

Repeaters
2m: 145.410-
70cm: 441.650+(110.9p)



THE ELLIS COUNTY REPEATER

Official Newsletter for the Ellis County Amateur Radio Club
www.wd5ddh.org

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Monthly Events

R.A.C.E.S Training Net
First Thursday at
7:30pm on 145.410

ECARC Information Net
Second Thursday at
7:30pm on 145.410

ECARC Club Meeting
Third Thursday at
7:30pm

President's Pen



During the January club meeting we honored our old timers. Part of the meeting required me to give a brief talk on the direction our club is going. Not so long ago we were just skimming

by with a few members performing multiple tasks. We're still in that mode for the most part, but as time goes by and we grow in numbers we can begin to specialize in our tasks. This specialization will result in a better job being done as well as less stress and strain on each member. I feel growing in numbers should be one of our main priorities. This will afford us several benefits. First is the increase in revenue. Another is the spreading of the work over many more members. Yet another is increasing our overall experience and knowledge base. The more experience and knowledge we have to throw at a particular problem the faster and better we can solve the issue.

Now that we have reached an intermediate level of membership and meeting attendance we should look at what we as individual members can contribute. This is not a plug for more money. To become a complete club with all the bases covered, we still need to fill several spots. We don't have a complete board of directors. There may be a spot just made for you. There are several jobs and positions that would not require a lot of time but would be very helpful if they were filled.

Increased membership will make this and other aspects of our club more attainable. I think part of our job as ham radio operators is to share with as many as possible what it is we do and let others know how they can get involved with us. In a county like ours we aren't in danger of our ham bands becoming over crowded. So let's get busy and get some new hams as well as new members. I think it's our shortest path to being where we want to be as ECARC members. We have a lot going on in the months to come so look at our calendar of events and see where you fit in.

Mark Frankie,
KA5TBK

January Club Meeting Notes

The January ECARC meeting was held Thursday, January 20, at 7:30 pm with 23 members present and 4 guests. Speaker for the month was ARRL North Texas Section Manager Roy Rabey AD5KZ. His presentation was on the present state of BPL and a local trial installation coming to a city near you! Please read the article by Jon Hykel KM5PZ regarding this issue. After Roy's presentation we settled into an accelerated version of our general business meeting to get to the festivities. Club Secretary Ray Calhoun W5ZGZ read the minutes from our November meeting (there was no December meeting) and the club voted to accept them. Jon gave a briefing on the Planning Committee's activities. Please see his article later in this newsletter. Robert Crosby KD5YHY gave a briefing on the Education Committee's activities and is asking for volunteers to assist the upcoming Element 1 code class. Please see his article elsewhere in this newsletter. Bill Brandon W5CTU gave an update on the Midland repeater problem. Parts have arrived and now it is a matter of repairing the receiver and getting it back on the air. The controller will be bench tested before being hooked up to the Midland, so we may be operating without the controller for a brief period. Last year the club voted to purchase an awning and tables for our public service activities. Ron Eves KC5HYT donated an awning last year, and now Gary Haden KD5ZCP has donated a folding table. Please join me in thanking these gentlemen for their contributions to the club and its activities. After hearing from all committees and covering old business, the meeting was adjourned to get to the night's entertainment, Old Timer's Night.

We had a nice cross section of Hams with experience in amateur radio from less than a year to over 50 years! Bob Fitch K5ASU gave us a walk down memory lane with a presentation of where amateur radio and equipment began to its present state. Bob had pictures of many of his old rigs, and even brought some crystals for the newbies to see and feel. Club President Mark Frankie KA5TBK gave a presentation on the present state of amateur radio and the future direction he sees for it and our club. The future looks bright! Several members were recognized for their "years of dedicated and continued service to the Ellis County Amateur Radio Club

and to the Amateur Radio Community” and were presented with certificates signed by the club’s President and Vice-President. These members are Bob Fitch K5ASU, Bill Brandon W5CTU, Wilson Springer N5OUW, Ross Worthy K5VWS, Danny Woodruff KA5RDB, Frank Pruski KA5JAT, and Bill Martz WB5RFM.



Please be sure to congratulate each of these gentlemen the next time you speak. They are the ones that have kept this club alive! After the formal presentations, everyone enjoyed a great cake provided by Kenny Hickey KD5VQN and other refreshments provided by Jon. Everyone had a great time visiting and the event was a huge success.

Next month’s club meeting is Thursday, February 17 at 7:30pm. I look forward to seeing you there.

73,
Richard Bird KD5NFW

R.A.C.E.S.



The exercise with the City of Waxahachie has been put on hold for the short term. The City wants us instead to assist

them with a site survey of their existing radio equipment at its major plant locations. This survey consists of checking to see what radio equipment is in each vehicle and physical plant location, and does it actually have its repeater channel programmed into all its radios as a simplex channel, and what do we need to do.

As a result of 9/11, each public water supply business (public or private owned) had to meet certain standards as to the security and control of its water supply system. One of the problems put forth to the city is how well it can control its water supply and waste water supply system during an emergency. One possible emergency scenario would be

of a major power outage as we had last June 2004. What are they going to do to control the water system with limited power being restored and they have lost their primary communications system and having to operate simplex.

What the city is working towards, is finding out just how well a Simplex Radio System will work, when they have lost their primary communications repeater due to power outage or damage. After we do this, we can get down to the actual radio test from each pumping station to water storage facility.

I feel confident we can talk from the Water Treatment Plant to City Hall and the Emergency Operations Center, base station to base station. How well we can do that using handhelds at five watts is another story.

Upcoming events: We are going to be meeting with the Red Cross and getting an update on the locations where they might be operating a shelter. The Red Cross has agreements with the various school districts and cities across Ellis County to use some buildings as a refuge center(s). One specific area the Red Cross wants to run a communications test is from Maypearl back to Waxahachie. They have poor coverage in that area with their existing radio / cell phone equipment.

Spring Storms: We are approaching the time of the year when the storms begin to become prevalent in this area. Storms start as early as February and continue thru May at times. It is time for each of us to take stock and prepare our emergency response kits to meet the challenge. Restock the emergency kit and refresh the batteries. Replace the emergency water supply. Check the batteries for our handheld radios and determine the serviceability of them. Consider replacing any that are below normal. When the storms start it is too late to think about these items.

ID Cards: RACES ID cards are being processed as fast as possible. I know this has been a process which has taken longer than we expected. I am presently working on a group of cards and recently had to change the format of the card to comply with the State RACES instructions. Seems each time I am ready to process a group of cards something shows up that prevents me from completing the project. At present I am having a problem with getting the size lamination sheets we had designed the cards the fit. Hopefully this will not

be a huge problem. At the next meeting I need to insure I have a signed card on each individual in RACES and that I have a photo of that person.

73s
DAN – KA5RDB

Education Committee Report

Greetings to all of you. I would like to ask anyone interested in working on the next class, which will be for Element 1 Morse Code 5wpm, to please send me an email to kd5yhy@sbcglobal.net letting me know that you would like to participate with the committee. As it stands right now we have two volunteers for this class and they are KA5TBK and KM5PZ. The more the merrier!

73,
Robert

BPL COMING TO ELLIS COUNTY AREA

by Jon Hykel KM5PZ

At our January Meeting, members of the Ellis County Amateur Radio Club received some shocking news from ARRL North Texas Section Manager Roy Rabey AD5KZ.

Mr. Rabey advised us a BPL test site is coming to the Glenn Heights area in and around Ellis County. Although a date of deployment is unknown, Mr. Rabey said we should take immediate action before we lose our bands. For those of you who have no knowledge of BPL or what BPL can do, in a nut shell the HF bands along with 50 Mhz will be un-useable with noise levels of 50 over 9 dB. The 2 Meter band will also experience disruption from Harmonics according to Mr. Rabey. According to Mr. Rabey, Amateur Operators in Ellis County and especially around the Glenn Heights, Red Oak, Ovilla area should immediately start recording noise levels at least 3 times a week on every band the operator can, this includes 160-2 meters. Mr. Rabey said we should make several audio recordings of the noise level of each band with anything as simple as a pocket recorder, logging the date, time, band and mode for each band. After BPL has been deployed in the affected area we

should record the interference on each band, showing the levels before and after BPL. Mr. Rabey went on to say as soon as you experience what you believe is interference from BPL you should contact him immediately and the ARRL will step into action with all of their resources to help us out. Mr. Rabey said that BPL is here and it is going to affect us (Ellis County Hams). Please follow through and do not take this lightly. Mr. Rabey can be reached at ad5kz@arrl.net. More information about BPL can be found at www.texasbpl.com

Planning Committee Report

The Planning Committee has a lot of activities in the works for ECARC and its members as the weather gets warmer. Right now I would like to focus on the ARRL International DX Contest that takes place March 5-6. As you may know we will be working this event as a club from Gary Haden KD5ZCP's house in Waxahachie. We would like to see as many members as we can come out and spend a little time on the radio to hone your contest skills. KE5APL, KD5NFW, and myself KM5PZ will be there to help those with little or no experience in contesting. Members with experience in contesting are of course welcome and encouraged to come as well. That is the main purpose of us working this event...to help you guys and make you confident to make contacts during a contest. All of this will pay off in the long run to the club during Field Day, with more people making contacts, we will receive more points. Speaking of Field Day we have started preparing with several prospective sites in mind, including a Field Day dinner as well. We have several events planned. Everything from the Tour D Italia bike race, participating in the parade and having a fund raising booth along with a HF station at the National Polka Festival in Ennis, having a club table at Ham-Com, plus more. As the dates close in, we will get into details. I would also like to remind everyone that the Planning Committee meets every second Wednesday of the Month at Cancun's Restaurant in Waxahachie at 7pm, and everyone is welcome to attend. 73... And have a great day.
Jon Hykel KM5PZ

Shuttle Columbia Recovery Efforts To Be Remembered on February 5th

by Tim Lewallen, KD5ING

Everyone who actively participated in the Shuttle Columbia Recovery Effort is invited to operate with us during this special event. We look forward to seeing all of the participants once again and to honoring the astronauts and volunteers who bravely lost their lives during this tragedy. Whether you come and help operate the radios or just come and visit... we hope you can make it down for this second annual Special Event.
Date - Saturday February 5th, 2005
Time - 7am - 7pm
Place - Knights of Columbus Hall, FM 1878
City - Nacogdoches, TX
Coord - N 31 37.834' W 94 36.708'
Freqs - 14.250 14.050 7.250 7.050 + / - QRM
Talk In On - 147.320 Rptr (141.3 PL)
All amateurs who helped in this event are invited to return, participate, and remember. All other amateurs are invited and encouraged to work us on this special day. There is no cost to participate in this event. (Food and lodging excluded)
Additional information and registration information can be found at the Nacogdoches Amateur Radio Club website - www.w5nac.com.

Special event station to commemorate Yalta Conference

Reprinted from The ARRL Letter and the American Radio Relay League

Special event station EM60J will be on the air February 4-11 from Ukraine to mark the 60th anniversary of the Yalta Conference. The historic 1945 talks brought together the "Big Three" Allied leaders--(left to right in photo) Great Britain's Prime Minister Winston Churchill, US President Franklin D. Roosevelt and Russia's Joseph Stalin--to discuss post-World War II reorganization of Europe. The conference's primary purpose was to re-establish the nations that had been conquered by Nazi Germany, and one result was the

partitioning of Germany into US, Russian, British and French zones. QSL via UU5JYA or direct to PO Box 378, Yalta 98600, Ukraine.--The Daily DX <http://www.dailydx.com>

Boat Anchors For Sale

For Sale: VHF: Kenwood TM-211 with tone board \$75, TM-221a \$100, TM-231a \$125
UHF: TM-411 with tone board \$150, still in the box TM-421a \$175, Maxtrac 16 channels 5 pin \$100, Maxtrac 16 channels 16 pin \$100
Contact John Sanders N5NME at sandersj@cowtown.net

For Sale: YAESU FT-101ZD (100 WATTS TUBE) mint cond. HF RADIO AND MFJ TUNER / \$295.00 for pair (HERITAGE: OWNED BY KA5RDB , KG50S , KK5UB)
50' tilt over tower with "Ham4" type rotor and KLM 13 element 2 mtr. Beam / \$200.00 for setup
KLM 2 METER 13 element beams , \$125.00 for both (negotiable)
Complete packet station : 286 (w/EGA color) PC with Kantronics TNC with memory upgrade chip and AZDEN PCS 2000 radio (25 watts 2mtr.) patch cords included / \$250.00 for all three
Will consider trade for 2 meter gear in good shape.
Contact Dave KK5UB at David.Costlow@carrier.utc.com

I am looking for a tri-band beam (10,15,20) in real good condition. I have IC-W32A dual band HT in like new condition with drop in charger and wall charger for sale. I also have several Motorola 450 uhf 16 freq. mobile radios for sale or trade. They are complete with power cord, mounting bracket and mic. I have a pair of Cushcraft 13B2 beams for 2 meters. I just replaced all elements at a cost of \$175.00. I am also looking for a good amplifier for the HF bands. Cell phone number is (972) 351-1073.
Billy/WB5BXJ

For Sale: "Pana-Vise" 6 inch double swivel mount, good for mobile radio mounts. Act quickly while supplies last. Asking price \$7.50 each.
Contact Gary Haden KD5ZCP or 469 348-6817

February Member Profile: Glenn Cobb KC5JQK

by Cathy Schack

Glenn Cobb was born in Lovington, New Mexico, which is 100 miles from Roswell. He was a preacher's kid and "pretty quiet". His family moved many times during his childhood, and Glenn says he "never was in any school for two years in a row." By the time he graduated from high school, he had lived in thirteen different towns.

Like many hams, Glenn enjoyed taking things apart and putting them back together when he was a youngster. At age fourteen, he developed an interest in CB radio. His dad had a CB in his truck so he could communicate with his air-conditioner repair shop while he was on the road between calls. This was in the late 1960s, when CB radios were very popular. Glenn's handle back then was "Boss man."

After graduating from high school in 1975, Glenn decided to join the Navy, since he didn't have the money to attend college. In 1976, he attended boot camp in San Diego. He was then sent to Waukegan, Illinois about 50 miles north of Chicago, where he received training in electronics. Later he was deployed on the USS Coral Sea, which was an aircraft carrier stationed at Alameda, California.

Glenn used his electronics expertise to monitor, maintain, and repair the closed-circuit television system on the USS Coral Sea for three years. He was then transferred to the Philippines for three years, where he worked on microwave radios and multiplex equipment. While living there, he married and had a child.

In 1983, Glenn was sent back to the United States where he worked at the Navy Audio-Visual Command in Coronado, California for a year and later was stationed on the U.S.S. Elliott, a Navy destroyer. From 1986 to 1989, he worked on radar and test equipment before moving to Dallas in 1989 to work as a Navy recruiter.

During his tour of over 16 years in the Navy, he sailed to the Philippines, Korea, Japan, Thailand, Borneo, Hong Kong, Australia and Hawaii. Glenn became a "Golden Shellback" when he crossed the equator at the International Date Line on one of his tours in the Pacific Ocean. This title is awarded to sailors when they cross these charted positions. In 1992, he returned to civilian life.



His interest in CB radio was rekindled, and his new handle became "Rabbit" (because he drove a Volkswagen Rabbit).

Eventually tiring of the bad language and bawdy talk of the truckers, Glenn turned to ham radio instead, since it is monitored and requires its participants to be licensed. He got his technician's license in 1994, and did his ten-year renewal at the end of last year. He fondly remembers attending his first Ham-Com in 1994 – he won an ALINCO DR-510 radio. He later received a Kenwood TMD 700 as a Christmas gift from his wife Donna. Glenn has worked at Chaparral Steel in Midlothian since January 1994, and is now the lead electrician on his crew. He joined the Ellis County Amateur Radio Club the same year around the same time as Ron Eves KC5HYT. He has attended many Ham-Coms and Field Days, and he is a RACES member. Many aspects of ham radio, such as slow-scan television and APRS, appeal to Glenn. He enjoys the camaraderie of the club and

the fact that hams are always willing to help other hams.

Glenn would like to see the club participating in more public events, and he would like to see club membership double in ten years. The more the club is in the public eye, the more the public will recognize how important ham radio can be, especially during emergencies and disasters when cell phones are unreliable.

Glenn met his wife Donna in 1989 while they were both still in the Navy. They married in 1993. They have four daughters, two grandsons and another grandchild on the way.

February R.A.C.E.S. Training Topic

The Thunderstorm Life Cycle

All thunderstorms, whether or not they become severe, progress through a life cycle which may be divided into three main stages. The developing stage, called the cumulus or towering cumulus stage, is characterized by updraft. As the updraft develops, precipitation is produced in the upper portions of the storm. As the precipitation begins to fall out of the storm, a downdraft is initiated. At this time, the storm enters its mature stage. The mature stage is marked by a co-existence of updraft and downdraft within the storm. When the downdraft and rain-cooled air reach the ground, the rain-cooled air spreads out along the ground and forms the gust front. Usually the winds associated with the gust front are not severe, but in extreme cases, a downburst can develop and produce severe wind gusts.

Eventually, a large amount of precipitation is produced and the storm becomes dominated by downdraft. At the ground, the gust front moves out a long distance from the storm and cuts off the storm's inflow. This begins the dissipating stage of the thunderstorm. Even though this thunderstorm has dissipated, its gust front may trigger new thunderstorms as it lifts warm, moist, unstable air.

Convective Variables

As discussed earlier, the three ingredients necessary for the development of thunderstorms are moisture, instability, and lift. Recent research has found that if the environment (wind, moisture, or instability) of a storm is changed, then the type of storm (multicell, supercell, etc.) which is favored to exist may change as well.

The amount of vertical wind shear in the storm's environment is critical in determining what type of storm will form. Vertical wind shear is defined as a change in wind direction or speed with height. If the amount of vertical wind shear is low (little change in wind speed or direction), then multicellular storms with short-lived updrafts will be favored. Low values of vertical wind shear result in weak inflow to a storm. Because the inflow is weak, the outflow from the rainy downdraft area will push the gust front out away from the storm. This, in turn, will cut off the storm's source of warm, moist air, resulting in a storm with short-lived updrafts. Precipitation which is produced will fall through the storm's updraft and contribute to the updraft being short-lived.

As the vertical wind shear increases, storms with longer lived updrafts will be favored. Stronger vertical wind shear results in stronger inflow to the storm. The gust front will be "held" close to the storm, and the storm will have access to the source of warm, moist air for a much longer time. As a result, the storm's updraft will tend to last longer when the environment has strong vertical wind shear. Precipitation will tend to fall down-wind from the updraft rather than through the updraft. This enables the updraft to continue for relatively long periods of time. Closely related to the concept of vertical wind shear is the veering of the wind with height in the lowest mile or so of the atmosphere. Veering is defined as a clockwise turning of the wind direction as we move up through the atmosphere. It is possible to make a rough check of veering winds while spotting. If there are two layers of clouds in the lower levels of the atmosphere, look closely at the directions in which the cloud layers are moving. If the direction turns clockwise between the lower and upper layers, then veering is present.

Computer simulations and observational studies have suggested that veering of the low-level wind is instrumental in the production of storm rotation. If the wind speed is sufficiently strong (usually 30 miles an hour or greater) and veering of the wind with height is present, then horizontally-oriented "rolls" may develop in the lower levels of the atmosphere. These horizontal "rolls" may then be tilted into a vertically-oriented rotation by a storm's updraft. The updraft can also "stretch" the vertical rotation and increase the rate of rotation. Once this vertical rotation has been established, a mesocyclone can develop which may produce a tornado or significant severe weather.

Variations in moisture or instability can also have an effect on thunderstorms. If the amount of moisture in the atmosphere is low, the storms will tend to have high cloud bases. Small amounts of precipitation will fall from the storms, but they will typically have strong downdrafts. If moisture levels in the atmosphere are high, then storms will have low cloud bases. Copious amounts of precipitation will reach the ground usually accompanied by weak downdrafts. A rule of thumb to keep in mind is: the higher the cloud base, the better the chance for dry microbursts. The lower the cloud base, the better the chance for flash flood-producing rainfall.

The amount of instability which is present plays an important role in the strength of a thunderstorm's updraft and downdraft. If the instability is low, then a storm's drafts will probably not be strong enough to produce severe weather. If the storm's environment has high instability, then the storm's drafts will be stronger, and the storm will have a better chance of producing severe weather. Another important factor in the storm's environment, although not as critical as the above-mentioned factors, is the presence of a mid-level capping inversion. The mid-level capping inversion is a thin layer of warm air between the low-level moist air and the upper-level cold (usually dry) air. If the mid-level cap is weak or is not present, then storms will usually form early in the day before the sun's strong heating can produce high amounts of instability. A number of storms may form, but the storms will generally be weak and poorly organized. If the mid-level cap is strong, then storms may not form at all. The very warm mid-level temperatures will literally act as a lid, preventing updrafts from growing above the cap.

A mid-level cap of moderate strength is preferred for the development of severe thunderstorms. A moderate cap will prevent weak storms from forming, thus "saving up" the atmosphere's instability. When storms do form, usually in the mid to late afternoon, only the strongest few updrafts will be able to break through the cap and continue to develop. These few storms can take advantage of the high instability which is present, with little competition from nearby storms, and possibly develop into severe thunderstorms.

February Event Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30 Jan	31	1 Feb	2	3	4	5
				7:30p RACES Training Net on 145.410		
6	7	8	9	10	11	12
			7:00p Planning Committee Meeting at Cancun's	7:30p ECARC Information Net on 145.410		8:00a QSO Breakfast at Cancun's VE Test
13	14	15	16	17	18	19
				7:30p ECARC Club Meeting		
20	21	22	23	24	25	26
						TESSA Storm Conference
27	28	1 Mar	2	3	4	5
				7:30p RACES Training Net on 145.410	ARRL International DX Contest	ARRL International DX Contest