

The eKilo - What

Monthly Newsletter of the San Angelo Amateur Radio Club

June 2008

President's Message

by Joe Kent/W5JBK



Thanks to all participants in this year's Field Day for their hard work in setting up and operating our 3A WTX station. Even mother nature cooperated, for the most part, with only a little rain and wind on Saturday evening. Our SSB, CW, PSK, 6 Meter and GOTA stations were all productive and preliminary results show us beating our 2007 numbers by approximately 200. Next year we should consider limiting ourselves to the one trailer-mounted tower and several verticals to reduce the requirement for heavy lifting and to expedite setup. It appears the verticals outperformed the tower-mounted beams anyway which was a surprise to most.

The number one objective of Field Day 2008 was to have fun and I believe we accomplished that. Abundant fun, safe operations, good food, and great camaraderie were all evident during the event. The professionalism displayed by all participants placed Amateur Radio in a favorable light and was observed by the many visitors to our location. Again, thanks to all involved and let's work to make Field Day 2009 an even better event!

Field Day pictures on the following pages are courtesy of Bill Tarn/AE5AW, Buddy Parker/KD5SBE and Gary Chaffin/N5GRC.

Meeting Minutes

by Bob Freeman/KD5PIX

Meeting Minutes - June 12, 2008

The regular monthly meeting of the San Angelo Amateur Radio Club, Inc. was called to order by President Joe Kent/W5JBK on June 12, 2008 at 1930.

Introductions were made with 19 members and 9 visitors in attendance.

The May Minutes were approved as printed in the Kilo-What. The Treasurer's Report was approved as read.

Old Business

Hughbert Robinson/KC5NPC, Activities Director. Hughbert has notified the Newspaper and the TV stations of our Field Day exercise. He has also invited the Mayor. Hughbert has notified the various committees on set-up particulars. Our trailers and other material will be taken to the Spillway site at 0800, 6-28-08

Mike Dominey/KD5URW, Emergency Coordinator. Mike will cut the motor out of the boat on Tuesday, 6-17-08. Mike has assured us that we have at least one trailer to use for Field Day donated by American Trailer and RV.

Gary Chaffin/N5GRC, Vice President. Gary and Joe will change oil in the generators. He will make schedules for all stations, so everyone won't be on the same band at the same time. Gary, along with Ralph/KA5ULE will be doing "PSK 31" during Field Day.

Should anyone wish to submit an article to the Kilo-What, e-mail Gary and he will try and get it worked in.

Ralph Stout/KA5ULE, Instructor. Ralph will try Satellite Communications on Field Day. He will help Gary on "PSK 31" also.

Good of the Order

Split-the-Pot was worth \$9.50 to the winner and to the club.

There being no further business, the meeting was adjourned at 2026. The next regular meeting of the San Angelo Amateur Radio Club, Inc., will be July 10, 2008 at 1930 at the clubhouse.

Upcoming Hamfests & Conventions

Date	Event	Location	Information
12 Jul 2008	Texas City Hamfest, Doyle Convention Center	Texas City, TX	www.tidelands.org
1-2 Aug 2008	Texas State Convention (Austin Summerfest), Wyndham Garden Hotel	Austin, TX	www.austinsummerfest.org
23 Aug 2008	Cooke County Amateur Radio Club Hamfest, Gainesville Civic Center	Gainesville, TX	www.gainsevillehamfest.org
11 Oct 2008	Paris Texas Hamfest, Red River Valley Fairgrounds	Paris, TX	www.paristexasradio.com
10 Jan 2008	San Antonio Amateur Radio Fiesta, Schertz Knights of Columbus Hall	Schertz, TX	http://w5sc.org/swapfest.htm

Field Day 2008



Field Day 2008

Continued from page 2

Scanner Jack's Corner

By Jack Roberts/KBSTMY

These are the IDs for the EDACS TRS for San Angelo.

- 0529 Fire TAC 1 Dispatch
- 0547 Fire TAC 3
- 0549 Fire TAC 5
- 0609 Fire Training Center
- 1105 Airport Operations
- 0372 Citywide
- 0375 SA State Park Gates
- 1046 SA Water Department
- 1092 Building Inspector
- 1041 Animal Control
- 1049 City Parks

As more IDs are added I will give them to you.

Hurricane Frequencies:

14325 20M Watch Net

Ships:

- 12.359
- 4426.0 Coast Guard
- 6.501.0 Coast Guard
- 8.502.0 Coast Guard
- 8.764.0 Coast Guard
- 13.089.0 Coast Guard
- 17.314.0 Coast Guard
- 4.369.0 WLO
- 8.788.0 WLO
- 17.362.0 WLO

Frequencies used at Brady Music Fest:

- 467.5625 Operations
- 155.040 Fire Department
- 155.580 PD SO EMS FD
- 155.760 Security
- 155.175 EMS
- 154.280 TX Fire 1—Command Post



Field Day 2008

Continued from page 3



Jingle Bells, Decibels, and Logarithms

Contributed by Buddy Parker/KD5SBE

Jingle bells conjure up visions of snow and sleigh rides. Well, neither of these are very common in West Texas. Now that I have your attention let's look at a problem that plagues hams, young and old. The problem is to understand the *decibel*.

A typical question on the Amateur Extra exam reads like this: "Suppose we have a transmitter that feeds a 100-W output signal into a feed line that has 1-dB of loss. The feed line connects to an antenna that has a gain of 6-dB. What is the effective radiated power from the antenna?" To find the answer we are told to calculate the total system gain (or loss by adding the decibel values given (using - for loss and + for gain):

System gain = -1 dB + 6 dB = 5 dB.

It is at this point that many of us run in terror from the dreaded *log* or *logarithm*. Let's take it one step at a time.

The decibel is defined as one tenth of a *bel*. The bel and decibel represent the logarithm of the ratio of two power levels. In particular the decibel, abbreviated *db* = 10 log (P₂/P₁), where P₁ and P₂ are two power levels. The log stands for the logarithm.

What is a logarithm? The logarithm is the number or power we must raise the number 10 to in order to get another number. Some simple examples will help us understand. 100 = 10². The log of 100, written log (100), is 2, i.e. log (100) = 2 since 10² = 100. Similarly the log (1000) = log (10³) = 3. Obviously log (10) = 1. Logarithms are therefore useful in representing values that change by large ratios.

Logarithms may also be negative. Consider 1/10 = 10⁻¹. The log (1/10) = log (0.1) = -1. Similarly the log (1/100) = log (10⁻²) = log (0.01) = -2.

Now consider two power levels, P₁ = 10 W and P₂ = 1000 W. The ratio (P₂/P₁) = (1000 W / 10 W) = 100. In decibels this would be: db = 10 log (100) = 10 x 2 = 20 db! If instead P₁ = 1000 W and P₂ = 10 W. The ratio (P₂/P₁) = (10 W / 1000 W) = .01. In decibels this would be: db = 10 log (.01) = 10 x -2 = -20 db!

The real problem arises when the ratios are not whole powers of ten. For example suppose P₁ = 10 W and P₂ = 50 W. The ratio (P₂/P₁) = (50 W / 10 W) = 5. In decibels this would be: db = 10 log (5). In order to solve this we need a simple calculator with log calculations. We simply enter 5 and press the log key and obtain the answer log (5) = 0.698. Then db = 10 log (5) = 10 x 0.698 = 6.98 db. Some useful logarithms are: log (1) = 0, log (2) = 0.3, log (4) = 0.6, log (1/2) = log (0.5) = -0.3, log (1/4) = log (0.25) = -0.6.

Note that the reverse calculation is also possible on a calculator: 10¹ = 1, 10^{0.3} = 2, 10^{0.6} = 4, 10^{-0.3} = 0.5, 10^{-0.6} = 0.25.

Now we can answer the rest of the question from the exam. To find the effective radiated power (ERP) we use the resulting 5 db gain as follows:

5 db = 10 log (P₂/100 W) and calculate P₂.

5 db / 10 = log (P₂/100 W).

Now if we could just get some SNOW!!

We now raise 10 to the power 0.5 to get the power ratio.

P₂/100 W = 10^{0.5} = 3.16

P₂ = 100 x 3.16 = 316 W ERP!

Remember that the logarithm is the value we raise 10 to in order to get the number: log (A) = B, or 10^A = B. A simple calculator with a log key will solve the different ratios for you.

log (P₂/100 W) = 0.5

Portions excerpted from The ARRL Extra Class License Manual, pg. 5-50.

CQ! DX de WB5ZAM



Upcoming/Ongoing DXpeditions during July: YI; JX; EY; S7; CY; 5X; PJ6; VK9; ZS8VP5; YN; HB0; V31; FP; TK; PJ7; FH; PJ2; OJ0; VP9; D4; JT1; VR; C9; TF; CU2; CN; TO8; JD1; FK; FM; SV5.

Island of the Month – Madagascar – 5R: First described by Muslim traders in the 7th century, human habitation was thought to have started sometime between 200 and 500 AD. Europeans came into contact with the islanders in the 1500s, starting with the Portuguese sailors looking for India, and then French looking to establish posts along the east coast. From 1774 to 1824 Madagascar was a favorite haunt of pirates, including American Pirates, who brought Malagasy rice to South Carolina. Robert Drury was a shipwrecked European



sailor whose journal is one of the only written descriptions of life in southern Madagascar in the 18th century. In the 1790s the British and local governments established the abolition of slavery and with this the British became the military and financial advisors for the island. France invaded in 1883, and in 1890 the French took over control of the island as a Protectorate. As a side note, in World War II the German Empire was planning

to forcibly deport all European Jews to Madagascar. After fighting to obtain their freedom from France since WWII, the country finally was able to win full independence in 1960.

Lying in the Indian Ocean, east of Mozambique (southern Africa) the island occupies over 580,000 sq km of sea, almost twice the size of Arizona. The island is noted for vast expanses of desert in the south, high plateaus and mountains in the center and narrow coastal plains. The highest point is Maromokotro at 2,878 meters. According to our World Fact Book, Mozambique produces graphite, chromites, coal, bauxite, salt, quartz, tar sands, mica and semiprecious stones. Fishing is a large export business. The island is the fourth largest in the world, and has a population of about 20 million (July 2008). The life expectancy is only 62.5, with females living just 4 years longer than men. Religions are mostly local indigenous, with a large Christian population and a very small Muslim group. English is the official language, as are French and Malagasy. Most over 15 can read and write. Their legal system is based on the French Civil law and traditional Malagasy law. They have two houses of the Legislative Branch and a Supreme Court system. The Prime Minister appoints the cabinet members and is elected by normal voting of the citizens. (Madagascar's form of government is called a semi-presidential representative democratic republic). There are six autonomous provinces on the island and twenty two regions. The island is noted to have 5% or the world's plant and animal species, of which 80% are endemic to Madagascar.



Tourism is starting to make a larger dent in the economy, but meat processing, seafood, fruit exports, paper, and petroleum are big in the marketplace. France and the US are major trading partners, and we receive from them: vanilla, coffee, shellfish, sugar, and cotton cloth, chromite, and petroleum products. With over a million cell phones in use in 2006, advances into the modern world are not far behind. Mandatory military service is expected from all 16 to 49 year olds, with about 4 million men and 4 million women fit for military or civil service. They have an 18 month conscript

service obligation for everyone. Healthcare was not discussed in any of the resources, leading one to believe that it is rudimentary at best. The WHO has a listing of numbers of healthcare workers per population and nurses and it shows only 3 per 10,000 and physicians also at 3 per 10,000. Spending per capita for healthcare averages at 33 International dollars per person. Probability of dying between 15 and 60 is 303/1000 for males and 232/1000 for females. Cyclones are the biggest threat to the country. Ham radio is sparse and few operators go there except as part of rare DX-peditions. The best weather seasons to visit the island is said to be May to October (cooler weather then and least chance of cloudy or rain).

QSL OF THE MONTH-5R8GC: Baldur, DJ6SI gave a lot of us a rare chance to work Madagascar, in 1998. And he was only readable here on cw. See you on the bands chasing dx. 73 de WB5ZAM.



Concho Valley Two Meter Net

Date	NCS	Check-ins	Duration
2 Jun	KB5FNK	12	11 Min
9 Jun	KB5FNK	17	15 Min
16 Jun	KB5FNK	17	14 Min
23 Jun	KB5FNK	18	15 Min
30 Jun	KB5TMY	20	31 Min

This net meets every Monday night at 8 p.m. on the club's 146.34/.94 repeater. All amateurs licensed to operate on that frequency are invited to participate.

Concho Valley Open FM Repeaters

2 Meter		70 centimeter	
145.27-	San Angelo PL 88.5	441.750+	San Angelo PL 162.2
or PL 100.0 for local transmit		442.250+	San Angelo PL 162.2
146.72-	Eldorado PL 100.0	444.225+	Robert Lee PL 162.2
146.88-	San Angelo	444.350+	San Angelo PL 162.2
146.94-	San Angelo PL 103.5		
147.06+	San Angelo	6 Meter Crossband	
147.34+	Robert Lee PL 88.5	147.30/53.63	San Angelo PL 88.5

Around the Town

By LaRae Kent/KC5KXY

Sadly, another local amateur radio operator has passed away. On 5 June, Elmer Harris/W5FZY became a silent key at age 89. Elmer was a ham for over 50 years. Our thoughts and prayers go out to his family; he will be missed.



The cook out Saturday evening during Field Day was a resounding success thanks to all who contributed by preparing the food and side dishes; you made it an important highlight of the event.

\$6.00 Haircuts

Ron's Barber Shop

Hours of operation:
Tue-Sat 9:00 am - 5:00 pm

Ron Salvato
1 North Milton Street, Ste. #8
(Across from the Sherwood Way Albertson's)



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

Get all the latest club news on the
World Wide Web at www.w5qx.org

2008 SAARC Officers:

President - Joe Kent/W5JBK
Vice President - Gary Chaffin/N5GRC
Secretary/Treasurer - Bob Freeman/KD5PIX
Emergency Coordinator - Mike Dominy/KD5URW
Activities Manager - Hughbert Robinson/KC5NPC
Grounds Chairman - Ron Mecklenburg/KD5WXJ
W5QX Trustee - Charlie Campbell/KC5EZZ

SAARC Monthly Meetings: 2nd Thursday,
1930, clubhouse, 5513 Stewart Lane

Annual Dues: \$20, Sr. & Jr. \$10

The Kilo-What: Edited by Gary/N5GRC at 949-
0186 or email gchaffin@gmail.com

Article submission deadline: Ten days prior
to monthly club meeting.



NEXT MEETING: 7/10/2008

MATHIS FIELD CLUBHOUSE