

the

# Monitor

February

The MRCS Officers

2015

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**Newsletter Editor:**

Ken Myers

**Next Meeting: Date:** Wednesday, Feb. 4

**Time:** 7:30 pm, EAA Building, Mettetal Airport

**What's In This Issue:**

January Meeting: Roger Wilfong on Soldering, Scorpion Backup Guard (SBG), business meeting - A123 1100mAh Cells, End of an Era - Upcoming Events

## The January 2015 Meeting

### Guest Speaker, Roger Wilfong

#### Topic: Soldering

**Roger Wilfong** did a presentation on soldering. As a youth, Roger worked for several years at a Heathkit store. He put several of the store's display models together and helped people in the store to learn to solder correctly.

First he shared the 'tools of the trade'. He showed his original soldering gun, purchased with S&H Green Stamps, a 40-watt iron, 80-watt iron with hammer head soldering tip, and a soldering station from Hobby King. He noted that the station is as good as the much more expensive ones and even the ones that he used at his job. He also noted that it is quite inexpensive.

He showed and demonstrated a few items that can be used to 'desolder' connections. A solder sucker can literally suck up liquid solder and soldering wick, which is copper braid, can wick up liquid solder.

He demonstrated various types and reasons for soldering.

He noted that having a soldering jig is very import when soldering because the 'joint' cannot be allowed to move until it has solidified. He had purchased his jig, made up of a wooden base with two clip type clothes pins glued on, at a swap shop.

The two items being soldered together must be very clean.

He noted that all solder was originally tin and lead and it is still the best. Lead-free solder doesn't work well.

Silver Solder is used for landing gear not electronics.

It is a good idea to keep a damp sponge handy to wipe the irons tip to keep it clean while soldering.

He soldered a wire to a Deans connector. It is a good idea to keep the pair of connectors together when soldering

#### Helicopter Frequencies

21,27,29,39, 41

#### Sailplane Frequencies

11, 12

this type connector as the plastic melts slightly when heat is applied. He flattened out the stripped wire and pre-tinned both the wire and metal connector.

Appropriate size heat shrink was slid up the wire, away from the area to be soldered. The jig was used to hold the wire and connector together and heat applied to the wire and connector as solder was run between them. Once the solder solidified, the heat shrink was slid over the connection. The heat shrink can be shrunk using the barrel of the soldering iron or a heat gun. He used a soldering iron barrel for the demonstration.

He also noted that Deans connectors do not have a good mechanical connection, which is essential for really good soldering. The connection made this way is on the Deans connector is okay and works.

A little solder on the tip of the iron helps, but the actual solder is run between the wire and what it is being connected to.

It should be remembered that solder has higher resistance than the wire, and the least used to do the job the better.

When joining two wires together, it is best to make a good mechanical connection by twisting the wires with pliers.

When small diameter wire is used, solder wicking up the wire is a problem as it creates stress points which might break.

Roger demonstrated end-to-end soldering of round cells, A123 1100mAh cells in this instance, using the Charlie White hammer head tip.

He also noted that connectors like the XT60 and Anderson Power Poles (APP) have solder 'cups' to aid soldering.

He also demonstrated the ease with which APP connectors can be crimped with the proper tool. He also noted that this mechanical connection is better than soldering.

He doesn't use any flux when soldering. Non-rosin flux can corrode the solder joint.

**Some of the items noted by Roger:**



**Radical RC Hammer Head Soldering Tip**

## **Radical RC**

<http://www.radicalrc.com/category/Soldering-Irons--Jigs-201>

## **Hobby King**

[http://www.hobbyking.com/hobbyking/store/\\_10803\\_Hammer\\_Head\\_Soldering\\_Tip.html](http://www.hobbyking.com/hobbyking/store/_10803_Hammer_Head_Soldering_Tip.html)

Radical RC's, while more expensive, looks to be a bit better as the tip is convex instead of concave. Radical also has a lot of other useful soldering items on this page.

## **Hobby King Soldering Station with Adjustable Heat Range**



[http://www.hobbyking.com/hobbyking/store/\\_19240\\_Soldering\\_Station\\_with\\_Adjustable\\_Heat\\_Range\\_US\\_Warehouse\\_.html](http://www.hobbyking.com/hobbyking/store/_19240_Soldering_Station_with_Adjustable_Heat_Range_US_Warehouse_.html)

## **Soldering Tips for the Soldering Station**



## 10pc Solder Screwdriver Iron Tip 900M-T for Hakko Soldering Rework Station Tool

Use Google to locate a supplier. Use the search term Iron Tip 900M-T and a lot of sources will come up in the search.

We thank Roger for this very informative presentation.



### Scorpion Backup Guard (SBG)

**Arthur Deane** had seen an informative and amusing video at the January EFO meeting. He asked Ken to bring in his Scorpion Backup Guard to demo before showing the NODD RC video.

<https://www.youtube.com/watch?v=1tOE8CVj3y4>

Ken demonstrated how this backup power unit can supply power to the onboard radio system whenever the power to the radio drops below 5 volts. He used his Fusion 380 as the demo plane and the transmitter he used was the brandnew Tactic TTX850 8-channel.

Scorpion Backup Guard at Innov8tive Designs:  
<http://innov8tivedesigns.com/parts/power-and-charging/scorpion-backup-guard>

Ken's review of the Scorpion Backup Guard:

<http://www.theampeer.org/ampeer/ampjan15/ampjan15.htm#EFO>

Ken's review of the new Tactic TTX850:

<http://www.theampeer.org/ampeer/ampfeb15/ampfeb15.htm>

### The Business Meeting

**Arthur Deane** started the business part of the meeting by calling on the officers for their reports.

**Lynn Morgan** noted that the membership drive is on. Dues are due by the end of the March meeting, March 4. If paid after March 4, there is a \$25 increase to \$125.

**Dave Stacer** updated the 2014 treasurer's report. He showed a spreadsheet of the final expenses and income from 2014. We did end up slightly in the black. If it were not for the Friends of the Field Fund we would have been in the red. These donations are essential and very, very much appreciated.

Ken Myers and Rich Seivert had nothing to report.

There was a bit of talk about some new mini-quads.

### A123 1100mAh Cells, End of an Era

Ken Myers received the following email from Erik Vandermeij of [buyA123batteries.com](http://www.buya123batteries.com).  
<http://www.buya123batteries.com>

EVDM Corporation

December 18, 2014 SPECIAL NEWS BULLETIN

We received some disappointing news this morning. After a final production run, A123 Systems will discontinue the **APR18650M1A** cell with no anticipated replacement in the 18650 form factor. If your needs dictate the **APR18650M1A** cell in your products, now would be the time to reach out to us to place a pre-order for the final production run.

**and from Ken,**

Please note these are not the new 2500mAh A123 cells. Not sure how long they will be available but they are right now.

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

The 2015 membership application is available at the club Web site,

<http://www.midwestrcsociety.org>,  
for downloading with the link on the homepage.

**IMPORTANT: Channels 36 & 56 May NOT be used  
at the 7 Mile Rd. Field**

### **Upcoming Events**

**Jan. 6, Tuesday**, Skymasters' Indoor flying continues at the Ultimate Soccer Arenas, Pontiac, MI, 11 a.m. to 1 p.m. - Started Tuesday, Nov. 4 with 26 flying days this winter for a total of 57 hours of flying fun from November through March.

**Jan. 8, Thursday**, Indoor flying continues at the Legacy Center, Brighton, MI, noon to 2 p.m., Started Thursday, Nov. 6 Indoor Flying at the Legacy Center in Brighton MI for the Fall/Winter 2014/2015 season and runs

through April 30th, 2015.

**Jan. 25, Sunday**, Radio Control Club of Detroit (RCCD) Swap Meet from 9:00 am-1:00 pm, Knights of Columbus Hall, 23695 Mound Rd., Warren 48091. Info on their Web site

**February 4, Wednesday**, Midwest monthly meeting, EAA building, Mettetal Airport, video at 7, meeting 7:30. Guest speaker, Lynn Morgan, Topics: Getting started in Multi-rotors & demonstrating the FPV goggles he designed and built

**Feb. 8, Sunday**, Chesaning Area Model Flying Club Swap Meet, 9 a.m. - 2 p.m., New Lathrop Elementary School, 9387 Genesee Street, New Lathrop, MI 48460, Contact: Mike Holt 810-743-6967

**Feb. 21, Saturday**, Skymasters' Super Swap Meet, 9 a.m. 1 p.m., Community Education Resource Center, 455 E. Scripps Rd., Lake Orion, MI 48360, \$5 entry fee, more info: call 248-805-1404

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### **The Next Meeting:**

**Date:** Wednesday, Feb. 4, 2015

**Time:** 7 p.m. video, 7:30 meeting

**Place:** EAA building, Mettetal Airport, Plymouth