

**the**

# Monitor

December

The MRCS Officers

2023

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Ken Myers

**Next Meeting: Date:** Wednesday, Dec. 6, 2023

**Time:** 7:30 p.m. FBO at Mettetal Airport

**What's In This Issue:**

Fall/Winter/Early Spring Meeting Reminder - Info Regarding the Upcoming December 2023 Meeting  
The November 2023 Meeting - Dave Stacer's Remote ID Project - Upcoming Events

## Fall/Winter/Early Spring Meeting Reminder

Our fall, winter and early spring meetings are held at the fixed-based operator (FBO) building at Mettetal Airport.

Canton–Plymouth Mettetal Airport is a public use airport located in Canton Township, Michigan, United States. The airport lies two nautical miles south of the central business district of Plymouth, in Wayne County. The airport is owned and operated by the Michigan Department of Transportation.

**Address:** 8550 N Lilley Rd, Canton, MI 48187

Please check your email and the club Website, as the tentative date approaches, for possible last minute changes.

The FBO is the white building that is located closer to the runway than the EAA building.

## Info Regarding the Upcoming December 2023 Meeting

The Wednesday, December 7th meeting is our annual gab and snack. Members are asked to bring something sweet (dessert-like) or something savory (like cheese, crackers, etc.).

There will also be a not so white elephant "white-elephant" gift exchange for those who wish to participate. Remember the "gift" should be something that can be usable by another Midwest member.

### The White Elephant Gift Exchange at the Dec. 6th Meeting

The gift exchange is TOTALLY VOLUNTARY! If you bring a "gift" you will receive one. The idea is NOT to get rid of junk, but to give someone something that can be useful to them that you no longer need. Please wrap the gift in holiday paper and put a tag on it that just says **From:** with your name following it.

This is always a fun meeting, so plan

on being there.

### The November 2023 Meeting

The first order of business was the election of officers for 2024.

There were no new nominations from the floor and a vote was called.

The following is the list of officers for 2024, who were once again “railroaded” into their positions.

president - Greg Eilers

vice-president - Ken Myers

secretary - Lynn Morgan

treasurer - Dave Stacer

field safety officer - Bill Brown, Jr.

two board members at large on the board of directors - Denny Sumner and Bill Brown, Sr.

**Rudi Reinhard** brought us up to date on the upcoming swap shop. He noted that just our table sales had put us in the black before the doors would open.

He also reminded folks that we need set up people there by 7 a.m. to set up the tables and folks there by 11:30 to help with the tear down.

**Greg Eilers** noted that our annual December dinner did not have a confirmed time and place.

It was suggested that December 16 might be possible at Karl's Cabin.

**Denny Sumner** suggested that we might want to have it in January this year. Many of the members agreed that a date in January might be a good idea.

At this point we need someone to plan the event by contacting a restaurant on a possible date and time and presenting that to the membership.

**Ken Myers** noted that we are planning on having our gab, snack and white elephant exchange for our meeting on December 6. The details are in this issue.

**Greg Eilers** asked the membership for event ideas for the up-coming year. He wants to do Saturday hot dogs again.

There has been continuing work on the tractor, but it is up and running at this time.

The chairs and other items have been put away at the flying field.

While there are no confirmed plans about adding a shelter at the flying field, it was discussed more at the meeting.

**Lynn Morgan** reminded everyone that their 2024 dues are due and noted that we only have 3 members so far!!!

**Ken Myers** noted that model aircraft designer and prolific writer of model aircraft articles and books, Bob Aberle, passed on October 30, 2023.

**Dave Stacer** shared his remote ID design. The info on his system is presented later in this issue. It should be noted that he went through all of the steps to get it FAA approved.



**Mark Freeland** shared his STEM free flight model. He noted that it has to fit, assembled, in a specific box size.



He sells it in a kit as 2 planes for \$55. It is called the Cloud Dancer and it is aimed at middle schoolers. The kit comes with a well illustrated, 12 page, instruction manual.

### **2024 Cloud Dancer Div B - 2 pack**

<http://retrorc.us.com/katana-3-2-2-2-1-1-1-1-2.aspx>

He also has a biplane for high school students.

### **2024 Cloud Hopper Div C - 2 pack**

<http://retrorc.us.com/katana-3-2-2-2-1-1-1-1-2-1.aspx>

STEAM Teams participate in many events between various schools.

### **Dave Stacer's Remote ID Project**

From: Dave via email



I created my own FAA Broadcast Remote ID Module.

Around 9 months ago I got interested in how the Remote ID system worked. I thought at that time, eventually all of the new receivers would just include that functionality. It was hard to find good detailed information and you had to purchase the official specification to find out the details.

The FAA requires the Remote ID module to send out GPS coordinates of the take-off location and the current location of the airplane via Bluetooth or Wi-Fi. Regardless of what your opinion is about the FAA ruling, it's here and required if you are not flying in a FRIA.

Our club flying site is surrounded by woods and we have a few airplanes that end up flying away. Mostly pilot error or faulty "something" but lost, so if

we had Remote ID sending out the airplane location, then we would need a receiver that would just be collecting the last few minutes of GPS coordinates. That would make finding the "lost" airplane so much easier, or better information on where to start the search. My goal was to make a receiving station for Remote ID.

I never intended to make a broadcast remote ID module, but if I was going to build a receiving station, then I needed a broadcast module to send out the packets to test with. None were available yet, so I found some sample code and at the time thought it would work. The deeper I got into that code the more I realized how deficient it was. One thing led to another and I bought the specifications document to gain the knowledge on making the transmitter side accurate.

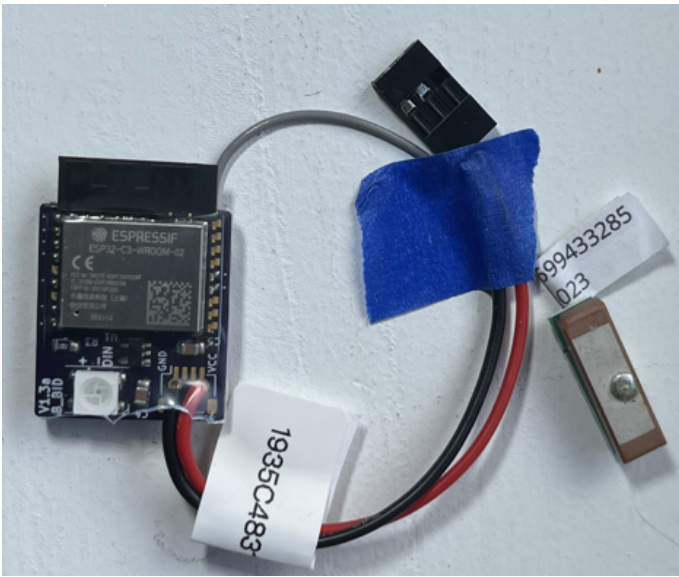
In addition to R/C Airplanes my other hobbies are electronics, software development and like having a challenge to solve.

What came out of my effort is a FAA accepted Broadcast ID module. RID000000678  
It's 3 x 2.2 x .8 cm in size. 7 grams without GPS antenna. Transmits Bluetooth Classic (4.0) and Bluetooth 5. It's designed to run off an extra receiver channel or Y cable, 6 volts max.

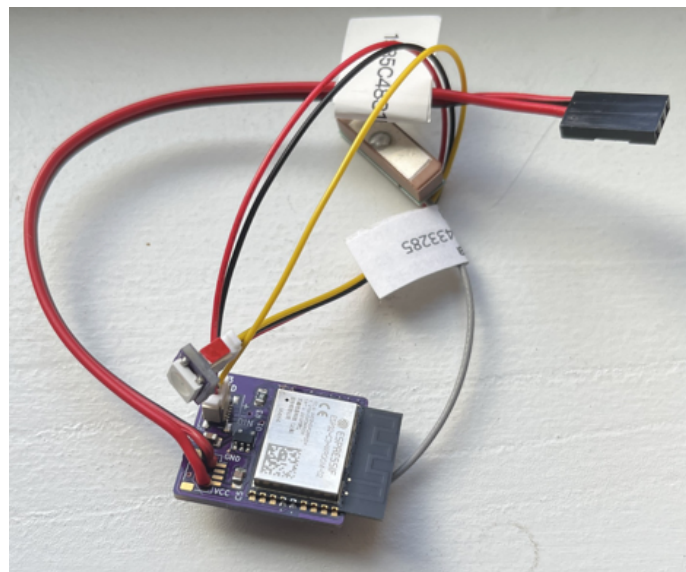
One of the requirements in the specification is to have some kind of pilot notification of status. I chose a multi color LED neopixel that is either mounted on the PCB or can be remote. The remote LED was designed so the module could be left in the fuselage and have the LED mounted where it could be seen from the outside. The design was for me and I had no intention of moving it from model to model but just build more and leave them in the model.

The LED flashes red while its waiting for a GPS lock. Flashes green while averaging the take off location and finally solid green when ready for take-off. Solid green takes about 45-60 seconds after power on when outside.





Onboard LED version (LED is white square thing bottom left)



Remote LED version (LED stuck between the black and yellow wire for the photo)

In the photo, the light tan thing on the short grey wire is the GPS antenna. I'm still experimenting with different GPS antennas. It is a double-sided PCB with the GPS module on the other side with a connector for the GPS.

It's not a very fancy module: no case, no battery, 6 volt limit on the input, no GPS integration with the receiver, but it is compliant with the ASTM

F3411-22a-RID-B standard and the FAA Method of Compliance.

Over the summer, our club flying field received its FRIA, but in the spring it's too wet to use that location and we fly at a local park so will need them for that location.

Now I need to get back to my original goal - the receiving station and get that ready to go.

I would like some feedback on this and if anyone thinks the receiving station would be something they would want.

### A Quick Note on the Swap Meet

It appeared to be quite successful. A full report will be in the January 2024 newsletter. Thanks to all who helped!

**To change your email address contact Ken Myers at [kmyersefo@mac.com](mailto:kmyersefo@mac.com)**

**The 2024 membership application is available at the club Web site,  
<http://www.midwestrcsociety.org>,  
for downloading with the link on the homepage.**

### **Upcoming Events**

#### **Tentative 2023 Midwest Events Schedule**

**Every Tuesday** May through Oct. Sailplane league (5:30 pm.) Larry Markey CD.

April 5th - April club Meeting / EAA building

May 10th - May Club Meeting / At the field

June 7 - June Club Meeting / At the field - Club picnic ladies night

July 5 - July club Meeting / At the field - Pre Mid-AM , 6 p.m.

July 8th and 9th Annual Mid-Am electric fly. Ken Myers CD (*To include Open Air Swap Shop KM*)

Aug 5 - Aug club meeting / open - At the field **Saturday** (Lunch served)

Sept. 9 - Club Meeting / at the field. **Saturday** (discuss officer nominations) - No lunch unless someone volunteers to cook dogs - contact Greg as he still has some

Oct 4 - Oct club Meeting / Mettetal FBO / Officer nominations

Nov. 1 Nov club Meeting / Mettetal FBO (pre swap prep / elections)

Nov. 5 November Swap Shop / Northville Senior center

**Dec. 6 - December club Meeting / Mettetal FBO ( Christmas snacks)**

**???? - December Club dinner with wives @ Karls Cabin (*Actual date, time and place to be determined KM*)**

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Editor: Ken Myers  
1911 Bradshaw Ct.  
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#### **The Next Meeting:**

**Date:** Wednesday, Dec. 6, 2023

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