

Repeaters  
2m: 145.410-  
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## THE ELLIS COUNTY REPEATER

Official Newsletter for the Ellis County Amateur Radio Club  
[www.wd5ddh.org](http://www.wd5ddh.org)

December 2004  
Volume 2; Issue 12

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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



Merry Christmas to all! Here we are again, too much to do and not enough time to be everywhere and do everything. I hope everyone is fully equipped with the various catalogues and wish books. The good thing about ham radio is that there always seems to be something else we need to add to the shack. I have yet to meet the ham operator who has it all. I've met a few that looked like they had it all, but upon further investigation they were always able to point out what they were going to pursue next, given the time or money. That's the beauty of ham radio for me. With all the different modes of operation, equipment, antennas and group activities, the combinations are almost impossible to calculate. When you throw in all the different personalities of the worldwide community of hams it goes off the charts.

To view this from a more narrow perspective, we here in the ECARC have had a good start to the holiday season. We are looking forward to a Christmas party and will participate in the Waxahachie parade. Part of what makes our club work is the diversity of experience, knowledge and age. This can best be shared by operating. During the time off let's remember to turn on the radio and talk to someone new. Sometimes all it takes is to throw out your call sign. I've had some great conversations on the club repeaters. Activity on our repeaters can be contagious. A conversation between two people can draw others in that may never key the mike. I rarely get on the radio that I don't learn something new.

I hope you get all the new rigs, batteries, antennas, books, and coax cable that your heart desires. Maybe you can give yourself the gift of a license upgrade. Remember we still have VE testing. On a more serious note, my real wish for all of us is that during the holidays we have time for family, good friends, good food, peace and contentment.

See you on the air!  
73,  
Mark Frankie KA5TBK

## November Club Meeting Notes

by Richard Bird KD5NFW

The ECARC November Club Meeting was held Thursday the 18<sup>th</sup> with 25 club members and guests in attendance! With this kind of turnout, we may have to start looking for a larger meeting place. But that's a good kind of problem. Guest speaker for the evening was Jim Shultz W5OMG and the topic was the National Traffic System. Jim was assisted by Richard Bailey KB5JBV and Bob Corey K2YYF. I had listened to a traffic net before and had no clue as to what was going on. After Jim's presentation, I listened to the early net the following Friday evening and it all made perfect sense. Please read the article elsewhere in this newsletter about the presentation. After the presentation we got down to the normal club business. Club Secretary Ray Calhoun W5ZGZ read the minutes from the October meeting and the club voted to accept them. Club President and member of the Membership Committee Mark Frankie KA5TBK distributed disks with Ellis County Hams to the other members of the committee. If you have any suggestions or would like to volunteer for this committee, please contact Chair Bill Cleaver KD5PMB, Jon Hykel KM5PZ, Richard Bird KD5NFW, or Mark. The Education Committee concluded a successful, inaugural Licensing Class in November. Three in the class passed their exam for Technician and several others were "just that close" to passing. I'm sure they will get over the hump at the next test session. KD5PMB turned over all Committee Records and submitted a check for the surplus funds to Club Treasurer Danny Woodruff KA5RDB to be earmarked for the Education Committee. KA5RDB gave a quick verbal report on the club's funds. KM5PZ gave a report for the Planning Committee. We will once again be participating in the Waxahachie Christmas Parade Saturday, December 4<sup>th</sup>. The ECARC Christmas Party will be Saturday, December 11<sup>th</sup>. With all the activities the club is now involved in, it was decided that we need to purchase a couple of folding tables and an awning/canopy for these events. Ron Eaves KC5HYT graciously donated a new 10' x 10' canopy to the club. Skywarn Recognition Day 2004 will be Saturday,

December 4<sup>th</sup>. Please see the article elsewhere in this newsletter for more details.

The club accepted 5 new members! They are Bob Corey K2YYF, David Feeser KE5DAI, Denise Frankie KE5DAH, Jean-Claude de Mars KD5WPI, and Pat Gardenhire K5RBV. Please say hello when you hear them on the air. Increased membership is the surest sign that everyone's hard work is going in the right direction. Let's keep the momentum going!

The club Christmas Party will take the place of the normal December meeting. The next club meeting will be Thursday, January 20<sup>th</sup>. I look forward to seeing you all there.

73

## Education Committee

by Robert Crosby KD5YHY

Happy Holidays to all of you. The Education Committee has finished its first class this past month. I know I have thanked committee members before because without them there would not have been a Technician license class. Many thanks to all of them, for they did all the work. They are as follows; KD5PMB (Bill), WB5GUG (Dave), KM5PZ (Jon) and KD5ZCP (Gary). I would also like to thank our visiting guests K5ASU (Bob), KA5TBK and KD5NFW for making their presentations to the class members. And last but by no means least the committee sends our thanks to KA5TBK (Danny) and the Ellis County VE Team for providing the testing to some of the students who showed up to take the exam. We have three new hams as a result of the testing and about three more right on the edge of passing which I hope will happen in the immediate future. Beginning in January there is interest in holding a code class for people like myself who need to upgrade their license. This will give us an opportunity for an increased level of enjoyment and to increase our ability for community service. The committee is open to all who would like to volunteer and I will be sending out an invite here in January with a location, date, and time.

73, KD5YHY (Robert)

## Ellis County Emergency SET

By Ken Isom KD5AIA



RACES members, I wanted to thank everyone for supporting the RACES SET exercise this month at the Ennis Hospital.

There wasn't a lot of traffic on our radio so it may have not sounded like much, but we made a first good step at being a better member of the Emergency support for our RACES supported area. Most of the action was in Tarrant County where the simulation of a plane hitting the Texas Motor Speedway took place. The 2nd part of the scenario that effected our county was that the plane was later found to have a radioactive dirty bomb and when people heard that, they started going to various hospitals in North Texas. Sixteen people were DECON'ed with one person being tested positive for contamination. All DECON, hospital procedures, and communications went pretty smoothly. It should be noted that at a moments notice, a simulated communications failure could have been decreed but was not part of this particular exercise. If you could have heard how much internal hospital radio traffic there was on their single channel you would understand they can use our backup help in the future. They had lots of "runners" which made it somewhat busy on a single channel, kind of like when our group is out Weather Spotting with lots of people on one channel. The Ennis Hospital was appreciative of our support and was very glad to know we had numerous people out there standing by and located in various places making us very decentralized. That's the secret to why Amateur Radio still works today. We don't have all our eggs in one tower or building or one giant radio system. Instead, each of us is self sufficient and resourceful enough to always figure out a way to get the message to the right person. At this point, we will be attempting to solidify the MOU between the Ennis Hospital and Ellis County RACES and will then look at the best way for us to work together. We will look at site evaluation, equipment, and

procedural guidelines and make sure we refine our support to the best level possible within our small group's capability. Also, I guarantee that in future drills, we will participate more by having a much more active role, but for now, thanks for being there as you guys normally are during Skywarn or any other situation where our talents come in handy. Remember during all the operations that our Club or RACES group participates in, we need be the best professionals possible. Lots of people listen to our radio traffic and it is imperative that we keep it top shelf. Also, any internal details or confidential items should not be discussed either here or over the radio. "Loose lips sink ships" is a renewed motto and we need to make sure we protect our Country in every way possible. Take pride in your contributions and personal support of CERT, ARRL, RACES, ARES, and other community activities as hams continue to prove the usefulness of Amateur Radio. I suggest you take the ARRL EMCOM courses and/or study Incident Command or become familiar with NTS as we did at the last Club meeting. Your commitment to helping your community and country is greatly appreciated.

Ken Isom KD5AIA

## December Club Events

by Ricahrd Bird KD5NFW

The Ellis County Amateur Radio Club will again be participating in this year's Waxahachie Christmas Parade this Saturday



morning, December 4<sup>th</sup>. The club will be entering a float and as many vehicles with antennas as possible. The framework for the float was completed last Sunday. Thanks to the volunteers who showed up to get this work done. The finishing touches, which will be a lot, will be completed in Waxahachie during line-up before the parade. If you have outdoor lights, garland, or decorations that you can donate or would like to put on the float, by all means bring them. We will meet for breakfast around 7:00am at Cancun's. After breakfast we will head to our spot in the line-up and get busy putting the final festive touches on the

float. I think line-up is at 9:00am and the parade begins at 10:00am. If you need more details, please contact Kenny KD5VQN at [kd5vqn@yahoo.com](mailto:kd5vqn@yahoo.com). We need everyone to show up to ride on the float or drive their vehicle to show their support for the ECARC and their dedication to amateur radio and community service.

The Ellis County Amateur Radio Club Christmas Party will be Saturday, December 11<sup>th</sup>, 7:00pm at the Trinity Oaks Community Church in Red Oak, at FM 2377 and Lowrance Road. We will have a catered barbeque dinner. Cost will be \$5 a plate for adults and \$3 a plate for children 12 and under. We will also have a Chinese Christmas gift exchange with a \$10 limit on the cost of the gift. You must bring a gift to participate in the exchange. Everyone had a great time with this last year. I really look forward to seeing everyone and their families at these events. And if I don't see you, may you and yours have a very merry and safe holiday season.

73

Richard KD5NFW

## ARRL-NATIONAL WEATHER SERVICE SKYWARN RECOGNITION DAY IS DECEMBER 4

Reprinted from The ARRL Letter and the American Radio Relay League

The sixth annual ARRL-National Weather Service SKYWARN Recognition Day (SRD)

<http://hamradio.noaa.gov/> event takes place Saturday, December 4.

SKYWARN Recognition Day pays tribute to Amateur Radio SKYWARN volunteers for the vital services they provide during weather-related emergencies. During the 24-hour activity, radio amateurs set up stations at National Weather Service (NWS) offices and work as a team to contact other hams around the world.

"Ham radio operators are a tremendous resource for the National Weather Service," says Scott Mentzer, N0QE, the event's organizer and the meteorologist-in-charge at the NWS office in Goodland, Kansas. "The dedication these amateurs have shown is inspirational, and their assistance during the year is invaluable."

The 2004 activity gets under way December 4 at 0000 UTC (Friday, December 3, in US time zones) and continues until 2400 UTC. The object is for amateur stations to exchange QSO information with as many National Weather Service stations as possible on 80, 40, 20, 15, 10, 6 and 2 meters, and 70 cm. Contacts via repeaters and Voice over Internet Protocol (VoIP) modes also are permitted. Operators will exchange call sign, signal report, QTH, and a one or two word description of their weather, such as "sunny," "partly cloudy," "windy," etc. Participants in the 2003 SRD logged nearly 19,000 QSOs. A number of NWS stations will utilize EchoLink and the Internet Radio Linking Project to make contacts during SRD 2004. IRLP reflector node 9219 will be utilized for QSOs with NWS stations and also will be bridged to the EchoLink WX-TALK conference room so that IRLP stations can talk to EchoLink stations using a common point of contact. WX4NHC at the National Hurricane Center in Miami, Florida, will utilize IRLP reflector 9219 from 1700 UTC through 2100 UTC during SRD 2004. Net control operators will develop a list of stations to talk to WX4NHC using an online form, similar to the process used during hurricane season. Danny Musten, KD4RAA, [kd4raa@voipwx.net](mailto:kd4raa@voipwx.net) has more information about SRD VoIP activities.

## November Club Meeting NTS Presentation

By Jon Hykel



The National Traffic System (NTS) is what The Ellis County Amateur Radio Club's presentation was about at the November club meeting. This information was presented by W5OMG, K2YYF (who incidentally is now a member of ECARC) and KB5JBV. We received information and handouts about all the in's and out's of the NTS, from traffic handling techniques to net procedures. We heard how traffic is routed across the entire country, and how the information

gets from one point to the next. How information can be passed... through CW, Phone, or Digital, all of these modes of operation are used in passing radio traffic from one point to the next. Just a little information for you, did you know that it only takes on average 24hrs for radio traffic to make it across the country? In a time of emergency the NTS can step up to bat with emergency, welfare, and priority traffic handling in a short amount of time. For those of us who were in the dark on radio traffic handling this presentation put a light on the subject for us. We should all take part in traffic handling, either on the DFW early net on 146.880 or on the DFW late net on 145.190 pl 110.9. Or we can have a practice session one night on a simplex frequency to keep us fresh on what we learned and to teach those who where unable to make it to the meeting. Thanks goes out to these fine gentleman who took time out of their day and came to the meeting to share their knowledge....73

## Planning Committee

by Jon Hykel

Ok, not too much to report from the Planning Committee right now. With the onset of the



holiday season we have slowed activities to a minimum to give the members time to celebrate with their family and friends. I can assure you that activities will resume after the first of the year. The Planning Committee will be meeting Wednesday December 8<sup>th</sup>, 7pm at Cancun's Restaurant in Waxahachie. This will be a very important meeting. We will be brainstorming ideas and doing some early planning on activities and events running through spring of 2005. All members are encouraged to attend this meeting for input and ideas. If you are unable to attend but have ideas for activities you would like to share, you can email Jon Hykel KM5PZ at [km5pz@sbcglobal.net](mailto:km5pz@sbcglobal.net). Until later, Merry Christmas to all and a Happy New Year from the Planning Committee.

## December Member Profile: Ray Calhoun W5ZGZ

By Cathy Schack

Ray Calhoun grew up in Carlisle, Arkansas. When he was in high school, he met a man named Leo who was a ham (W5EA) who became his "Elmer." Ray was fascinated by Leo's use of Morse code to communicate with other hams all over the world. He took the licensing exam in 1953 when it was still administered by the FCC examiners, "who made their living by intimidating people who were taking the test" (Ray's words).

At that time, you had to be able to copy and send Morse code in order to pass the test. Ray passed all the required elements, and he has been W5ZGZ ever since.

Ray's father was the band director at the local high school, and Ray learned to play drums as a teenager. After high school, he attended the University of Arkansas and majored in journalism. He also completed a Masters' Degree in Government. He later attended night school at UTA for many years to earn a Ph.D. in Administration. His technical skills and his facility with words led him to the profession of technical writer. His knowledge of the history of technology is impressive, and his ham shack is a treasure-trove of everything from vacuum tubes to the first digital calculator and digital watch made by Texas Instruments. From 1956 to 1959, Ray served in the Air Force as a navigator and captain. His ham radio skills proved very useful, as the navigators were required to learn code to read the radio ranges. He later went to work for Collins Radio in Cedar Rapids, Iowa. After enduring one long, cold northern winter, Ray was grateful to be transferred to the Collins division in Dallas.

The owner of the company envisioned a worldwide computer network back in the early sixties, long before the Internet. Collins Radio also popularized the single sideband radio. Ray worked for Collins for five years as a technical writer for their radio equipment. The company was bought out by Rockwell in the late 1960s, and Ray spent the next 27 years working at

Texas Instruments in the same capacity, writing technical manuals for TI's defense equipment. When Raytheon took over the defense division of TI, Ray retired, making him "officially a Raytheon retiree."

The Supercollider project in Waxahachie then hired Ray as a technical writer from 1992 to 1995. The project, however, was abandoned due to lack of government funding. Ray has a huge map of the Supercollider site on the wall of his ham shack, which is filled with equipment and memorabilia. Also prominently displayed are Ray's trophies from the many chili cook-offs he has won since his first entry in 1976. Nowadays, he attends one of these events almost every weekend. He has also written a cook-book containing many of his favorite recipes.

Ray became a member of the Ellis County Amateur Radio Club in 1992 and has served as Secretary since 2000. He lives in Waxahachie with his wife Yvonne and their two dogs.



## Boat Anchors of the Month

Same old stuff as always! I know there are several of you out there with stuff for sale. A couple of you have said you were going to get your information together and get it posted in the newsletter and on the club website. Well let's get with it!

Seriously, if you have something you would like to sell, email me at [kd5nfw@sbcglobal.net](mailto:kd5nfw@sbcglobal.net) with the details and pics if you have them.

# R.A.C.E.S Training Topic for December Net

## Tornado/Funnel Cloud Look-Alikes

Experienced spotters are probably aware that a number of features (both natural and man-made) can bear a resemblance to a tornado or funnel cloud. Some of these natural features include rain shafts and scud clouds. Some of the man-made features include smoke from oil flares and factories. If a suspicious looking cloud formation is observed, watch it for a minute or two. Look for organized rotation about a vertical or near-vertical axis.

Another phenomenon which must be discussed is the gustnado. Gustnados are small vortices which sometimes form along a gust front. Gustnados are generally not associated with the updraft area of the storm and do not originate in mesocyclones, so in some ways they are not "legitimate" tornadoes. They can cause damage to lightweight structures and are hazardous to people in the open, though, so they do pose a threat and should be reported to the controller/dispatcher.

For folks like myself who are visually oriented, please follow this link and enjoy:

<http://www.spc.noaa.gov/faq/tornado/notahose.htm>

## THUNDERSTORM TYPES

There is actually a continuous spectrum of thunderstorm types, but there are four broad categories of storms that will be discussed: single cell storms, multicell cluster storms, multicell line storms, and supercell storms.

### The Single Cell Storm

Single cell thunderstorms have lifetimes of 20-30 minutes. They usually are not strong enough to produce severe weather. A true single cell storm is actually quite rare. Even with separate appearing storms in weak vertical wind shear, the gust front of one cell often triggers the growth of another cell some distance away.

Although most single cell storms are non-severe, some single cell storms may produce brief severe weather events. These storms, called pulse severe storms, tend to form in more unstable environments than the non-severe single cell storm. Pulse severe storms have slightly stronger draft speeds and typically produce marginally severe hail and/or brief microbursts. Brief heavy rainfall and occasional weak tornadoes can also be expected (it should be remembered that any thunderstorm is theoretically capable of producing a tornado).

Because single cell storms are poorly organized, and because they seem to occur at random times and locations, it is difficult to forecast exactly when and where severe weather will occur.

### The Multicell Cluster Storm

The multicell cluster is the most common type of thunderstorm. The multicell cluster consists of a group of cells, moving along as one unit, with each cell in a different phase of the thunderstorm life cycle. As the cluster moves along, each cell takes its turn as the dominant cell in the cluster. New cells tend to form at the upwind (usually western or southwestern) edge of the cluster. Mature cells are usually found at the center of the cluster with dissipating cells at the downwind (usually eastern or northeastern) edge of the cluster.

Although each cell in a multicell cluster lasts only about 20 minutes (as with a single cell storm), the multicell cluster itself may persist for several hours. Multicell clusters are usually more intense than single cell storms but are much weaker than supercell storms. Multicell cluster storms can produce heavy rainfall (especially if a number of cells mature over the same area), downbursts (with wind speeds up to about 80 miles an hour), moderate-sized hail (up to about golfball size), and occasional weak tornadoes. Severe weather will tend to occur where updrafts and downdrafts are close to each other (i.e., near the updraft-downdraft interface (UDI) associated with mature cells).

### The Multicell Line Storm

The multicell line storm (or "squall line," as it is more commonly called) consists of a long line of storms with a continuous, well-developed gust front at the leading edge of the line. The line of storms can be solid, or there can be gaps and breaks in the line. As the gust front moves forward, the cold outflow forces warm unstable air into the updraft. The main updraft is usually at the leading (eastern) edge of the storm, with the heaviest rain and largest hail just behind (to the west of) the updraft. Lighter rain, associated with older cells, often covers a large area behind the active leading edge of the squall line.

Squall lines can produce hail up to about golfball size, heavy rainfall, and weak tornadoes, but they are best known as prolific downburst producers. Occasionally, an extremely strong downburst will accelerate a portion of the squall line ahead of the rest of the line. This produces what is called a bow echo. Bow echoes can develop with isolated cells as well as squall lines. Bow echoes are easily detected on radar but are difficult (or impossible) to observe visually. It is not your job to detect bow echoes, but you do need to know what you will be up against should you encounter a bow echo complex: namely, very strong downburst winds.

As with multicell cluster storms, squall lines usually produce severe weather near the UDI. Recall that this is near the leading (eastern) edge of the storm. If tornadoes are associated with a squall line, they will usually develop in cells that are just north of a break in the line or in the line's southernmost cell (sometimes called the "anchor cell"). Cells in these locations tend to behave more like supercells than typical squall line cells.

### The Supercell Storm

The supercell is a highly organized thunderstorm. Although supercells are rare, they pose an inordinately high threat to life and property. Like the single cell storm, the supercell consists of one main updraft. However, the updraft in a supercell is extremely strong, reaching estimated speeds of 150-175 miles an hour. The main characteristic which sets the supercell apart from the other

thunderstorms we have discussed is the element of rotation. The rotating updraft of a supercell, called a mesocyclone, helps the supercell to produce extreme severe weather events, such as giant hail (more than 2 inches in diameter), strong downbursts of 80 miles an hour or more, and strong to violent tornadoes. Recall that the supercell environment is characterized by high instability, strong winds in the mid and upper atmosphere, and veering of the wind with height in the lowest mile or so. This environment is a contributing factor to the supercell's organization. As precipitation is produced in the updraft, the strong upper level winds literally blow the precipitation downwind. Relatively little precipitation falls back down through the updraft, so the storm can survive for long periods of time with only minor variations in strength. As mentioned earlier, the veering winds with height assist the mesocyclone formation within the supercell.

The leading edge of a supercell's precipitation area is characterized by light rain. Heavier rain falls closer to the updraft with torrential rain and/or large hail immediately north and east of the main updraft. The area near the main updraft (typically towards the rear of the storm) is the preferred area of severe weather formation.

## December Event Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28	Nov 29	30	1	2	3	4
				7:30p RACES Training Net on 145.410		Waxahachie Christmas Parade
5	6	7	8	9	10	11
				7:30p ECARC Information Net on 145.410		8:00a QSO Breakfast at Cancun's <a href="#">VE Test</a> ECARC Christmas Dinner
12	13	14	15	16	17	18
				7:30p <a href="#">ECARC Club Meeting</a> not this month		
19	20	21	22	23	24	25
26	27	28	29	30	31	1
						Jan