Editor: Rick, WØPC

Volume XIV, Issue 1

GM Net News

June 2021

Lake of the Ozarks Remote Operation

With the warmer temperatures, brings on the time to head for the Lake of the Ozarks. As most of you know, I like to spend the summers at our lake condo. We have been doing that for the past 17 years of my retirement and about 10 years before that as weekend warriors. During this past winter, I've been working on my station to make it a better remote controlled station. I upgraded my HF station Flex 6600M and built a station integration board for my work room that is the control point for my station. In the process, I moved my amplifier and antenna matching network to a cart in my work room since neither has any controls necessary for me to operate my station. Several years ago during our remodels, I had a pass through put in from my work room to the back of my operating position. The most important requirements that I wanted was the ability to disconnect my antennas during storms or non operation periods. Next was to be able to select different antennas remotely. I've got a real nice DX-Engineering high power remote switch to do that job. Next was having an automatic battery backup ready to takeover if necessary. I already had the parts to add the battery switch and voltage booster so that was pretty easy. The last part of the system is remote antenna rotor control for my Hexbeam. That part is still in the works but the infrastructure is built into the "station integration" board.

The heart of the system is a KMtronic USB relay controller. The interesting issue was that the relay device came with a mounting bracket designed for a 35mm Din rail. That gave me the idea to use 35mm Din rails for mounting most of the equipment to the pegboard. It actually worked out nicely. I could easily move things around as I saw fit. The KMtronic USB relay gives me 8 normally open or closed contacts individually controlled through one com port on my station computer. These relays disconnects my antennas, select which antenna and powers up or down my Flex 6600M transceiver. My Acom 2000A amplifier has software to turn it on/off and switch between run and standby which pretty much allows me to sit in my easy chair in front of the window over-looking the lake while operating the Maestro with full station control. The Maestro looks exactly like my main 6600M but doesn't require any wires to make it work. My CW paddles and mic plug into it giving me the feel that I'm operating a real radio in front of me. No coax or antenna required!

73, Rick (WØPC)

Inside this issue:

The GM Nets meet daily Monday through Saturday on 7.277.5 MHz at 17:00Z

Would you like to help out with Net Control Duties? Contact our Net Manager George, KB9VF kb9vf9@gmail.com

Net Preamble & Closing

Net Control Stations:

George, KB9VF

Rick, WØPC

Bill, WB9YUR

Denny, N8XLS

Phil, W9MPA

Bob, K8MPV

Charlie, WD9IQV

Wally, WB8M

Scott, W1BIC

Roy, W8MRW

Net Preamble

This is (your call), today's net control. This net is composed of employees and retirees of the General Motors Corporation .

This net meets daily on this frequency for the purpose of getting better acquainted, expanding our knowledge, and improving our operating techniques. We promote friendship among participants in many locations who have many talents and have or have had a variety of work assignments. The General Motors nets are international in scope on some bands, and visitors are always welcome to check in. Please stay carefully tuned to net control at all times. This is (your call) (working for or retired from) (your) Division in (your city), (state). My home QTH is (where you live). My name is (your name) and we will now take check-ins, one at a time, please.

Net Closing

Are there any late check-ins for the net? (pause for late check-ins). Is there any further business for the net? (pause for any further business) Having no further business, we will close the net at this time. This net is composed of General Motors employees, retirees, and visitors. We meet each day, Monday through Saturday, on or about this frequency, at (**1700z** or 1800z). Thank you for your participation and please return often. This is (your call) now closing the net. 73 and Good Afternoon.

I can hear you on the "K3FEF.com" SDR Receiver
Cycle 25 is finally starting to show sun spots!

Net Control Schedule

June 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Notes:		1 N8XLS - Denny	2 WD9IQV - Charlie	3 WB9YUR - Bill	4 W8MRW - Roy	5 WB8M - Wally
6	7 WØPC- Rick	8 KB9VF - Geo	9 K8MPV - Bob	10 W1BIC - Scott	11 W9PMA - Phil	12 N8XLS - Denny
13	14 WD9IQV - Charlie	15 WB9YUR - Bill	16 W8MRW - Roy	17 WB8M - Wally	18 WØPC- Rick	19 KB9VF - Geo
20	21 K8MPV - Bob	22 W1BIC - Scott	23 W9PMA - Phil	24 N8XLS - Denny	25 WD9IQV - Charlie	26 WB9YUR - Bill
27	28 W8MRW - Roy	29 WB8M - Wally	30 WØPC- Rick	Notes:		

Wonder Who Lives Near You?

https://haminfo.tetranz.com/map

Use this map to find amateur radio license holders in the USA. Select the type of input (callsign, gridsquare, zip code or street address) on the left.

When the map appears, you can adjust the zoom level and drag the map around. If you're looking at a sparsely populated area, you'll probably need to zoom out.

Where did all those hams come from?

Wooden Satellite to Launch by Year's End

05/14/2021 ARRL News

The WISA Woodsat project, being sponsored by plywood supplier WISA in an unconventional PR initiative, is poised to place a wooden satellite into orbit by the end of the year. The idea is to test the suitability of treated wood as a low-cost and widely available material for space applications. The **IARU posting** for Woodsat indicates that several amateur radio experiments will be on board as well as photo downlinking, including selfies.

The wooden satellite is based on a basic, versatile CubeSat format, Kitsat, which is designed with educational use in mind. It retails for just $1,500. Based in Finland, the Woodsat project began with students across the country contributing parts to a CubeSat launched by balloon. The satellite will be a 10-centimeter cube weighing 1 kilogram, covered on all sides by coated birch plywood from WISA plywood. Nine small solar cells will power the satellite, which will orbit at an altitude of 500 – 550 kilometers.

As the sponsor quipped, "WISA Woodsat will go where no wood has gone before. With a mission to gather data on the behavior and durability of plywood over an extended period in the harsh temperatures, vacuum and radiation of space in order to assess the use of wood materials in space structures."

Once in orbit, Woodsat will be able to extend a selfie stick to capture photographs of the wooden box as it hurtles through space at 40,000 kilometers per hour (24,800 miles per hour. This will allow the mission leaders to monitor the impact of the environment on the plywood.

The satellite would downlink its telemetry and images from two cameras using amateur radio frequencies.

"The wooden satellite with a selfie stick will surely bring laughter and goodwill," added mission manager Jari Mäkinen of Arctic Astronautics. "Essentially, this is a serious science and technology endeavor. In addition to testing plywood, the satellite will demonstrate accessible radio amateur satellite communication; host several secondary technology experiments; validate the Kitsat platform in orbit, and popularize space technology."

An April 23 *Engineering and Technology* **article** has more information. — *Thanks to* AMSAT News Service via JoAnne Maenpaa, K9JKM; *E&T*, *and the IARU*

Net Control Schedule

July 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Notes:				1 KB9VF - Geo	2 K8MPV - Bob	3 W1BIC - Scott
4	5 W9PMA - Phil	6 N8XLS - Denny	7 WD9IQV - Charlie	8 WB9YUR - Bill	9 W8MRW - Roy	10 WB8M - Wally
11	12 WØPC- Rick	13 KB9VF - Geo	14 K8MPV - Bob	15 W1BIC - Scott	16 W9PMA - Phil	17 N8XLS - Denny
18	19 WD9IQV - Charlie	20 WB9YUR - Bill	21 W8MRW - Roy	22 WB8M - Wally	23 WØPC- Rick	24 KB9VF - Geo
25	26 K8MPV - Bob	27 W1BIC - Scott	28 W9PMA - Phil	29 N8XLS - Denny	30 WD9IQV - Charlie	31 WB9YUR - Bill

Guys,

https://youtu.be/n09_Nnfssew

I was looking for a replacement logging program for my iPad when operating portable and found this new one, called **HAMRS**. This video shows how it works for a POTA operation, but it has logging templates for normal operations, too.

HAMRS works on Mac, Windows, Linux and iPad/iPhone, Android. The first three are free and the last ones are $4.99.

It has no capability to talk to the rig for mode and frequency info, so the op needs to manually enter it. After, the mobile or portable operation is complete, the HAMRS log can be exported to your normal logging program via .adi file.

Looking forward to using it...Ed (K8DSS)

End-Fed Half-Wave Wire

The Popular End-Fed Half-Wave Antenna (EFHW)

The EFHW is very popular these days as an easy to install antenna that has excellent performance on the HF bands. Rick, myself and soon Wally are three Net members that have used the antenna. A big advantage of the antenna is that the end feed allows the coax feedline not to be in the middle of the span, like a conventional dipole. This often simplifies the installation and makes for a much stealthier antenna.

Lets look at how an EFHW is configured. The coax feed line from the shack goes to a small matching device in a weatherproof box. The matcher is usually a 49:1 auto transformer to which is attached a half wave radiating wire (130 ft for 80M or 66 ft for 40M). The EFHW will be resonant on the primary frequency (80 or 40) and the harmonically related bands higher in frequency, as in 20, 15 and 10 meters. So, the EFHW is a multi-bander!

The radiating wire can be installed as a horizontal, inverted vee, inverted L or a sloper. In my situation the wire goes from about 10ft, (where the matchbox is), up and over a live oak tree, so it is at about 40 ft on the high end of the sloper. No counterpoise is necessary.

Check out this great explanation of how an EFHW works. (link)

A good source for the EFHW is www.myantennas.com

73' Ed - K8DSS

Net Control Schedule

August 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
0	W8MRW - Roy	WB8M - Wally	WØPC- Rick	KB9VF - Geo	K8MPV - Bob	W1BIC - Scott
8	9	10	11	12	13	14
	W9PMA - Phil	N8XLS - Denny	WD9IQV - Charlie	WB9YUR - Bill	W8MRW - Roy	WB8M - Wally
15	16	17	18	19	20	21
	WØPC- Rick	KB9VF - Geo	K8MPV - Bob	W1BIC - Scott	W9PMA - Phil	N8XLS - Denny
22	23	24	25	26	27	28
	WD9IQV - Charlie	WB9YUR - Bill	W8MRW - Roy	WB8M - Wally	WØPC- Rick	KB9VF - Geo
29	30	31	Notes:			
	K8MPV - Bob	W1BIC - Scott				

Hamfests are beginning once again:

"No, Rick went to the Hamfest this morning to get rid of a couple old radios that were cluttering up the place…Oh, I think I hear him pulling in now!"

ClearNode Hotspot

AllStar, EchoLink, DMR, P25, Yaesu System Fusion

ClearNode is a Raspberry Pi based AllStar, EchoLink and Digital Modes (DMR, P25, Yaesu System Fusion YSF & FCS) simplex node with an integrated low power FM radio transceiver. You can use your **analog** FM HT to work AllStar, EchoLink and the Digital modes.

When you purchase this unit Gerry will email you a questionnaire and you will receive your unit ready to use it out of the box. You then use a dedicated app on your smartphone to control the unit.

Here is a link to 2 YouTube videos about it:
https://youtu.be/9BC6jV2NKic
https://youtu.be/cCGPJK804lM

The ClearNode hotspot is manufactured and supported by Gerry Filby W6WNG.
His website is https://www.node-ventures.com/

The GM Amateur Radio Club meets the third Tuesday of the month (except July & August) at 7:00 PM, at the Packard Proving Grounds

49965 Van Dyke Avenue
Shelby Township, MI 48317
[Between 22 Mile & 23 Mile Roads]

Meetings are also Streamed Live on Facebook - search for GM Amateur Radio

Net Control Schedule

September 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Notes:			1 W9PMA - Phil	2 N8XLS - Denny	3 WD9IQV - Charlie	4 WB9YUR - Bill
5	6 W8MRW - Roy	7 WB8M - Wally	8 WØPC- Rick	9 KB9VF - Geo	10 K8MPV - Bob	11 W1BIC - Scott
12	13 W9PMA - Phil	14 N8XLS - Denny	15 WD9IQV - Charlie	16 WB9YUR - Bill	17 W8MRW - Roy	18 WB8M - Wally
19	20 WØPC- Rick	21 KB9VF - Geo	22 K8MPV - Bob	23 W1BIC - Scott	24 W9PMA - Phil	25 N8XLS - Denny
26	27 WD9IQV - Charlie	28 WB9YUR - Bill	29 W8MRW - Roy	30 WB8M - Wally	Notes:	

Amateur Radio Club

www.gmarc.org

GM Amateur Radio Club Membership Application

Membership in the GM Amateur Radio Club is open to anyone interested in amateur radio

New Member [ ] Renewal [ ] Heritage [ ]

Present Call Sign _____ ARRL member yes/ no _____

Name _____

I would like to be called_____ (This will be used for the First Name on your ID Badge)

Mailing address_____

City_____ State_____ Zip _____

County _____Home Phone # _____

Cell phone # _____Work Phone #_____

E-mail address_____

If you are/were a GM employee - Work location _____

Yearly dues are: January 1 -- December 31

[ ] $20.00 Individual [ ]$30.00 Family [ ] Heritage $10 (first year free)

Please make checks payable to: **GM Amateur Radio Club or GMARC**

Note: Please enclose a passport photo (for your membership id)

Mail to: **GMARC**
Bobby Corr - N8CY
45601 Fox Ln w apt 106
Shelby Township, MI 48317-5054

Note from the Editor: Many of our old Firebird ARC have also joined the GMARC as "Heritage" members. Nets are on WW8GM/R (443.075 MHz) linked to Echolink via WW8GM-R Monday's @ 8 PM EST or 0:00 Z