



# SARA Newsletter

March 2004

Shreveport Amateur Radio Association

## Meeting:

First Thursday of each month at 6:30 P.M. in the Bossier Main Library History Center

## SARA Net:

Each Wednesday evening at 8:30 P.M.

## Local Amateur Information

Available at:

[www.k5sar.com](http://www.k5sar.com)  
[www.qsl.net/nw1arn/](http://www.qsl.net/nw1arn/)

## SARA Repeaters:

145.050 - K5SAR  
DX Packet Cluster  
145.110 - N5FJ  
146.700 - K5KDO  
146.820 - K5SL  
440.900 - N5FJ

## 2004 Club Officers

President – [David Crosby, K5SRZ](#)  
Vice President – [Glenn Pettiet, K5TGP](#)  
Treasurer – [Randy Fulco, K5SL](#)  
Secretary – [Laura Webb, KD5IHT](#)

## AMSAT Oscar Echo

NEWINGTON, CT, Oct 22, 2003--[AMSAT-North America](#) has announced that launch of the AMSAT OSCAR-E Amateur Radio microsat--the "Echo Project"--has been moved up to March 31, 2004. Earlier plans had called for a May 2004 launch. Echo Project Team member Richard Hambly, W2GPS, reported at AMSAT-NA's Annual Meeting and Space Symposium October 18-19 in Toronto, Canada, that the Echo project has made significant progress in recent months.

A Russian *Dnepr LV* rocket--a converted SS-18 intercontinental ballistic missile--will carry the approximately 10-inch-square satellite into a low-Earth orbit from the Baikonur Cosmodrome in Kazakhstan.

The satellite will incorporate two UHF transmitters, each running from 1 to 8 W and capable of simultaneous operation, four VHF receivers and a multiband, multimode receiver capable of operation on the 10 meter, 2 meter, 70 cm and 23 cm bands. Echo will feature V/U, L/S and HF/U operational configurations, with V/S, L/U and HF/S also possible. FM voice and various digital modes--including PSK31 on a 10-meter SSB uplink--also will be available.

**Roger Ley, WA9PZL, is our April meeting guest speaker. He will update information about Oscar Echo and how we might use it.**



AMSAT-NA President Robin Haighton, VE3FRH, with a model of the Echo satellite, set for launch in late March.

## BPL

### FCC CLARIFIES DOCKET NUMBER FOR FUTURE BPL COMMENTS

The FCC says anyone filing comments on the its Broadband over Power Line (BPL) Notice of Proposed Rulemaking (NPRM) in ET Dockets 03-104 and 04-37 should reference only the latter docket number, not both docket numbers. The ARRL was among those who had asked the FCC to clarify the matter. The deadline to file comments is Monday, May 3. Reply comments are due Tuesday, June 1. "To simplify this filing process and minimize the burden on both interested parties and the Commission's resources, we are requesting that parties responding to the Notice of Proposed Rule Making submit comments, replies and any other pleadings or information only in the newly established ET Docket No 04-37," the FCC said this week in a public notice. Written comments may be filed via the

Electronic Comment Filing System (ECFS) <<http://www.fcc.gov/cgb/ecfs/>>.

The Commission says that commenters should include their full name, US Postal Service mailing address and ET Docket No 04-37 when completing the transmittal screen. The FCC ECFS Express system <<http://gullfoss2.fcc.gov/ecfs/Upload/>> also now is accepting brief comments on the BPL proceeding, which is the top item on the list. For additional information on filing comments, see the FCC public notice <[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-04-760A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-04-760A1.doc)>.

## Fox Hunt Fun



Yes, we had a great Fox Hunt. Yes, Randy (K5SL) found the Fox (Steve, K5STE) first. Yes, Lindsey found the Fox without a radio. Yes, Glenn (K5TGP) coasted into a Fina station for fuel. No, no one got lost. (They knew where they were the whole time).

In fact, we had so much fun, we are going to do it all again the second weekend in May. If you did not build an antenna, get started. Fox hunting is a blast and afterward we meet for food and great conversation. Stay tuned for all the details.

## Third Annual ARCOS

### Cookout and Tailgate Party

May 1, 2004 10AM – 4PM

Cypress Black Bayou Recreation  
Park

Free Food 12PM – 1:30PM

Prize Drawing (Tickets \$1 Each)

1<sup>st</sup> - \$200

2<sup>nd</sup> - \$50

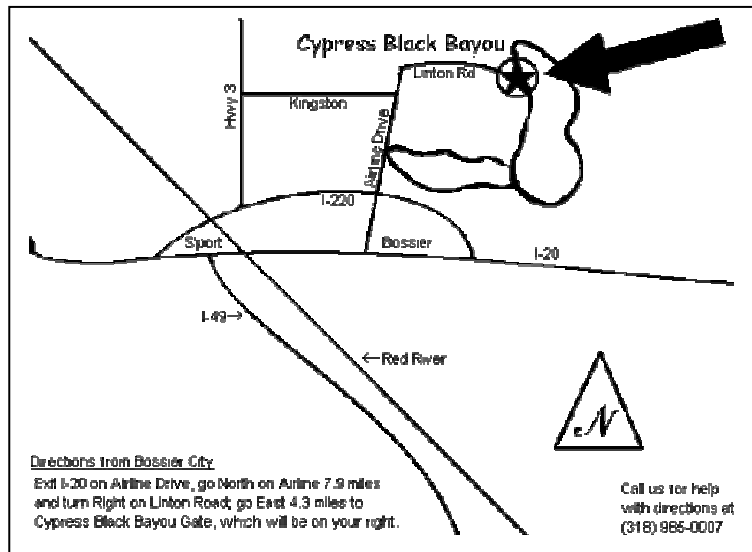
Swap Meet – Buy, Sell, or Trade

Talk In – 146.670 (backup 146.760)

Questions?

Robert (N5GHJ) 318-965-9144  
[n5gsv@softdisk.com](mailto:n5gsv@softdisk.com)

Kelly (KD5SPO) 903-687-2899  
[kspencer@shreve.net](mailto:kspencer@shreve.net)



# Doppler Direction Finder

*David Robbins, K1TTT*

(An article originally written for the Berkshire County Radio Association News, Aug 1993.)

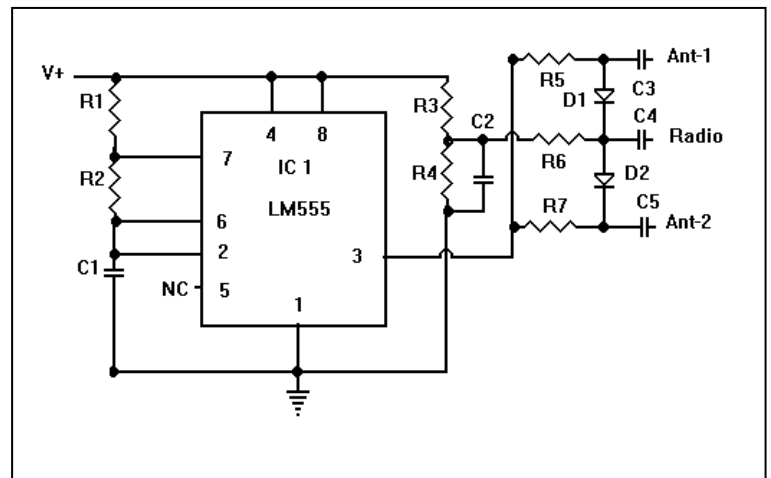
This is a derivation from the Handi-Finder project from the May 1993 issue of QST. I didn't happen to have the IC they called for, but did have a 555. I also preferred to reverse bias the off diode instead of letting it just float. In the circuit shown almost none of the values are critical, the only thing that is required in fact is the 555 IC timer. Construction is not real critical either, but I do recommend putting the whole thing in a metal box and keeping the leads from the antennas to the diodes short, preferably using coax. The antennas should be spaced 1/4 to 1/2 wave length apart for decent operation. Be sure to use an FM receiver, this will not work with an AM or SSB receiver... Although it can DF an AM signal.

This circuit operates by rapidly switching from one antenna to the other. This creates a phase shift that FM receivers can turn into a tone. When both antennas are the same distance from the transmitter there is no phase shift so the tone disappears.

**WARNING!** Do not transmit through this circuit. It might be able to handle low power on an HT, but more than a watt or so may blow the diodes. Also, the SWR that the radio sees may be radically different than 50 Ohms! so your radio may not like it either.

## Parts List:

R1,R2 1.8 KOhm  
C1 .1  $\mu$ F (pick for nice tone)  
R3 – 7 3.32 KOhms  
C2 .05  $\mu$ F (bigger may be better)  
C3,C4,C5 .01  $\mu$ F  
D1,D2 SK9150A/555 PIN Diode  
(any good switching diode should be OK, maybe 1N914)  
V+ 6-12VDC (<10 mAmp load if my meter is working right)



I used ceramics for C2-C5, and mica for C1, but just because they were handy. The resistors are all 1/8 Watt carbon, but only because they were handy also. The only restrictions I would put on playing around is to keep D1 and D2, R5 and R7, and C3 and C5, identical. This doesn't mean use what I did! Just keep them the same so that the paths from each of the antennas to the junction of D1 and D2 are identical. Actually, C3 and C5 are optional.

## Added note on easy construction techniques:

Not sure if I finished this thought last night – but on the unit that I built, I used a 36" wooden yardstick for the boom and used two of the cheap radio shack twin lead/rabbit ear TV antennas for the elements. The plastic housing can easily be used to mount the antennas to the yardstick, and the twin lead can be removed leaving the remaining little brass solder tabs to connect the coax and PIN diode to the elements. The advantage of using the yardstick for the boom is that you can collapse and fold your elements and easily re-lengthen them to the proper length when it's time to use it. No guesswork or estimating!

One does have to look pretty hard for the rabbit ears at RS – they have the more expensive ones in plain view, but the cheap \$2.99 ones are hidden – the cheap ones are the ones you want.

Tim

# Field Day 2004

It's not too early for clubs and ARES groups to be planning for Field Day! The rules and entry packets for FD 2004 are now available at [www.arrl.org/contests/forms/](http://www.arrl.org/contests/forms/). There are no changes in the rules from last year. Local ARES groups may participate in FD this year as a class F station and gain 10 points toward the new LA Section ARES Award.

The LA 2004 FD Awards Program will follow the same rules as last year. Clubs operating as either 1A or 2A entries are considered "small" clubs for the purpose of this awards program. The ARRL-affiliated club in the 1A or 2A class having the highest average score per transmitter will be recognized as the top small club; similarly, the affiliated club in the 3A or above class with the highest average score per transmitter will win the plaque as the top large club. A club's average score per transmitter will be found by dividing the club's total score (including all bonus points) by the number of transmitters as determined by the category (1A, 4A, etc.).

## ***Plan for a Successful ARRL Field Day***

*By Don Jackson, AE5K  
May 9, 2002*

*Before you know it, it'll be ARRL Field Day. Make the most of it and tap the latent talent of prospective hams.*

Each year thousands of clubs, groups and individual hams go through the process of planning and organizing their [ARRL Field Day participation](#). Some do extensive planning, down to the last little detail, while others just let it all fall together. Every Field Day group is different. It has different people, interests, needs, aims, locations, equipment and weather, to mention a few. What works with one club or group may not work with others.

**Share the Work--Establish Committees:** A well-planned Field Day is a lot of work. Form committees and charge each with a specific responsibility. Committees that come to mind are site, equipment, operator, food and publicity.

The **Site Committee** is responsible for locating one or more suitable locations for the event. Consider suitability of the site, ease of access, obtaining needed permissions or permits, antenna possibilities and above all – determine any restrictions that may be imposed.

The **Equipment Committee** is responsible for lining up all material necessary for the event. This includes transceivers, antennas and power sources.

The **Operator Committee:** The operating committee should create a schedule that is acceptable to the interested parties.

The **Food Committee** is responsible for meals, snacks, refreshments and beverages.

The **Publicity Committee** is responsible for the public relations aspects of the event, including news releases and getting the local TV station camera crew out to your site.

**Everyone Can Participate:** Unlicensed members are prospective hams. They can certainly help by acting as loggers for phone and CW stations. A sensitive club will make certain that every member has a chance to operate if desired, or at least participate in some meaningful way.

**The Wrap Up:** At the first club meeting following Field Day, devote time to a debriefing session.

In conclusion, planning can make or break a Field Day. It can mean the difference between satisfied club members and disgruntled ones. It can mean the difference between earning a good score and dropping a bunch of contacts and points due to the cracks. It can be an inspiration for unlicensed persons to tackle the exam, or for Novice/Technician hams to upgrade. It can be a showplace for ham radio and its emergency communications potential.

**Interested in helping, contact Steve (K5STE) or Randy (K5SL) to find out how.**