



Volume XXI Issue 1
Editor: Thomas Price KC2PSC

January 2020

December 12, 2019 Board Meeting Minutes

There was a brief meeting prior to the Christmas party.
Peter S. DeLuca AA2VG was voted in as the President for 2020.
It was decided that the club will put up a banner the HRU Jan. 4th 2020

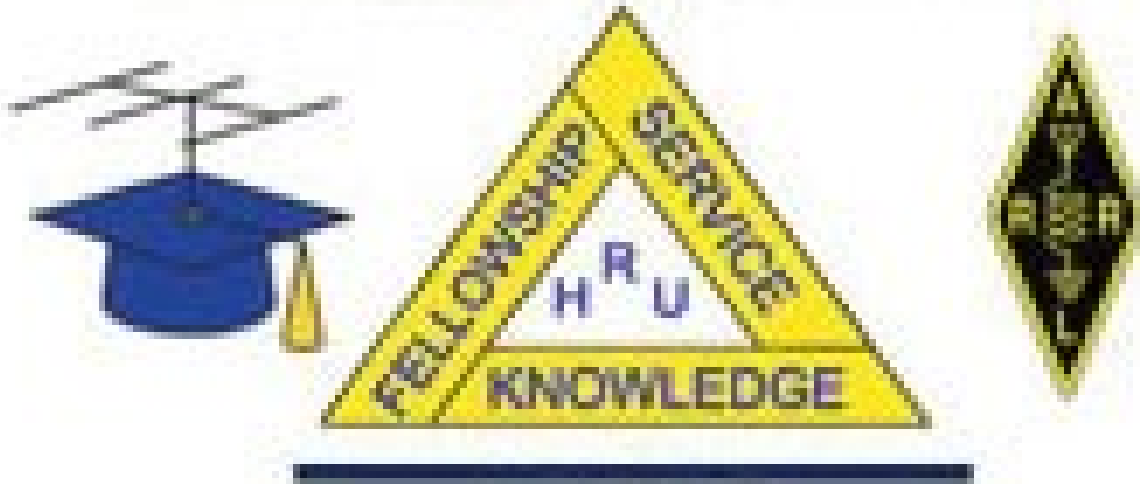
RACES was discussed by Steve N2PQJ

All 24 members who attended the Christmas party enjoyed themselves.

December 12, 2019 General Meeting Minutes

No meeting minutes. Happy Holidays!

HAM RADIO UNIVERSITY



Saturday
January 4, 2020

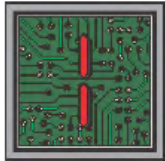
LIU / Post
Hillwood Commons Student Center
720 Northern Boulevard
Brookville, NY 11548

Doors Open at 7:30 AM. First forum at 8:30 AM.

Hamradiouniversity.org

QRP Labs Shack Clock Kit

By John Smale, K2IZ



In order to keep the kit-building interest alive in the club -- and for those not club members -- a few of us are always on the lookout for interesting kit-building projects. There are a lot of kits out there. It becomes a matter of doing GOOGLE searches to find ones that are interesting and useful.

I came across the QRP Labs website: <http://qrp-labs.com/> which has a large selection of kits available, something for everyone. I ordered the Shack Clock kit and the QLG1 GPS Receiver kit. Why? Old school habit, I guess: In the Navy, one of the jobs of the midnight-to-eight watch was to synchronize all the clocks in the radio shack with WWV, Fort Collins, Colorado and the watch supervisor would make an entry in the supervisor's log that it had been done. One of the first things the Chief Radioman did when he came into the radio shack, after he had poured his first cup of coffee for the day, was to check all the clocks in the shack. If he saw any discrepancies, he'd take a look at the supervisor's log. If it hadn't been entered that a time check had been done the previous night (or nights), a vehicle would be dispatched to the barracks with orders to get the supervisor out of his rack and brought back to the hangar. Those were called "Yes Chief!" conversations, kind of one-sided.

In my shack, I have four sources to check date and time. They are: MFJ-107B 24-hour LCD clock (won as a door prize at HRU many years ago); the clock setting on my computer, the clock setting on my DAVIS Vantage VUE weather station and an old CASIO wristwatch that receives the atomic clock signals from Fort Collins. Any one of them do the job but sooner or later, I start looking at the different sources and I see a couple of minutes' difference between them. How many of us have gotten the MFJ-24 Hour LCD

clock and after a few years, the display is unreadable and you don't have any spare button-type batteries or even know what batteries fit it? The clock either gets tossed into the junk drawer or right into the garbage.

The instructions are very well-written, available for download from the QRP Labs website. On the first page, under "Design," it says:

For best results, please ensure the use of a well-regulated, clean and solid 5V power supply. The majority of problems with the kits arise due to poor power supplies! Not all wall-wart type or switched mode supplies are clean enough to power the kit.

Very interesting comments, we all have wall warts in the junk parts bin. I had previously built the JYE O'scope that Kevin, AB2ZI, has started as a club project. It was quite interesting to look at some of the outputs of various wall warts I had laying around, which led to Ed, KA2ADC, giving me a few parts and a quick diagram on how to make a filter for the wall warts using nothing more than an LM7805 voltage regulator, a couple of capacitors (and the explanation of which one did what) and a small piece of vector board. I was able to build a regulator that provided a very smooth output picture on the scope.

The kit is shipped from Japan, for me the shipping time was six days. Everything arrived in a small, well-sealed, padded box, one of the things that the people from QRP Labs ask is to tell them how long it took the package to arrive. They do ship worldwide and they track the shipping time for each country.

As I mentioned, the assembly instructions are available on their website. It's easier to make changes there rather than put addendums in the packages. It is noted that the clock kit comes with extra parts and it is suggested to go through the parts and check everything against the inventory list. There are also some personal tips that make some of the building steps a bit easier but above all, READ BEFORE YOU BUILD!

The time it takes to build depends on you. It took me a couple of hours, with breaks, to put everything together. As I mentioned, the manuals are filled with tips and suggestions, explanations of just exactly why they did something. Over all, it is a fairly easy build, no surface-mount solder is involved, just through-the-board soldering.

Once I got everything together, the fun began: I turned it on, got the startup display and that was it, just empty slots where things should have been. The website also provides a manual on how to configure the clock ("you mean I have to tell it what to do?")

This is the part of amateur radio that I like, digging into the RRS (Real Radio Stuff). I don't know what the programming language is, I've never done any kind of programming. Certain characters and letters/numbers tell the clock what to do. With the GPS Mode settings, you have to tell the clock that there is a GPS unit plugged in. It took me a couple of tries, but I finally got the right setting entered and the clock came alive! It displayed the day/month/year (yes you can change the format), time in GMT/Z/UTC -- whatever you want to call it -- and displayed the number of satellites it was seeing and the number it was using to make its calculations (in some cases it's seeing 10 satellites and using 8 for the calculations.)

After reading and rereading the configuration instructions and the sample, I was able to change my display settings to show my longitude, latitude and Maidenhead Grid. Yes I know you can do this with a computer or cell phone but for me this is something that keeps my mind active in retirement.

They do have a very active support group. I posted something and got a reply from a 78-year-old ham in Australia. They also have a very large worldwide following on WSPR mode of transmitting and receiving. At the last club meeting the owner, Hans G0UPL, gave an excellent presentation of WSPR and how people are using it to track balloons that they launch with a WSPR transmitter and antenna. Most of the balloons they use are the Mylar ones you can buy in the dollar store.

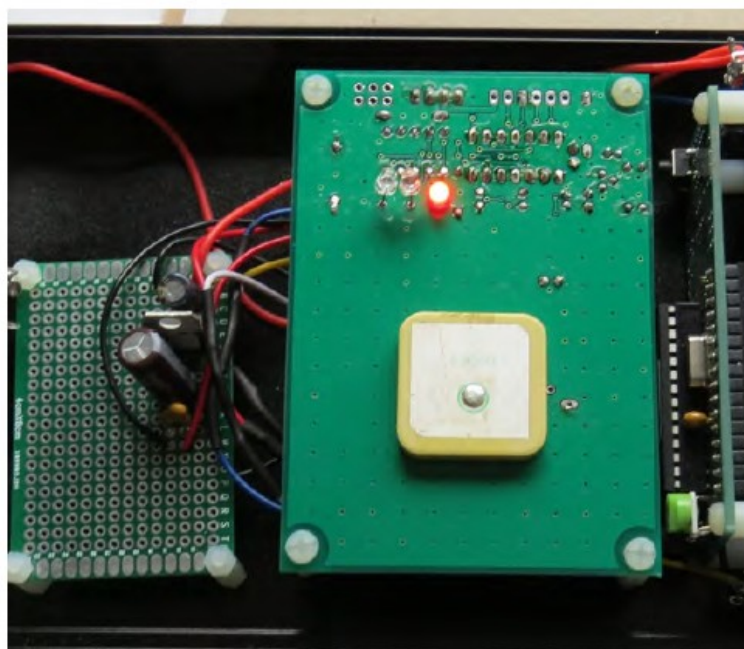
The group can be found at QRPLabs@groups.io -- but you have to apply to join. As I mentioned, they are a very large, worldwide group.

The first picture shows the front panel of the working clock, the second line flashes between showing the number of satellites visible, how many were used in the calculation, and if you configure it right it then changes to local Longitude, Latitude, and Maiden Head grid square.

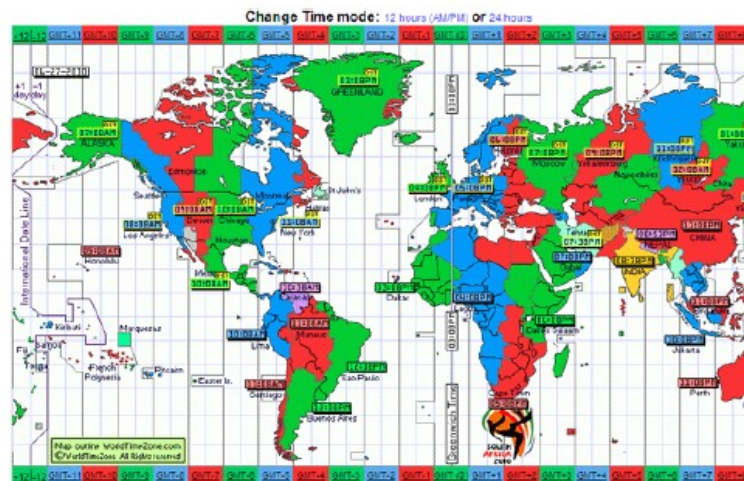
The next picture shows the GPS receiver board—the square piece all by itself is the actual receive antenna. To the left of that is the “ugly” construction voltage regulator made with 2 capacitors, an LM-7805 voltage regulator which provides a constant output of 5 VDC with input DC voltages up to 30V. The capacitors filter out any noise on the power that would affect the received signal. The wires I used for the pins are the female-female bread board jumper wires like those used with Arduino kits. This is much easier than trying to solder wires on pins. ☺



The Working Clock



GPS Receiver Board (right) and homebrew voltage regulator/filter on left.



January Club Meeting
January 9, 2020
7:30 PM
Huntington Senior Citizen Center

Groups IO

Please join the Clubs Yahoo group. Not a member already send an e-mail to the following address:

larkfieldarc+subscribe@groups.io

Join our facebook group

<http://www.facebook.com/Larkfieldarc>

ARES/RACES NETS

Sunday 0900 New York State RACES 3993.5 LSB

Monday 1900 Huntington – 147.210

Monday 1930 Smithtown – 145.430

Monday 2000 Nassau County ARES RACES – 443.525

Monday 2015 Babylon – 146.685

Monday 2030 Brookhaven – 145.210

Monday 2030 Islip – 147.345

Monday 2100 Suffolk County RACES – 145.330

Huntington RACES

<http://www.huntingtonnyaresraces.org>

The Larkfield Amateur Radio Club

Affiliated with American Radio Relay League

Officers (one year terms)

President

Vice President

Secretary:

Treasurer: Rich Florio W2TMA (2019)

General Directors (two year terms)

Donald Clarke AB2BN (2019-2020)

Art Van Nostrand KD2NJM(2019-2020)

Matt Lazarus N2RBP(2019-2020)

Peter Deluca AA2VG(2020)

Roger Rapp W2GLE(2020)

Neal Harris KC2TAF(2020)

WA2PNU Station Trustee Jonathan Schwartz KC2PBE

WR2ABA Station Trustee Jonathan Schwartz KC2PBE

W2LRC Station Trustee Jonathan Schwartz KC2PBE

Members of the Larkfield Amateur Radio Club are invited
to use the

W2RGM Dix Hills Repeater System:

2 meters

147.075 MHz out/147.675 MHz in

4z/136.5 Hz PL

70 centimeters

448.500 MHz out/ 443.500 in

2a/114.8 Hz PL

THE LARKFIELD AMATEUR RADIO CLUB OPERATES:

WR2ABA HUNTINGTON REPEATER

2 meters

147.210 MHz out/147.810 MHz in

4z/136.5 Hz PL

W2LRC HAUPPAUGE REPEATER

2 meters

145.430 MHz out/144.830 MHz in

4z/136.5 Hz PL

W2LRC HUNTINGTON APRS

2 meters

144.390 MHz In/Out

USA EASTNET FLEXNET NETWORK

2 meters

WA2PNU (0-15) Nodes 145.070 MHz

WA2PNU (-4) Node 145.070 MHz (BBS)

The Larkfield Amateur Radio Club wishes to thank Bruno KC2ESI, Jack K2JX, Joe N2QPD, Bob AC2AZ, Thomas KC2PSC, and Pat WB2CMF for their dedication and efforts in maintaining the Club's repeaters and our packet and APRS stations. Their collective efforts and donations of equipment along with the overview of Bob AC2AZ and Peter AA2VG have kept us "on the air". Still to go, another 440 MHz repeater and adding IRLP or Echolink to one of our repeaters. We need volunteers for this new work.

General Meetings 7:30 PM

January 9, 2020

February 13, 2020

March 12, 2020

Board Meetings 7:00 PM

January 9, 2020

February 13, 2020

March 12, 2020

GOOD AND WELFARE

Attention members: Our Good and Welfare Chairperson is Helene Lazarus (XYL of Arnie N2PLS). Please inform her (499-2837) of news about club members so she may make submissions to this publication.

2014 DUES SCHEDULE

Regular Membership: \$35.00

Members Age 65 or older: \$25.00

Members Age 17 or less: \$25.00

Disabled Members: \$25.00

Living Outside Club's Operating Sphere: \$15.00

Add \$10.00 if you want QSX via U.S. Mail

Make your check payable to: LARC

And Mail to:

Larkfield Amateur Radio Club Inc.

PO Box 1450

Huntington, NY 11743

**VE SESSION SATURDAY February 8th
HUNTINGTON TOWN HALL
100 MAIN ST., ROOM 114
WALK-Ins WELCOME**

Team Liaison is Rich W2TMA. Fee is \$15. All elements will be offered and exams start at 9:00AM. You must have 2 forms of ID, one of which includes a photo. If upgrading, bring an original and a copy of your license and an original of any CSCEs.

The next Executive Board and General meetings will be on Thursday, January 9th at 7:00PM and 7:30PM, respectively.

**You can submit articles or photos for publication by e-mail at:
larkfieldqsx@gmail.com**

**Larkfield Amateur Radio Club, Inc.
Post Office Box 1450
Huntington, NY 11743**