

Four States Amateur Radio Club Newsletter



Number 6

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June 17, 1989

Officers

President

Pat Bell, KG5SC

Vice President

Wes Bolin, WV5I

Secretary

Travis Bailey, K5AVH

Treasurer

Bill Miller, WD5HJF

Directors

Wes Bolin, WV5I

Jack Goodson, KA5IQB

Dan Griffin, W5LTQ

Don Lynch, N5DZ

Committees

Activities

Don Lynch, N5DZ 838-4155

Field Day/Flea Market

Dick Curtis, W5NEU 838-6028

Malcolm Bussey, KF5JX 773-9130

Instructional Classes

"Cap" Caplinger, WA5APY 832-1410

Newsletter

Travis Bailey, K5AVH 792-2080

Digital

Hal Clark, KF5YO 772-8742

Skywarn

Al Parsons, KA5LPJ 832-2421

VE Testing

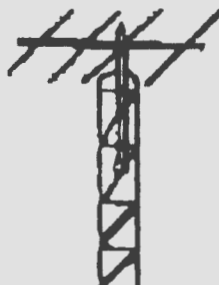
Wes Bolin, WV5I 838-0568

Club meetings are held each Sat. Morning at 9am in the rear of the cafeteria on the 2nd floor of Wadley Hospital. Visitors are welcome.

Business meetings are held on the 2nd Saturday of each month at the same time and location.

Articles for the newsletter must be submitted to the editor no later than the first Saturday of each month.

Field Day 1989



Summer is here! With the fun and excitement of Ham Com now just a memory, its time to look forward to Field Day, **June 24 and 25**.

The Field Day activities will be held at Piney Point on Lake Wright Patman, same location as last year. The site has been reserved from 6pm Friday, June 23 - 6pm Sunday, June 25, so any of you who plan on camping can get set up Friday afternoon.

Activities will begin at 8am Saturday with coffee and donuts. (No regular meeting at the Hospital will be held that Sat.) After coffee and donuts, setup and equipment checkout will begin in preparation for the contest which starts at 1pm local time on Saturday.

We plan to have stations operating on all HF bands and modes, as well as 2 meter FM and packet. A talk in Station will be manned on 146.62 for any of you who need help in finding the site.

The club will provide coffee, cokes, hamburgers, chips, plates, foggers, insect repellent, etc. Hamburgers will be served about 6pm Saturday. Everyone is requested to bring other food to complement the hamburger supper.

We will be using commercial power; however, the club generator will be available if needed. There are several sites for camping but electrical hookups are limited. Come on out early, bring your equipment and antennas if you plan to operate. (some antennas will be available). Even if you don't plan to operate, bring your favorite lounge chair and come join the fun.

Business Meeting

The June FSARC Business Meeting was held on June 10 in the Cafeteria at Wadley hospital. Since the President and Vice President were both out of town, Bill, WD5HJF presided. The meeting was called to order at 9am and the minutes of the May meeting were read and the treasurers report was given. Both were approved. A balance of \$1344.45 was on hand at the end of May.

Dick, WSNEU gave a report on Field Day plans. (see details in FD article)

Under old business, Bill reported that the new radio and power supply for the TXK digipeater, whose purchase had been approved by the club at the May meeting, has been paid for and is now in service. Also, a check has been sent for the ARRL sponsored Club Liability Insurance which was also approved by the club in May. He said that 66 members have now paid their 89 dues.

There was a discussion of the problems that we are having getting our antenna installed at the Bi-State Justice Building and Bill recommended that we ask Pat, as President, to write a letter to Dave Hall telling him of our urgent need for the antenna installation if reasonable communication from that building is to be expected.

There was a discussion of the noise problem on the .62 machine on weak signals and Bill said that there were some things that probably needed to be checked on that machine. He also said he has several circuits that could be inexpensively built to give added features to the .62 machine such as temperature, wind speed, etc.

Also discussed was the need for a committee to study the club policy of sending flowers, and make recommendations to the club if new guidelines are needed.

There being no further business, the meeting was adjourned at 9:45.

Editors Notes

For those of you who did not make Ham Com you really missed a good time. There was a large group from Texarkana in attendance. Several members, including myself, rented two tables at the Flea Market and really had a lot of fun selling excess gear. We took a pickup and two

car loads of stuff and only came home with a couple of pieces unsold. Some of us even sold enough to be able to make a few purchases from the new equipment vendors. If you didn't make it this year be sure and mark your calendar for next year. Also, don't forget the two Hamfests coming up later this summer, Shreveport and Mena. I don't have any dates on these yet, but will publish them as soon as I hear. Of course the next upcoming event is Field Day. I'll look forward to seeing you there.

Space Environment Services

The Space Environment Services Center (SESC) located in Boulder, Colorado, continuously monitors, analyzes, and forecasts the environment between the Earth and the sun. SESC acquires real-time solar data from ground and satellite stations around the world on a 24-hour 7-days-a-week basis. Forecasters of SESC then use these data to predict solar and geomagnetic activity and issue worldwide alerts of significant events. The sun goes through cycles of high and low activity that repeats approximately every 11 years. The number of sunspots also varies on this 11 year cycle; as the solar activity increases so does the number of sunspot groups. Virtually all large flares occur from areas of sunspot activity. These large flares release millions of times more energy than the largest earthquakes, in only a matter of minutes. Solar events can affect the Earth a number of ways. Some effects are HF radio interference, space flight radiation hazards, and satellite operational problems. Geomagnetic field disturbances may disrupt communications, create the spectacular Aurora (Northern and Southern lights) and may disorient animals that use the Earth's magnetic field to navigate. SESC provides a warning of these events and continues the solar cycle monitoring which began 400 years ago with Galileo's invention of the telescope.

For information about Solar Geophysical Data and other archival data contact: National Geophysical Data Center, National Environmental Satellite, Data, and Information Service, NOAA E/GC2, 325 Broadway, Boulder, CO 80303-3328.

The Interviewer

Well Sir, antennas, before World War I were a thing of mystery to the experimenter. Most antennas were just a random piece of wire between two handy supports. After World War I, experimenters and engineers were always trying to find ways to work greater distances. It was discovered that some lengths of wire worked better than others as an antenna. Frequencies and wavelength relationships were just beginning to be understood and it was found that experimental lengthening or shortening of the antenna could often give better results than an increase in power. The ARRL thru the Handbook and QST had many bits of information on this subject. The first so called "engineered antenna" that I had was an antenna and counterpoise. For 80 meters I used two lengths of wire 125 feet long. That would be for about the center of the band. These two lengths of wire were erected as high as possible, one over the other, with about 6' spacing between them. This antenna was fed with an open wire feed line with a spacing of about 6" between the wires. The spacers were made with 1/2 inch sticks which had been boiled in paraffin to preserve them. One spreader was used about every 3 feet. One side of this feedline would be hooked to the antenna and the other to the counterpoise underneath the antenna wire. On the transmitter end, the feedline was coupled to the final tank coil of the transmitter with a coil of six or eight turns of wire slightly smaller than the tank coil so that it could be moved in or out of the tank coil to increase or decrease coupling to the antenna. The next antenna I used was a Single Wire Fed Hertz. Again a single wire 125 feet long between two trees, but this time fed by a single feed line connected off center on the antenna. This feed line was connected to a .002 high voltage fixed condenser at the transmitter end. An alligator clip was connected to the other end of the condenser and this in turn could be clipped to the tank coil of the transmitter at different locations until the transmitter loaded properly. At this time we knew nothing about Standing Waves or Antenna tuners. We only knew that by using a 125' antenna we could move from the lower to the upper end of 80 meters by just retuning the plate condenser on the final.

Bird Watching?

It's always hard to explain to outsiders why you pursue the peculiarities of your favorite hobby. I recently tried to describe to a nonham what Field Day was about. You know the routine: everybody packs up all their survival gear and runs off into the woods to brave the rigors of nature and Murphy. Then you and all similarly-minded folk frantically search for each other trying to make as many contacts as possible in the allotted 24 hours. Then you pack up and go home. Isn't that an accurate synopsis of our Big Weekend. The friend's immediate exclamation was Bird Watching! She related that my story exactly paralleled another she had heard from another friend who was into bird watching. They also packed up all their gear and ran off into the woods, spent the weekend beating the bushes for avian contacts, and packed up and went home. Sounds similar doesn't it. The only difference is that they didn't have the birds also searching for them. See- you're not as crazy as you thought. Livermore ARK, Ca./World Radio

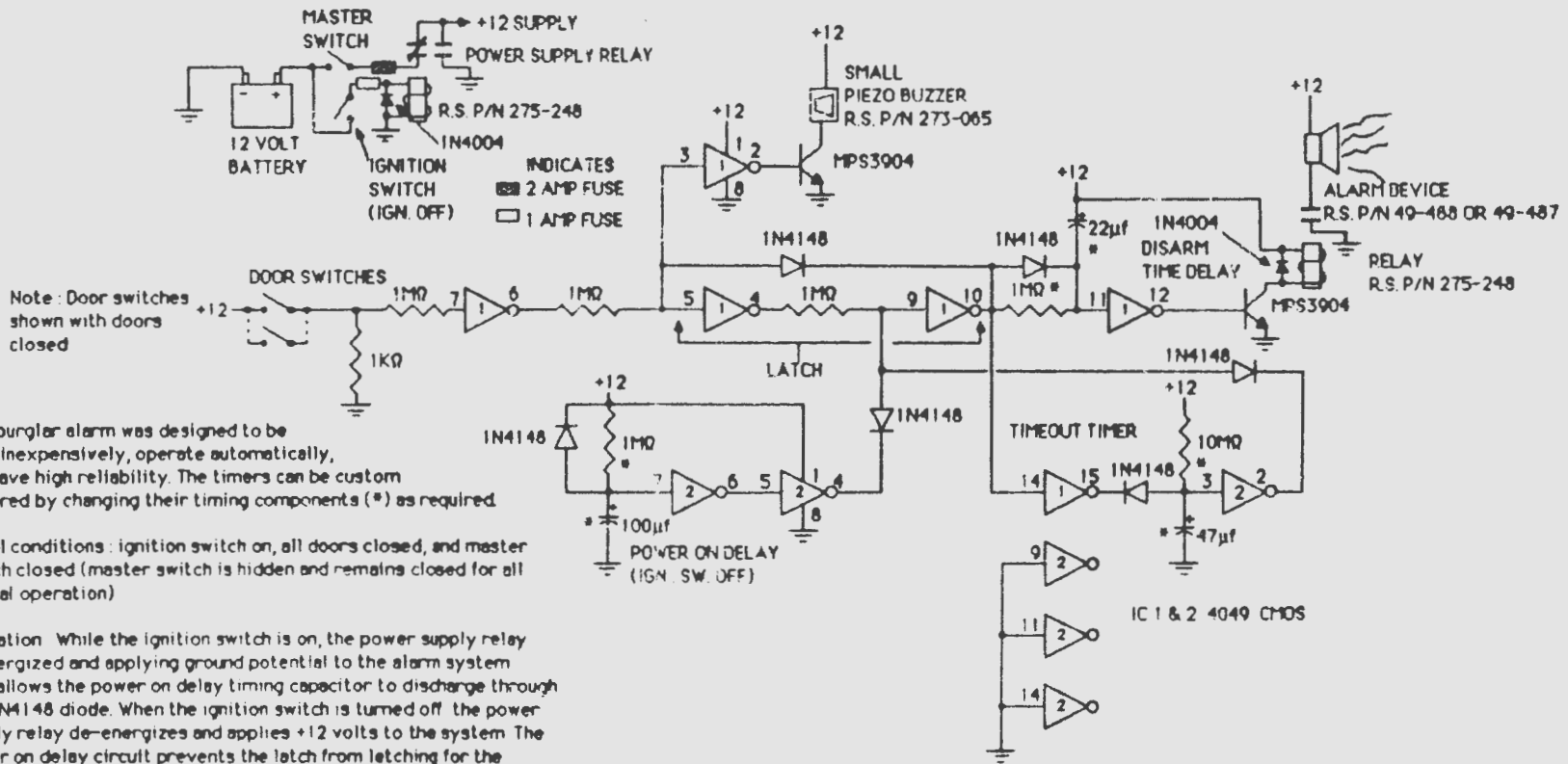
Digital Talk

Field Day is just around the corner with more fun planned for this year than even last year. I will be setting up a HF packet station and Dave, N5MTO, will be setting up a 2 meter packet station. If anyone would like to set up another mode of digital communications that would be great.

The new radio which the club purchased for the TXK site seems to be doing a very good job. The packet group appreciates the club's approval for the purchase of the radio and power supply.

Boll, KB5CTX, was able to work W1AW through packet while the van was in Arlington. He will be receiving a certificate.

If anyone has a computer or terminal that does not alarm when someone connects with you, I have come up with a circuit that works off the connect light circuit in the TNC, but can be installed in the computer or terminal. All that is required to make the circuit work is that pin 8 of the RS-232 cable be wired at both ends and that pin 8 is set for true DCD. The total cost for parts runs about \$5.00 and can all be obtained at Radio Shack.



Note: Door switches shown with doors closed

This burglar alarm was designed to be built inexpensively, operate automatically, and have high reliability. The timers can be custom tailored by changing their timing components (*) as required.

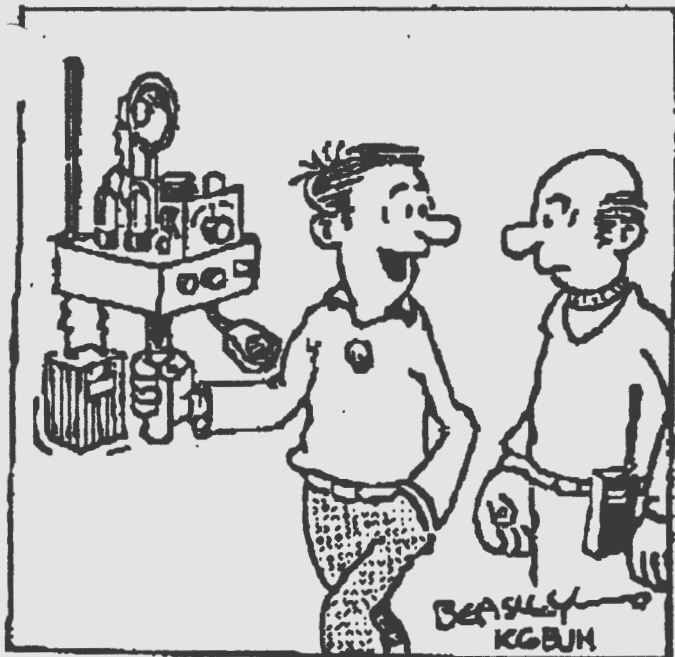
Initial conditions: ignition switch on, all doors closed, and master switch closed (master switch is hidden and remains closed for all normal operation)

Operation While the ignition switch is on, the power supply relay is energized and applying ground potential to the alarm system. This allows the power on delay timing capacitor to discharge through its 1N4148 diode. When the ignition switch is turned off the power supply relay de-energizes and applies +12 volts to the system. The power on delay circuit prevents the latch from latching for the duration of the power on delay timing period (1 to 2 min). This allows exit from the vehicle before the system arms. Once the system is armed, as soon as a door, hood, or trunk lid is opened (providing sensor switches have been installed) the latch circuit will close and start the disarm time delay. While this time delay is operating, you have time (10 to 30 sec depending on timing components) to put your key in the ignition and turn it on. This, once again, energizes the power supply relay and turns the alarm system off. When the disarm time delay expires the alarm relay will close and the alarm will sound. When the latch closes, the timeout timer starts and disables the latch at the end of the timeout period (3 to 5 min). The reason for the timeout timer is this: If the burglar doesn't change his mind in 3 to 5 minutes then why run the battery down? The 1N4148 diode can be removed from pin 2 of the timeout timer IC if you don't agree with this theory. A motion sensor switch such as the Radio Shack P/N 49-630 or 49-520 can also be added.

ALL PARTS ARE AVAILABLE AT RADIO SHACK

Caution: DESIGNER ASSUMES NO RESPONSIBILITY FOR OPERATION OR USE OF THIS CIRCUIT.

ELECTRONIC BURGLAR ALARM
 by Ken Spears K5VYL
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NONE OF THOSE FACTORY MADE HAND HELDS FOR ME, HOMEBREW -- THAT'S WHAT AMATEUR RADIO IS ALL ABOUT!

Dues Reminder

If your name does not appear on the enclosed roster, we have not received your '89 dues. The club needs your support. Please check and be sure your name appears. If not, please send your '89 dues soon so that you will continue to receive this newsletter..

Dates & Things to Remember

VE Test Session

June 17 Wadley Hosp. Cafeteria 9am

Field Day

June 24,25 Lake Wright Patman

Lunch

Every Wednesday--12 Noon--- Mr. Gatti's

Digital (Packet) Meeting

Each 3rd Thursday--7pm Wadley Cafeteria

Skywarn Personnel

June Wes, WV5I--Hal, KF5YQ

July Al, KA5LPJ--Wimpy, KB5GYR

Four States Amateur Radio Club
18 Highland Hills
Texarkana, Ar. 75502

First Class Mail

Field Day Site Directions

Go on highway 59 south from Texarkana until you cross the bridge on Sulphur River. Turn right at the top of hill and go to the first Stop sign. Turn left and go about 1mi and watch for the Piney Point sign just before the road deadends at the Lake. Turn left at the sign and then bear to the right to the Piney Point Field Day Site. C U there.