# MERIDEN AMATEUR RADIO CLUB

# KEY KLIX


# SEPTEMBER 2023 ISSUE

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# The President's Podium Ed Snyder W1YSM President

## PRESIDENT'S COLUMN, SEPTEMBER 2023

### HAMS HELPING HAMS

One of our members John K1LYP, has always stressed to me that one of the best aspects of amateur radio is the concept of Hams Helping Hams. MARC has come a long way since it's early beginnings 1947. Over the past several years we have seen our membership swell to 154, as of the September Business Meeting. There are benefits to a large club membership, as well as some negative aspects. This column will focus on the benefits of having a of having a large number of members -- many of whom are new hams and new to MARC. One of the benefits is that you now have members with fresh enthusiasm, many of whom may be younger than many of the long-term club members. These new recruits, often have significant enthusiasm for, and are looking to spend time on, new projects. Indeed, they likely joined the club because they were interested in doing something in and with amateur radio. They did not want to join a club whose members mostly sat around all day and rag chew' d.

Several examples of new enthusiasm come to mind. One strong example is when Ray KC1QLS became a new member and made it known that he was proficient in, and able to launch high altitude balloons. After some consideration and discussion, we made it a club project. The project caught the imagination of multiple club members and rapidly morphed from a project into a priority and now into the 8th initiative in the MARCONI Program – Amateur Radio and Balloon Science. Ray also secured separate ARRL funding for the balloon launches, by receiving an ARRL Club Grant Award to do so. Once it became known that he would be able to launch a balloon, several club members, each with a different skill set, stepped up and joined the rapidly growing team. We currently have had several balloon launches thanks to Ray KC1QLS, Dave NJ1J, Rob K1RCT, KC1DOY Ted, KC!NQE Shawn, Bob WB1GYZ, Bart N1BRL, N1BRI Brian, Bob KE1AU, and many others. A mix of veteran and new MARC Members, all of whom have contributed to the success of this program. Indeed, at the last (3rd launch) they were many club members present.

In addition to increased club activity, our progress in this area has become noticed by the ARRL. They are very interested in promoting the balloon effort which has been ensconced in the MARCONI Program as the 8th I nitiative. The League wishes to add balloon science to the ARRL Teacher's Education Program and have asked Ray to participate – quite an honor. We have received inquiries from other clubs in CT and even other states about the program. None of this would have happened had it not been for the presence of many enthusiastic MARC club members some – senior -- and some new to the club.

I received an email today from Kristin KC1ISI, who said that she was approached by a Girl Scout leader, who wanted to have a Girl Scout troop work towards the radio merit badge. She asked whether it was possible for the Meriden Amateur Radio Club to assist in this effort. I told Kristin we would be happy to participate and told her of several club members who have worked with the Scouting Program and likely would help advise her on how to proceed- (Rob K1RCT, Brian N1BRI, Rick KC1OYN, James NZ1N, and several others). She contacted them and suddenly calls came back from several of them with some substantial suggestions and recommendations on how to manage this effort. Others, including me W1YSM, suggested that maybe Ray KC1QLS and Dave NZ1J might be willing to get involved and give the scouts a background talk on the balloon launch program. All of these efforts, expand the degree to which the Meriden Amateur Radio Club is recognized and respected, throughout not only Connecticut but the Northeast. And thanks to the ARRL, possibly through the nation. Again, multiple club members coming to help a fellow ham with a project. This is not doable in a club with only a few disinterested, ossified members. As a last example, when I read in the Wallingford Park and Rec Activities Bulletin that there were new programs being offered by the town of Wallingford, I said why don't we offer an amateur radio license class? I called up club member James AB1DQ, and just like that , we now have an FCC license preparatory program set up that will be starting 20 September at the OEM. About 6 to 8 MARC members stepped up upon James' request, and they are going to be doing the teaching. Hopefully will have a good sign-up of people who want to get their Ham license. Again, this is possible only because we have a large enough number of members to participate in all of these efforts and promote the Meriden Amateur Radio Club.

Some people may say we don't need to do all this. We were doing fine by ourselves, sitting in a room, talking about the 'good olde days'. Others believe, however, that becoming involved in new club activities such as the ones mentioned above, is much more rewarding. I tend to agree with them. Importantly, however, THIS PHILOSOPHY IN NO WAY IMPUGN'S THE MEMBERS WHO JUST WISH TO RELAX AND ENJOY EACH OTHER'S COMPANY IN THE SPIRIT OF AMATEUR RADIO CLUB FRATERNITY AND SORORITY. I approve of that approach as well, just not to the exclusion of other club activities.

I have been your President for four years. With the approval of the club members in November, I will be granted another year to be your leade**r.** I do plan to toss my hat into the Presidential ring. If the feeling is, however, that there should be a change in leadership, that would be fine.
We need to have new blood at all levels of the organization. From what I can see under my watch, the Meriden Amateur Club has grown both in numbers, enthusiasm, sense of commitment, and camaraderie The feelings of friendship that we have for each other indeed has grown; it is noticeable to me. It has grown thanks to so many existing members working together towards a common cause and welcoming in new members to join in the fun. Amateur Radio is one of the finest hobbies in the world. I look forward to the Fall with lots of activities. Thank you all for your cooperation and support. Please remember that at the September 14 Business Meeting we will vote up or down on the updated Constitution and By-laws. I hope to see everybody there at 7 o'clock on Thursday, September 14. This is a great club that has at its core the idea that K1LYP spoke of, we are Hams Helping Hams.

73,
W1YSM

**SEPTEMBER BUSINESS MEETING THURSDAY 9/14**
**IN PERSON AT THE OEM AND ALSO ON ZOOM 7PM START**

# WE WILL BE VOTING ON THE CONSTITUTIONAL CHANGES

# Secretary Report & Minutes of the Meriden Amateur Radio Club
## Bart Toftness N1BRL , Sect.
## BUSINESS MEETING AUGUST 10, 2023 ZOOM

Business Meeting August 10, 2023, 5 in person and 32 via Zoom videoconference.
Meeting was called to order by President Ed Snyder, W1YSM at 19:00 EDT

Present at the live in person meeting (5) were N1BRL, W1YSM, KB1JL, KC1OYN, and WB1GFI. Attending via Zoom (32) were. KC1QLS, KC1TCO, N1LES, W1BJG, W1YSM, KC1PBQ, K1JCF, K1LYP, N1BRL, KC1RBY, KC1QWH, W1DQ, W1EDX, N1API, K1RCT, WA1TRY, K1WJL, KE1AU, W1BRY, KC1ISI, KB1IFZ, K0OZ, N1BRI, NZ1J, N1GNV, W1IKW, KB1EHE, N1ZN, K1LHO, KC1KQH, W3APC, WV2LKM, K1VDF, KB1JL, KC1OCS, KC1OYN, and WB1GFI.

**Announcements (W1YSM)** The August Business Meeting will continue to be hybrid. The club radio room is available to all members on Sundays by appointment. This month's Moment of Appreciation goes to Ray KC1QLS and Dave NZ1J for their work on the balloon project. This year's Christmas Party will again be at Serafino's on 7 December at a cost of $35 per person.

Secretary's Report (N1BRL), Both the June and July Business Meeting minutes were approved by majority vote. Four new applicants were each approved for membership. Deirdre Crombleholme KC1TCO, Robert Lombardo W1NDT, James Sintay KB1APO and Kaz Bogusz AA1EM.

Treasurer's Report. was read by Rick KC1OYN. N1GNV and Quick Silver Radio made a $125 donation in support of the balloon project. The complete report is available to members upon request to the Treasurer.

Station Manager's Report (K1RCT), The Station Activity Manager reported Saturday morning activities at the OEM include about 18 to 25 people. The club flea market was successful in reducing the storage load and returning over $600 to the club treasury. The club call sign W1NRG was activated by N1API during the 10 – 10 contest and by KC1QLS and NZ1J for various balloon launches as well as by K1RCT for IARU.

Standing Committees, The August Activity will be Dave Tipping NZ1J telling us about WSPR. The September Activity Meeting will be 'Practical Information Regarding Test Equipment in the Ham Shack' by Alan Wolke W2AEW. October will be Josh Ellsworth from the Vintage Radio and Communications Museum. Brian N1BRI our Activities Chair has an interesting schedule through Feb 2024. Mike K1LHO reports the repeater battery is being replaced.

Other Activities, Reports of activities of other club groups included activities of the CW Class, Contest Activations, Castle Craig 10-10 and KeyKlix. Rick KC1OYN reported on the upcoming Big E and opportunities to participate. Ray KC1QLS reported on the progress of the balloon project. The Nutmeg Hamfest is on track for 8 Oct. The Constitution/Bylaws Revision Committee has completed the review of submitted change suggestions. Following the Town Hall meeting some additional changes were made and the updated documents will be sent to the members for them to read the final version. All the members present at the September 14, 2023 Business Meeting (in person or via Zoom) will vote to accept or reject the new Constitution and By Laws.

Continuing Business The monthly VE Sessions continue to attract multiple examinees including walk-ins. WARG/EMCOM has monthly training sessions for CERT. The CERT Team will have the trailer at Community Lake in support of the town Health Department Expo on August 12.

Voting Summary for the August meeting

Four new applicants were each approved for membership. Deirdre Crombleholme KC1TCO, Robert Lombardo W1NDT, James Sintay KB1APO and Kaz Bogusz AA1EM.

Both the June and July Business Meeting minutes were approved by majority vote.

NO VOTE has been done for the Constitution and By Laws but the members WILL VOTE at the September 14 2023 Business Meeting to accept or reject the new documents.

Meeting was adjourned at 20:21

Respectfully submitted,

Bart Toftness, N1BRL

**THE MARC BALLON SQUAD LED BY RAY KC1QLS RAN A DRY RUN INFLATING THE TEST BALLOON AT THE OEM ON A SATURDAY MORNING. IT WAS TIED TO A LAWN CHAIR WITH W1YSM ED'S NAME ON IT WITH A SEAT BELT BUT CLUB PRESIDENT ED W1YSM SOMEHOW GOT AN EMERGENCY CALL FROM YALE AND HE RUSHED OFF....**

# THE MARC BALLOON PROJECT OF 2023

**RAY CIRMO**
**KC1QLS**

Balloon Project:
The intent of starting the balloon project was to provide an activity that:

- Was centered around education, camaraderie, and of course fun.
- Was educational to those already in the hobby.
- Was of interest to current club members, both old and new.
- Would bring members of the club together.
- Would interest outside people and help grow club membership.

Specifically I am looking to groups like scouting, schools, others that might see what we are doing via social media, etc. Would provide an avenue for joint experiences between clubs.
We chose to use the WSPR (Weak Signal Propagation Reporter) protocol, allowing us to transmit at very low power and achieve great distances given the projected height of our balloon. If the balloon managed to travel large distances, our transmissions could be picked up all over the globe on fixed frequencies. All WSPR data is uploaded to a common database (WSPRnet.org), by anyone spotting our transmissions.

We settled on using the QRP Labs U4B WSPR board. The board is very reasonably priced and offers a great deal of features and flexibility. The board comes configured to transmit two messages. The first message is a standard WSPR message. The second message is a telemetry message that sends encoded information using the standard WSPR format. For our project the data transmitted between these two messages includes the club callsign (W1NRG), Maidenhead Grid Locator, signal strength, GPS data (latitude, longitude, altitude), solar panel power level, and temperature. Power output is about 27 mW.

The final design of the balloon system consists of a single pico-balloon with a twenty foot long piece of 5 pound test braided fishing line hanging from it. Attached to the bottom of the fishing line is our platform, made from a foam board. Four pieces of 5 pound test fishing line are attached to each corner of the foam platform and tied together several inches above the surface of the foam board. This is then attached to the bottom of the cord hanging from the balloon.

Mounted on the top of the platform are seven solar cells wired in series. The plus and minus leads from this configuration are fed through to the bottom of the foam plate. The U4B is mounted underneath the foam plate and the wires from the solar panel are connected to the board. A small GPS antenna is constructed and soldered to the board. A 20 meter dipole is constructed from two pieces of 32 gauge enamel coated wire. One wire is attached to the 20 foot braided cord and runs vertically upwards to the balloon. The second wire simply hangs down from the board. The antenna is tuned to match the specific frequency used to transmit WSPR data on 20 meters.

To get the most from our solar cells, it is important to consider the angle the sun light hits the cells. As the angle of the suns rays to the horizontal of the platform decreases, so does the power output of the solar cells. This angle is important when considering the time of year we want to launch our platform, plus in considering the path our platform might travel. The time of year we launch is easy to control, but the path we travel due to wind conditions is not within our control. Not knowing the path our platform will travel, we realize the balloon system might not receive enough sunlight based on its position around the planet, meaning we could have periods of time when our system might go silent.

When launching in the summer, our platform lies in the horizontal position. Solar cells get more efficient as they get colder. As a result we have kept the number of solar cells to a minimum, providing just enough power to operate the system on the ground, yet not providing too much power at higher altitudes. To achieve a high altitude each of our launches used a single pico-balloon. These balloons are readily available and relatively inexpensive. Exactness in preparing the balloon, filling it with the correct amount of gas to give it an appropriate amount of lift, and keeping the overall weight of the total balloon system to a minimum are all important factors in our achieving success.

For the entire project a crucial factor is to keep weight to a minimum. The balloon is filled with just enough helium to lift the final weight of the platform and antennas, at about 1 foot per second.

Continued on the next page

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Before any launch takes place, a number of tests are carried out. Our first tests consist of running a wire up a pole, attaching the U4B to the antenna, and just letting the other leg of the antenna run across the ground. In this configuration, transmitting at about 27 mW, we have been spotted up to 6000 km away. This was an eyeopener as to just how effective low power communications can be.

Our second level of tests use five 12 inch latex balloons from the party store, filled with an 80/20 mix of helium and air. We tether the system at about 100 feet in the air and monitor the transmissions by radio and also with WSPRnet

Before preparing for any launch we need to make sure we have a good way to monitor our transmissions. When close enough, our transmissions are easily received by radio. We also use the WSPRnet.org website to monitor the number of times and where we were spotted. Monitoring using WSPRnet.org works well for the primary transmission, but because the second telemetry message is encoded, that data needs to be interpreted by algorithm. The website WSPR.rock is another good way to monitor our progress. QRP Labs also provides a means to track the U4B board on their website. As well as displaying data, QRP Labs also tracks the balloon system on a map. By the time we make our third launch Brian Beegan will have operational a tracking system that he has developed especially for the U4B and this project. This software will become the main tracking mechanism for most club members.

With lots of planning going into the balloon system, the launch day and where the system will end up is all left to the weather. Best launch times are early morning when the winds seem to be the quietest and our platform will be in the sunlight and start transmitting and being received by our radios before launch. We have chosen Veterans Memorial Park in Wallingford for our launches, as it is far enough away from airports, and with trees and buildings far enough away that our balloon system would make it over the tops of any obstacle in our path.

To date we have done two launches. We decided to overfill the balloon with gas on our first launch, ensuring we rose above the trees. The downside of this was a shorter time before our balloon would burst. We managed to stay aloft for 6 hours, and capture valuable data from our platform, as well as help to determine what needed to be modified from our initial procedures before making another attempt.

The second launch proved to be picture perfect in terms of the amount of gas put into the balloon, with the balloon rising at about 1 foot per second. Unfortunately that platform failed to return any data due to a flaw in our software. Finding this flaw during the launch has proven to be very beneficial. We now realize that had the balloon actually functioned for the first day, the system would have never woken up when the sun hit it on day two.

Our third launch took place at the end of August and it was our last for 2023. We will start up again next Spring. We had seven club members and an XYL (my wife) at the launch site. When we returned to the club, Brian's (N1BRI) website U4B.live was up and running on the big screen tv. The club was buzzing with excitement, enthusiasm and questions. The balloon made it over the Atlantic Ocean, and was in the air for about 5 hours. We have uncovered a problem with our handling of the valve in the balloons we are using and we are making changes for the next flight. These changes will hopefully allow us to stay aloft for longer periods of time.

We have already received hardware to begin working on future launches. With these launches we will be offering a one hour talk to outside groups such as scouting, students and outside club members. Of course anyone from within the club is always invited.

**For those interested, there will be a presentation at the Nutmeg Hamfest on October 8, 2023 that covers all aspects of our balloon launches for those interested in attending.**

To date this project has proven to be educational not only to those directly involved with the project, but also to many club members. As for building camaraderie and having fun, I think the interest and smiles speak for themselves..

Ray Cirmo KC1QLS
Project Chair

## CHRONOLOGY OF BALLOON EVENTS

**JANUARY – MARCH**
**INTEREST IN BALLOON LAUNCHES STARTS PEAKING AS A CHINESE BALLOON OF MASSIVE PROPORTIONS FLOATS ACROSS THE U.S. AND IS SHOT DOWN OFF THE SOUTH CAROLINA COAST**

**THE APRIL 27 ACTIVITIES MEETING:**
**RAY CIRMO KC1QLS , RETIRED PHYSICS INSTRUCTOR FROM CHESHIRE ACADEMY GAVE A REALLY EXCELLENT ZOOM PRESENTATION ON WEATHER / SCIENTIFIC BALLOONS AND OFFERED TO MENTOR THE GROUP INTO LAUNCHING OUR OWN W1NRG BALLOON.**
**THERE MAY BE A U-TUBE VIDEO , AS OF THIS DATE WE HAVE NOT BEEN ABLE TO LOCATE IT...**

**JUNE**
**JOHN KB1MFU ALSO A BALLOON ENTHUSIAST, STARTS TO RUN SOME TESTS AT THE OEM WITH HIS BALLOON MATERIALS**

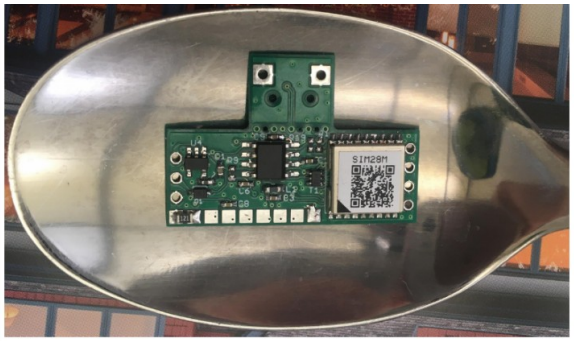
**ALSO IN JUNE**
**DAVE NZ1J & RAY KC1QLS EXPERIMENT WITH BAALLOON MATERIAL AT THE OEM….**

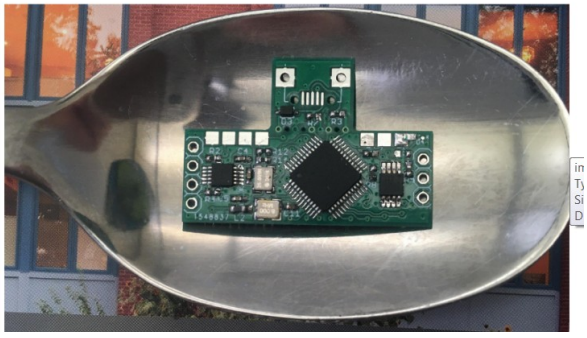
**Ray, KC1QLS is making great progress with his balloon. He and Dave,NZ1J have obtained two tracking devices for use on the balloon. Here are the details that Dave sent.**

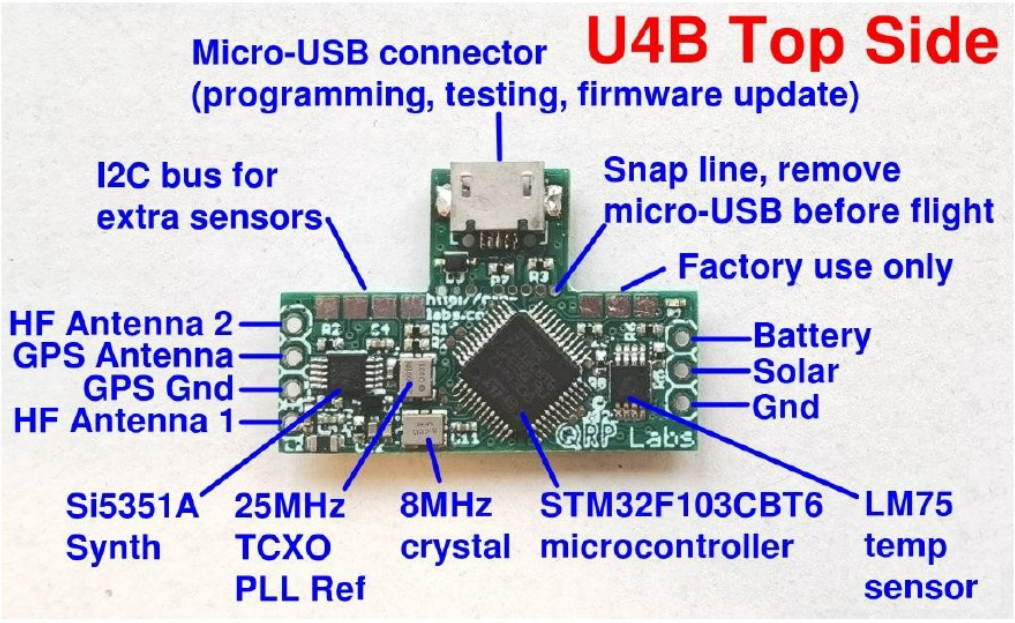
**QRP Labs makes the $50 U4B board specifically for balloons. It locates itself with GPS and reports its position via WSPR. WSPR is even better at weak signals than FT-8. Ray's 36mW signal was heard in Scotland. It's small enough to fit on a spoon and weighs just 1.8 grams.**
**In addition to WSPR, it will transmit in several other modes, including CW. With 200mW of power from a solar cell, it's capable of flying completely around the earth. The connections are very simple and a complete high altitude balloon might weigh less than 2 ounces.**
**In addition to the unit that Ray, KC1QLS, has purchased, Dale, NA1L, has also purchased one. This board is a huge advancement in the field of relatively inexpensive high altitude balloons.**

**It's going to be a lot of fun tracking this! Stay tuned.**

**TED KC1DOY**







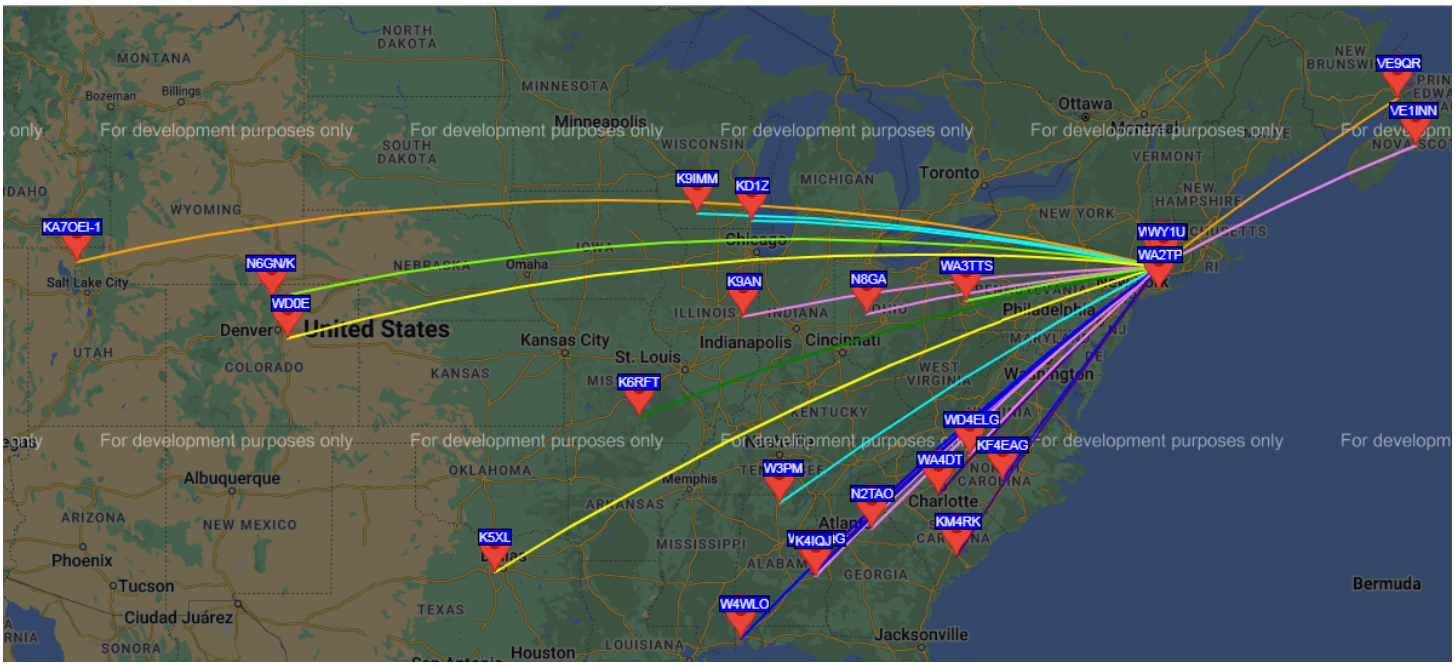
**JULY 19**

**On Wednesday, July 19, the MARC balloon project had a successful test launch. Using five helium filled balloons, the WSPR transmitter and solar cells were raised on a tether to about 100 feet in the air. The transmitter performed flawlessly sending signals that were received across the US.**

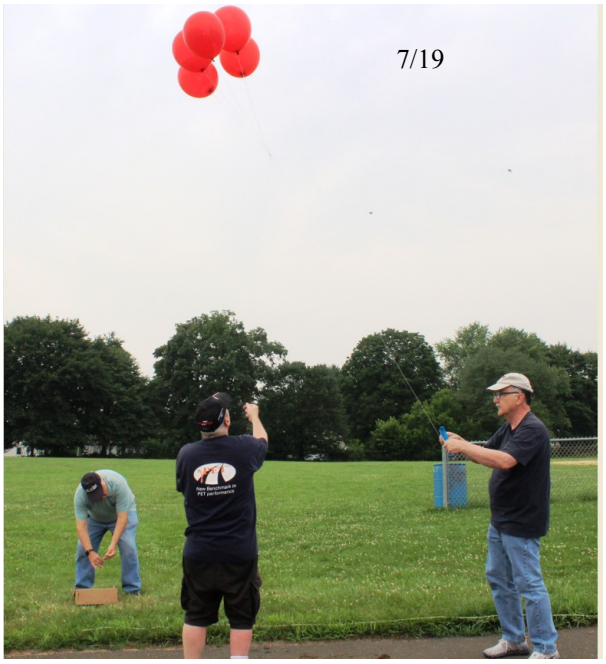
**The balloon crew was led by Ray KC1QLS and Dave NZ1J. Leading and supporting crew consisted of (in picture, left to right) Jules KC1STF, Shawn KC1NQE, Dave NZ1J, John KC1KQH, Ray KC1QLS, John KB1MFU and Ted KC1DOY. Also lending moral support were Ed W1YSM and Bob WB1GYZ (off camera).**

**After the test launch was complete, Ray returned home to learn that the ARRL had approved a grant of $1061.00 for 5 more balloon launches, one of only six nationally.**

**So far, everything looks good for the actual balloon launch to take place sometime in August 2023. I'm sure that this will draw a lot of attention within the club and from the community at large.**




**HERE IS A SCREENSHOT OF OUR WSPR-NET SIGNAL RECEIVED FROM THE TEST LAUNCH.**


7/19


Balloon time 50


7/19

JULY 19TH TEST

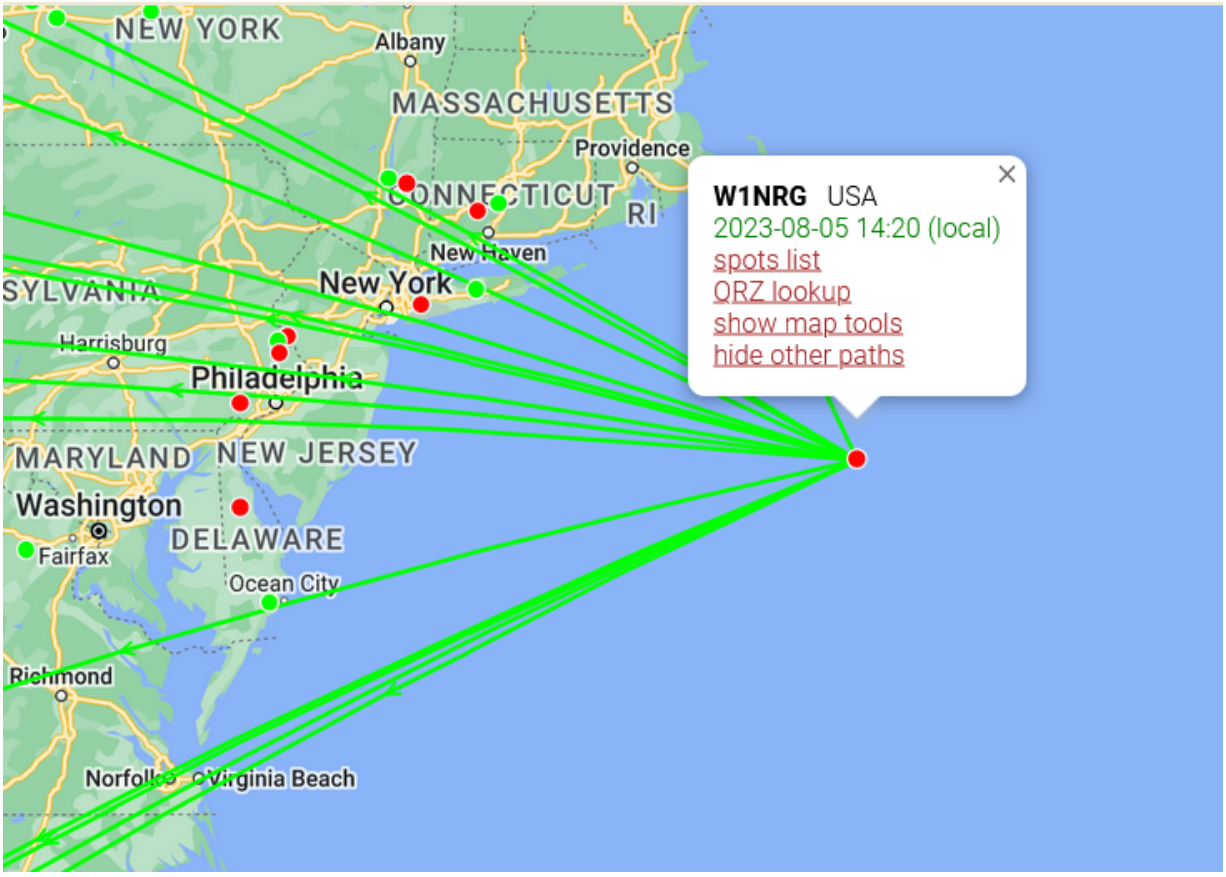
On Saturday, 29 July 2023, Ray KC1QLS and Dave NZ1J did an inflation test on the balloon that will be used for the MARC Balloon Launch Project. Everything has tested positive so far and it looks like the launch will take place in early August. The actual date is completely weather dependent, with very little to no wind being the major requirement. This is the first of several expected launches to come and as such it is looked at with great anticipation.

In the photos, you can see Ray KC1QLS and Dave NZ1J inflating the balloon with air to expand it to size. It will stretch into shape and be inflated with helium for the actual launch. Take a good look because once this is released we won't see it again.

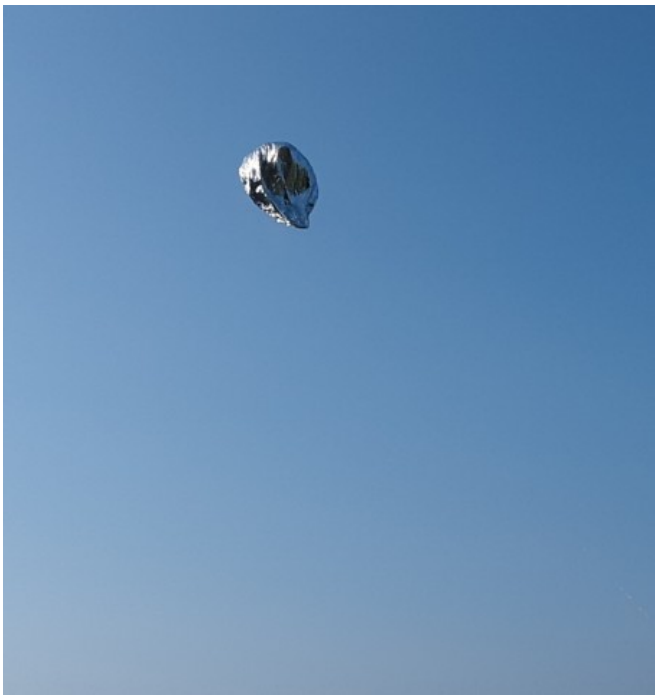
## AUGUST 5 LAUNCH

This morning Dave Tipping and I met at the clubhouse at 8 AM with the intent of getting the balloon ready for launch and then going to Veterans Memorial Park with club members to do our first launch. As with all balloon launches we were at the mercy of the weather. Dave and I found ourselves with a change in the wind speed, and a need to work quickly to get the balloon into the air.Moving quickly we arrived at Veterans Memorial Park and managed to get the balloon platform into the air by 9 AM. Along the way we learned a lot that will need to be changed for our next launch. With our ARRL grant allowing us to launch at least five times, we will have lots of chances to improve on our procedures. We were in the air for about six hours before the balloon came down in the Atlantic Ocean. From The Park we traveled about 270 miles at a bearing of about 113 degrees. We were able to track the balloon transmitting on WSPR, using both wsprnet as well as qrp-labs tracking software. During the launch, it was difficult to fill the balloon outdoors in the wind and get an accurate reading as to the amount of gas we filled the balloon with. We agreed to slightly overfill the balloon for our first flight, ensuring we would clear all low level obstacles, even though it meant the balloon would most likely develop a leak early on its travels. While we were in the air for 6 hours, it appears that the balloon started to leak about four hours into the launch. The great news is our WSPR beacon was picked up by quite a few people. We have work to do on our launch technique, and on the parameters to determine the correct amount of gas to fill the balloon with. We also are planning a series of changes to the launch platform that the solar cells and U4B board are mounted to. The balloons we are using appear to be well suited for our purposes, but are not really meant to be used in the fashion that we use them. All in all, we feel that today's launch was a great success during its time in the air, and for helping us see the changes to be made for our next launch.

Thank you to all the members of MARC for making this project possible, and for your support and enthusiasm for what we are trying to accomplish.




**THE OEM CREW WAYCHES THE PROGRESS OF THE AUG 5TH LAUNCH AFTER 6 HOURS, IT FELL INTO ATLANTIC OCEAN..,AFTER A VERY SUCCESSFUL FIRST LAUNCH OF THE MARC….**



AUGUST 10 TETHERED LAUNCH

Today we did a tethered test of the second launch platform.  The early morning was perfect with winds only about 1 mile per hour.  The test lasted about an hour and I am happy to report we were picked up by a number of spots, including our very own N1API (Al).
We will be looking to set a launch date for this second platform in the near future.  There will be several ways to track the balloon's progress and we will send directions when we announce the launch.  WIth any luck N1BRI (Brian) will have his tracking software up and running as well.

Ray
KC1QLS


am happy to announce we are planning our second balloon launch for Saturday August 12, 2023 between 8:00AM - 8:30 AM. The launch will take place at Veterans Memorial Park located at 1151 East Center Street in Wallingford. Please note that everything is dependent on the weather so it is possible that we may need to scrub the launch last minute, but as of this moment conditions look great.
Dave and I will be there, possibly in a tent as we fill the balloon with the correct amount of gas, in an enclosed environment out of any wind.
We are recommending several ways for tracking the balloon system.
1). As always while the balloon is within range it can be picked up on 14.097180 MHz.
2). You can also use a website called WSPR.rocks.
Go to http://www.wspr.rocks/
Click TX call
Enter W1NRG
Click Close
Click Search
You'll see a list of stations that have heard the balloon
Click Map
Near the bottom of the screen, click Satellite
In the upper left, click calls
Click the + and - buttons to zoom
Click and hold on the map to pan

I wanted to bring everybody up to date on our second balloon launch. Let me start with two clear successes. The launch of the second balloon went off without a hitch. We learned a great deal from our first launch. This launch saw the introduction of a tent which allowed the team to fill the balloon with the exact amount of gas needed, in an environment that kept us completely shielded from the outside winds. When released, the entire platform rose at about 1 foot per second. Without a doubt the launch at this point was a textbook success.
Our second clear success was the club demonstration of the tracking software that Brian created. With this web based package, club members will have direct access to the data generated from our launches, including tracking on a worldwide map.
Unfortunately the team was unable to track the balloon almost immediately after the launch. We had seen an anomaly over the last two launches that we had been unable to reliably recreate. Now we can. It turns out that during a low power boot up of the system, the software could, and did, hangup. This situation meant that while the board was live, it could not get itself to a point where it could send data.
As I have always told my daughter and my students, there are no failures in live, they are just learning experiences.
The team regrets the loss of this second balloon platform, but we are even more excited now to get a third platform in the air. At this point we need to order new boards and balloons, and then undergo a set of rigorous tests before moving forward.
We will keep you informed as we move forward. Once again we thank the club for its support, and its enthusiasm for this project and its team members.

Ray
KC1QLS

## SEPTEMBER 2, 3RD BALLOON LAUNCH

**Marc Members,**

**Today we launched our third balloon. Although we are still in the learning phase, I must say the launch was a success.**

**Before discussing the launch, on behalf of myself and the entire balloon team, we were thrilled to have a great turnout at the launch site this morning as well as having such a large enthusiastic crowd at the club tracking the W1NRG balloon. MARC is truly a great group of people.**

**Our launch went off with only a couple of small issues along the way. By the time the balloon system was ready to launch, everything seemed to go as smoothly as could be expected.**

**For the team, one of the most difficult tasks is filling the balloon with just the right amount of gas to give us a gentle lift. Even the slightest amount of wind causes the balloon to sway, making exact measurements impossible, and today was no exception. It appears that even with the great care taken this morning, the balloon was slightly overfilled, and as such, our flight ended a little sooner than expected.**

**For our next launch, we have decided to fill the balloon inside a building, out of the wind, and then transport the entire system to the launch site. We are looking for a slower ascent rate, so we will also look for a new launch site with a higher altitude and hopefully few surrounding obstacles (trees and buildings).**

**As a side note, I was excited to see the number of members that were tracking the system from home after the club meeting and were reporting its descent.**

**This project was started with three goals in mind; education, camaraderie, and fun, and it looks like we are achieving all three.**

**Again, on behalf of myself and the entire balloon team, we thank you for your support, enthusiasm, and encouragement as we move forward with this project.**

**Ray**
**KC1QLS**

**Zoom credentials for Business Meeting are**
**966 7099 0175 Password 157710**

**Ed W1YSM**
**President, W1NRG**

**VE SESSIONS AT THE OEM, 143 HOPE HILL ROAD WALLINGFORD**
**EVERY 2ND SATURDAY, NEXT ONE IS SATURDAY OCTOBER 13, 2023**

**MARC CALENDAR OF EVENTS**

| | |
|---|---|
| SATURDAY SEPT 9 | VE SESSION SEPTEMBER TILL ?? |
| THURSDAY SEPT 14 | BUSINESS MEETING |
| THURSDAY SEPT 28 | ACTIVITY —-ALLAN WOLFE W2AEW YOU TUBER AND TEKTRONIX ENGINEER- ON TEST EQUIPMENT IN THE SHACK. |
| THURSDAY OCT12 | OCTOBER BUSINESS MEETING |
| SATURDAY OCT 14 | VE SESSION |
| THURSDAY OCT 26 | JOHN ELLSWORTH—FROM THE VINTAGE RADIO & COMMUNICATIONS MUSEUM OF CT. |
| THURSDAY NOV 9 | NOVEMBER BUSINESS MEETING |
| SATURDAY NOV 11 | VE SESSION |
| THURSDAY NOV 23 | ACTIVITY CANCELLED FOR THANKSGIVING DAY |
| THURSDAY DEC 7 | CHRISTMAS PARTY AT SERAFINO'S |
| SATURDAY DEC 9 | VE SESSION |
| THURSDAY DEC 14 | |
| THURSDAY DEC 28 | ACTIVITY CANCELLED FOR CHRISTMAS |

# MERIDEN AMATEUR RADIO CLUB

**NOTE: THIS LIST IS NOT UP TO DATE AS OF 9/23/2023**

| | | |
|---|---|---|
| AA1EM | Kaz Bogusz | 24 S |
| AB1DQ | James Surprenant | 26 R |
| AB1HB | Charlie Dudac | 23 S |
| K0OZ | Brian Boccuzzi | 23 S |
| K1BTR | Bryan Ragaini | 24 R |
| K1DMS | Dave Sack | 23 S |
| K1JCF | Joe Farrel | 24 S |
| K1LHO | Mike Ash | 23 S |
| K1LYP | John Yusza | 24 S |
| K1MMK | Mike MacKennedy | 27 R |
| K1MTD | Mary Duval | 23 S |
| K1MVM | Mike Macri | 23 S |
| K1PET | Debbie Purchia | 23 R |
| K1RCT | Rob Cichon | 23 R |
| K1SCI | Stuart Isaac | 23 R |
| K1SMD | Silas Moeckel | 24R |
| K1STM | Anne West | 23 S |
| K1TDO | Todd Olsen | 23 R |
| K1TGX | Jerry Molaver | 24 S |
| K1VDF | John Blevins | 23 S |
| K1WJL | Dave Swedock | 23 S |
| K4AVM | Andrew Olsson | 23 R |
| KA1BED | Bill Green | 24 R |
| KA1KJV | Bob Trussell | 23 S |
| KB1APO | Jim Sintay | 24 R |
| KB1EHE | Eric Knight | 23 R |
| KB1FEX | Ken Jalbert | 24R |
| KB1HAX | Bill Reyor III | 23 R |
| KB1IFZ | Elsie Mathews | 23 R |
| KB1JL | Eric Olsson | 23 S |
| KB1KTZ | Carl Fosse | 23 S |
| KB1LWS | Jeanne Gherardi | 23 S |
| KB1MFU | John Ramadei | 24 R |
| KB1PZS | Robert DelGreco | 23 R |
| KB1RHQ | Gene Caputo | 23 R |
| KB1TBL | Dave Laliberte | 23 R |
| KB1TMC | Clare O'Lena | 23 R |
| KB1TTV | Jonathan Martin | 26 R |
| KB1YFJ | Glenn Couture | 23 R |
| KC1DOY | Ted Renzoni | 23 S |
| KC1HQX | Preston Byrne | 23 R |
| KC1ISI | Kristin Olsson | 23 R |
| KC1KQH | John Kasinskas | 23 S |
| KC1MJZ | Michael Berube | 23 R |
| KC1NQE | Shawn Warren | 23 R |
| KC1NRD | John Lujick | 23 S |
| KC1NXP | Andy Paolillo | 23 R |
| KC1OCF | Karl Polak | 23 S |
| KC1OCS | Richard Dewick | 24 S |
| KC1OGL | Paul Randazzo | 24 S |
| KC1OWD | Kevin VanKeuron | 24 R |
| KC1OYN | Rick Becker | 23 R |
| KC1PBQ | Randy Rivest | 23 R |
| KC1PEN | David Henry | 23 R |
| KC1PHK | Lincoln Nichols | Y |
| KC1PSM | Elizabeth VanNostrand | 23R |
| KC1PU | Bob Woodtke Jr. | 23 R |
| KC1PXX | Dave Alfredson | 23 R |
| KC1PYT | Jeff Gazsc | 23 R |
| KC1QHO | Mike Beaudry | 23 R |
| KC1QLS | Ray Cirmo | 23 S |
| KC1QQV | Gary Getrost | 23 R |
| KO1J | Randy Whitehouse | 23S |
| KC1QWH | Steve Rygiel | 24 R |
| KC1RBY | Sergio Frutuosa | 23 R |
| KC1RHB | Jared Martin | 23 R |
| KC1RLQ | Eric Barbour | 24 R |
| KC1SA | Stephen Allen | 23 R |
| KC1SJE | Mike Barr | 23R |
| KC1SLV | Joshua Wrinn | 24 R |
| KC1STF | Julian LoRusso | 24S |
| KC1TAD | Tom Dipinto | 23 R |
| KC2MLH | Adam Castracane | 23 R |
| KC1TCO | Dee Crombleholme | 24R |
| KC1TEV | Mark White | 24R |
| KC3UKG | Storm Murrell | 23 R |
| KD0BMW | Marty Crandall-Grela | 23 R |
| KE1AU | Robert Kaczor | 23 S |
| KE1AY | Donald Mitchell | 23 S |
| KO4EEL | Tom Williams | 23 S |
| KR1U | Bob Eslinger | 23 S |
| KS1WK | Seth Kolasinski | 23 R |
| KX1USA | Rob Messercola | 23 R |
| N0HIO | David Koerner | 23 R |
| N1AKN | Jeff Dwyer | 23 S |
| N1API | Al Kaiser | 24 S |
| N1BRI | Brian Beegan | 24 R |
| N1BRL | Bart Toftness | 25 S |
| N1FNE | Rod Lane | 24 S |
| N1GNV | John Bartscherer | 23 S |
| N1NGV | Kevin Gallagher | 23R |
| N1GY | Geoff Haines | 25 S |
| N1IBE | Wade Martell | 23 S |
| N1JEO | Joel Corneal | 23 S |
| N1JMX | Jeff Martin | 28 R |
| N1JRC | John Collin Jr. | 23 R |
| N1LES | Joe Murray | 23 R |
| N1OKF | Bob Parisi | 23 R |
| N1OKR | Frank Ciccone | 23 R |
| N1XXU | Andy Purchia | 23 R |
| N1YLN | Edward O'Lena | 23 R |
| N1YLO | Andrew Fiertek | 23 R |
| N1ZN | Jim Savage | 24 S |
| N2TAG | Dave Taglianetti | 23 R |
| NA1L | Dale Clift | 23 R |
| NA2AA | David Minster | 23 R |
| NN1DX | Robert Munro | 24 R |
| NR1B | Bill Huggins | 23 S |
| NT1S | Tyler Schroder | 23 R |
| NZ1J | Dave Tipping | 23 R |
| UT3UY | Anatoly Kirilenko | 23 R |
| W1AJK | Andrew Kazimer | 23 R |
| W1BJG | Judy Wilkins | 24 R |
| W1BOB | Bob Lobley | 23 R |
| W1BRY | Don Chepurna | 23S |
| W1DQ | John Elengo | 23 S |
| W1EDX | Paul Stasieluk | 23 S |
| W1IKW | Iain K White | 23 R |
| W1LV | Steve Morley | 23 S |
| W1NDT | Bob Lombardo | 24S |
| W1POP | Fred Liedke | 23 S |
| W1PRK | James Procaccini | 23 S |
| W1RCI | Ron Isaac Jr. | 23 R |
| W1TK | Ronald Wakefield | 23 R |
| W1UFO | Mike Cei | 23 R |
| W1UKX | Greg Gherardi | 23 S |
| W1YSM | Ed Snyder | 24 R |
| W2OFR | Mark Dickson | 23 R |
| W3APC | James Cook | 23 S |
| WA1EXA | Mark Petruzzi | 23 S |
| WA1FFT | Ray Irwin | 23 S |
| WA1JKR | John Rogus | 24 S |
| WA1K | Jack Chapman | 23 R |
| WA1MAC | Paul Clark | 23 S |
| WA1RAB | Bob Martha | 23 S |
| WA1SFH | Douglas Sharafanowich | 23 R |
| WA1TRY | Rich Aubin | L |
| WA1ZVY | Jim Martin | 28 S |
| WB1CLT | Steve Duess | 23 S |
| WB1DQT | Bill Bacon | 23 S |
| WB1GFI | Stan Hiriak | 23 S |
| WB1GYZ | Bob Biancur | 23 S |
| WB8IMY | Steve Ford | 25 R |
| WJ1B | Harold Kramer | 24 S |
| WV2LKM | Steve Waldmann | 23 S |
| xKB1HEA | Loreen Heavens | 23 R |
| | Spencer Rygiel | Y |
| | Dave Devito | 23 S |
| | Lucas Molloy | Y |

## MARC OFFICERS


**PRESIDENT**

**W1YSM ED**

**VICE PRES.**

**KB1JL ERIC**

**SECRETARY**

**N1BRL BART**

**TREASURER**

**KC1OYN RICK**

**STATION ACTIVITIES MANAGER**

**K1RCT ROB**