

Minutes of the Forsyth Amateur Radio Club – 09 October 2017

By Jim Register (KV4SJ)
Secretary, Forsyth Amateur Radio Club

1. Call to Order and Welcome: The 09 October 2017 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 1930 hours. David welcomed all attendees, approximately 42, for coming out this evening, and invited each to introduce themselves.

2. Treasurers Report: Kent Englebert, K4HKE, gave the treasurer's report.

- The current bank balance: \$ 3,576.24 with nothing outstanding.
- Kent passed out several name tags that he had been unable to distribute. The remaining tags that are ready to be picked up are with the secretary. These are KK4TUW, KM4ECV, KM4UPM, KX4CS, N3MDC, NC4RT and WN4OFT.

3. ARES Report: Harlan Cobert, W1HRC, reported the latest local ARES news:

- Tour to Tanglewood: Harlan reminded volunteers who had participated in the Bike MS event but had not picked up their shirts that he still had their Bike MS shirts.
- Net Control Training: Net Control Station Training at the Red Cross building on October 14 from 9 AM to 11 AM. No sign up is necessary, and you do not need to have completed any of the ICS classes to attend this training. Bring your handheld. Watch w4nc.com/ARES.htm for any updates to training info.
- ICS Courses: Friday, November 10 from 5:30pm-9pm local time, ICS 700 and 800 will be taught, and Saturday, November 11 from 9am-5pm local time, ICS 100 and 200 will be taught. You must be signed up in TERMS to take the courses. Again, check the club website for training info.
- When you register for the class in TERMS, you should get an initial email stating that you are waitlisted, then a second saying that you have been accepted in the course. If you have problems getting through TERMS, get with Harlan (ares@w4nc.com) and he will walk you through it.

4. CERT Class: Steve Patterson, WA3RTC, announced that for those who are interested and who are not attending the Net Controller training on Saturday, there will be a CERT class here in Forsyth County Friday through Sunday, October 13-15. Info is available on the club website:
<http://www.w4nc.com/images/CERT.jpg>

5. Riley Hollingsworth K4ZDH: Terry Brown, AK4D, reported that he had spoken with Riley earlier that day and he wanted to let us know that he is thinking about us and wants to come down and visit - maybe for the December meeting. Riley was the former FCC Special Counsel for Enforcement.

6. November Program: Geoff Rudy, KK4MOV, announced next month's meeting presenter will be David McDonald N5WNB. The presentation will either be about his time in Antarctica or his time at the Very Large Array (VLA) in New Mexico.

7. Announcements: Don Edwards, WS4NC, had several announcements:

- W4RJR-SK - Spencer (Bud) Blackburn passed away October 5, 2017 from an aggressive form of lung cancer. The obituary was not out yet, but the family was to have a reception at Hayworth-Miller from 1 to 2 on Friday; service is probably 2 to 3 with interment at Parklawn on Peters Creek Parkway. It will be a full military funeral; Bud served many years in the Navy.
- KG4FNN-SK - Harrison "Brownie" Joyner passed on September 27, 2017. Services were held on October 5, 2017. Brownie came to a lot of meetings, was a good guy, and we miss him. There is more info in the October 2017 club newsletter.
- Equipment Donations - the club received a large donation of older, high quality gear. One amplifier, probably twenty years old, is still in its unopened original box. This equipment will be auctioned off at the January meeting; some of the equipment will have minimum bids.

8. Nominating Committee Report: Don Edwards, WS4NC reported that the nominating committee met and elected him Chairman. The committee members consisted of Harlan Cobert W1HRC, Ron Gregoire W4UDB, Don Edwards WS4NC, Steve Patterson WA3RTC, and Harold Richardson N4HER. The current officers, per the bylaws, can serve up to two years. As they have all agreed to serve an additional year, the current slate of nominees is the current board: President, David Shoaf KC4X; Vice-President, Geoff Rudy KK4MOV; Treasurer, Kent Englebert K4HKE; and Secretary, Jim Register KV4SJ.

Van Key KC4WSK, moved that we accept the nominees as the board for next year. John Kippe K1PPE, seconded the motion. The motion was passed by unanimous vote. Don announced that we have selected the victims for the next year...

9. VE report: Dale Mierisch, WB9SZL, reported we had eight VEs and five examinees. He asked the folks that passed tonight to stand VEs to stand and recognized them for their support to the hobby. Dale congratulated the candidates that successfully passed their exam and asked them to stand. The successful candidates are KN4GKX Burl Hammock (T), KN4GKY Pedro Tomas (T), KM4DWH Jerome Metz (G) and KM4DWI Sheryl Metz (G).

10. Repeater report: Dale Mierisch, WB9SZL, reported that all three repeaters are up and running.

- The 444.275 machine still has the issue of about a four-mile range on receive, but transmit is working wonderfully.
- The .47 machine is working fine except for occasional folks keying it up without identifying. If you hear that, please ask them if maybe they are having trouble with their audio, and encourage them to identify. The FCC has been in the area and if they catch them it will be a fine.

11. Happy Birthday to Charlie W4TMR: Dale Mierisch, WB9SZL presented Charlie with a card. The front said "Holy smokes, is that a forest fire?" The inside said "No, that's just Charlie's birthday candles."

12. Presentation - The Evolution of Ham Radio from the Narrow Perspective of Charlie Kluttz, W4TMR: After a conversation with a fellow who had just upgraded from Technician to General and about how he was going to get on the air on the HF bands, Charlie began to reflect on the first license test he ever took and how ham radio has changed over the years. That sounded like a good club program, so here we are.

Charlie gave an entertaining presentation covering the three license classes, what the test he took for the Class B license was like, how you got components, and how you built your transmitters.

The test for the Class B license was rigorous: First, you had to copy one solid minute of 13 wpm code correctly. The examiner would grade that while you waited nervously. If you passed, he would call you

down to send 13 wpm code from a sheet of paper he would provide. When he was satisfied, he would say that's good enough and hand you the written test.

The test was essentially essay - there were no multiple-choice questions. The first question showed a schematic with a resistor matrix and a battery. You had to answer questions about currents through, voltages across, and power dissipated by various components in the circuit, showing all work. Then there were several schematics to draw, and a circuit to design, including parts list and component values, again showing all work. Upon turning in your paper, the examiner quizzed you on the circuit you designed.

On the license test, Charlie's design problem was to build a 500 watt, dual triode power amplifier for 20 meters. As luck would have it, the club where Charlie was studying for his license had recently built a set of five hundred watt power amplifiers for 80 meters, and Charlie had volunteered to help the fellow building the RF deck. Charlie answered all the questions, and the examiner said "OK". Charlie asked "Well, did I pass?" The examiner looked up at him still without cracking a smile and said, "We'll let you know..." After seven weeks of Charlie's mom answering, "No, nothing for you in the mail today", Charlie finally received his license.

Components were salvaged from damaged TVs, WWII surplus, etc. Surplus crystals were taken apart and lapped to bring them up into the ham bands. (Stable signals were using crystals - those using VFOs had to be chased up and down the band...)

Charlie took apart an FT-243 crystal holder and described how he would lap the crystal with Comet, Dutch Cleanser, or similar. To check the actual crystal frequency, you would plug it into an oscillator, find it with a receiver, and then use a BC-221 frequency meter to zero beat against the oscillator signal.

Charlie then spoke a bit about how he and a friend got on the 2 meter band in 1955. They started by building down-converters so they could hear the 2-meter signal on their 10-meter receivers. Crystals for 144 megacycles were unheard of, so for the transmitter, they started with an 8 megacycle oscillator, doubled the output to 16, tripled that to 48, and tripled again to 144, and then amplified. Doublers could triple and triplers could double, so they had to have a way to measure the final frequency.

Lecher wires provided the answer. Lecher wires are essentially an open transmission line, and you use a neon lamp or some other kind of signal detector to detect the signal peaks or nulls in the standing waves. The distance between nulls is a half wavelength. Charlie warned that modern day transmitters won't survive the high SWR involved in using Lecher wires to measure frequency - the tubes they used survive ok.

BC-221 Links:

<http://radionerds.com/index.php/BC-221>

<https://www.youtube.com/watch?v=9iZy41OfGHM>

<http://hanssummers.com/bc221t.html>

<http://www.w7ekb.com/glowbugs/Military/BC221pages.html>

Lecher Line links:

https://en.wikipedia.org/wiki/Lecher_lines

<http://www.eham.net/articles/18584>

<http://www.instructables.com/id/Frequency-measurement-by-Lecher-Line/>

13. W4NCLive: David Shoaf recognized and thanked our viewers, one of them being Raja Chatterjee, KG4AC attending from Guantanamo Bay.

14. Business Meeting Reminder: David Shoaf, KC4X, reminded everyone that the September business meeting will be held at 66 Pizza located at 3440 Frontis St, Winston Salem, NC. This is an open meeting and all club members are welcome to attend. Attendees usually show up for dinner at or a little before 6:30; the official business meeting starts at 7:30.

15. Adjournment of Meeting: Motion to adjourn the meeting was made and seconded by several attendees. Meeting was adjourned at 2100 hours.

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

David Shoaf KC4X, Jim Register KV4SJ, Kent Englebert K4HKE, Doc Holliday WB4QIZ, Terry Brown AK4D, Jerry Minor K4GW, Harlan Cobert W1HRC, Mark Gaines KM4TUK, John Kippe K1PPE, Bill Kennedy WD4OTY, Charlie Kluttz W4TMR, Bob Warren KB4NHB, Bob Gusek NC4RG, Matt Taylor KB1BSR, Geoff Rudy KK4MOV, Matthew Thompson KM4TOP, Gene Bowman WB4MSG, Paul Schuh N4VOA, Rick Batte N4MBI, Gary Miller WA4VMC, Daryl Knight N5WK, Cathy Melvin KM4OCS, Ken Melvin KM4NFQ, Pedro Tomas KN4GKY, Frank Horvath KM4VDL, Ed Walbroehl KE4ZFT, Ed Needham AF4XC, Steven Mierisch KG4JWU, Tim Brown, Jim Bielski KJ4FIN, Harold Richardson N4HER, Steve Patterson WA3RTC, Van Key KC4WSK, Sam Poindexter NI4TG, Ron Adkins KM4WPN, Dale Mierisch WB9SZL, Bob McClellan W3AVB, Mary McClellan KM4WPO, Don Edwards WS4NC, David Griffith WA4MKK, Raja Chatterjee KG4AC (Virtual).