

the

MONITOR

April

The MRCS Officers

2018

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Ken Myers

Next Meeting: Date: Wednesday, April 4

Time: 7 PM Video & 7:30 meeting, EAA building

What's In This Issue:

Presentation: Some U of M Contributions to Autonomous Flight by Keith Shaw -
The March Meeting - March Show and Tell - Upcoming Mid-Am Info - Photos of Our Models by Bob
Boulware - Upcoming Events

The 7 P.M. Aviation Video

A soaring video was shown before the meeting this month.

Presentation: Some U of M Contributions to Autonomous Flight

A Presentation by Keith Shaw

The University of Michigan, and Keith have had quite a slow flight history.

Keith's involvement as test pilot for some of these projects started with a 12' span, twin boom pusher. The data from his flights helped in the early computer programming for total autonomous flight.

A design known as the "Flying fish" was used to mark one spot on the ocean for a long time. The U of M team was one of many that competed for the contract. They were actually the only team to have a system that worked, but it was shelved.

Keith and the U of M team have also worked on problems associated with the type of aircraft known as Span Loaders. These electrically powered aircraft, with

Pods designed to hold various data collecting devices, have spans larger than 747. In their missions, they act like low altitude satellites.



Helios is a well known version of this type of aircraft.

https://en.wikipedia.org/wiki/Helios_Prototype

Unfortunately, some of the modified Helios aircraft would have problems and they would break up while on a mission.

Helicopter Frequencies

21, 27, 29, 39, 41

Sailplane Frequencies

11, 12



The aircraft would go into some very weird oscillations before the break up. The aircraft were grounded because of oscillations.



A U of M team developed a model of a similar plane, known as X-hale, to study what was going on to cause the oscillations.

<https://news.engin.umich.edu/2018/02/the-x-hale-a-high-altitude-long-endurance-aircraft/>

Keith found the prototypes extremely difficult to fly. He said that you have to think way ahead of any maneuver that you intend to perform.

The team finally solved the problem of the oscillations. Too much weight had been added to the center pod of the Helios aircraft for operations where sunlight might not provide enough energy from the photoelectric cells.

Once the team redistributed weight in their model, the exaggerated Dutch roll stopped.

Full instrumentation flights will be made on the X-Hale this coming spring.

Keith said that there are several groups working on many different projects at U of M that involve 'models' and even prototypes.

Many of the students design their own projects and build their own planes.

He noted that there is really a lot of great aviation related work going on at the University of Michigan.

The March Meeting

Roger Wilfong, club president, started the meeting by noting that **Peter Waters** will once again head up a Priceless sale at the Mid-America Electric Flies.

Members may donate **USABLE** items for the sale with all of the proceeds going to the Friends of the Field fund.

The donated items will have no prices on them, thus a Priceless sale. No reasonable offer will be refused.

The sale will start at 9 a.m. on the Saturday and Sunday of the event.

There will also be a designated **Tailgate Swap Shop** area. Anyone may bring items to the Tailgate Swap Shop. There is no 'table' charge, but anyone who is not a member of Midwest could pay the requested \$5 donation upon entry to the event.

Lynn Morgan, club secretary, noted that we are at 38 members as of the March meeting, which is a little behind last year's 40 members at this time. We end last year with 52 members.

Dave Stacer, club treasurer, stated that the rent and domain name registration had been paid.

Al Govan attended the meeting as a possible new member.

Larry Markey said that the glider fun competition would once again be on Tuesday evenings at the flying field. Last year there were 12 pilots who participated in this weekly fun-filled event. The majority of the pilots were flying Radians. <https://www.horizonhobby.com/radian-bnf-basic-efl4750>

Larry noted that it is a lot of fun and there is a wonderful time to socialize after flying.

There are really no limits on what can be flown in the friendly competition. The idea is to stay up

exactly 6 minutes followed by a spot landing. Points are deducted by landing too early or too late.

We really want everyone to come out and have fun with a great bunch of guys.

March Model of the Month



Keith Shaw shared his recently completed Sig 1910 Deperdussin.

<http://sigmfg.com/cgi-bin/dpsmart.exe/IndexAircraftF.html?E+Sig>

The plane has a wing span of 49.5” and wing area of 479.8 sq.in. Keith has it powered by a 2S A123 1100mAh pack and a Cobra 2204 outrunner. As always, Keith had add his own special touches to it including its own special carrying case.



Ken Myers phone (248) 669-8124 or kmyersefo@theampeer.org
<http://www.theampeer.org> for updates & info
Keith Shaw (734) 973-6309

Flying both days at the Midwest R/C Society Flying Field - 7 Mile Rd., Salem Twp., MI

Registration: 9 A.M. both days
 Flying from 10 A.M. to 4 P.M. Sat. & 10 A.M. to 3 P.M. Sunday

Pilot Entry Fee: 18 and over, \$15 Sat. - \$10, Sunday, (ask about the family rate),
 Under 18, FREE

Parking Donation Requested from Spectators

Saturday’s Awards

- Best Scale
- Most Beautiful
- Best Ducted Fan
- Best Sport Plane
- New Foam Flurry for NCM Aircraft
- CD’s Choice

34th Annual Mid-America Electric Flies 2018

AMA Sanctioned Event

Saturday, July 14 & Sunday, July 15

Hosted by the:

Ann Arbor Falcons and Electric Flyers Only

The 7 Mile Rd. Flying Site, Salem Twp., MI, is

Provided by the:

Midwest R/C Society

Contest Directors are:

April

Monitor Newsletter

2018

Sunday's Awards
Best Scale
Most Beautiful
Best Mini-Electric
Best Multi-motor
New Most Unique NCM Aircraft
CD's Choice

Some Photos of Our Models by Bob Boulware
Bob is the gentleman that comes to our field with his camera. Here are a few shots he wants to share.

Planes Must Fly To Be Considered for Any Award
Saturday's & Sunday's Awards:
Plaques for 1st in each category

Open Flying Possible on Friday
Night Flying Possible, Weather Permitting,
Friday & Saturday Nights
Refreshments available at the field both days.

Potluck picnic at the field on Saturday evening.

Come and join us for two days of fun and relaxed electric flying.



Come, Look, Listen, Learn - Fly Electric - Fly the Future!
Merchandise drawing for ALL entrants

New Events for this year for NCM (Not Conventional Materials) aircraft.

Traditionally, model aircraft airframes have been mostly constructed from balsa wood, plywood, spruce, and fiberglass. For the purposes of this meet, NCM airframes are mostly constructed from not conventional materials i.e.; sheet foam, foam board, cardboard, block foam, foam insulation material, etc.



Foam Flurry for NCM aircraft: This is a true event. It is based upon the all up/last down event of early electric meets. Any NCM aircraft may be used (no ARF types). Power systems are limited to a maximum of 3S (no paralleling) LiPo batteries or 4S maximum, no paralleling, for A123 packs. All planes qualifying for this event will launch at the same time, and the last one to land will be declared the winner.



Most Unique NCM Aircraft Award: An award will be given on Sunday to an aircraft in the NCM category that is judged as 'most unique' by the Mid-Am panel of judges.

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Also This Year!

The Priceless Sale & Open Air Tailgate Swap Meet

To change your email address contact Ken Myers at kmyersefo@mac.com

**The 2018 membership application is available at the club Web site,
<http://www.midwestrcsociety.org>,
for downloading with the link on the homepage.**

Upcoming Events:

Tuesdays, Indoor flying at the Ultimate Soccer Arenas, 10 a.m. - 1 p.m., Oct. 24 - April 10 (details in this issue)

Wednesdays, Indoor flying at the Legacy Center, 9299 Goble Dr., Brighton, MI 48116. Flying time: 12:30 p.m. to 2:30 p.m., The cost is \$10 per drop-in session or \$150 for a seasonal membership.

April 4, Wednesday, Monthly Midwest RC Society meeting, EAA building, Canton-Plymouth Mettetal Airport, 8550 N. Lilley Rd., Canton, MI 48187
7:00 p.m. Aviation related video
7:30 Meeting - Guest Speaker Ken Myers

April 6, 7 & 8, Friday, Saturday & Sunday, 64th Annual Toledo Weak Signals RC Exposition, Seagate Center, 401 Jefferson Ave., Toledo, OH, admission \$10

<http://www.toledoshow.com>

July 14 & 15, 34th Annual Mid-America Electric Flies, full details in this issue.

Important Reminder!!!

With Spring on the way, be absolutely sure to check the Web site for the entrance road and flying field status before heading out to the flying field!

Midwest RC Monitor
Editor: Ken Myers
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The Next Meeting:

Date: Wednesday, April 4, 2018

Time: 7 p.m. aviation video(s) - 7:30 meeting

Place: EAA building, Mettetal Airport, Plymouth, MI