

CARS CARRIER

Charleston Amateur Radio Society

March 2014 Newsletter

CARS Web Site --- <http://www.wa4usn.org>

CARS meets the second Monday of each month at Ryan's Steak House on Highway 61.

Our next meeting will be held at 7:00 PM, Monday, Mar. 10, 2014



FROM THE PRESIDENT

No words of wisdom received from the president.

ARES REPORT

Next Charleston County ARES meeting on March 15, 2014 at 0900 local time at the St. Andrews Public Service Building, Hwy 7 and Hwy 61 as always.

Due to new requirements from FEMA and Charleston County Emergency Management, the ARES badges are being changed. So every member of ARES will have to submit a new application form and get an up to date picture taken for the new badge. I will be assembling the info and pictures at ARES meetings and Club meetings so please see me. This doesn't take effect for some months but we need to get it done.

Remember now is the time to start assembling or checking and updating your "Go Kits". Earthquakes and tornadoes happen in the spring and then hurricane season starts in June, Be ready. Questions can be answered by many of the clubs hams don't be afraid to ask.

If possible check into the ARES net on Sundays at 2000 local, and stay for State ARE net at 2020 local. Good practice for net

procedures and the training topics are a good learning tool.

Again, Thanks to everyone who helps with ARES and keep recruiting new members.

Rick, N8BKN.

Jan. FINANCIAL REPORT

Beginning Checking Balance - 1/1/14	\$4,859.91
Cash Receipts:	
Raffle Proceeds	63.00
Dues	170.00
Memberships	40.00
Cash Disbursements:	
John Meyers - January CARS Carrier	(32.36)
Alene Wilkins - Postage for QSL cards	(133.75)
Pinckney Carter - Insurance for Fair	(27.00)
AT&T - January	(73.68)
Ending Checking Balance - 1/31/14	\$4,866.12

Charlotte, KJ4PLX

MINUTES of FEB. MEETING

Charleston Amateur Radio Society

Club Meeting at Ryan's Steak House on Hwy. 61
Monday, February 10, 2014 - 7:00 PM

MINUTES:

The Charleston Amateur Radio Society Meeting was called to order by President Gregory Amirault, KI4TVA, at 7:00 PM on

Monday, February 10, 2014 at Ryan's Steak House in Charleston, SC.

Introductions: There were 39 people present.

Secretary's Minutes: Warren, KK4EVI

The January 2014 meeting minutes were published in the February 2014 CARS Carrier. A motion was made to accept the minutes as published, the motion was seconded, and passed.

Treasurer's Report: Charlotte, KJ4PLX

The December 2013 Financial Report was published in the February 2014 newsletter and accepted as information.

Museum Ships: Ed, KQ4DC / David, KI4FSC / Tom, AJ4UQ

Looking for someone to take charge. 1st weekend in June?

Field Day: Tom, AJ4UQ

Still looking for someone to step forward and take over as Chair person or even Co-Chair person. Tom would sure like the help.

Races: Doug, KU4OC

February 22nd – Race for Life

February 28th through March 2nd MS Challenge Walk

April 5th Cooper River Bridge Run

Hamfest Report: Jenny, WA4NGV

Jenny gave report on Hamfest Finances.

Repeater Report: Bryce, K4LXF

Holding their own.

Membership: Bryce, K4LXF

We lost 10 members for failure to pay their annual dues.

Applications for regular membership:

First Reading: James C. Armstrong Jr, K4WWJ
Charles M. Collingwood, N0WMJ
Glenn S. Williman, N2GW
Craig M. Goldberg, N4XZB

Second Reading: John O. Poulsen, W4JOP
George F. Ploth, Sr., K4ZJJ

Applications for Associate membership: None

John, W4JOP, and George, K4ZJJ, were voted on and welcomed into the club.

Emergency Prep: Rick, N8BKN, Charleston; John, W4HNC, Dorchester; Dennis, KG4RUL, Berkeley

Charleston: Next ARES meeting is on February 15th at the St. Andrews Fire Station at 09:00 AM.

Dorchester: "D" Star work and looking to activate some PODs

Nets: George, KI4UIW - Newcomers Net

Newcomers Net meets on Thursdays at 8:00 PM. If you are interested in trying to conduct a net, send George, KI4UIW a note and he will get you the information.

ARES Net meets at Sunday 8:00 PM. Local area 5 meets from 8:00 - 8:20 PM then joins the statewide link up at 8:20 PM.

QCWA Net meets on Saturday at 9:30 AM. Chapter 89 is now in Charleston. Dues are \$5.00/year and National dues are \$20.00/year.

SKYWARN Net will start meeting on the First and Third Tuesdays at 9:00 PM on linked repeater systems.

Lowcountry Digital Nets: meets Sundays at 8:30 PM and Wednesdays at 8:00 PM on **145.700** MHz running Olivia 32/1000.

TARC CW Training Net: meets every Tuesday at 7:30 on linked repeater systems.

SCHEART Net: meets every Thursday morning at 9:00 AM.

Newsletter/Website: John, WA4GPS

Nothing new to report.

Education & VE Testing: Sheila, KT4YW

The next test session will be at 9:00 AM on April 12, 2014 at Trident Hospital.

School Programs: Alene, KG4NKD - DuBose Middle School Radio Club - K4DMS

No report.

Communications Trailer: Willie, WB4SOG

The trailer was used at the Hamfest. Plan to repack wheel bearings soon. Thanks to Joe Lane for heavy duty extension cord.

Old Business:

Jenny gave report of Christmas Party Finances.

New Business:

Voted on:

February 22nd - Race for Life

February 28th - March 2nd, MS Challenge Walk

April 5th - Cooper River Bridge Run

April 6th - After Bridge Run Bike Race.

Would like at least 6 people for support.

All runs were approved.

Announcements:

Drawing:

The drawing for a one year ARRL membership was won by Wess, W4RUX.

There being no further business, a motion was made, seconded and passed to close the meeting. The meeting was adjourned at 7:34 PM.

Respectfully submitted by Warren, KK4EVI

**PSEUDO-BREWSTER ANGLE?
WHAT THE #@!! IS THAT?**

If you have ever operated WA4USN from the Yorktown on Field Day and/or for special events, you might be interested in finding out; because it is one of the big reasons transmitting from that QTH is so successful. In the early eighteen hundreds, a Scottish physicist, Sir David Brewster, developed a complex mathematical equation for calculating what is now known as the Brewster angle. Fishermen since ancient times have observed that when the sun is low, its light is reflected from the water's surface as glare, obscuring underwater view. When the sun is high, the light penetrates the water and one can see objects below the surface. At the Brewster angle is where this change occurs.

A similar phenomenon takes place with radio waves, but the angle is different, hence the name Pseudo-Brewster. Our vertically polarized antennas on the Yorktown are approximately 60 feet above water, give or take tidal changes. The distance to the west

across the bay to Charleston is approximately one mile, giving an angle of slightly under one degree from the deck of the Yorktown to the nearest land west of the Yorktown. The Pseudo-Brewster angle over saltwater at 7 Megahertz is one degree and increases to about 2 degrees at 28 Megahertz. Saltwater is an excellent electrical conductor and therefore an excellent reflector of radio waves including vertically polarized waves. This is particularly important because vertically polarized waves over land are poorly reflected. The dielectric constant of seawater is high also. These three factors (favorable Pseudo-Brewster angle, high RF

reflectivity, and high dielectric constant) act synergistically to produce the results we enjoy. There is an even longer stretch of open water to the northwest and north giving slightly better results in those directions. To help you get oriented, the bow of the Yorktown points exactly geographic due north.

We are blessed to have access to CV-10.

73,

Doc, W4MUR

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