

Minutes of the Forsyth Amateur Radio Club - 15 January 2018

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1. Call to Order and Welcome: The 15 January 2018 meeting of the Forsyth Amateur Radio Club at the Red Cross Building, 690 Coliseum Drive, was called to order by President David Shoaf, KC4X, at 1935 hours. David welcomed all attendees, approximately 50, for coming out this evening, and invited each to give their name and callsign.

2. Membership Renewals: David Shoaf, KC4X, reminded that annual dues are, well, due. Kent was here to accept your renewal payment. Kent was also accommodating if one wanted to join for the first time. We received 19 renewals either in the mail or at the meeting, and 28 renewals or new memberships at FirstFest.

This meeting had been postponed to our business meeting night, which has been postponed to Monday, Jan 22. David reminded that everyone is welcome to the business meeting. We will be in the back rather than the separate side room, as it had already been reserved.

David revealed the Official Coffee Can for Suggestions (no coffee in it) for folks to offer their comments and suggestions about meetings or programs they would like to see or put on themselves. Index cards and pens were provided.

3. Treasurer's Report: Kent Englebert, K4HKE gave the treasurer's report as of when he walked in - several members renewed before the meeting was called to order, and they were not included in the totals:

Balance: 4227.28 including the deposit from the hamfest

Hamfest results: 123 tickets sold, just under \$800 revenue between ticket sales, donations and table rentals; expenses were about \$175 for a net of about \$625.

4. Awards:

Ron Adkins, KM4WPN was presented with the Baofeng HT he won at the hamfest

Les Jongberg, KJ4JYZ was also presented with the Baofeng HT he won at the hamfest

Ray Purdom, K4ZGV was presented with a plaque for his work on the program at the Reynolda House Museum this spring. They were hosting an exhibit showcasing the art and inventions of Samuel Morse. Ray organized a team to run a Morse code station at the museum for their opening day and a second team to run a phone and CW station on the lawn for Community Day. Both events generated a lot of interest and good publicity. Ray thanked everyone who came out to assist with the effort.

5. Program - Homebrew night:

- Michael Morris, a young man interested in learning about electronics, presented a transistor AM radio kit he had found at a thrift store. Even though it was missing the instructions, he had gotten the loose parts connected and proved that it will work. He doesn't have a call sign yet - he is not yet sufficiently infected with the radio bug.
- Ken Melvin, KM4NFQ, presented the keyer he built based on an Arduino Nano and a wooden iambic paddle he built to go with it. Ken allowed that before he built them, he didn't know what a keyer or a dual-lever paddle was or what iambic was except he remembered iambic

pentameter from school and figured it might have something to do with poetry. Ken also reported having a K3NG keyer breadboarded on the bench at home, and is gathering parts for the N4TL CW trainer. He has been working with another fellow on modified code so he can use an inexpensive 4-bit LCD rather than the RGB one specified in the CW trainer parts list. Ken has also built a W8TEE, Jack Purdom's Morse Code Tutor. Ken related that he's building all these things in order to learn Morse code; so far he has dit and dah down pat. Ken is a talented maker - he builds a lot of his projects using Manhattan construction and at one of the Project List roundtables last year, he showed his process for building enclosures.

- Steve Patterson, WA3RTC, spoke about the Project List, a group that likes to build things and talk about technical stuff, and they meet on the third Tuesday of each month. More info can be found at <http://almondtree.com> - which has nothing to do with the Project List, almonds or trees, but it's a domain name Steve has had for years, which makes it perfectly suitable for the task. Steve explained how he had written Visual Basic scripts and Excel macros to simplify updating the web page. Doc had called him to ask about Magnetic Loop antennas, and Steve pointed him to the links on Almondtree.com about magnetic loop antennas.
- Doc Holliday, WB4QIZ, brought in his Magnetic Loop antenna. Doc described how it went together, then he and Harold demonstrated it in receiving mode including monitoring some JT-8 and then segued into discussing JT-8.

Doc claimed he got the parts and contacted Harold Richardson, N4HER, for some help, but when he got to Harold's, he helped Harold roll the tube into a circle and then ended up mostly watching Harold do the rest. Doc remarked that Harold is a master builder, and it was clear that the antenna was a work of art.

Doc estimated he had around 20 dollars in the project - about \$15 for the 3/4 inch copper tubing and the rest for the PVC frame and a short piece of bare copper wire for the coupling loop. Gene Bowman, WB4MSG, and Don Edwards, WS4NC, each contributed a tuning capacitor for Doc's project.

The bible on magnetic loops is a 33-page booklet by Leigh Turner, VK5KLT, see the links below or at the project list website, almondtree.com. According to the article, "A properly designed, constructed and sited small loop of nominal 1m diameter will equal and oftentimes outperform any antenna except a tri-band beam on the 10m/15m/20m bands..." The downside of these loops is that because of their very high Q, they have a very narrow bandwidth, and must be retuned when changing frequencies across the band. The high Q also means they develop high voltages across the capacitor.

Doc and Harold also briefly demonstrated WSJT-X and FT-8, in preparation for February's program by Brian CAVE AB4BC.

Links related to the homebrew program:

<https://blog.radioartisan.com/arduino-cw-keyer/> K3NG Keyer Introductory Article

https://github.com/k3ng/k3ng_cw_keyer/wiki K3NG Keyer Authoritative Documentation

Search for N4TL CW Trainer articles and one result:

<https://duckduckgo.com/?q=n4tl+cw+trainer>

<http://www.rars.org/documents/Build%20a%20Simplified%20Arduino%20CW%20Trainer.pdf>

Thread with the relevant info on the W8TEE Morse Code Tutor:

<https://groups.io/g/BITX20/topic/6030906https://groups.io/g/BITX20/topic/6030906>

The Project List website:

<http://almondtree.com>

Magnetic Loop links:

<http://almondtree.com/TPL/Project/Antenna/Magnetic%20Loop%20Links.asp>

An Overview of the Underestimated Magnetic Loop HF Antenna © Leigh Turner VK5KLT

<https://www.nonstopsystems.com/radio/pdf-ant/article-antenna-mag-loop-2.pdf>

or

http://adam.curry.com/enc/20150119092647_article-antenna-mag-loop-2.pdf

6. Repeater Report: Dale Mierisch, WB9SZL, reported on the status of the 145.47 machine, which has been moved off of Sauratown Mountain due to construction at the site that may not be completed for two years. In the meantime, the repeater has been moved to a site graciously provided by Jerry Minor down near Hickory Tree Road and US-52. We have lost a couple thousand feet of elevation, and our coverage, while good in Forsyth and surrounding counties, does not reach up into Virginia like it used to. This is the first stage of the move; we hope to make some changes to improve our coverage in the coming months. In the meantime, the Vagabond Net and the ARES® nets have moved to 147.315. The .47 repeater still has the EchoLink node, but the .315 machine does not have EchoLink.

The 146.64 machine at Baptist Hospital is working ok, but there are significant issues with interference from a pager we believe to be at the host location. This interference desensitizes the repeater, significantly reducing coverage. The 444.275 machine, also at Baptist Hospital, also seems to be affected by the interference - receive coverage is about 4 miles. We are working to find ways to resolve the issues. We appreciate your patience in dealing with the issues.

7. VEC Info: We did not have testing tonight because of the postponed meeting - this is probably the first time in 10 years Dale has not been late for a meeting because he was hosting the Amateur Radio Exam sessions. Testing resumes in February.

8. Summer Hamfest: David Shoaf, KC4X, reported that there is some interest in having a hamfest in October. We would need to nail down the dates and get some volunteers to facilitate by working through the checklist of tasks. Dividing the checklist between multiple people helps prevent any one person being overloaded. The hamfest will be discussed at the upcoming business meeting Monday, Jan 22.

9. ARES® Report: ARES® Coordinator Harlan Cobert-W1HRC announced that the ARES® net has been moved to the 147.315 repeater while the .47 repeater is ill. Schedule is unchanged, Thursdays @ 8:30pm. Harlan also pointed out the go-box that Don Edwards, WS4NC, has been building for ARES®. The club allocated funds for most of the materials, and Don is donating the rest along with his labor.

10. First Fest: John Kippe, K1PPE, thanked everyone who came out and worked the hamfest, setting up, getting people in and out, directing traffic, and all the other tasks involved in having a successful event.

11. Adjournment of Meeting: Motion to adjourn the meeting was made by Doc Holliday-WB4QIZ and seconded by several other attendees. Meeting was adjourned at 2032 hours.

12. Partial List of Meeting Attendees: Below are the names of FARC member attendees.

David Shoaf-KC4X, Kent Englebert-K4HKE, Terry Brown-AK4D, Jerry Minor-K4GW, Harold Richardson-N4HER, Harlan Cobert-W1HRC, Doc Holliday-WB4QIZ, Steve Pattson-WA3RTC, Les Jongberg-KJ4JYZ, Ron Gregoire-W4UDB, Jim Bielski-KJ4FIN, Dale Mierisch-WB9SZL, Wayne Collins-KK4ZHL, Wyatt, Mary McClellan-KM4WPO, Brent Goodwin-KN4ACN, Jeff Stafford-AC4YN, John Canup-KM4HVB, Perry Swaim, Geoff Rudy-KK4MOV, Jonathan Sharp KM4RAD, Mason Matrazzo-KM4SII, Matt Taylor-KB1BSR, Gene Bowman-WB4MSG, Terry Good-W3NPS, Chris Rodie-KW4VK, Jeff Lansing-KM4BON, Frankie Lansing-KM4CBQ, Jim Atkins-W4UX, Bill Kennedy-WD4OTY, Cathy Melvin-KM4OCS, Ken Melvin-KM4NFQ, Pedro Tomas-KN4GKY, John Kippe-K1PPE, Edwin Needham-AF4XC, Jim Register-KV4SJ, Michael Morris, Don Edwards-WS4NC, Steven Mierisch-KG4JWU, Harlan Cobert-W1HRC, Mary McClellan-KM4WPO, Bob McClellan-W3AVB, Jim Mansfield-WA4NOT, Ray Purdom-K4ZGV, Sam Poindexter-NI4TG, Van Key-KC4WSK, Ron Adkins-KM4WPN, Ken Kayser-K2KXK, Mike Atkins-N4VE, David Ramsey-W4OIL, Ronn Dunn-KN4RKD, Julian Hattaway-W4PID, Mark Scott-K4MV.