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## THE ELLIS COUNTY REPEATER

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

August 2004  
Volume 2; Issue 8

### E.C.A.R.C. Officers

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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



After the last few months of activity, this month seems a bit slow. It's a time to catch our breath and re-group. In last months club meeting we discussed many new ideas and how to implement them.

Instead of just discussing them we assigned committees to follow up and move forward on these ideas. Good things are on the way for the Ellis County Amateur Radio Club and we need your participation to bring them about. We need your attendance at the club meetings. We value the input of each and every member. As members we can greatly enhance the club by sharing our experience and knowledge with new hams.

One of the areas we are looking at again is the possibility of putting on classes for prospective hams. This will allow us to encourage new hams to join our ranks. Hopefully they will grow into solid club members. By increasing the over all club membership we will be able to spread the responsibilities between more people. Less work per member means we will be able to do a better job.

Another area of focus we are pursuing is public service. We have been of service on several occasions this year. While we are capable of providing communication at our present level, there is still a lot to do. With a little bit of effort we can expand our ability to respond by a great measure. This will require more communication between club members, officers, and committee members. The monthly club meetings are the best place to start such communication. Additional meetings are being set up for further work on projects by the committee members. I would like to encourage each of you to participate in some of these extra-curricular activities. Try to make the next meeting and find our where your unique skill set might be best put to use.

Every time we work on a project together as a club we make the club stronger. There are personal benefits as well. At the last field day we built antennas, installed connectors, used antenna analyzers, and used new equipment. For some of us this was the first time to get hands on experience with this part of ham radio.

It was a lot of fun to see an operator make his or her first contest contact or solder their first connector. These may seem like trivial things but this is how we improve our capability. The better we are at what we do, the better we will be able to serve the community. The better we are at serving the community, the more likely we are to receive support from outside sources. I hope to see everyone at this month's club meeting. We need you there. Let's move onward and upward.

73,  
Mark Frankie  
KA5TBK

### July Club Meeting Notes

by Richard Bird KD5NFW

The July club meeting of the ECARC was called to order at 19:30 with 11 members in attendance. Club Secretary Ray Calhoun W5ZGZ read the minutes of the June meeting and they were accepted by the club members present. Club Treasurer Danny Woodruff KA5RDB stated there were no club expenditures for the previous month. The process of creating RACES I.D. cards and getting signatures is ongoing. There are a number of RACES members who have yet to have their picture taken for these cards. On behalf of the Club Bylaws Committee, Robert Crosby KD5YHY presented the club officers with a draft of the proposed updated bylaws. The club officers will meet before the next club meeting to review these new bylaws and suggest any corrections or additions. A final draft will be submitted to the club at the August club meeting. For those not in attendance there will be a copy posted to the club website [www.wd5ddh.org](http://www.wd5ddh.org). Voting for the new bylaws will be at the September club meeting.

A draft of the RACES Spotter Location maps was presented to the club for approval. It was decided that a few more locations needed to be identified to provide more options when storms approach our county from directions out of the ordinary. A new draft will be presented as soon as these locations have been identified. The club has voted to sponsor our 2<sup>nd</sup> Annual Blood Drive and it will be Saturday, September 4<sup>th</sup> from 09:00 to 13:00. I can say annual now since we had one last year! At this time we are

planning on setting up the Carter Bloodcare coach in the Wal-mart parking lot in Waxahachie. This should give us a little more traffic than we had last year. Carter Bloodcare will have a representative at our August club meeting to assist us with drive promotion and any other questions we may have. With the club becoming more active internally as well as externally, it was decided that we needed some committees to take responsibility for insuring we stay focused and moving forward. A Club Activities Committee was formed and its members are Mark Frankie KA5TBK, Robert Crosby KD5YHY, Kenny Hickey KD5VQN, Bob Fitch K5ASU, and chair Jon Hykel KM5PZ.

A Licensing Class Committee was formed and its members are Bill Cleaver KD5PMB, Jon KM5PZ, and chair Robert KD5YHY.

If you have any ideas or suggestions, or want to help by volunteering, please contact one of the committee members. They will welcome your help. We can only move forward as a group and we need everyone to participate.

## Richard's Rants

aka BirdDroppings



It's the Dog Days of Summer, but you sure can't tell it from the weather this past week. This is a good time of year to stay

inside in the air conditioning and do some planning for the future. The ECARC has several committees working on many different projects geared toward personal, club, and public relations growth. The next upcoming project is the 2<sup>nd</sup> Annual ECARC Blood Drive. Look for more details in the Club Meeting Notes. The last weekend of September should bring cooler weather along with the Texas QSO Party sponsored by the Northwest Amateur Radio Society of Houston, Texas. The purpose of this contest is to provide competition for Amateur Radio Operators to contact as many Texas stations in as many different Texas counties as possible and to provide county hunters the opportunity to

contact rare Texas counties during the published contest time and in accordance with the rules of operation. For more information and complete rules about this contest please take a look at the website <http://www.txqp.org/>.

At present the club is planning on participating in this event. We have talked about renting a spot or two with power out at Lake Bardwell and camping out. It would basically be Field Day for Texas counties. We can have a barbeque and everyone can bring their families for a great weekend. If you are interested in participating in this club event, please come to the August club meeting. We will be nailing down the details then. I look forward to seeing you there.

73,  
Richard Bird KD5NFW

## “ARESCOM” PLAN TO ENHANCE EMERGENCY COMMUNICATION CAPABILITY

Reprinted from The ARRL Letter and the American Radio Relay League

The ARRL Board of Directors has adopted a resolution encouraging further development and expansion of an inaugural network to enhance the emergency communications capability of the Amateur Radio Emergency Service (ARES). The action came during the Board's meeting July 16-17. The Board had charged an ad hoc committee, dubbed "ARESCOM," with developing an augmented ARES telecommunications system that would include rapid and accurate handling of long-range emergency communications. ARESCOM recommended deployment of a digital e-mail system based on Winlink 2000 software. The Board encouraged the deployment of e-mail via Amateur Radio—"as exemplified by Winlink 2000"—to meet the needs of served agencies and others involved in providing disaster communications. "The digital network will provide a value-added service for ARES and will continue to be viewed very positively by our served agencies," the committee said in its report to the Board. "This allows ARES to be viewed as modern and necessary instead of

antiquated and invasive." The committee, chaired by Great Lakes Division Vice Director Dick Mondro, W8FQT, said situations arise when ARES must "pass message traffic across the nation quickly and accurately." It also said the need for such a nationwide ARES capability is likely to increase in light of the ARRL's Citizen Corps partnership with the Department of Homeland Security. Winlink 2000—a worldwide Amateur Radio digital radio e-mail system—already is widely used by the blue water boating and recreational vehicle communities. Members of the ARRL Programs and Services Committee witnessed a Winlink 2000 demonstration at ARRL Headquarters the day before the board meeting. The ARRL Board extended the committee's charter until its January 2005 meeting so ARESCOM can complete an implementation plan that ensures that ARES has "the prominent role" in managing the national network and that ARES officials and appropriate ARRL Headquarters staffers have an chance to critique the network's operation to ensure it meets the requirements of ARES and its served agencies. A two-part series appearing in the August and September 2004 issues of QST, "Winlink for ARES," by ARRL South Texas Section Emergency Coordinator Jerry Reimer, KK5CA, outlines an enhanced ARES network that would include e-mail capability over HF links.

## R.A.C.E.S.

by Danny Woodruff KA5RDB

### TRAINING:

August starts us off with a new Training Format. Richard, KD5NFW has been appointed Training Officer. One of his ideas to get everyone on the same sheet of music so to speak is to use our club web site – newsletter. Each month the training topic will be published so that each person with access to the internet can view, download and print a copy of current training topic. I will have some hard copies for those members who do not have access to the internet.

The National Weather Service used to print a "Basic Spotters Guide Book" that I was able to obtain a supply of and give out to each new person coming into R.A.C.E.S. Training was based on this book. Reference was made to specific page(s) so everyone would be on the same sheet of music. This publication is

no longer in print by the National Weather Service. As a cost cutting feature, most of their publications were published and available via the internet only. We are going to try and use the internet more as there is a wealth of information available from various Federal and State Agencies whose primary job is training for Emergency Responders. They all have web sites. A Training Outline is being drafted. If there are any specific topics you would like to see added to this Training Outline, contact Richard or myself. This month's topic is one of the main topics each member should keep in the back of his mind, SAFETY. RACES PARTICIPATION: It's your regular participation in Training and SkyWarn Nets that make this program work!!!!!! There are a few members who have not checked in on any net in a while. It's most important you try and make some of these nets if you want to stay active in R.A.C.E.S.. I know, some folks have night jobs, some of you call me or email me each month and keep me apprised with your current work schedules, but we all need to be as active as we can.

#### SECTION G.

I would like for each of you who have not printed off a copy of Section G., R.A.C.E.S. Net Procedures, to go to the club web site and print off a copy for reference. I would like for everyone to have a copy on hand for the next training net, as we have something else to talk about.

Tnx  
Danny, KA5RDB

## ECARC PLANNING COMMITTEE FORMED

by Jon Hykel KM5PZ

Greetings all. As you may or may not be aware of, ECARC now has a full time planning committee. The goal of the planning committee is to "brain storm" and put into action activities for the club and its members, as well as gain awareness from the community about ECARC. We would also like to hear input from you, activity ideas to help the community or just for some good old amateur radio fun.

## August Member Profile: Kenny Hickey KD5VQN

by Cathy Schack

Kenny has a passion for both ham radio and storm spotting. He got his technician's license only a year ago in March, but he has already accumulated an impressive collection of radios and equipment. He has also outfitted his van with three radios, yellow warning lights and all types of equipment for storm-spotting during RACES Nets.

Kenny grew up in Lancaster and graduated from Lancaster High School in 1987.

Like many other club members, Kenny first got interested in radios in high school, when he rode with the Lancaster police department and listened to their scanners. He had also been fascinated by weather and storms since he was a kid, so when he found out about Skywarn and RACES, it seemed like the perfect hobby to him. He started listening to the RACES Nets in 2001, where he heard Danny KA5RDB running the net and talking to the storm-spotters. He found the ARRL web page and ordered the technician's class study guide. He then contacted Danny to ask how to get licensed, and after studying the guide for a week, he took and passed his exam. The rest, as they say, is history.

The first radio Kenny purchased was an ICOM 207H, but this was just the first of many.



His ham shack is filled with radios. He is obviously very serious about helping his community by being an active club member.

As a volunteer on the planning community, Kenny would like to see the club grow and become more active in community activities, such as the upcoming Red Oak Founder's Day. He suggests that the club get some exposure in the community by having a table with brochures and radio equipment to let people know what the club does and how they serve the public and participate in reporting dangerous weather conditions during controlled RACES Nets which reports to the National Weather Service. Since Lancaster and Waxahachie have both been hit by tornados in the last few years, this is one of many valuable services to the community that the club performs.

Kenny and his wife reside in Red Oak. Nine-year-old Travis, their son, is already showing an interest in ham radio, and Dad is encouraging him. Travis has already been to many club breakfasts and a few meetings.

In addition to his ham activities, Kenny is an avid hunter. Several deer trophies are displayed in his ham shack.

With his dedication to his family, the club and to storm-spotting, Kenny is a valued club member and a great dad.

# Beat the Heat - Summer Safety Rules

reprinted from the National Weather Service

## What to look for and actions to take

The Symptoms of Heat Disorders...

Heat Disorder	Symptoms	First Aid
Sunburn	Skin redness and pain, possible swelling, blisters, fever, headaches.	Take a shower, using soap, to remove oils that may block pores preventing the body from cooling naturally. If blisters occur, apply dry, sterile dressings and get medical attention.
Heat Cramps	Painful spasms usually in leg and abdominal muscles. Heavy sweating.	Firm pressure on cramping muscles or gentle massage to relieve spasm. Give sips of water. If nausea occurs, discontinue.
Heat Exhaustion	Heavy sweating, weakness, skin cold, pale and clammy. Weak pulse. Normal temperature possible. Fainting, vomiting.	Get victim to lie down in a cool place. Loosen clothing. Apply cool, wet cloths. Fan or move victim to air-conditioned place. Give sips of water. If nausea occurs, discontinue. If vomiting occurs, seek immediate medical attention.
Heat Stroke (Sun Stroke)	High body temperature (106+). Hot, dry skin. Rapid, strong pulse. Possible unconsciousness. Victim will likely not sweat.	Heat stroke is a severe medical emergency. Call 9-1-1 or emergency medical services or get the victim to a hospital immediately. Delay can be fatal. Move victim to a cooler environment. Try a cool bath or sponging to reduce body temperature. Use extreme caution. Remove clothing. Use fans and/or air conditioners. <b>DO NOT GIVE FLUIDS.</b>

You can help yourself and others avoid experiencing the **HEAT DISORDERS** (above) by following these safety rules.

## Thinking About Yourself

- **Avoid the Heat.** Stay out of the heat and indoors as much as possible. Spend time in an air conditioned space. Only two hours a day in an air-conditioned space can significantly reduce the risk of heat-related illness. Shopping Malls offer relief if your home is not air-conditioned. If air conditioning is not available, stay on the lowest floor out of the sunshine. Remember, electric fans do not cool, they just blow hot air around.
- **Dress for the heat.** Wear loose-fitting clothes that cover as much skin as possible. Lightweight, light-colored clothing that reflects heat and sunlight and helps maintain normal body temperature. Protect face and head by wearing a wide-brimmed hat. Avoid too much sunshine. Sunburn slows the skin's ability to cool itself. Use a sunscreen lotion with a high SPF (sun protection factor) rating.
- **Drink FOR the Heat.** Drink plenty of water and natural juices, even if you don't feel thirsty. Even under moderately strenuous outdoor activity, the rate your body can absorb fluids is **less** than the rate it **loses** water due to perspiration. However, if you have epilepsy or heart, kidney, or liver disease; are on fluid-restrictive diets; or have a problem with fluid retention should consult a doctor before increasing liquid intake.
- **Do not drink IN the Heat.** Avoid alcoholic beverages and beverages with caffeine, such as coffee, tea, and cola. Alcohol and caffeine **constrict blood vessels** near the skin reducing the amount of heat the body can release. Although beer and alcohol beverages appear to satisfy thirst, they actually cause further body dehydration.
- **Eat for the Heat.** Eat small meals more often. Avoid foods that are high in protein because they increase metabolic heat. Avoid using salt tablets, unless directed to do so by a physician.
- **Living in the Heat.** Slow down. Reduce, eliminate, or reschedule strenuous activities such as running, biking and lawn care work when it heats up. The best times for such activities are during early morning and late evening hours. Take cool baths or showers and use cool, wet towels.
- **Learn the symptoms** of heat disorders and know how to give first aid.

## Thinking About Others

- **Do not leave children in a closed vehicle**, even for a few minutes. This is a "No-Brainer". Temperatures inside a closed vehicle can reach 140°F-190°F degrees within 30 minutes on a hot, sunny day. However, despite this common sense rule, deaths from heat occur almost every Summer when someone leaves their child in a closed vehicle.
- When outdoors, **protect small children** from the sun, their skin is sensitive.
- **Help your pets keep their cool.** It will "feel" as hot for them as it will for you. As with children, do not leave your pets in a closed vehicle. Be sure your animals have access to shade and a water bowl full of cold, clean water. Dogs don't tolerate heat well because they don't sweat. Their bodies get hot and stay hot. During summer heat, avoid outdoor games or jogging with your pet. If you would

not walk across hot, sunbaked asphalt barefoot, don't make your dog walk on it either. (Dogs can also get blisters on their paws from hot pavement.)

- **Learn the symptoms** of heat disorders and know how to give first aid.

## Thinking About Your Environment

- **Protect windows.** Hang shades, draperies, awnings, or louvers on windows that receive morning or afternoon sun. Outdoor awnings or louvers can reduce the heat entering the house by as much as 80%.
- **Conserve electricity.** During periods of extreme heat, people tend to use a lot more power for air conditioning which can lead to a power shortage or outage. Vacuum air conditioner filters weekly during periods of high use.
- **Keep lights turned down** or turned off.
- **Avoid using the oven.**
- **Learn the symptoms** of heat disorders and know how to give first aid.

## August R.A.C.E.S. Training Net Topic: SAFETY

Reprinted from the National Weather Service

Accurate and timely spotter reports are critical to your local community and to the National Weather Service. However, your first priority as a storm spotter is to STAY SAFE! Severe storms present a number of hazards, any of which could lead to injury or death if you're not extremely careful.

Depending on whether you are spotting from your vehicle or from a fixed location (like a home or business), there are hazards you need to be aware of and plan for when you're observing storms.

### Mobile Spotter Safety Concerns

Mobile spotters are those who observe storms from their vehicle or from a position other than their home or business. In many communities, spotters have assigned observation locations – when spotters are activated, they go to their designated spot, and observe and report weather conditions. Some mobile spotters stay mobile during the storm and attempt to move along with the storm to maintain a view of the “action area” and report any changes as the storm progresses.

NOTE: The National Weather Service does not condone, endorse or recommend **storm chasing**. It is a dangerous practice and should not be attempted.

As a mobile spotter, there are important safety considerations you should think about. The following is a partial list of the hazards you may face as a mobile spotter:

### Being on the Road

Even on a sunny day with no storms, driving a vehicle on a public roadway can be dangerous. When you add storms – with heavy rain, gusty winds, hail, blowing dust, etc – the danger increases dramatically. To stay safe as a mobile spotter, keep these things in mind:

Always spot with a partner – This allows the driver to focus on the road while the passenger watches the sky. This also provides an extra set of eyes to keep an eye on rapidly changing situations.

Watch for water on the road – Hydroplaning is a serious threat for drivers, and it doesn't take much rain to cause roads to become slick and hazardous.

Obey traffic laws – Speeding, parking too close to the edge of the road and making sudden turns and stops on unfamiliar roads all spell trouble.

Watch out for the “other guy” – Severe storms in the Plains often draw a crowd of onlookers, from casual observers to organized groups of storm chasers. Be extra careful when stopping to view a storm, making sure to pull completely off roadways and keeping an eye out for traffic, even in places where you would never expect to see traffic.

Make sure your vehicle is ready for action – A well-maintained vehicle with a full tank of gas is crucial for a mobile spotter's safety and success.

### Lightning

All thunderstorms produce lightning, and people are killed and injured each year by lightning. Storm spotters may put themselves at risk from lightning by being in the open, being on a hill or high spot (for better visibility), parking or standing next to metal fences or underneath power lines, standing close to camera tripods or using radio equipment attached to antennae.

Remember that lightning typically provides no warning – the first strike that you see may be the last. Follow these basic lightning safety guidelines:

Avoid being the tallest object, and stay away from other tall objects (like trees, power pole/lines)

Don't stand close to fences or power poles/lines. Even though you may not be in an area of frequent lightning, lightning can travel a considerable distance along these pathways.

As mentioned before, you should not wait for some type of warning (hair standing on end, sounds on AM or other radio equipment, etc) before taking shelter from lightning – the first strike from a storm could be the one that gets you. Treat lightning with respect and stay in a protected area when lightning is in the area.

CPR training is an excellent idea for all mobile storm spotters. Remember that a person struck by lightning carries no residual charge and CPR could save a life.

## **The Storm**

If a mobile storm spotter is well trained, experienced and knowledgeable about severe storm structure and behavior, they can usually avoid becoming a victim of the storm itself. However, the environment in and near a severe storm can change dramatically in a short period of time, and these changes can catch you by surprise. These basic tips can help you stay safe: **Avoid the most intense areas of storms** – This seems obvious, but each year spotters, for one reason or another, make decisions that place them in the core of a dangerous storm. Storm chasers call this “core-punching” and it’s a very dangerous practice for a number of reasons. First, you may drive into very large hail, which can damage your vehicle and injure you. Second, you could drive right into the path of a tornado with very little time to react. And finally, the core of the storm is a dangerous place with low visibilities, heavy rain, and violent winds.

**Keep your head on a swivel** – When observing a storm, it is easy to lose focus and become fixated on some feature you’re watching. You should maintain awareness of what’s going on all around you and always be mindful of a surprise event. This points out the importance of spotting with a partner, who can be an extra set of eyes and ears to help you stay safe.

**ALWAYS have an escape route in mind** – Mobile spotters should always plan an emergency escape route that will take them out of harm’s way should the storm change direction or otherwise threaten them. Determining that escape route requires a great deal of knowledge about the storm’s movement and behavior. A detailed set of current maps of your spotting area is a critical part of a mobile spotter’s toolbox, but be mindful of the fact that roads sometimes change before maps do, and they may not reflect reality in every case.

**Never drive into areas where water covers the road** – This is especially true when you cannot be certain how deep the water is. Many people die each year by driving into flooded areas and drowning in their vehicles. Find another safer route.

**Keep your engine running** – Especially when operating close to a severe storm. You do not want to find out about a vehicle problem as a violent storm bears down on you.

**Be extra cautious at night** – Obviously, it is more dangerous to deal with something you cannot clearly see. Storms at night present special problems for spotters and you should be extremely cautious when observing storms after dark.

### **Fixed Spotter Safety Concerns**

When it comes to being safe, storm spotters who observe storms from a fixed location have some advantages, but also some disadvantages as compared to mobile spotters. Fixed spotters may have access to shelter and will not be exposed to the elements and all the hazards that mobile spotters face. However, there are instances when mobile spotters might be able to get out of the path of a dangerous storm, while fixed spotters cannot.

Fixed spotters should be mindful of all the hazards a severe storm can bring, including lightning, large damaging hail, violent straight-line winds, torrential rains and tornadoes. And just like everyone, fixed spotters should have a severe weather safety plan for wherever they may be. Remember these basic safety guidelines:

**Tornado safety** – Get underground or into a safe room or basement if possible. If none of these are available, get on the lowest floor of a sturdy building, putting as many walls between you and the outside as possible. Avoid windows, doors and outside walls. Cover your head and body to protect yourself from deadly flying debris. Mobile homes and vehicles should be abandoned for more substantial shelter.

**Lightning safety** – Stay away from doors and windows. Avoid using electrical appliances and stay away from plumbing fixtures, as these can be pathways for lightning to enter a building. Stay off the telephone, especially corded phones, as much as possible.

**Hail and wind safety** – Severe thunderstorms can produce destructive hail and damaging winds, even without a tornado. Follow the tornado safety rules, especially when a storm contains very large hail and/or violent winds.

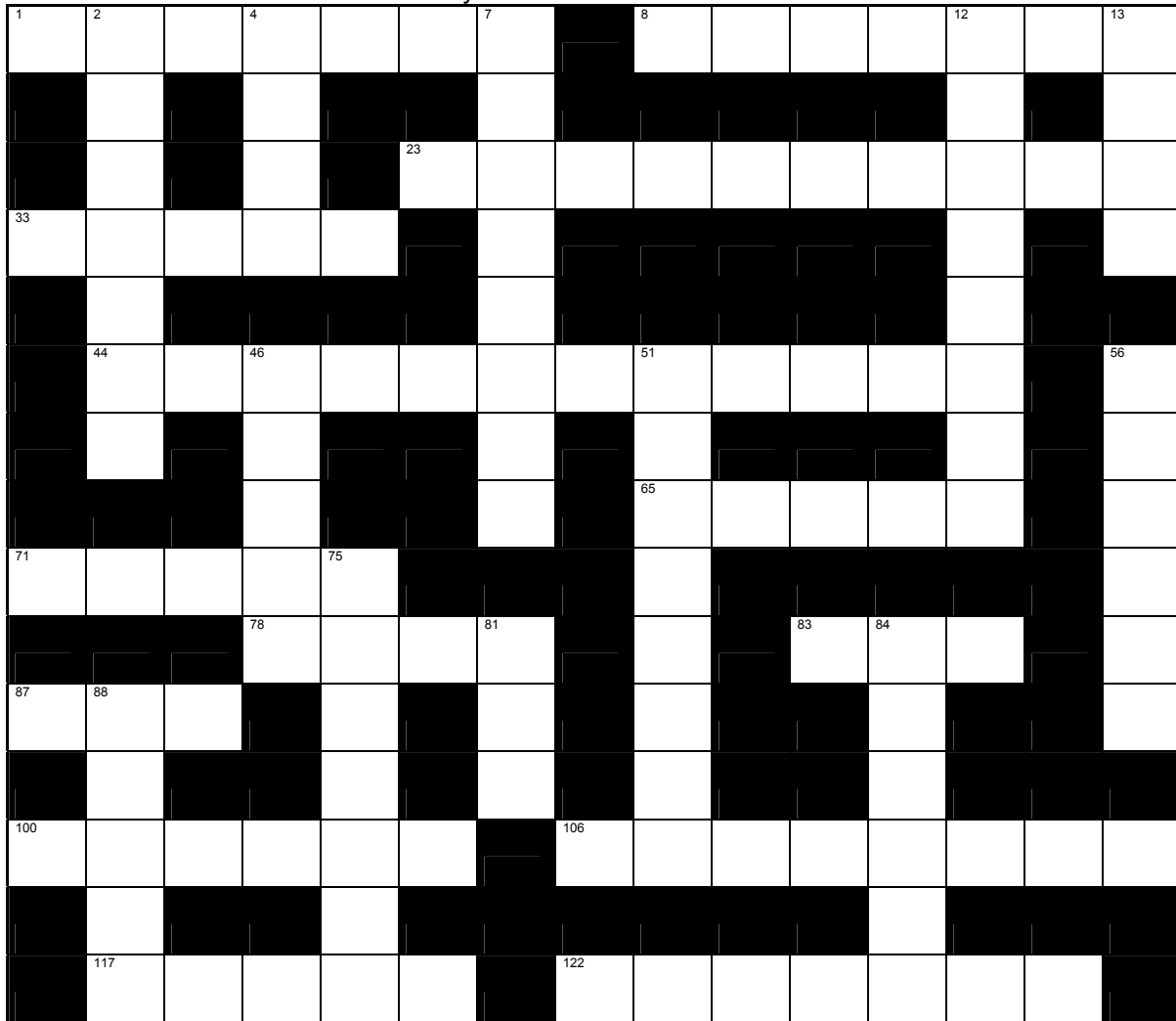
## **Boat Anchors for Sale**

This All-In-One Fax/scanner/printer (color) is a unit I used for three weeks for demo. It is packed in original packing and is warranted. I did not want to unpack it so I took a picture of one that Office Depot has on display. They want \$199, I am asking \$150. I also have a collection of resistors and capacitors of various value, several bulk transistors (I had a shop) and several of the sylvania and RCA individual packaged transistors with cross out listing. The plastic packaging is faded over the years but they are never opened. There is an assortment of other components. I also have a complete VOR/VORTAC navigation simulator tester. In 1969 this unit cost \$3,200. I have no idea what to ask for it now. There is also a Compaq 4100 series lap top w/software. Contact David Shaheen at frdavid@copper.net.

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 at kd5zcp@aol.com or 469 348-6817.

# SPOTTER TERMS

By Richard Bird KD5NFW



## Across

1. One inch hail size (coin)
8. Clockwise turning of wind direction as you move up through the atmosphere
23. Barber pole streaks on a super-cell tower
33. Boundary between two different air masses
44. Series of smaller cloud towers to the south or southwest of the main storm tower
65. Thunder\_\_\_\_\_.
71. \_\_\_\_\_ effect occurs when storms move sequentially over the same area
78. 3 conditions necessary for thunderstorm development are moisture, instability, and ?
83. Downdraft that develops at mid levels near the back edge of the storm (abbr)
87. Educated guess (abbr)
100. \_\_\_\_\_ tail or Jerry Mathers?
106. Two or more circulations, multiple\_\_\_\_\_
117. \_\_\_\_\_ flood or Gordon?
122. Violently rotating column of air in contact with the ground and attached to cloud base

## Down

2. Small scale current of rising air
4. Precipitation
7. Striations indicate?
12. Line connecting points of equal temperature
13. \_\_\_\_\_ front, associated with a shelf or roll cloud
46. Flat, spreading top of storm
51. Small vortices which sometimes form along a gust front
56. Condensation \_\_\_\_\_, rotating but not in contact with the ground
75. 7/8" inch hail size (coin) pl.
81. Overshooting\_\_\_\_\_, sign of a strong updraft
84. Tornado damage scale
88. \_\_\_\_\_ cloud, associated with a gust front and outflow

(answer key for the Spotter Terms crossword will appear in next month's newsletter)

# August Event Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Aug	2	3	4	5 7:30p RACES Training Net on 145.410	6	7
8	9	10	11	12 7:30p ECARC Information Net on 145.410	13	14 8:00a Breakfast QSO at Cancun's in Waxahachie
15	16	17	18	19 7:30p <a href="#">ECARC Club Meeting</a>	20	21
22	23	24	25	26	27	28
29	30	31	1 Sep	2 7:30p RACES Training Net on 145.410	3	4



