

Minutes 11/2022

President Derek W0TYG was there early to set up the Zoom equipment again, leading the pledge to the flag promptly at 7PM with these present:

Derek	W0TYG		
Don	W0AF	Rick	KF0IQL
Bruce	NOBHB	Norm	WA0JYD
Chris	KF0FBL	John	KB0QKH
Bill	KD0FJR	Rick	KA0RLR
Greg	N0GR	Rick	K0RWJ
Mark	KF0GVT	Suz	KE0WYL
Paul	WB0GXD	Rich	WA0ZQG
		(15)	

Rich ZQG had a program on club's **Astron 35** power supply with an emphasis on differential amps (they're used extensively in ICs, and he showed a schematic with 2 NPN transistors). The meeting resumed 40 minutes later.

Minutes & Treasury

Minutes of last month's meeting were approved on a motion by Paul GXD with second by JYD. The Treasurer (N0GR) reported \$6,599 in the bank. Rick RLR objected, suggesting we should report \$5k less because of the authorized funds to install an antenna at the new 442.225 site at which Greg N0GR threatened to resign if we wanted him to keep "two sets of books." That ended the discussion. Greg remains.

Hamfest 2023

Chmn Derek TYG says there are **new owners** at the potential Cow Patty's site (btwn CoBlfs and Underwood IA off Hwy 191) and conditions to rent it aren't as before. We may not have access the night before for our vendor to set up; might be a problem with snow removal, and table setup may not be included. (The alternate site was in the mix because McClelland is small, and prices are going up.) After much discussion, Derek seems likely to decide on **McClelland** again.

Repeater

Our UHF repeater (442.225) has been moved to the new site at Memorial Park (adjacent to the original blue water tower where .22 receive was in 1968) but with only a Diamond antenna on the roof of the shack (100 ft lower than optimum).

The .82 repeater site (185 ft tower) has been sold to a tower site company (previously by a cell company) and we are likely to lose the site. Ideas for a new site should be sent to 'Trustee at SWIARC' address as shown on our SWI radio dot org website. (Your house; another tower?)

The IWCC site where we have our .22 remote receiver is declining. We are the only occupant right now and the shack is in disrepair.

John QKH said they took down the 500 ft tower at Ch. 6 in Omaha, and no one came to pick it up so they tossed it. New member Mark GVT asked if we could publish a history of .82 and whether it could be put up in Nebraska rather than Iowa. (Repeaters are 'coordinated' by state QTH.)

Emergency Service

Rick RLR said the Milwaukee HRO location may help to find radio donations for Emer use, also that he is dealing with a medical issue.

Old Business

Paul GXD said the Nov 5 downtown parade went well with these Hams helping:

Bruce	NOBHB
Chris	KF0FBL
Bob	KA0OCA
Derek	W0TYG
Suzanne	KE0WYL

Chris FBL said it appears we have met challenge offered by previous club President Gary K8JOK to do two (2) public service events this year.

We have a reservation at International Buffet (48th and L St in Omaha) for Christmas dinner 6:30 PM, Thursday 29th of December.

New Business

Rich K0RWJ has offered to edit Printed Circuit newsletter (print version from 1991 – 2012 and intermittently since).

Late Note: December issue on **SWIARC io grp.**

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Minutes 11.2022 (cont.)

Announcements

Steve KE0SS (Steve Schmidt, Sneaky Snake, and a few others) is a Silent Key as of Veteran's Day this year (11.11). He was 63 and was taught by Cecil W0RMB (SK) at Westside High School way back when.

John QKH asked if anyone knew whereabouts of Boyd K0LGG, a former member of SWIARC and Hamfest expert.

Norm JYD mentioned an aurora forecast for the weekend, and asked about the Norfolk Fest.

Don W0AF who rides his bicycle often, said there are 5 area races coming up in 2023.

Paul GXD said the Simplex Net on 147.42 Tuesday nights at 7PM has the potential to cause interference if a strong 7.42 signal mixes with our .82. One of the mix products is 146.22. (See the '2A minus B' article on SWI radio dot org.)

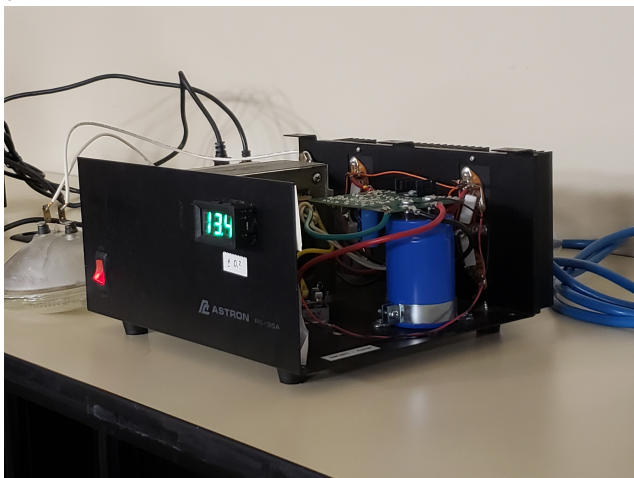
Late Note: They're moving up 15 to 147.435

Meeting adjourned 8:32PM.

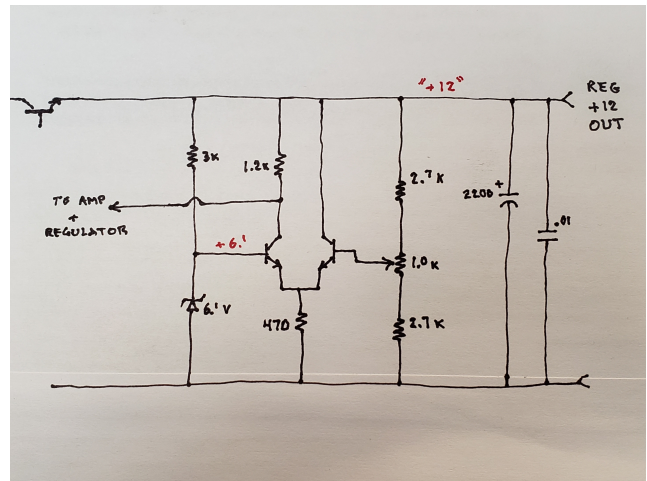
Minutes by club Sec'y, WA0ZQG

Program Review

The club owned Astron 35 power supply died some time ago, and Rich ZQG volunteered to fix it. Paul GXD had already determined it was the power rectifiers and ordered parts from Astron.



The Astron was there at the meeting with guts exposed, and a shiny new green LED voltmeter glued to the front showing 13.4 Volts. As with any digital display, the last digit may be off by 1 but this one, Chinese origin off EBay, was really bad, not 1 percent like some meters or even 3% like the old analog meters. Four (4%) percent plus. **Low.** So with the supply at **13.6** it showed 13.2. Rich 'fixed it' by hooking the voltmeter to the base of one of the 4 output transistors. That raised the display by about 0.7 volts – too much. Then he added an inline series resistor to drop a couple of tenths back down to 13.4 – too little. But as the load increases, so does the base drive and though the **output doesn't change**, the volt display comes up a little. And then some more. Below the green display is a hand drawn note “+/- 0.2”. Rich says, “There, I fixed it for ya.”



ZQG drew a schematic of 2 transistors in the classic differential amplifier layout often used in regulated power supplies with the Base of 1 going to the volt adjusting pot, and the other Base hooked to a 6.1 V Zener voltage reference diode. His question, “What happens to Base 1 when you turn the pot to increase output from, like, 12V up to 13.8 V?”

Here's the answer:

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