do to protect both your life and equipment, broken into straightforward steps to maximize your probability of success. Every Amateur Radio station is different and there is no "one size fits all" solution. There are, however,





Figure 3—Estimated number of lightning strikes per year based on the number of thunderstorm days in your area and the height of your antenna. Based on information from Living with Lightning, Seminar Notes #ECP-826B Version F, GE Mobile Radio Technical Training, © GE 1985.

some well grounded (pun intended) principles that must be followed. A failure to follow the principles will result in the expenditure of both time and money with no better protection (possibly even worse damage) than if you had done nothing at all. Please follow each step carefully, thinking about the principles involved, and carefully apply the information to your specific installation.

Identify What is to be Protected

The goal of the planning process is to establish a "zone of protection" within the radio room, as opposed to the whole house or building. Additional zones may be considered separately. The first step in the process is to identify what you want to protect. The immediate answer is, well, everything.

While you can come close, you may run out of money, time, or energy. So let's create a priority list and work the list from high to low priority. Probably first on the list are the more expensive items associated with your radio station, usually the transmitting and receiving equipment.

Viewed another way, without these there is no radio station, so they should be very near the top of the list. What follows on the list depends on just how you enjoy the hobby—the antenna tuner, linear amplifier, terminal node controller, or computer. Further down the list might be the antenna, rotor and transmission line. Each person's list and priority ordering will be different. Pause here and mentally construct your priority list, being sure to include all the elements of your radio station.

We will then work through the process of developing your protection plan. The first step is to construct a complete block diagram of the equipment in your radio room starting with the top priority item. (You will make a separate plan for other areas needing protection.) This is usually simple and straightforward. In some installations it may be necessary to look behind the equipment to determine precisely the connections between each element.

The accuracy of the diagram is important in determining the nature and effectiveness of the protection plan. I would imagine that the list's top priority items are your transmitter and receiver (or transceiver). If you have multiples of either, then they are probably listed in order of value. These are the heart of your radio station, so make them the starting point of protection plan which will in turn examine and diagram each element of the station.

Assuming your primary item is a transceiver, represent it in the block diagram as a single rectangle. Label it with the manufacturer's name and model number. If your primary equipment is a transmitter/receiver pair, then represent them as individual single rectangles.

Next, think about the antenna connection to the primary transceiver, transmitter, or receiver. If the connection goes directly to the external antenna, simply draw a line from the rectangle to the edge of the paper. However, if the antenna is connected to the equipment via a linear amplifier, antenna tuner, or a multi-position coax switch, add this (these) as separate rectangle(s) interconnected with the primary radio equipment.

The feed line going to the antenna should still go to the edge of the paper. Label the feed line's lowest and highest frequency (MHz or band name), the maximum transmit power in watts (rounded up), and the type of connector and gender (UHF/PL-259 male or N-series male, for example). Add a rectangle to the diagram for each additional transceiver, transmitter, amplifier, and receivers in your radio room.

Be sure to show all interconnections and antenna connections for each of these secondary rectangles. If any of the secondary radio equipment has a direct connection to an antenna, show the feed line going to the edge of the page. Be sure to label each rectangle with the manufacturer's name and model number and each feed line with connector type and gender, frequency range, and maximum transmit power. Figure 4 (next page) shows a block diagram for a simple station.

The block diagram should now have a rectangle representing each piece of radio equipment and accessories in the radio room. Each of the rectangles should have lines representing the interconnecting cables and feed lines. Each feed line that leaves the radio room and goes to an antenna or some towermounted electronics should be drawn to the edge of the page and labeled.



Figure 4—Block diagram of a typical simple HF radio station.

A Close Look

Now it is time to examine each of the rectangles, one at a time, and to add to the diagram any other electronic devices (as rectangles), complete with the electrical connections and interconnections between them. Some of these will be easy and intuitive, while others will require a little more crawling around behind the equipment.

Every connection must be included—this is important to the integrity of the solution. The only exception is a nonconductive fiber-optic connection. To complete the diagram in an orderly fashion, pick a rectangle and answer all of the following questions for that rectangle. Then, pick another rectangle and do the same until all of the rectangles have been examined.

Is there a connection between this rectangle and any other rectangle? If so, add a line between the respective rectangles and label its function.

Is there a connection between this rectangle and a device not yet included on the block diagram? This can include standalone amplifiers, power supplies, computers, terminal node controllers, modems, network routers, network hubs, and the like. If so, add the new device to the diagram as a rectangle and label it. Then add and label the connections. Repeat this step until all connections from this rectangle to new devices have been completed.

Is there an ac power connection required for this rectangle? If so, draw a line to the edge of the page and label it with the voltage and current required.

Is there a requirement to supply ac or dc power through a feed line to operate remote switches or electronics? If so, label the feed line at the edge of the page with the peak voltage and current requirements.

Are there control lines leaving the rectangle going to remote electronics, relays, or rotors? If so, draw a line to the edge of the page and label it appropriately.

Is there ac power leaving the rectangle going to the tower for safety lighting, convenience outlets, crank-up motors, or high-power rotors? If so, draw a line to the edge of the page and label it with the voltage and current required.

Is there a connection to a telephone line, ISDN telephone circuit, DSL telephone circuit, or cable connection (RF, video or data) for this rectangle? If so, draw a line to the edge of the page and label it appropriately.

Is there a connection to another antenna system such as for GPS, broadcast or cable TV, or DBS dish for this rectangle? If so, draw a line to the edge of the page and label it appropriately. Is there a connection to other equipment elsewhere in the house or building, such or network or intercom cabling? If so, draw a line to the edge of the page and label it appropriately.

Once you have completed the process for each of the rectangles, including all of the new ones that were added, you should have an accurate block diagram of your radio station. It may be prudent to review each rectangle to verify that nothing was left out. Your block diagram should look something like Figure 5.

Now step back and physically look at the equipment in the radio room. Has every piece of equipment been reflected in the block diagram? Every metallic item within four feet (in all directions) of the radio equipment must be considered as a part of the radio equipment even if it is not electrically connected to it. If there is such an item that has not been included, we need to carefully examine it. An example of such a device could be a simple stand-alone telephone on the operating desk or a computer system (CPU, monitor, keyboard and mouse) some part of which is sitting on or near the radio desk.

Nearby devices (telephone and or computer), while electrically not a part of the radio station, are within a sparkgap of the radio station equipment and therefore considered proximally connected to the radio station and must be added to the block diagram. Follow the same procedure that you used to add equipment to the block diagram. As an example, Figure 5 also shows a computer that is included in the protection plan, but not directly connected to radio equipment.

Now that the diagram is accurate and complete, draw a circle around all of the rectangles allowing each of the lines that extend to the edge of the page to cross the circle as shown in Figure 6. The equipment represented by the rectangles within the circle is to be protected. All of the lines going from the circle to the edge of the page are called I/O (Input/Output) lines or circuits.





All or Nothing

One word of caution regarding the accuracy and attention to detail; the protection is all or nothing. If an I/O line is inadvertently missed then the protection plan is flawed and the damage could be worse than having no protection at all. Please note: Just because equipment may survive a direct lightning strike, does not mean that you can. You cannot oper- ate (touch) the equipment during a strike because you breach the protected equipment circle to the outside world. You are conductive, and it could hurt both you and your equipment.

Now that you have identified all of the I/O lines for the station, each must be protected and each of the I/O line protectors must be grounded and mounted in common. We will discuss how to do this in the next part of this article.

Ron Block, KB2UYT, has been a distributor and consultant



Figure 6—Lines that penetrate the circle are the radio station I/O circuits that must be protected.

for PolyPhaser, a vendor of lightning protection systems, since 1989 and has completed The Lightning Protection Course by PolyPhaser. He is the chairman of the Amateur Radio Station Grounding forum at the Dayton Hamvention and has been a guest speaker at various Amateur Radio club meetings. He may be reached at 327 Barbara Dr, Clarksboro, NJ 08020; ron@wrblock.com. The author's brother, Roger, founder of PolyPhaser, reviewed this article for technical accuracy.



DX IS

If you haven't gotten the HF rig out, tuned the antennas, and checked on the HF bands, you are missing a nice Sunspot cycle. While the numbers are not real high, propagation daily to all parts of the world has improved in the last 60 days. And with that the number of hams flying off to small countries or boating to even smaller islands to activate them has increased.

As such we are looking at some real rare DX entities showing up on the air this next several months, and into the fall.

There is a group from Latvia who have permission to operate 19-28 May from SV2/Mount Athos. Two stations, and four operators will relieve Monk Apollo for a week, and be looking for contacts worldwide. We have had some good openings to Greece in the mornings, and late at night on several bands, so fire up that radio.

Next March a group will sail out to Heard Island VK0 for a 21 day stay. At present there is an active station on from PW0F, Juan Fernandez.

And the Chinese are planning to put on an expedition to Scarborough Reef BS7H in 2016. At present there are two ongoing semi-contests, one for IARU stations, with stations signing their prefix and 150, or 90. 4U1ITU is on the air as are stations from all over Europe.

The Spanish are celebrating with AO150xx stations, Serbia with YT90IARU, German stations DJ90IARU, Paraguay,



By Bill Richards, WB5ZAM

CX150ITU, and others (3A90IARU; ZP150ITU).

June DX-peditions: 4); 9N; CY0; FR; HL60HQ; JD1/ KC4; OH; P2; TJ; ZD9A; TO5Y; E6.

One of the basics of DXing is to listen and listen some more. If you can hear the operator giving their callsign, then you can call him. If you don't know who it is, don't call blind. It just adds to the noise.

But if at the same time all you hear on his frequency is the DX station, that probably means that he is operating split (usually up 1-2 kc). The vfo/rit were added to the radios many moons ago, and they let up listen to where the operator



This is part of the locals on St Lucia, celebrating their Independence Day with a mini-Dx-pedition. The site here is not part of the tourist area, and by the looks was quite nice.

is working the stations.

Some work starting 5kc and moving up to 10kc in small increments. Listen to whom they are calling and they stay on one frequency, call. If they are moving up 1.2 kc at a time, move 1 kc up and hope that they will move to you. No two rigs are exactly on the same frequency even if both show the same digits.

Some dx stations will listen on their frequency and then use the vfo/rit to move 0.25 to 0.5 kc up or down. Use your radio to follow them. Makes it more fun to work them use stalking techniques than to call and call and they never hear you.

But watch your radio indicators. I frequently will work one station simplex, work another split, and then try to work another simplex but forget the split is on. Frustrating after calling for 10 minutes, then undoing the split and get them on first call.

There are hams on the air every day from neat places. And of course one of the operators also works/manages a local brewery, so think about relaxed, on the beach, excellent propagation, and the refreshment of your choice. This is part of the locals on St Lucia, celebrating their Independence Day with a mini-Dx-pedition. The site here is not part of the tourist area, and by the looks was quite nice.

Time to think about a beach vacation here, and maybe look up a local on the island to share their hospitality.

SV/A – Mount Athos

Last week SV1DPI, Kostas, reported receiving a phone call from SV2ASP, Monk Apollo, who was at the time away from Mount Athos in Korinthos, Greece.

Monk Apollo asked Kostas to relay the following information to your editor about the Latvian Amateur Radio operators who were planning to operate from Mount Athos starting this past week.

"The Official news are that Holy Council prohibited the entrance of the YL guys in Mount Athos because they announced a Ham Radio operation without a license from them. I remind that YL guys had a visa to enter to Mount Athos for this morning as pilgrims but NOT a license to operate." (from Weekly DX Newsletter)

73, 88 and good dx de WB5ZAM



HF Nets of Note By Gary Chaffin/W5ETJ

Net	Days	Local Time	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

* Alternate frequency: 3825. ** 7212, or close, for summer months.



San Angelo Amateur Radio Yahoo Group

Yahoo Group for all hams

By Ralph Stout KE5ULE

Join this Yahoo group made for all hams! Fully functional with pictures, calendar, files section and link section.

From the site: "Welcome to the San Angelo Amateur Radio Group!

All ham radio operators are welcome to join the group, upload files, links and photos. Be sure to check the calendar for upcoming events.

All are welcome to use this group to discuss Amateur Radio, share tips and promote Amateur Radio in San Angelo and the surrounding area."

This is a restricted group that requires approval for membership, and messages require approval for posting.

Go here for more information and to join! https://groups.yahoo.com/neo/groups/saarg76903/info

ON THE NET

www.csvhfs.org — Central States VHF Society k5wph.org — Sun City ARC K5WPH www.w5es.org — El Paso ARC W5ES k5elp.com — West Texas Rptr Assn, K5ELP www.hamradioelpaso.com — New web site in El Paso www.bigbendarc.com — Big Bend ARC, Alpine TX www.w5ggg.org — Midland ARC, Midland TX K5LIB.org — Lubbock ARC, Lubbock, TX hamradio.noaa.gov — United States Skywarn wx.findu.com/k5wph — SCARC's WX Sta dx.qsl.net/propagation/index.html — Flare/MUF info spaceweather.com — Aurora, sun spots, CMEs www.irlp.net — Internet Radio Linking Project irlp.g4eid.co.uk/status/all reflectors.html — Shows status of all reflectors www.sota.org.uk — Summits on the Air

www.w5qx.org — San Angelo ARC, San Angelo, TX
www.abilenehams.org — Abilene ARC, Abilene, TX
www.orgsites.com/tx/w5wx — Panhandle ARC,
Amarillo, TX

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SAARC Minutes April 9th, 2015

The meeting was called to order by Hughbert Robinson, KC5NPC at 7:30pm.

The meeting opened with the Pledge of Allegiance led by Matt Healy. Introductions followed the Pledge.

Tom Austin, K4OTM, made the motion to accept the March's Minutes as presented in the e-KiloWhat, seconded by Bob Heiser, W7IKT. The motion carried with no errors or corrections.

Officer's Reports

President: Hughbert Robinson:

- Hughbert presented Bob and Carol Heiser the "Ham of The Year" Award for 2014.
- Concho Valley Citizens Care will be recognizing the San Angelo Police Department for the week of May 11th through May 15th. On May 13th they will need radio operators to help with the police run at 6pm at Police Head Quarters.

Vice Present: David Behrend – let the club know the program would be presented by the head of the Civil Air Patrol, Dianna Gray, and would immediately follow the regular meeting.

Treasure/Secretary: Bob Freeman presented the financial report. A motion was made to accept the financial report as presented, motion was seconded. The motion carried.

- Bob Freeman said he was very concerned about the size of the clubs electric bills. During the upcoming audit, Buddy Parker and Matt Healy will look at the actual KW hours used per month over the past few years.
- Johanna Augustine, KE5PNP will fill our 501(c)3 with the IRS online.

Grounds Chairman: Ralph Stout – no report. **Emergency Coordinator: Bill Hinds** – no report **Activities Manager: Ken Grimm;**

• The April 4th Skywarn Training at the Trinity Lutheran Church went well. Mike Dominy was recognized for all of his work over the past 12 years with the National Weather Service.

- The National Weather Service presented Bill Hinds a certificate recognition for the work the ARES Group has done for the NWS.
- April 9th was the All Hazard Preparedness meeting at the EOC. 18 counties participated in the training.
- There were 8 persons that took the ICS 700 class that was presented at the EOC
- April 23rd will be the Skywarn training at 7pm at Wall.
- We need to have a copy of our insurance rider for the Field Day at Sam Club.
- The club may consider looking at a Special Event Station honoring all area SK operators.
- Tech Classes will be offered in April and May.
- Work all San Angelo Events could be an award for the new hams in the area to be determined.
- Our club probably qualifies for area grants; that is something worth looking into.

Public Information Officer: Matt Healy – no report.

Old Business:

- Insurance Tom Austin is still working on getting some reasonable quotes. Matt Healy made the motion to give Tom the authority to buy the insurance policy with the club re-imbersing him, seconded by David Behrend. The motion carried.
- Bob Freeman needs a 90th Birthday Check-In Certificate. Gary Chaffin will make them and send them.

New Business:

- Chuck Dixson wanted to recognize Ken Grimm for his presentation at the Region 15 Preparedness Training.
- Raffle discussion tabled.

The split the pot was donated back to the club for the radio account. That will raise the radio account balance by \$38.

Matt Healy made the motion to adjourn, seconded by Bob Heiser; the motion carried and the meeting was adjourned at 9:15pm

Bob Freeman Treasure/Secretary submitted by Matt Healy



Membership renewals are due each January. 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.



License Class:	Year First Licensed:	Previously Held Calls:
Mailing Address:		
Physical Address (if diff	erent from above):	
City:	State:	ZIP:
Home Phone:	Work Phone:	Cell Phone:
E-mail address:		
I hereby give permission to all club members. Cl	n to publish the above information in the club's n neck here 🔲 if you do not want your e-mail add	nembership roster which is distributed ress linked on the club's Web site.
Signature		Date

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