



## AMOS February 2015 Newsletter

AMOS Board Meeting Minutes – February 2, 2015 - 6:00PM

Held By: Mike Haston Vice-President

New Members - Visitors and / or Guest Guest Frank Colin, Fred Light, Jim Hill and Randy Sizemore. (Fred, Jim and Randy are members of field improvement committee)

### Unfinished Business

#### Loans for the field :

Loans for field improvements have been received and total \$32,000 this month. With the \$13,000 last month, we have \$45,000 in loans outstanding. But we also received a \$5,000 donation for field improvements. A request was made to obtain donations from members specifically for shade and tables for the helicopter areas. (See MOTION 1.) The purchase of a 40 foot container was discussed and a motion made to do so. (See MOTION 2.)

#### New Business :

Flying over pits : There were two incidents of flying over the pit and shade areas. Members should be reminded to avoid flying over these areas. The cover will need repair. Additionally instructors should review this with their pupils.

Petromat purchase for the runways was discussed. A motion was passed to do so.

#### Committee Reports :

Field improvement Randy Sizemore and his committee discussed the Bids received for the field improvements of Grading and preparing the base for the runways. Considerable details were presented to the Board with various options and various costs. This is to be presented to the General Membership for approval when total costs are completed to insure that total field improvements can be completed within the \$50,000 cap.

#### Board Reports :

Treasurer - Gloria Ireby Checking Account has about \$14,000 in it. Adding Savings we have \$50,946.42 in funds available.

Membership - Jim Ireby We had 221 members as of January 31. Final count with those not renewing should be out within two weeks.

Field Marshall - John Kinne - hole in shade structure repaired by Jim Ireby.

## **AMOS 2015 Events**

**4/18-Rotors over Roseville (NEW-Helicopter Fun Fly) - Richard Cross**

**4/25-RC Country Swap - Tracy Trammell**

**5/13- to 5/17-Float Fly - John Sorenson**

**6/13- Warbirds over Roseville - Mike Haston**

**7/11- Club Appreciation Day - John Sorenson, Mike Haston**

**8/29-Electric Fun Fly - John Heinlen, Basil Yousif**

**9/12-Presidents Fun Fly - John Sorenson, Mike Haston**

**9-26-Thunder Valley Rally of Giants - Mike Dunbar, Basil Yousif**

**10/10- Jet Fun Fly - Randy Sizemore, Mike Haston**

**12/19-Christmas Dinner - Jim Hill**

## **AMOS General Meeting Minutes – January 15th, 2015 at 7:00 PM**

Call to order: MIKE HASTON

New Members- Visitors or Guest Mike Lord, Wally Erikson  
and Mike Cioli

Announcements:

**John Heinlein** - “Freeze & Fly” There were 30-40 people present A video is on Youtube.

**Board Reports:**

**Treasurer Gloria Irey**

Beside the Treasurer report Gloria passed out a loan payoff projection. Also stated that the Board had approved borrowing \$13,000 at 5 % and she had repaid our existing \$14,349 loans at 8% . Also stated we could take on a total debt of \$50,000 (including the \$13,000 existing loan) and pay it off in 4 years, with the same membership.

### Membership Jim Irey

Presently we have 218 members, but have 45 to pay yet for 2015.

### **Committee Chairman:**

**Richard Cross** Stated that Warbirds over Roseville.com is on the internet. Also the Country swap meet will be April 8. And that April 25th would be Rotors over Roseville. There will be a Float Fly on May 9th.at Camp Far West by the Sierra Foothills RC Flyers 9am to 9 pm.

### **Field Marshall**

**John Kinne-** Some problem in table area ( North side ) has a tripping hazard and needs attention.

### Unfinished Business:

Constitutional Amendment- Amendment passed out. It is written to comply with Audit Report recommendations. This Amendment provides that a second signature may be an email approval for paying routine bills. Another change is for field improvement fees when accumulated can be transferred to the savings account in the same manner that other dedicated funds are handled and accounted for. The last change is to specify that only AMOS property with a value of \$500 or more needs to be inventoried and have an annual audit. (See Motion 1) It carried by over 2/3 vote including proxies.

AMOS Budget 2015 Passed out (See Motion 2) Motion Carried

### New Business:

Approval for Giant Scale event to be held Sept. 26th by Mike Dunbar & Basil Yousif. (See Motion 3 ) Motion Carried

### REPORT FROM FIELD COMMITTEE BY Randy Sizemore:

Assistance from committee members. Report covered installing a storage container and petro matting runways and grading & placing base on main runway and installing new fence in pit areas.

### Storage Container:

The committee recommends that a 40 foot storage container be considered as the cost difference is approximately \$700 over a 20 ft. one A vote was taken on only the size of container, depending on later approval of the financing it. (See Motion 4.). Motion Carried.

Grading, Installing Base on runway and Petromat...These discussions did not include motions for actions but deferred to financing approval first. The committee's recommendations were to grade the main runway and crosswind runway with 2 inch AB base on the main runway only. Petromat both runways with 600 X material and preferred a 600 foot runway instead of the existing 528 foot runway.

No motions were made on the grading and base of the runways. There was a motion made on the petromat by Doug Keller and 2nd by Richard Cross but another motion was made to table this item for financing approval by Randy Sizemore and 2nd by Jody Kahan. Motion was tabled and therefore not acted upon.

A discussion was held regarding the Entrance Road.. It was agreed not to do anything to it at this time.

Fencing - Jim Irey discussed what is proposed for new pit area fencing. Several views on colors and types were considered, cost to be in the \$500 ranges

## Other Discussions:

### **FINANCING THE IMPROVEMENTS TO THE FIELD:**

A motion that provides for \$50,000 for this purpose. The motion was approved by the General Membership.

During the discussion of the runway improvements it was covered that 3 bids were obtained and ranged from \$26,000 to \$38,000, but not all were on letterheads and would have to be clarified.

There was concern about length of runway and how the Petromat would be held down. All this needs to be clarified by the committee while staying within the financial cap of \$50,000 for all proposed work, including but limited to Grading, Paving, Petromat, Container, and Fencing.

## More on R/C Batteries:

**Internal resistance:** Last month's battery article contained ways to check a battery. Most voltage / capacity checkers depend on the battery being in good condition because they only show the capacity based on the voltage level of the battery without applying a load.

As a battery goes through many cycles of use the internal resistance gradually increases over time.

When the internal resistance goes up over time the voltage drop under load will be greater. Cold weather can also increase internal resistance.

How can I check out the battery better! Most of the new battery checkers connect to the balance port of the battery. Plug in the tester while the battery is connected to the load like a Motor or flight pack.

Work your load - move the servos or run the Motor (with model fixed) and watch the voltage /capacity drop on your checker. It will drop a little if the battery is good but if it starts dipping 2 or more volts the battery is going bad. The battery may take up to 10 seconds to drop.

If your running a motor you'll start to see shorter flights as the internal resistance gets higher because the voltage will drop too low to run the motor.

Here's a interesting Youtube Video on Internal Resistance:

<https://www.youtube.com/watch?v=usRE3gLFnOc>

### Storage of Lipo or Life Battery:

The Polymer in the Lipo and Life batteries is unstable at a full charge. Keeping the batteries fully charged when there waiting to be used any longer than a few days can contribute to puffing up and also damage the battery before it's time. Keeping a Lipo at 3.8 volts per cell and a Life at 3.3 volts per cell at a storage charge is a good idea.

Lower C/Amp batteries are less effected by storing them with a full charge, with less amps stored the Polymer isn't effected as much.

## The difference between cheap and expensive servos:

There's a many models of aftermarket servos to activate the control surfaces on your R/C models out there. Many boast high transit speeds and great torque values. Some are much lower in price than the popular name brands like Futaba, JR and Hitec with the same specs.

But are they worth it. Here's some differences:

1) **Overshoot:** Cheap Metal gear servos usually use heavy gears which are solid metal. These are difficult to stop and start for the motor resulting in overshoot. Overshoot is when the servo doesn't hit the same center and end point positions and goes beyond them. High quality servos use a light alloy which makes the gears easier to turn. That's why many have had better luck with plastic gear cheap servos.

2) **Cheap motors:** The motors used in some cheaper servos have a high current drain because there inefficient. Cheaper internal parts create high resistance which results in wasted power consumption. These can also introduce some problems like noise that can interfere with receivers and high battery drain problems.

4) **Cheap potentiometers:** Cheaper servos use Thin-Film Carbon Potentiometers that wear very quickly. You'll usually see centering problems before they fail completely. I just had one go bad after 4 flights in the tail of a helicopter.

They boasted that it used the best new technology pots. It wasn't even that cheap at \$27 for a 500 size heli. I ended up getting a JRDS3500G at a half off sale for \$43. Great servo!

3) **Unsupported wiring:** Some of the cheaper servos don't support the wiring inside the servos to keep them in place. This result is wiring coming off the circuit board from vibration.

Some even come dead on arrival because of the vibration from shipping. Just taking the servo apart can disconnect the wires.

Because this is the easiest fix for the cheap servo companies to make, the companies are taking care of this problem. They have no shortage of glue.

Now they you'll get some flying time before they go bad!!

There has been many good cheap replacement R/C products like Receivers, Batteries, Chargers and wiring but servos need to be good quality to last reasonable amount of time and be safe to use. They have moving parts along with circuitry and a motor which make them more complicated than any of these other products.

**Is there a middle ground ?** - Hitec makes the best bang for the buck servos. They have had a few of these same problems in the past but have worked the problems out and are one of the best. One company that is getting better is Power HD, but they are still hit and miss. Align and Savox make excellent performing servos but they have a moderate current drain. Futaba an JR are still the best, very efficient - strong and light with very low current drain but expensive!! Cheap Servos can work out good for lighter load Foam planes.

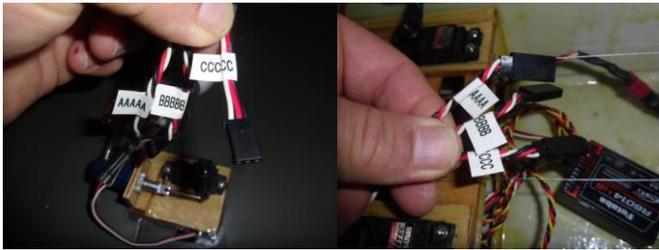
With Servos the old saying "You get what you pay for" is good advice.

## Tips and tricks:

### Labeling your Servo Extensions;

Most modelers use the literal name of the control surface when labeling a servo extension to a detachable part of the model such as a wing. Labeling such as AIL-RT and AIL-LFT are what I used. This labeling system can take a little longer to decipher because the first few letters are the same.

Using lettering like AAAA ,BBBB and CCCC to label the connecting wires is better. Connecting them will be mindless because all the letters are the same as the labeled coupling servo lead. Even a baby can connect them!



## Gasoline Vs Nitro Fuel:

Why do you get more engine run time using gasoline fuel to power a gasser R/C engine than using Nitromethane to power a Nitro engine ?

Gasoline has twice the energy density as Methanol and Nitro Methane. A gasoline engine will draw twice the amount of air to mix with the gasoline. Wow and air is free!!

That's why the carburetor intake of the gasoline engine is bigger. It's important to let the carburetor get good air flow as it is to let adequate cooling over the head.

Since the gasoline engine burns half the amount of fuel than a Nitro engine there's less fuel/oil mix moving through engine to cool it down. So the gasoline R/C engine will run hotter.

That's the reason that the older Glow to Gas conversion engines didn't do well they weren't designed for use at higher temperatures and less lubrication. The newer style conversion engines like the Evolution 10cc and 17cc are working out very good. The 10cc can fit into a .46 size plane. They did a great job in the design of these engines.

The Weed Eater/Chain Saw conversion engines that are the most popular R/C Model Gasoline engines were designed for the hotter run. The larger Cylinder heads make a big difference.

Use synthetic or synthetic blend two stroke oil with a Stabilizer with smaller gasoline engines as well as larger displacements. The Stabilizer will keep the gas/oil mix from picking up water. With water in the gas/oil mix the engine will run even hotter. Water also changes the Octane value of the fuel mix.

Gasoline helicopter engines - the O.S. 15HZ which is a Glow to gas conversion engine is not getting good reviews. Users have reported that the heat ruins the piston and cylinder. The Zenoah -20cc and 26cc - standard (chainsaw type engines) are working out and lasting in .50 and up size heli's.

## **Jokes:**

### **Fully Automatic:**

The world's first fully computerized airliner was ready for its maiden flight without pilots or crew. The plane taxied to the loading area automatically, its doors opened automatically, the steps came out automatically. The passengers boarded the plane and took their seats.

The steps retreated automatically, the doors closed, and the airplane taxied toward the runway.

"Good afternoon, ladies and gentlemen," a voice intoned. "Welcome to the debut of the world's first fully computerized airliner. Everything on this aircraft is run electronically. Just sit back and relax. Nothing can go wrong ... Nothing can go wrong...nothing can go wrong...."

### **Emergency Landing:**

A helicopter was flying around above Seattle yesterday when an electrical malfunction disabled all of the aircraft's electronic navigation and communication equipment. Due to the clouds and haze the pilot could not determine his position or course to steer to the airport. The pilot saw a tall building, flew toward it, circled, drew a handwritten sign and held it in the helicopter's window. The sign said "WHERE AM I?" in large letters.

People in the tall building quickly responded to the aircraft, drew a large sign and held it in a building window. Their sign said, "YOU ARE IN A HELICOPTER." The pilot smiled, waved, looked at his map and determined the course to steer to SEATAC (Seattle/Tacoma) airport and landed safely.

After they were on the ground, the co-pilot asked the pilot how the "YOU ARE IN A HELICOPTER" sign helped determine their position.

The pilot responded, "I knew that had to be the MICROSOFT building because they gave me a technically correct but completely useless reply."

### **Assertiveness:**

A mild-mannered man was tired of being bossed around by his wife so he went to a psychiatrist. The psychiatrist said he needed to build his self-esteem, and so gave him a book on assertiveness, which he read on the way home. He had finished the book by the time he reached his house.

The man stormed into the house and walked up to his wife. Pointing a finger in her face, he said, "From now on, I want you to know that I am the man of this house, and my word is law! I want you to prepare me a gourmet meal tonight, and when I'm finished eating my meal, I expect a sumptuous dessert afterward. Then, after dinner, you're going to draw me my bath so I can relax. And when I'm finished with my bath, guess who's going to dress me and comb my hair?"

"The funeral director," said his wife.

AMOS Newsletter prepared by: Basil Yousif, Send Newsletter feedback and topic info to - basil.yousif@sbcglobal.net USE - AMOS Newsletter as the Subject for the E-mail. Also see the clubs website at [www.amosrc.com](http://www.amosrc.com) for more field information and Flyers.