

# M.A.R.C.S. SPARKS

Monthly Newsletter of the Madison Area Radio Control Society  
Madison, Wisconsin AMA Charter #665

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## *Come Fly With Us*

MARCS meetings are held on the first Thursday of every month at 7:00 P.M. in Room 201B of the Madison Labor Temple, 1602 S. Park St. in Madison. Visitors are always welcome. We think we have a great hobby and we invite you to come and see and consider joining us.

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Contribution of articles for publication is encouraged.  
**Deadline for publication is the 20<sup>th</sup> of the month.**

## May 6, 2004 MARCS Meeting Minutes

*By Andrew Morrow*

The President, Vince Strief, was absent. Taking over for the evening was Vice President Brad Witt.

**Minutes** from the April meeting were accepted.

**New Members:** George Jerdee is returning. Norris Headly is now a member. Jeremy Teasdale is a new member to the club. Jeff Fenchback has flown before, but is now returning.

**Old Business:** You need to renew your membership; otherwise you will not receive Sparks.

There are now two ways of receiving Sparks: e-mail, or standard mail.

The new signs are in at the field.

The field was sprayed and fertilized.

In the coming months, combination locks will be put on the gate, first aid kit, and buddy box shelf.

The clothing fundraiser is doing well, contact Dave Rush for an order form.

There are still a lot of things left over from Bob Miracle's collection; contact Wayne Lanphear about it.

**New Business:** The electric event has been rescheduled for July 31.

War birds over Dane is coming up on June 26. Any war bird is welcome.

**Show and Tell:** Show and Tell pictures will be online shortly.

## Philosophy 101

Don't be humble. You're not that great.  
Golda Meir

## Electric Event Rescheduled

**The electric fun fly has been rescheduled** from July 24 to July 31. Please mark your calendars accordingly.

## Lithium Battery Fires

By AMA Safety Committee

*(Editor's note: The May 2004 issue of Model Aviation contained an exhaustive article on lithium batteries. The following appears to be a cautionary follow-up. If you use or plan to use lithium batteries, it may be wise to read that article and consider the following warning in combination with it. Your model, your car, your house or your life or that of your family might be saved.)*

Lithium batteries are becoming very popular for powering the control and power systems in our models. This is true because of their very high energy density (amp-hrs/wt. ratio) compared to NiCads or other batteries. With high energy comes increased risk in their use. The, principal, risk is **FIRE** which can result from improper charging, crash damage, or shorting the batteries. All vendors of these batteries warn their customers of this danger and recommend extreme caution in their use. In spite of this **many** fires have occurred as a result of the use of Lithium Polymer batteries, resulting in loss of models, automobiles, and other property. Homes and garages and workshops have also burned. A lithium battery fire is **very hot** (several thousand degrees) and is an excellent initiator for ancillary (resulting) fires. Fire occurs due to contact between Lithium and oxygen in the air. **It does not need any other source of ignition, or fuel to start,** and burns almost explosively.

These batteries must be used in a manner that precludes ancillary fire. The following is recommended:

- Y **Store, and charge, in a fireproof container;** never in your model.
- Y Charge in a protected area devoid of combustibles.
- Y Always stand watch over the charging process. **Never leave the charging process unattended.**
- Y In the event of damage from crashes, etc, carefully remove to a safe place for at least a half hour to observe. Physically damaged cells could erupt into flame, and, after sufficient time to ensure safety, should be discarded in accordance with the instructions which came with the batteries. **Never attempt to charge a cell with physical damage,** regardless of how slight.
- Y Always use chargers designed for the **specific** purpose, preferably having a fixed setting for your particular pack. Many fires occur in using selectable/adjustable chargers improperly set.

Never attempt to charge Lithium cells with a charger which is not, specifically, designed for charging Lithium cells. **Never use chargers designed for Nickel Cadmium batteries.**

- Y Use charging systems that monitor and control the charge state of each cell in the pack. Unbalanced cells can lead to disaster if it permits overcharge of a single cell in the pack. If the batteries show **any sign of swelling**, discontinue charging, and **remove them to a safe place outside** as they could erupt into flames.
- Y Most important: **NEVER PLUG IN A BATTERY AND LEAVE IT TO CHARGE UNATTENDED OVERNIGHT.** Serious fires have resulted from this practice.
- Y Do not attempt to make your own battery packs from individual cells.

These batteries CANNOT be handled and charged casually such as has been the practice for years with other types of batteries. The consequence of this practice can be very serious resulting in major property damage and/ or personal harm

## A Good Day of Field Work

Thanks to everyone who came out on a none too warm day to take care of the necessary maintenance work at the field. All the chores got done, minor repairs were made and the stuff in the sheds got sorted out in a logical manner. It looks like we are going to have a better facility this year than we have had for a long time. Much of that is due to the rolling and filling that was done in advance of the work day, but there was a lot of brush cut along the drainage ditch and off the northwest corner of the field. Potential Submarine Commanders are going to have an unobstructed approach to the ditch now, so there should be a lively competition for the trophy.

Our grills are less than one would wish for and one propane tank is missing. Did someone perhaps take it home to get it refilled and forget to bring it back? I could not get the tank that was there to give up its gas, but fortunately, I brought my own tank along and so was able to start a grill. With the main burners and the side burner all lit it didn't produce enough heat in any one location to get the water hot enough for hot chocolate, so those who were thirsty enough either had luke warm chocolate or Coke on day meant for something hot. Fortunately too, I heated the BBQ at home or we simply wouldn't have had lunch.

## MARCS 2004 Calendar of Events

Event	Date	Location
Big Birds Fly In	June 12	Kettle Field
Thermal Soar	June 19	Long Island Sod Farm
War Birds Over Dane	June 26	Kettle Field
<b>Electric Fun Fly</b>	<b>July 31 (rescheduled)</b>	<b>Kettle Field</b>
1.5 Meter Hand Launch	August 14	Long Island Sod Farm

The three gas grills that are out there are all donated cast-offs, although the one with the ceramic briquettes does a decent job. It's small, however. The one I used heats very unevenly on the main surface, although its side burner is useful. The grill on the Weber kettle is badly rusted and suitable only for heating stuff in pans. Maybe we should buy a new grill for it. Maybe we also need to think about getting something better in a gas grill as well.

Anyway, thanks to all for coming out and helping. Yew dun gud!

### Dues are Past Due

Some persons who can receive Sparks electronically have still not paid their 2004 dues. Because it costs nothing to send it to you that way, you have been included on the distribution list for June. You will not receive the July issue however, if your dues are not paid by the time that issue is distributed, about June 21. If a financial problem prevents you from paying your dues by that time, but you do intend to renew, let me know and I will keep you on the distribution list.

Those who have not yet paid their 2004 dues and are not able to receive Sparks by e mail are not receiving a hard copy of this issue.

### Field Access - Locks, That Is

In the next few days you will be receiving a post card informing you of the new combination lock number that you will need to know to get in the landfill gate. Use of a new combination lock will go into effect June 1, 2004. **Watch for the post card. Don't throw it out. It isn't junk mail.**

The shed locks will also be changed to combinations on the doors to the first aid kit, emergency phone and buddy boxes. These locks will have the same combinations as the main gate.

The two main doors to the sheds will retain key locks. Only those with a need for access will have

keys.

**REMEMBER:** When you close and relock the gate, you must rotate the combination dial so some unauthorized person can't reopen it.

Combinations will be changed at the beginning of 2005 and each subsequent year. Your 2005 membership card will have the new combination on its reverse side. The new combination will go into effect on January 2, the day after the New Years Day Fun Fly.

### Picnic and Float Fly

I'd really like to report that it's all set, but it isn't. However, Charlie Schultz is working on it and trying hard to get something set up.

If it happens, we will need a program manager to take some of the load off Charlie. This person would be expected to buy the food and supplies, see to the availability of grills and tables and take care of the other gofer chores that go with such a party. Actually, a couple of vols would be good. If you can help, contact Charlie or Vince Streif.

A word to the wise: If the picnic happens, based on the lawn dart incident of last year, all aircraft will be inspected prior to being authorized to fly. All battery packs and receivers will be required to be enclosed in water resistant containers, such as baggies. Pilots will be prohibited from flying beyond certain designated distances from the launch area. A flight controller will be appointed to monitor this and to enforce this requirement.

Stay tuned next month, same time, same station, for a final update on this event.

### Southern Wisconsin Thermal Soar

*By Brian Andreas*

This event will be held on June 19 to provide soaring competition for local clubs, introduce soaring competition to the newcomer and non-competitor and to provide an opportunity for the seasoned flyers to get

together in a friendly competition. Tasks are chosen to educate newcomers about thermal duration flying and the format is structured for having fun while sharing with others the unique qualities of silent flight. Newcomers are encouraged to join the festivities.

The meet will be held at the Long Island Sod Farm, near Marshall. Take Exit 250 off I-94. Take Highway 73 north about a half mile. Take W. Medina Rd. west 3 miles. Take Ridge Road north about a mile, turn east into the driveway to Long Island Sod Farm and

look for "SOAR" signs. The driveway is opposite Connors Road.

AMA membership is required. All AMA regulations and policies will be in effect.

There will be two classes, unlimited and ruder-elevator-spoiler.

There will be awards through third place in each class.

Flight tasks will begin with the MARCS Special (three flights of Task T5: Precision of 2, 3, and 4 minutes to be flown consecutively). The next two flights will be flown by rounds and will be task T1: International Duration. Flight times will be 10 minutes. The final task will be Task T6: Triathlon with a maximum flight time of 10 minutes. The landing task for all flights will be T8, which will be the graduated landing task.

Pilot briefing will be at 9:30 a.m. and the first flight will be at 10:00 a.m.

There will be no entry fee, but donations to cover expenses will be gladly accepted.

Twelve volt winches will be used for launching. A high start will be available if you are uncomfortable with winch launching and help will be available for those who are inexperienced with winch launching.

Even if you aren't into soaring, come on out and get a new perspective on RC flight. You may find a new area of interest.

## Road Kill

I was out at Charlie's place the other day and Bill Disch happened to be there with his Harley. Smart talk flowed like blood in the streets after a Russian Revolution, as it so often does when Bill and I exchange humorous insults. I did come away with an alarming piece of news, however.

Our system of dubious award trophies has once

again fallen behind the remarkable ability of our members to get into trouble. We seem to need yet another.

We have the Smoking Hole Trophy for the best - worst? - crash of the year. We have the Submarine Commander Trophy for the most egregious water landing in one of the drainage ditches. After numerous provocations, we recently created the Tree Chopper Trophy, which is awarded for obvious reasons. Now we have a completely new possibility.

Bill was flying about with no particular cares one recent day when he suddenly developed a problem with one aileron servo. His plane was far out across the drainage ditch, over Never Never Land, at the time and he fought valiantly to get it back to the field, but it was a losing battle. Finally, he managed to get it to sort of land out in the boonies at a shallow, non-lethal angle of approach. That's when our award system went to pot.

Whether he actually hit that deer that was lying in the long grass or just came awfully close, wasn't clear to me from Bill's account, but it apparently was pretty surprised. You may recall that last year a buzzard came to grief right over the field in an air-to-air encounter. Do you suppose we should create a Road Kill Trophy?

## Report on E Mail Distribution

It looks like we will be mailing only 50 hard copies and 130 will be sent electronically. Based on a rough figure I got from Office Depot, printing should cost about \$30. Postage will add \$19 for a total of \$49, but it is necessary to print a small oversupply of bulletins each month, mainly to have on hand for new members. This month a back up supply is also needed in case of failures on the part of my e mail address list. Thus, the total cost of hard copy distribution will likely be about \$1.05 per copy, or about \$12.60 per hard copy member per year for a typical four page, eight sided bulletin.

All hard copy mailings to non-members have been discontinued and the mailing label list has been purged of former members who have not yet paid their 2004 dues.

The bottom line is that we will save more than \$100 per month by using electronic distribution. This is offset a bit this month by the fact that I spent just over \$50 for a copy of PDF Producer to permit you to be able to receive Sparks by e mail in a format that everyone can open. It will pay for itself more than two

times over in this, its first month. Such a deal!

One more thing. **There are still some of you who have e mail, but whose addresses I do not have and a couple for whom I still have incorrect addresses.** If you have e mail and are reading this on hard copy, please send me an e mail message so that I can use it to accrete your address to my file and further reduce the cost of distributing this bulletin. Send these messages to me at [jbuss@itis.com](mailto:jbuss@itis.com). You will recall I asked you to do this last month, but the response was very disappointing. As a result, I had to build about three quarters or more of the address file the hard, error prone, way from the club roster and then resolve a lot of mistakes by phone. Much thanks to those of you who did reply, but I need some help from those whose correct addresses I still don't have.

## Flying the Mail

*By Jerry Buss*

With prodding from Henry Woodhouse, the influential aviation publisher, the idea of linking the two coasts by air mail was burning in the mind of Postmaster General Burleson and his assistant, Otto Praeger, and they were in a rush to get started.

First would be a link between New York and Chicago. Eddie Gardner and a mechanic, Eddie Radel, in a Curtiss R-4 and Max Miller in one of the Post Office's Standard JR-1B's, each with about 400 pounds of mail, set out for Chicago from Belmont Park an hour apart on the morning of September 5, 1918 for a path finding run.

After eight landings forced by engine failure, Gardner and Radel finished their day in an open field near Cleveland. Both he and Miller flew through heavy rains. Like Gardner, Miller was hounded by engine trouble. His radiator sprung a leak and the "Hisso" overheated alarmingly forcing him to land near a rickety, isolated farmhouse near Lock Haven, PA. A farmer with a shot gun suggested that, while he was still able, he had best "Vamoose!" and so he had to take off, overheated or not. Because of the weather, he was unsure where he was, but he landed again shortly and received a more civil reception from a farmer who supplied water and told him he was at Jefferson. Assuming this to be a small town east of Cleveland, Miller took up a heading that should have taken him to Cleveland, blissfully unaware that the farmer meant Jefferson County in Pennsylvania and as a result he was 100 miles south of his intended track before he got

his true bearings.

Where Gardner's engine problems were concerned, it was fortuitous to have Radel, the mechanic, and a good supply of spare parts for both planes with him. Still, it was 11:00 a.m. before he could get off from Cleveland on the morning of September 6. He and Radel arrived at Grant Park in Chicago just before dusk.

On the morning of the sixth, by plugging his leaking radiator with bits taken from bottle corks, Miller was able to limp into the Glenn Martin Aircraft Company field at Cleveland for repairs, which delayed his departure from there until 2:00 p.m. As a result, he was forced to land at Westville, Indiana for the night where a riotous impromptu celebration was held in his honor. The next day he completed his run to Grant Park.

The pilots were to have two days of rest before starting the return leg to New York on the ninth, but they were fussed over so much by the locals that almost the entire time was spent at one sort of celebration or another. The morning of the ninth was crystal clear when Max Miller took off with 2,974 letters. He had a good tail wind and, with luck, hoped to make it all the way to Belmont Park. His radiator caused more problems, however, and he was forced down to make repairs, finally spending the night at Lock Haven, Pennsylvania before reaching Belmont Park at 11:10AM on the tenth.

There hadn't been enough mail to send two planes east on the ninth and so Eddie Gardner laid over in Chicago until the tenth when he and Radel left Grant Park with a mere 68 letters in a heavy downpour. They soon left the weather behind, however, and making hurried refueling stops arrived over New York shortly after dark. Unable to pick out Belmont Park, they tried to find the army field at Minneola, but to no avail. Finally, with fuel tanks running dry, Gardner parked the Curtiss in a "dark spot." It was the best he could do. It turned out to be a field near Hicksville, Long Island. The landing tore the undercarriage off and when the plane hit an unseen barrier, it flipped up "in a crashing, blinding sommersault." Fortunately, neither man was seriously hurt.

Theirs was the first flight from Chicago to New York in a single day. Miller had required 14 hours for the trip over two days, whereas Gardner and Radel had spent just over 10 hours airborne.

Later in the autumn of 1918, Otto Praeger

made the decision to inaugurate regular service between New York and Chicago. One leg would start from New York, making intermediate stops at Bellefonte and Leighton, Pennsylvania, en route to Cleveland. The second leg would start from Chicago, go to Bryan, Ohio and on to Cleveland. The planes would meet there, exchange mail sacks and return home. Service would begin December 18. Ben Lipsner, already disturbed by Praeger's penchant for using his influence to promote the hiring of sons of influential people in preference to good flyers, vigorously opposed the winter start because it was far too dangerous. He got nowhere and resigned in protest. He was vindicated when the inaugural flights failed in crashes at both ends of the run on the first day and forced service to be deferred until the following May when it was inaugurated on the 15th, the first anniversary of the New York-Washington service.

There had been no fatal accidents in the first six months but on December 16, 1918 Carl Smith was killed while testing a DH-4. On the following January 7, Auguste Thiele, a mechanic, was pulling a prop through in preparation for starting when he slipped on frosty grass. The prop kicked back, hitting him in the head and killing him. Still, it was a remarkable safety record so far, considering the equipment, the total lack of safety features and the non-flying management's insistence on flying in virtually all weather conditions.

With the end of the Great War there was suddenly a glut of available surplus airplanes, not the least of which were de Haviland DH-4's, a big single engine, two seater, bomber and recon biplane. About 1,000 of them had been built in the US under license, many of which were in crates awaiting shipment to France. They had a far greater range than the Curtiss Jennys and R-4s or the Standards. They were much faster and could carry a 500 pound payload with ease.

Praeger made an initial requisition from the War Department of 100 DH's, along with 100 extra Liberty V-12 engines for use as spares, but they proved troublesome. Air mail pilots preferred to fly low, whereas the de Haviland, with its high compression engine, was made for high altitude work and tended to overheat in the warmer air at lower levels. Moreover, in Smith's crash, it was felt that he might have survived, had he been flying from the gunner's rear cockpit. The machine had been designed and built with the notion of it having a short useful life and it was simply too fragile for the work that was going to be expected of it and so

contracts were let to three companies for modifications.

The canvass covering was stripped from the fuselage and replaced with molded plywood sheeting to add strength. The pistons were drilled and the rings replaced to lower compression. A stronger gear system was built to connect the crank shaft and the valve cams. The pilot's seat and controls were moved to the gunner's cockpit and the front cockpit was converted to cargo space. Finally, the flimsy wooden landing gear legs were replaced with faired steel struts and moved a bit forward to guard against nosing over. Bigger wheels were added to accommodate the all too regular need to land in emergency conditions on rough or soft fields. These converted machines were designated DH-4B's. Another modification that was later made to a few machines was to remove the engine, close up the engine compartment to make room for cargo and hang two six cylinder engines between the wings.

Praeger boasted of the quality of the de Havilands, saying that they would lead to spectacular growth in air mail service. He was right, but it is interesting that while he was praising the virtues of the DH-4B, Billy Mitchell was beginning his career of making no friends at the War Department by chastising them for not replacing the de Havilands with more reliable planes, referring to them as death traps. Either Mitchell was simply agitating for new toys or the modifications overcame his perceived problems, for as DH-4B's they served very well indeed and were great favorites of their pilots.

A special section was created to test various airplane types for suitability as mail carriers. One type acquired much later, in late 1920, was the Junkers F-13 which, when imported, was sold under the designation of JL-6. Eight were purchased by the Post Office. These German machines were built in Sweden because the Versailles Treaty forbade building airplanes in Germany. Unfortunately, someone made the decision to bypass the test unit and, instead, place them directly into actual service. The perception apparently was that the Junkers were slam dunk sure winners. Indeed, it seemed like it should be a great step forward with its all metal, fully cantilevered monoplane construction, enclosed cabin, eight hours of flight endurance on low grade fuel and half ton payload, but unfortunately it proved to be a worse death trap than Mitchell accused the DH-4 of being. Gasoline was supplied to the carburetor by a rigid copper tube which, it was belatedly discovered, broke frequently from vibration,



