

DELTA AMATEUR RADIO CLUB

SPARKS Web Edition

SPARKS P.O. BOX 750482 MEMPHIS, TN 38175-0482 / VOL. 13 / JULY 2001

W 4 B S R E P E A T E R S Y S T E M
146.82, 147.36, 224.42, 443.2 & 145.03 Packet

PRESIDENT'S CORNER

MORES, FOLKWAYS AND AMATEUR RADIO

Some several years ago in my Intro Sociology Class at Memphis State, two concepts were introduced. Social MORES are the written and unwritten rules of a society and FOLKWAYS are the social customs of a society. There is a bit more to it than that, but that is what is relevant to these ramblings.

We might consider the FCC rules as the MORES of ham radio and the operating procedures, band plans, etc., the FOLKWAYS. To obtain a ham ticket, one must master the mores and to keep the ticket, must obey them - as several have found out after getting to know Mr. Hollingsworth "up close and personal!"

What about the folkways? There is a good bit of written material about proper operating procedures and how to avoid being a "lid." Unfortunately, lots of us don't even read the instruction manuals for our rigs, much less the more mundane good operating tips. It is our responsibility, as amateur radio operators, to use our best operating procedures when we are on the air, whether on VHF or HF. It is also our responsibility to make sure the newcomers that join our ranks not only have good examples to follow, but the help they need to advance in our wonderful hobby. Do you know a new ham? Be sure to give him/her all the encouragement and guidance you can.

Anybody interested in starting some Special Interest Groups (SIGS)? Ben, KU4AW, has brought up the notion of a kit-building SIG using some of the RAMSEY kits. I picked one up at Dayton (haven't had a chance to put it together yet!), and it looks to be of good quality. Back in the old days - shortly after we stopped keeping our station logs on stone tablets and started using paper! - many of the ham rigs were kits, and it was a lot of fun and an excellent learning experience building them.

Another SIG might be one dealing with antennas. This is one area that doesn't have to cost a lot of money and is a crucial item in any station. There is just something special in making a contact with an antenna you built yourself! This is being written on Thursday night before Field Day and you will be reading it some days after the BIG FD. Hope you made it out to the FD site, had a great time, ate some great food, enjoyed the fellowship and camaraderie, and learned a lot.

73, K4TTA

SIREN TESTING UPDATE

I would like to take a moment to thank all of you who have helped with this project and I encourage you all to continue to participate by going to http://www.deltacub.org/siren_testing.html and picking out a site that you would be willing to monitor. We need a lot of help in the Southern and Southeastern and Midtown Areas of our city and county. This effort will go a long way to save lives in our community.

Who knows, the siren that has problems might be in your neighborhood or the neighborhood of someone you love dearly. We found two sirens today that did not work, but they worked last year. One in Lakeland, and one in Millington, next to the USA Baseball Stadium. Had this been a test, but a real warning who do you know that might have been affected? Thanks to all of you who have tested sirens and I encourage all of us to support this program.

*Tornado kills three in Wisconsin
Tue., June 19, 2001 9:00 a.m. ET
Julie Gallo, weather.com*

People in Siren, Wis., are mourning the deaths of three people killed by a tornado. Eight other people were hurt when the twister tore through the northwestern Wisconsin city on Monday, according to the Burnett County Sheriff's Department. "Basically everything is leveled," said Martha Lawson, who lives in nearby Hertel and went to Siren to help after the storm. "There are cars either smashed into buildings or upside down." Siren Fire Chief Tom Hows estimated that at least 100 buildings were damaged or destroyed in the storm. Hows said many people may not have had much warning about the tornado because the city's tornado siren was just operating. It was struck by lightning in late April or May and scheduled to be fixed next week, according to Hows. The Siren tornado was one of several reported in the Upper Midwest and Northern Plains as a swarm from pushed into Canada on Monday. There were no other reports of serious damage or injuries.

The Associated Press contributed to this report.

Thank you again.
Robin, KE4GPR

FIELD DAY 2001

I would like to say thank you to everyone who came out and made this year's Field Day a booming success. The leadership and efforts contributed by each of this year's Captains were key in helping me put this year's program together and pull it off. Without them I would have been a ship without a rudder.

The culinary skills of Lance, N4GMT, were a big hit with everyone who showed up to operate and enjoy this year's dinner. I'd like to thank everyone who brought side dishes and desserts. Your efforts ensured that we had a wide assortment of food and also helped compliment the efforts of the cooking crew.

This year was my first exposure to the biggest annual event shared by Hams all across the country. It taught me a lot about myself and even more about the inner workings of what is required to make it successful. At the publication time of this article I hope to have already submitted our package to the American Radio Relay League for review. Once again thanks for everyone's support.

73,
JD/K4USN

VE CORNER

June is busting out all over and the VE Team was in for a big surprise!!! I DO NOT think that the air conditioner was working AT ALL during the session held June 12th. We had eight (8) people arrive for the session that evening. The only "cooler" that we could find was down at the end of the hallway. Everything else had to be about 90 plus degrees. Nevertheless, testing was held and we administered 14 elements. Of those 9 were passed including a CW exam on perfect copy (25 characters in a row correct). Nobody left without a CSCe!! Our numbers increased by 5 new General Class and 2 new Technician Class operators. Look out Field Day!!

The following is taken from the ARRL Newsletter: As you are aware, on July 1, 2001, new Morse code exam standards must be in place by all VE teams with all VECs. These new Morse code exam standards will include:
* A Farnsworth character speed in the 13-15 WPM range for routine Morse code exams is required (rather than the 18 wpm characters ARRL VEC has used since 1989). Consistent with the new standards, ARRL VEC is using 15 WPM characters as its Farnsworth settings--be sure to update your Morse Academy software for a 15 WPM character speed setting.

* Fill-in-the-blanks is the only acceptable 10-question quiz format starting July 1st. ALL VE teams of all VECs will no longer be able to use multiple-choice code quizzes starting July 1.

* A reminder that every Morse code examinee has two (2) means to pass a code test. They are by either getting 7 of 10 fill-in-the-blanks answers correct, or by getting 25-character-count in a row solid copy. Either review can be conducted first, but if the first review is failed the second review must be conducted.

* The Morse exam audio frequency range will be within 1000-700 Hz for routine exams. ARRL VEC will be using 750 Hz.

* These standards were adopted by the National Conference of VECs at their June 2000 Annual Meeting in Gettysburg PA.

The next exam changes you can expect will occur with Extra tests changing on July 1, 2002, Technician changing July 1, 2003, and General changing July 1, 2004.

As you know this VE Team has already instituted the fill in the blank format BUT the CW tapes will be changed at the July session.

Congratulations to the following:

Carl Hastings	KB5SWB	General
Gary Howard	KG4NKL	General
Ralph Leon	KG4NKK	General
James Montgomery	KG4OCX	Technician
William Ruben	KB4SAO	General
Donald Toussaint	KG4OCZ	General
John Vanzandi	KG4OCY	Technician

See you July 10th.
Respectfully Submitted,
Joan KN4PM
ARRL VE Liaison
kn4pm@arrl.net

AUCTION AT JULY MEETING

For the July meeting, we will once again hold an auction of ham and ham-related equipment. Bring all of your junkie! Don't miss the opportunity to buy more! These auctions have proven to be a very popular meeting in the past.

VICE DIRECTOR'S NOTES

I am sure Field Day 2001 will be history when you receive this newsletter. Most of all, I am hoping and praying that everyone will have had a safe Field Day.

I have attended two elementary schools in the Memphis School System career days and I have given over 200 ARRL Archie comic books to the students. These young students have enjoyed my presentations and even some talking on the radio. It is my hopes that my efforts were viewed as a positive outlook and someone's life maybe stirred in a different direction.

On the HR 817/S 549 Spectrum Protection bill, there is an attachment, which directs the U.S. Secretary of Transportation to withhold highway funds from states that permit people to use hand held mobile telephones while operating a vehicle. The ARRL is monitoring this very closely to make sure this does not affect mobile amateur radio operation.

As an ARRL member, vote for your favorite QST article each month for the QST Cover Plaque Award. This poll is open until the 15th of the current month. The article receiving the majority votes will be awarded the QST Cover Plaque award for that month. You can cast your vote over the web.

I am preparing to attend the second ARRL Annual Board of Directors meeting in Hartford, Connecticut, on Friday, July 20, 2001, and Saturday, July 21, 2001. Rick and I plan to work toward your expectations at the board meeting.

The Introduction To Morse Code (cassette tapes) and the Extra Class License Manual (3rd printing) are available for sale.

Henry R. Leggett, WD4Q
ARRL Vice Director, Delta Division

AN ANTENNA FOR LOW FREQUENCIES

By Terry Cox - KB4KA
Low Frequency (Big) Antenna - Small Space

The two terms above are not generally considered in the same breath. Antennas for 80M and 160M are infamous for being either large structures or at least requiring a lot of height. Many times the room needed for the vertical installation's ground radials is the killer. At my QTH the 100' Rohn 45 tower has provided an adequate mounting structure for a Ringo Ranger at 115', a 2L40 at 112', a 5L20 at 100', a 5L15 at 70' and a 6L10 at 40'. An old Easy-Way 60' crank-up-fold-over tower is scheduled for installation this year and will support WARC band antennas, etc. I still need something for 80M and 160M. The rotating antennas on the Rohn tower at 40' and 70' preclude any easy attempt to shunt feed the tower or install slopers for those bands.

A Possible Solution for You and Me?

Recently I happened across a web page that had the July 1998 issue of the Yankee Clipper Contest Club's newsletter Scuttlebutt. Inside was an article by Jeff Briggs-KIZM titled "The Battle Creek 'Trapper' Construction Details". The original Battle Creek Special was, and still is, a 48' high, guyed, aluminum mast, trapped vertical antenna for 40M, 80M and 160M that is sectionalized so it will fit into a large wooden crate. This antenna was built as a looser antenna to support DXpeditions, and was used as recently as the Kingman Reef DXpedition. It works great, especially close to salt water.

The Battle Creek Special is a little brother wire version of the original that can be hung from a tall tree. Total vertical height can be less than 66', but the more you can get the better the antenna works. The antenna operates as a full-sized ¼ wave vertical on 40M, as a loaded ½ wave vertical on 80M and as a loaded ¾ wave inverted L on 160M. 36 or more 66' radials are needed for ground radials, or you can use raised radials, if that will work for you space wise. Also in place, it should be tunable to 3.5, 7.0 and 1.83MHz at almost 1:1 by adjusting segment lengths. Tuning 75M and 40M Phone will require a tuner. The advantage of a vertical antenna of course is the low takeoff angle that provides good DX possibilities.

The Scuttlebutt article describes construction of the wire version in detail and I am in the process of building one now. Below is a rough sketch of what it will look like. As I already have had time for me to provide you with the idea of making the lower trap for 30M because I have no other antenna plans for that band.

If I have my 'Trapper' finished and up and running by next month I'll give you an update. In the meantime, check out the two following URLs. They will provide a lot of details I have not included. Maybe there is a low band antenna in your future as well!

CQ Article on Battle Creek Special: <http://www.p4csc.nl/link/nkll.html>
Scuttlebutt Article on Battle Creek Trapper: <http://www.yccc.org/Battbut9807.pdf>



DON'T FORGET THE MAGIC IN YOUR RADIO

By Bruce Campbell, KG4HLZ

As Hams, we expose ourselves to the wonders of radio as a hobby. It is easy to lose sight of the amazing facts that these little boxes perform. Stop for a minute and think of a megahertz. How fast is this? Lets put things into perspective. Let's start out by calculating the seconds in a year, 60 seconds in a minute, 60 minutes in an hour, 24 hours in a day, 365 days in a year. 60 * 60 * 24 * 365 = 31,536,000 seconds in a year. Put another way, if we stretched out time to where a 31.536 MHz oscillator cycled once a second, then a second would have to last an entire year. Now lets have some fun with this. If we stretched out time this much then one second of time on our 146.82 MHz repeater would run for 146.82/31.536 = 4.65 years. Our 443.2 MHz repeater? 443.2 / 31.536 = 14.05 years.

What follows is a list of this calculation for the center frequencies of the Amateur bands:

Frequency - Years
1.9 MHz - 0.06
3.65 MHz - 0.11
7.16 MHz - 0.23
10.13 MHz - 0.32
14.18 MHz - 0.45
18.10 MHz - 0.57
21.20 MHz - 0.67
24.92 MHz - 0.79
28.85 MHz - 0.91
51.95 MHz - 1.64
145.99 MHz - 4.63
224.98 MHz - 7.09
435.00 MHz - 13.79
915.00 MHz - 29.01
1270 MHz - 40.27
2350 MHz - 75.51
2420 MHz - 76.74
3400 MHz - 107.81
5787 MHz - 183.52
10 GHz - 317.10

Well it goes on from here. The last entry in the ARRL Band Plan is 300GHz = 9512.94 Years! Now that's fast!!!!

Bruce Campbell
KG4HLZ

LATE BREAKING FIELD DAY 2001 UPDATE

At the time we went to press, DARC Field Day 2001 details were not available, but suffice it to say that we had a very good field score, the weather was extremely unusual (bearable temperatures and NO RAIN!), and a good time was had by all. Thanks to all who helped make it such a good event! We'll have a full report with pictures in the next issue. In the meantime, puzzle over the picture below.

73, Ken, K4DIT



Who are these guys and what are they doing sitting in a garbage container?

FROM THE ARRL LETTER

VOL. 20, NO. 55 June 22, 2001
AO-40 ORBIT SHIFT SET

With the AO-40 satellite's transponders still shut down, preparations are under way for a slight shift in orbital configuration. Ground controllers will raise the satellite's orbit at perigee--the position nearest Earth--by about 200 km. As AO-40 approached the planned attitude, ground controllers successfully activated the arcjet- or ATOS--propellant feed system during orbit 295. According to telemetry, the ammonia heater, flow-rate controller, valves and pressure indicators seem to work appropriately. For the "cold" test, the gas was warmed by a 120-W heater and flowed for approximately 22 minutes. Since AO-40's solar panels have not been fully deployed, no electric current was applied to the arc. Plans call for additional cold firings of the arcjet. The next out-gassing will occur when the spacecraft reaches apogee again. It will probably last about an hour. The S2 transmitter will be turned off during the test to save power, so all telemetry will be logged in the IHR-2's memory and downloaded later. nelson says that if the four-hour out-gassing works successfully, then it will be extended--possibly to as long as four hours--AMSAT-NA President Robin Abington, VE3FRH, has said the arcjet firings will not significantly change the apogee. He said it's hoped that a slightly higher perigee for AO-40 will eliminate the effects of what he described as "a mysterious force" that alters the satellite's attitude when it comes through perigee. One possible theory, he said, is that atmospheric expansion caused by the current sunspot cycle peak is influencing the satellite's orbit in some way.

For more information on AO-40, visit the AMSAT-DL Web site, <http://www.amsat-dl.org/> or the AMSAT-NA Web site, <http://www.amsat.org> - thanks to Bruce Paige, KK5DD

TREATS NEEDED FOR CLUB MEETING

Please bring a treat to the meeting to share with others!

PACKET UPDATE

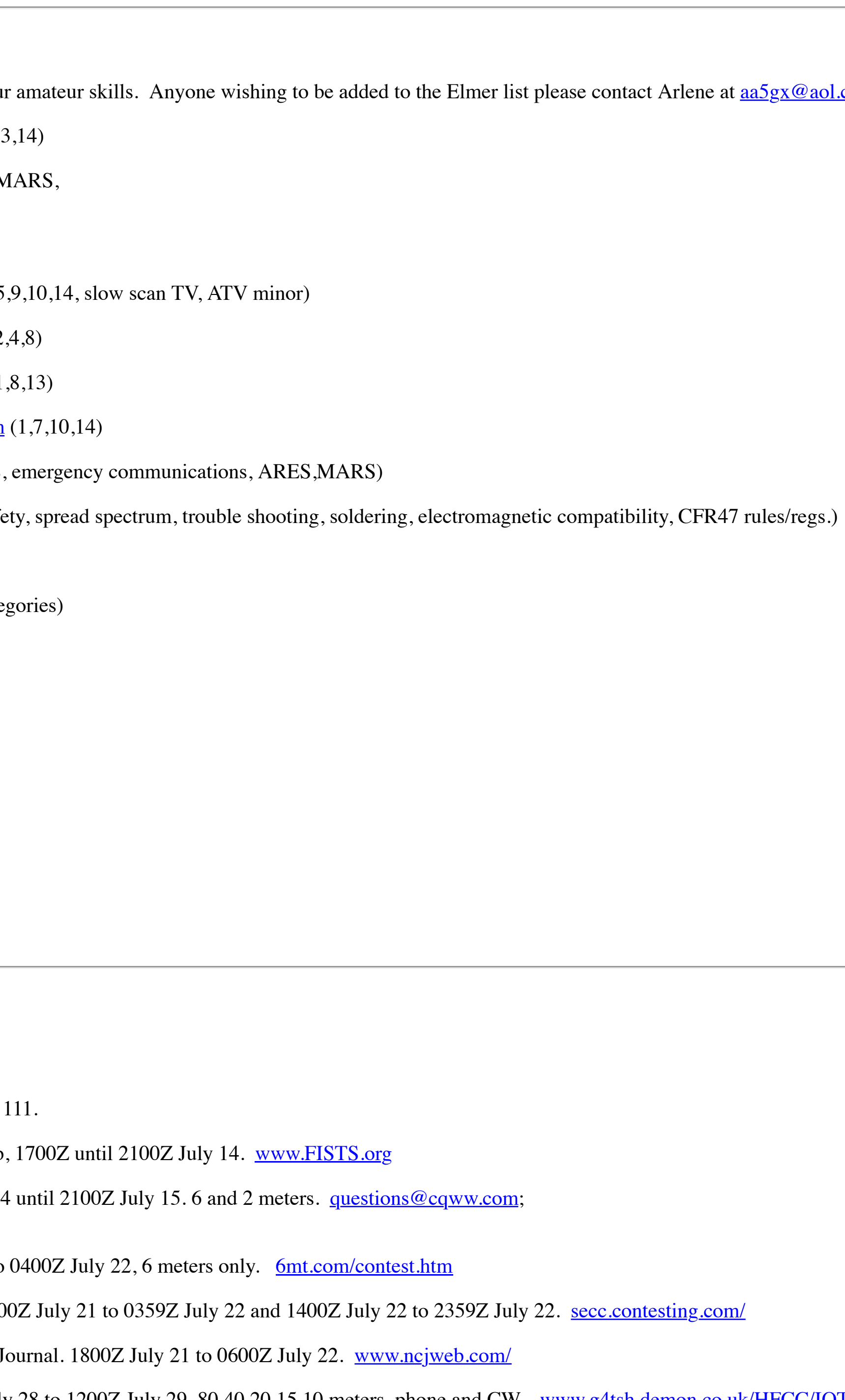
We are always looking for information on digital modes for Amateur Radio. The ARRL has come out with a book for packet users that want to design higher speed system for more data throughput. The book is called PACKET: SPEED, MORE SPEED AND APPLICATIONS. The book addresses setting up higher speed packet links. The links higher than the 1200 Band normally used on VHF and UHF allow for faster data and message transfer. High speed links can be used on point to point applications as well as for backbones to transfer data from one area to another on a single link. The book is available from the ARRL for \$15.00 and will make a nice addition to your library. The ARRL website for publications is <http://www.arrl.org/shop>

James Butler
KB4LJV

AMATEUR HARDWARE UPDATE

One of the most needed accessories used when operating our radios are adapters. These allow plugs and jacks that do not match to be easily connected. Straight key and keyer plugs, headphone adapters, and audio plug adapters are commonly used. This month's project is the ADAPTER IDENTIFIER. This is merely a method of keeping track of plugs to identify their function. The male part of the adapter is easy because the number of conductors and size can be seen. The female part however is tougher. The size is easy to see but the internal configuration is inside the unit. Adding an outside marker on the adapter can make it easy to identify and eliminate hookup mistakes. I used rib-on letters on mine to designate whether they are mono or stereo and the input adapter needed for hookup. You can use letters or paint to keep them straight and make sure you get the right one. I will have the ADAPTER IDENTIFIER in my adapters at the meeting to show and answer questions on for those who wish to make their own.

SEE YOU AT THE MEETING
James Butler
KB4LJV



THE W4BS ELMER SHACK

Please feel free to contact any of our ELMERS to help you enhance your amateur skills. Anyone wishing to be added to the Elmer list please contact Arlene at ar4s@aoel.com or 385-0995.

K4TTA (Extra) Tom Richardson 386-6268 k4tta@arrl.net (1.3.4.6.8.9.13.14)

KA4BLL (Gen) Ned Savage 363-9607 msavage@juno.com (1.5.8.14, MARS, ARES/RACES, net control, traffic handling, emergency service)

KB4LJV (Extra) James Butler 294-2540 (2.7.9.11.13.14)

KD4NQ (Adv) David Campbell 388-6166 k4dqsc@juno.com (1.2,3,5.9.10.14, slow scan TV, ATV minor)

KU4AW (Extra) Ben Troughton 372-8031 bktrough@mem.quik.com (2,4,8)

N9AQC (Extra) Gary Kuechler 368-0532 wkuechl@midsouth.rr.com (1,8,13)

WA2IQ (Gen) Bill Blineckmann 794-5289 garyblb@midsouth.rr.com (1,7,10,14)

WA4MMJ (Extra) Bill Hancock 853-7192 billw4mmj@aol.com (1,2,8, emergency communications, ARES/MARS)

WM5Q (Extra) Paul Cline 385-0995 wmsq@arrl.net (7,8,10,14, RF safety, spread spectrum, trouble shooting, soldering, electromagnetic compatibility, CFR47 rules/regs.)

K4DIT (Gen) Ken Gregg 853-7384 k4dit@arrl.net (4,6,8,11)

W4GMM (Extra) Ham Gregg 372-2337 hamh@bellsouth.net (All categories)

Codes:
1. Antennas
2. APRS
3. Contesting
4. CW Operating
5. Direction Finding(fox hunting) 6. DXing
7. Experimenting/Circuits/etc. 8. HF Phone
9. Packet
10. Repeater Operation
11. QRP
12. Satellite
13. RTTY
14. VHF

CONTEST CALENDAR

Here are some of the contests coming up in the next few weeks...

IARU HF World Championship, July 14-15. See April 2001 QST, page 111.

FISTS CW Summer Sprint, sponsored by FISTS International CW Club, 1700Z July 14. www.FISTS.org

CQ WW VHF Contest, sponsored by CQ Magazine, from 1800Z July 14 until 2100Z July 15. 6 and 2 meters. questions@cqwv.com
www.equ-amateur-radio.com/vhfcontest.html

Six Club Six-Meter Sprint, sponsored by the Six Club, 2300Z July 21 to 0400Z July 22. 6 meters only. 6mt.com/contest.htm

Georgia QSO Party, sponsored by SECC and SEDXC. Two periods: 1800Z July 21 to 0359Z July 22 and 1400Z July 22 to 2359Z July 22. secc.contesting.com/

National QSO Party, RTTY, sponsored by the National Contest Journal. 1800Z July 21 to 0600Z July 22. www.nqjswb.com/

RSGB Islands-On-The-Air Contest, sponsored by the RSGB. 1200Z July 28 to 1200Z July 29. 80-40-20-15-10 meters, phone and CW. www.r4sh.demon.co.uk/HFCC/IOTA.htm

SPECIAL EVENT STATIONS

Antwerp, Belgium: Union Belge des Amateurs, OS4OSA, 0000Z July 1 to 2359Z July 15, during the coastal station OSA on all bands and modes. QSL: Marc Domen, ON7SS, Ferdinand Coosemansstraat 32, B-2600 Berchem (Antwerpen), Belgium.

Smithville, AR: Driven Elements Amateur Radio Group, KB5FX, 1300Z July 7 to 2400Z July 8, celebrating the Driven Elements Amateur Radio Group 10th anniversary. 7.280-14.325-28.375. Certificate. Heater Hinds, KD5BMB, 139A Lawrence Rd 2645, Smithville, AR 72466-8024.

Austin, TX: Naturist Amateur Radio Club, K1USN, 1330Z July 21 to 1900Z July 22, during the 5th Museum Ships On The Air Weekend. 7.260/14.260/18.160/21.360. QSL: Robert Callahan, W1QW7, 56 Acorn St., Scituate, MA 02066.

Akron, OH: Pioneer Amateur Radio Fellowship, KB8ZAM, 1400Z July 14 to 2200Z July 15, during Akron's Lighter Than Air Convention and Exhibition. 7.270-14.270-21.370-28.370. QSL: Pioneer Amateur Radio Fellowship Inc, 2324 Manchester Rd, Akron, OH 44314

Quincy, MA: USS Salem Radio Club, K1USN, 1330Z July 21 to 1900Z July 22, during the 5th Museum Ships On The Air Weekend. 7.260/14.260/18.160/21.360. QSL: Robert Callahan, W1QW7, 56 Acorn St., Scituate, MA 02066.

Oshkosh, WI: Fox Cities ARC, W9ZL, 1300Z July 27 to 2200Z July 29, during the Experimental Aircraft Association Adventure Fly-In. 28.345-14.245-14.0875-7.245. Certificate. Wayne Pennings, WD9FLJ, 913 N Mason, Appleton, WI 54914.

Canton, OH: Donald Amateur Radio Club, W8AL, 1300Z July 27 to 2400Z July 29, for the annual Professional Football Hall of Fame Festival. 7.265-14.265-21.365. Donald E Perry, WQ8J, 968 Culverve Ave NW, Massillon, OH 44647.

For more information on these and other contests and special events in July, please visit the ARRL contest page on the internet at: www.arrl.org/contests/months/july.html

July 10 CLUB MEETING

7365 HWY. 70

BARTLETT, TN

MEETING STARTS AT 7:00 PM

The Month program will an Auction

VE TESTING:

Don't forget the monthly Volunteer Examiner testing session. Registration begins at 5:30p.m. and testing begins promptly at 6:00p.m. Please remember to bring two forms of identification the original and copies of any existing licenses and CSCe's you might have. Please be on time for registration, as you will not be allowed to enter the testing session after 6:00 p.m., so our volunteer VE team can finish in time to attend the club meeting. Call Joan Thorne 366-9722, if special testing arrangements are required.

W4BS REPEATER SYSTEM

146.82 net 8:00 PM
107.2 pl

147.36 tone = 107.2 pl

224.42 = 107.2 pl

443.20 patch, 107.2 pl

145.03 packet / bbs
(temporarily off the air)

Other Important Contacts

VE Liaison
Joan Thorne, KN4PM
737-5795
joan@mem.net

Membership Chairpersons
Ben Barth, AF4TV
Eloise Barth, AF4TW
eloisb@aoel.com

2001 Board of Directors

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