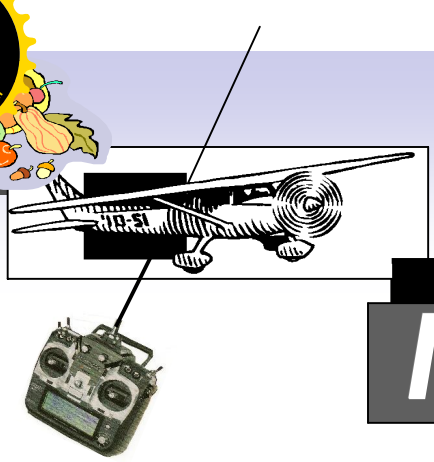
NOVEMBER 2009

MONTHLY NEWSLETTER of the
MADISON AREA RADIO CONTROL SOCIETY
MADISON, WISCONSIN AMA CHARTER # 665



MARCS SPARKS

VOLUME 48 ISSUE 11

COME FLY WITH US...

MARCS meetings are held on the first Thursday of each month at:
MADISON LABOR TEMPLE
602-South Park St., Madison
7:00pm room #201B

Visitors** are always welcome. We think we have a great **'HOBBY'** and we invite you to come and see, and **CONSIDER JOINING US.

Officers...2009:
President: **Brad Witt**.....bwitt@chorus.net
Vice Pres: **Danny Sutter**.....stodan@merr.com
Secretary: **Don Weigt**.....d_weigt@sbcglobal.net
Treasurer: **Dick Sutton**.....jdsutt@mhtc.net

Membership Information: ***(page-5)***
Dick Sutton ***Phone:*** (608) 437-6795
Flight Instruction Coordinator:
Ozzie Johnson ***Phone:*** (608) 274-0474
Web Master:
Jeff Alexander webmaster@marcswi.org
Club Photographer:
Otto Oie ooie3@charter.net
Club Safety Officer:
Bill Kinney hukilau@centurytel.net
Club Website: www.**marcswi.org**
(Contains links to:) *About us, Flying sites, Newsletters, Calendar of events, Pictures and Videos, War Birds, Electric Flyers, other Special Interest groups, and Membership information for:* ***MARCS** club and **AMA**.*

Newsletter editor:
John Steen steensr@yahoo.com

Minutes of the:

MARCS General Membership meeting

October 1, 2009
Submitted by John Steen (stand in)

The October 1st meeting was called to order at 7:05 by President **Brad Witt** and there were 19 members present.

We hosted two visitors; Clint Olsen and Bernard Bauer who were warmly welcomed.

Secretary's report: Minutes of the September's minutes shown in the October newsletter, **MARCS SPARKS**, were approved as published.

Treasurer's report:: Was on display and available for viewing on the front officer's table. Treasurer **Dick Sutton** reported our membership at 92.

OLD BUSINESS:

Gate proposal and new sign: **Wayne Lanphear** was not present so no new information was available.

Field Sound System: The system has been removed from the field and put into storage at **Charlie's** for the off season.

Wood chipping: **Calvin Slota** reported that his company's chipper machine was still broke down and not yet available for use.

Dues increase: A tentative increase of $10.00 for the Regular membership, $5.00 for the rest of the limited memberships, and a $5.00 increase for the mailing out of the newsletters were suggested. It is planned that the official recommendation from the Board of Directors and the voting on the increase will be brought before the club at the November 5th General Meeting. The fact was brought before the group by former Treasurer, **Ed McDonald** and was reiterated by President **Brad Witt**, that the last membership rate increase was five years ago in 2004. **Brad** continued by stating that our expenditures have increased considerably since then, which sadly necessitates

these increases.

OPEN DISCUSSION PERIOD:

This time was activated by President **Brad Witt** to stimulate the members present on ways that we could increase the clubs revenue and/or to search out ways to diminish the clubs overall expenditures.

Meeting room: Bringing to light that our rent for our room in the Labor Temple was $41.00 a month, the idea of holding our summer monthly meetings at Kettle Field or another no-cost site was suggested**.**

Kettle Field: Likewise; the $2,000.00 annual cost of our Kettle Field which included the twice a week mowing, was scrutinized. This cost has increased $100.00 per year for the past few years and we expect the same again for this upcoming contract. Although a cost break-down of that contract was not available, it was asked if the mowing of twice a week could be brought down to just one, on a Thursday? It was also suggested that perhaps we should purchase our own riding mower, which would necessitate a third storage shed, to eliminate the field mowing completely from that annual contract. A rough cost estimate of that investment would most likely be; $4,000.00 for the mower and at least $500.00 for a shed with a floor in it for its storage and security.

Mall Shows: It was asked why these weren't continued as it was felt that it was a good way to gain exposure and tentative new members during the winter and/or the spring months. **Brad** reported that these were not available at East Towne and West Towne due to the increase of capitalism that the owners were caught up in. In other words, there were no more free lunches. He did say he would keep asking about it as well as to check into the Hill Dale Shopping Center to see what their policy was concerning this type of display.

Nominating committee report: It was reported by the committee of one, **Don Weigt**, that the four officers that hold the position of; President, Vice President, Secretary, and treasurer were willing to remain in office if there are no other nominations for those positions. As far as the three Board-of-Directors seats that will need to be filled, applicants and nominates are still encouraged to contact our Secretary Don Weigt with any information of that nature. At the time of this publication, there are these five names that will appear on the ballot:

Tony Kremm **Wendell Hottmann**
John Granberg **Bill Kinney**
Steve Purcell

NEW BUSINESS:

Swap meets: Two meets were mentioned for the upcoming weekend as well as the estate sale of **Hal Humphrey's**. The dates for these events were given for the benefit of the members attending this meeting and would be since expired before the release of this printing.

Raffle prizes: The prizes for the November general meeting will include one or more… 2.4GHZ receivers. Winners of these as well as most other raffle prizes can, if so desired, be exchanged at **Schultz Sport and Hobby** for something else that suits your fancy.

Club Videos: It was announced again that Vice President, **Danny Sutter**, has available four separate DVDs of our club's flying events, each runs 35-45 minutes. They include: the 2009 Ken Kindschi Scale Rally, the 2009 Float Fly, the 2009 2-day Electric Fun Fly, and a mix of the 2003/2004 Float Flys. Cost is $10.00 each, with half going into the **MARCS** treasury.

Helicopter instructor needed: Our club's Flight Instructor Coordinator, **"Ozzie" Johnson**, is asking for any of our members that could teach and instruct this division of our hobby to contact him. He has had inquires for this need just recently. Please contact him at (608) 274-0474.

Pylon Racing: **Jeff Brimmer**, one of our active members, has suggested we look into this as possibly becoming one of our upcoming 2010 summer club events. He feels there could exist, within our club, pilots with a "competitive nature" and wouldn't mind a crash or two of these small size racers all in the name of fun. It could draw in spectators for the sport too if it was advertised. His interest was spurred by an article the AMA published recently.

RAFFLE WINNERS

Brad Witt… .25 Magnum motor
John Granberg… CA glue

SHOW and TELL:

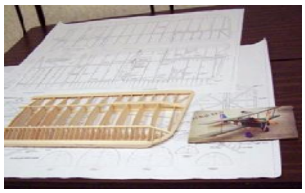
Bernard Brauer, a non-member at the moment, showed a nicely finished new "TELEMASTER" 60-sizeTrainer, with the radio system included that he bought from an individual who had never flown it. It's a 72-inch wingspan beauty that even has operational flaps. Other than the needed adjustment of the throws of the control surfaces, it appears to be ready to fly. He is planning on joining our club and taking his flying instruction from our club's training staff in this upcoming 2010 season.

Bill Kinney showed the newest aircraft to join his fleet... a "PC-6 Porter" which he calls the "Bird" version. The original aircraft is a civilian utility aircraft built by the Pilatus Aircraft of Switzerland and is noted for its short take-off and landings; each could be done within the length of a soccer field. The first prototype was built in 1959. In the U.S. it is built under license by Fairchild Hiller.

Bill's model sports a 64-inch wingspan and a .46 engine. He originally had a larger engine in it, but it was so noticeably overpowered and hard to control that he had to scale it down to the .46 size and reports now it flies like a dream with several flights already on it. Like so many of Bill's collection of aircraft, this one is also meticulously detailed... which portrays the art of perfection he brings into our hobby so very well.

Ray Walsh showed a completed wing section he has built, out of the four that it will take to move the construction along on his True 1/4 Scale **S.E.5a** (Scout Experimental)

kit from Balsa USA. He also brought along the full size plans for it for display.



The full-scale plane was actually built near the end of World War-I in 1918 by the Royal Aircraft Factory of England. Its effectiveness was instrumental in bringing that war to its end. The earlier version, **S.E 5,** came with a water-cooled 150hp V-8 engine. In later productions... **S.E.5a**, it was replaced with a geared 200hp Woseley Viper high-compression engine that became the standard power house and some models even swung a hefty 4-blade prop.

Ray hasn't quite decided what will power this biplane model yet other than it will have a rear induction fuel system. That's when the motor's carburetor is mounted on the back plate of the crank-case. The kit suggests a 1.20~1.50 4-cycle. He has been very impressed at the quality of this kit from Balsa USA, as everything is lazar-cut and very precise. And as we all know, **Ray** is a precise kind of builder and his builds are, without a doubt, some of the finest in the land. He plans to bring the model back in for 'show-and-tell' at different stages of its constructions so we'll be able to monitor its progress.

PROGRAM:

The DVD of the clubs recent 2009 "Electric Fun Fly" event was shown. This was one of the four that are available and were mentioned in the ***new business*** section of these minutes. The quality of these DVDs is excellent and they even have a background soundtrack. The only thing missing was the popcorn. Very nicely done, **Danny!**

The meeting was adjourned around 9:00pm.

Our next meeting will be held on **November 5th** and there will be voting taking place at that meeting so please plan to attend and exercise your voting right.

NOTICE...

Any of the tools or equipment at ***Kettle Field***, that isn't working right or you notice is broken & is in need of repair,

PLEASE... Notify: Ed Buechner

(608) 222-0774 or buechner@charter.net

So it can be taken care of ***before*** it is needed and wastes somebody's 'work' time. ***Thank you***

Your **2010-AMA-Renewal** notice should be in your hands by now or very soon. You'll need to get that processed ASAP.
Note: at the top of their form that they encourage members to do this on their website...
www.modelaircraft.org

The NEW HORIZON series
A comprehensive look at Electric powered models
by John Steen

Electronic Speed Controllers (ESC)

This month we'll examine the many "**Features**" this unit can have and just what you have to choose from out there in the market place.

'**BEC'** feature:

BEC stands foe **B**attery **E**limination **C**ircuit, which allows the radio receiver and servos to run off the main motor battery (within certain conditions) so that you do not need a separate receiver battery. There are certain limits associated with BEC circuits that you need to keep in mind. BEC works by reducing the motor voltage to down to the 5-volt needed by the receiver. Doing this creates heat. Because of this it will only work with a main battery of up to some specified number of cells, often 10 cells (or 12V), and also with a specified load often **1** or **1.5A**. The load is sometimes expressed as a number of servos and may reduce as the number of main battery cells go up. For example it may allow three servos up to two LiPoly cells and only two servos for a three-cell LiPoly pack, with no BEC over four LiPoly cells.

"MOTOR CUT OFF" feature:

This feature is always associated with BEC. It cuts power to the motor before the battery is completely exhausted so that you still have power to the radio to get it to a safe landing. Motor cutoff voltages nowadays are programmed into the speed controller and can auto detect the number of cells used once a power source is initially plugged in.

"BRAKE" feature:

Just as it sounds. When the throttle is at zero it applies a braking effort to the motor to stop turning. This is to allow folding propellers to fold neatly rather than wind-milling around creating lots of drag. Most are used on gliders and old-timers, which typically use the motor to get them up and then thermal around, sometimes for ages.

"OPTO" (OPTO-isolation**)** feature:

This feature electrically isolates the signal from the radio throttle channel from the ESC. Doing this can dramatically reduce the level of radio interference, which can be created especially with very high currents. You cannot have both OPTO-isolation and BEC working at once in an ESC, though quite a few allow you to select at installation which of these two features you want to use.

"PWM" feature:

(**P**ulse **W**idth **M**odulation / high rate control)

The control of motor speed is obtained by switching the power to the motor on and off in various ratios, e.g. maximum throttle is permanently on, half throttle is on half time, off half time, etc. This switching on and off is done many times a second. The speed at which the switching takes place has a large effect on overall efficiency. Early speed controls used what is know as "frame rate" switching, which means that they switched approx. 50 times a second, the same rate frames of information are delivered over the radio. Most modern ESCs switch at a much higher rate, which makes them mush more efficient, i.e. they lose less power as heat in the controller. Switching rates around 3000Hz (times a second) are about optimum. Anywhere between 1000Hz and 5000Hz is acceptable.

"TIMING MODE" feature:

Timing mode is similar to PWM and controls the on/off switching in the motor. There are two types:

Soft timing: for two-,four-, six-pole motors (Mini AC, Kontronik, Hacker)

Hard timing: six or more pole motors (Jeti Phasor, Mega, Plettenberg)

Hard timing increases both the motor revolutions and the current (up to 20%) with the same propeller and battery pack when compared to soft timing. Hard timing is more suitable for fast flying models.

Always use soft timing initially and after a few flights if the temperature of the batteries, speed controller, and the motor are below 50° Celsius, then it is possible to test the system using the hard timing mode.

NOTE: Hard timing should not be used with any two -pole motors (Mini AC, Kontronik, Hacker).

TURNING the SPEED CONTROLLER on/off…

Brushless speed controllers do not normally come with an on/off switch, so to enable an ESC you need to plug the battery into the ESC. Prior to that you do need to ensure your throttle is set to idle/low and it is switched on. Normally a set of beeps or tones will donate it being armed. To turn off or disarm an ESC just unplug the battery source.

DISABLING BEC...

To disable BEC on speed controllers where a separate receiver pack will be used is done by removing the middle cable from the servo, receiver cable which goes from the speed controller to the receiver. In OPTO speed controllers this is not required.

AMA insider 7/09

IN-FLIGHT TRIMMING

The Proper procedure...

Before you leave the ground to properly trim your model for straight and level flight, you should first know that your model is balanced correctly within its suggested CG range. Then; laterally balanced by using the prop' nut or spinner and the bottom of the rudder as the center line. Finally make sure that you have engine *down* and *side* thrust properly set. (an ARF will have this already set at the time of its assembly) With all these checked and corrected, you are ready for the in-flight-adjustments.

Take off and climb to a safe altitude of about 100 feet. Smaller models can be flown a little lower and giant-scale models flown a little higher. The idea is to have a safe altitude while still being able to easily see if your model is climbing or losing altitude. Set the throttle to about 1/2 to 2/3 throttle for your cruise speed and fly the model directly into the wind.

Neutralize the elevator and aileron stick and see what happens. If your model wants to climb, add some clicks of down. If the model wants to come down, add some up clicks. This usually takes a little while so make as many passes into the wind as it takes to get the elevator sorted out. Now do the same for the ailerons. Set up a flight path directly into the wind and neutralize the aileron control. Left trim corrects for a right turning tendency and right trim is needed for a model that wants to turn left. Now go around and set up one last trim pass into the wind to confirm that the model will fly straight and level with the control stick in the neutral position. Remember that a properly trimmed model will climb slightly when you increase the throttle from the cruise speed and it will lose altitude if you decrease the throttle below the preset cruise speed position.

The last thing to do is to land and take note of the positions of the control surfaces. Move the trim levers back to their neutral positions and mechanically adjust the control clevises so the surfaces are back in their trimmed positions. It may take two or three more flights to fine-tune the trim positions of the control surfaces, but you should end up with a model that flies straight and level with the trim levers centered.

by the Model Airplane News crew

M.A.R.C.S.

Madison Area Radio Control Society

Annual Membership Dues

Regular *membership*……$50.00
Junior *membership*……$20.00
Park Pilot *membership*……$20.00
Family *membership*…… $15.00
Associate *membership*……$15.00

All applicants for *MARCS* membership must show proof of their *AMA* Membership at that time.

To receive the club's monthly ***"Newsletter"*** *by regular first class mail, rather than off the internet, please add $5.00 to your annual fee.*

Treasurer: ***Dick Sutton***

TIP OF THE MONTH

Glad "Press-N-Seal" plastic wrap makes a great masking medium for spray painting. It's sticky on one side and will stick to itself, or the item you want to paint. It is much easier to work with than paper because it clings to the surface without lifting the paint off when it's removed.

The NOVEMBER 5th General Meeting

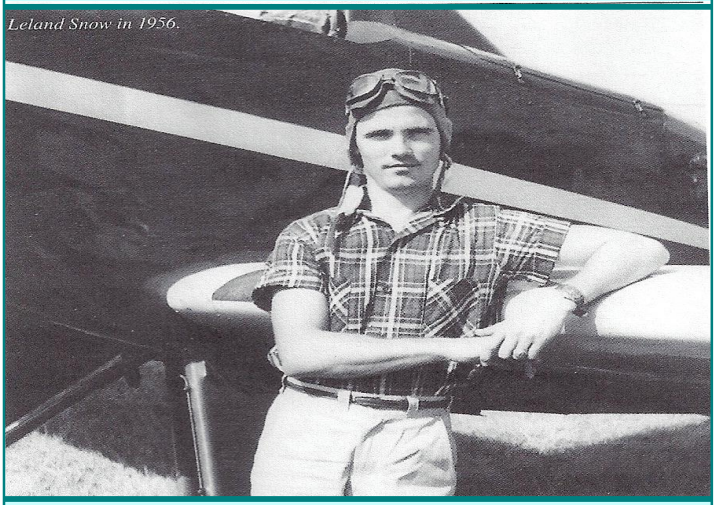
RAFFLE PRIZES for this meeting will be up to three of the "AR6110 6-channel 2.4GHz" Microlite receivers by Spectrum. The number offered will depend upon ticket sales, but at least one will be available.

Time permitting, the first 1/2 hour of the video, that Danny shot, at the Scale Rally Event will be shown.

The B.O.D. has approved the recommended dues increase which will be announced and discussed prior to the membership body voting on it.
(Details of those increases are listed on page-one under ***"OLD BUSINESS"*** in the meeting's minutes)

Leland Snow… over 50 years of Success and Still Going Strong

By…Lindsay Barber, NAAA Director of Communications


Leland Snow in 1956.

Part-2 of a 2-part series

50th Anniversary Celebration

On April 5, 2008, in Olney, Texas, a hundred people celebrated the 50th anniversary of Snow's move to Olney, Texas. The celebration included aerial demonstrations featuring aerobatic performers, an open house tour of the Air Tractor factory, a presentation ceremony and dinner, dance, and fireworks. The celebration was attended by Air Tractor employees, dealers, vendors, Olney residents, and elected dignitaries at the company's Olney, Texas manufacturing facility. The occasion honored not just Snow, his career and innovations, but also the many people who, through the years, helped Snow and his vision take flight. At the anniversary celebration, Snow unveiled his new book, "**Putting Dreams to Flight**."

According to Peter Mackay of Field Air Group in Ballarat, Australia," I have always thought that it is a privilege to be an Air Tractor dealer. Leland produces an aircraft that is the world's best Ag-plane and he continues to develop these planes with a thorough understanding of what the industry needs. Leland holds genuine principals of servicing the customer requirements, he is open and honest to deal with, and he underpins his business with a strong engineering foundation. Leland is unassuming of the success and vast contribution that he has made to the worldwide productivity of agriculture. It is highly evident that everyone involved in the production of Air Tractor is proud and motivated to be a part of the success and positive direction that Leland gives to this business. Despite his busy schedule, Leland makes the time to know his customers, to listen, and to understand. I believe that he knows all the customers in Australia and he is respected for his approachable, genuine nature.

The future of Air Tractor and Leland Snow

When asked about the future of the Air Tractor, Snow responded, "We are not slowing down. Air Tractor has been working on developing a bigger plane, which is the AT-1002 1,000-gallon Air Tractor, for about six years and I'm looking forward to having that aircraft available. I've also been working on a 10-seat utility airplane, but it was shelved for a while because our resources had to go toward the development of the state department plane for narcotic spraying in Columbia. These days we're focusing on the 1,000-gallon aircraft and then I'd like to get back to the 10-seat utility aircraft. My vision for the utility plane is to fly in remote areas, hauling passengers and freight. It will be a different type of plane than other Air Tractors, but because we're efficient at building planes, we think we can successfully market this type of aircraft."

He added, "In regards to the 1,000-gallon aircraft, we would like to see this aircraft on floats, which would create competition for the Canadair firefighting airplanes. We think we'll play a more substantial part in the firefighting industry with the 1,000-gallon aircraft. Currently, 80 percent of single engine air tankers (SEATs) are Air Tractors and our planes are established in foreign countries, such as Spain, Italy, and around the Mediterranean, for firefighting purposes. Greece will also have some 802s on hand in case it has fires again like it did last year."

When asked about retirement, Snow re-

plied, "I will always be involved in Air Tractor as long as I am able. I really enjoy working and I like what I do. Because of my dedicated work over the years, I haven't developed any specific hobbies or interests, or at least not enough to sustain me in a retirement. I like to work and I can still contribute to the industry."

He did start running in 1986 because an FAA doctor informed him that he needed to lower his blood pressure. "I do like to run and I still run every day. I get out on the street and I run hard because it's good for me and will lead to a longer life." Snow has kept a journal of his running mileage and between the years of 1986 and 2008, he ran a total of more than 16,000 miles. He has completed two 26.2-mile New York marathons, as well as the Dallas White Rock Marathon.

Snow added, "I really enjoy my home. My wife, Nancy, has made and provided me with a very loving home. This is very important to us and I'm just content to take up pursuits around the home and I also like working from home. We are also expecting our first grandchild and that is exciting." His daughter Kristin, who is the vice president of sales for Air Tractor Inc., and her husband, Trevor Edwards, are expecting their first child this year.

According to Leonard Felix, operator of Olathe Spraying Service Inc. in Olathe, CO. "Leland and Air Tractor have always been there for me. Whether it's answering a question or helping my company, I feel like I've been his only costumer, but I know that's not the case. He is so dedicated to every one of his customers and he truly cares about each of us and the industry. I know I can call Air Tractor and get a quick response. Leland has always taken care of me and he's always looking out for my best interests."

A Philanthropist for the Industry

Air Tractor and Snow have not only contributed to the industry through aircraft, but he also sponsors industry events and donates money to various projects in the industry. He has been very generous donating funds to the National Agricultural Aviation Association (NAAA) for their National convention each year, sponsoring the new industry video that will be available at the end of the year, and donating hundreds of thousands of dollars to the National Agricultural Aviation Research & Education Foundation (NAAREF). Snow has been a driving force behind ensuring the NAAA can be the best it can be. He stated, "It is important to Air Tractor to be a philanthropist to the aerial application industry. We've done well with our product and we've worked hard to make a profit. As long as that continues, we will continue to give back to the industry because we have benefited so much from that industry. I want NAAA to be a strong organization and be able to help us and other sectors of this industry. I not only plan to continue donating funds to industry projects, but I'd like to do more when I can."

According to Dana Ness, operator of Ag Air Inc, in Chester, MT. "My dad started buying Air Tractors years ago when he started his business, and Dad always had a great relationship with Leland. It's nice to have someone as committed to the Ag aviation industry as much as Leland has been and he's contributed so much to our industry. He helped spread the good word about our industry far and wide. Any problems that we've had, Air Tractor makes them go away and we are grateful for its help through the years."

Air Tractor hopes to expand its gifts to the industry. Snow added, "We've been so focused on so many projects within our company that we have not spent as much time as we should looking at ways to help the industry where help may be needed. I want to fix that. We want to expand our giving and it's appropriate and easier now that we've had many years of doing well."

Snow stated at the end of his book, "Whenever I'm tempted to slow down and maintain status quo, I try to reject the urge because I feel that slowing down results in precious time being lost, time that can never be regained. There are too many things yet to be done for me to waste a day of my life. This phi-

LELAND SNOW

losophy has been the driving force throughout most of my years in aviation. It has served me well."

Air Tractor – 57 Years In The Making

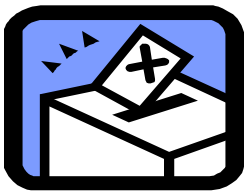
Courtesy of Air Tractor Inc.

1951 – Design of Snow S-1.
1953 – Snow S-1 Test Flown.
1955 – Snow S-2 Test Flown.
1958 – Snow Aeronautical Company moves to Olney, TX, from Harlingen, TX; starts with six employees. The first plane, S-2B, completed and flight-tested. FAA certification received. Ground broken for new manufacturing plant.
1959 – Company moves into new facility. First three planes leave the factory. First-production S-2B flown.
1960 – First delivery to a foreign country (Panama).
1961 – S-2C test-flown. 100th plane delivered to Mississippi operator.
1963 – First flight of the S-2D prototype.
1964 – Company moves into new office building and expands plant facilities.
1965 – Production increases to one plane every three working days. S-2D certification completed. Snow Aeronautical acquired by Rockwell-Standard.
1966 – First S-2R test-flown.
1970 – Rockwell moves ag plane production to Albany, GA.
1972 – Leland Snow begins construction of the first Air Tractor.
1973 – AT-300 test-flown.
1974 – AT-301 test-flown.
1975 – Twenty Air Tractors delivered. Twenty-four employees move into new plant.
1977 – AT-302 test-flown.
1979 – AT-400 test-flown.
1983 – AT-250 test-flown.
1984 – AT-500 test-flown.
1986 – AT-503 test-flown. AT-401 test-flown.
1987 – AT-501 test-flown. AT-502 test-flown.
1988 – AT-402 test-flown.

AIR TRACTOR AIR SUPERIORITY™

1990 – AT-802, world's largest ag plane, is test-flown.
1992 – AT-502A test-flown.
1993 – 1,100th Air Tractor delivered.
1995 – AT-602 test-flown.
1996 – Groundbreaking for new 55,000-square-foot facility in Olney, TX. 1,400th Air Tractor rolls off the assembly line. AT-402A test-flown.
1997 – 2,000th Snow-designed Olney-built aircraft delivered. AT-401B certified for 7,000 pounds gross weight. Opened plant #2: 57,000 sq. ft. of additional space. 110 aircraft manufactured.
1998 – Celebration of 40 years in Olney, TX. Dropped boom introduced for all models.
2002 – First highly modified and armored AT-802 delivered to U.S. Department of State for narcotic crop eradication.
2005 – 200th AT-802 delivered to Conair Group, Inc., British Columbia.
2006 – AT-602 and AT-802 Ram Air inlet approved and installed. Air Tractor receives International Torch Award for Marketplace Ethics from Better Business Bureau.
2007 – First Fire Boss on contract in United States. Prototype AT-504 introduced at the NAAA Convention in December.
2008 – AT-402 and AT-502 Ram Air installations approved and installed. Celebration of 50 years.

VOTE



Ahhh Yes, here it is again… almost the end of yet another year and It's time to do our club duty and elect our officers and three of the Board of Directors seats that will be open on January 1, 2010.

PRESIDENT:	*Brad Witt
VICE PRESIDENT:	*Danny Sutter
TREASURER:	*Dick Sutton
SECRETARY:	*Don Weigt

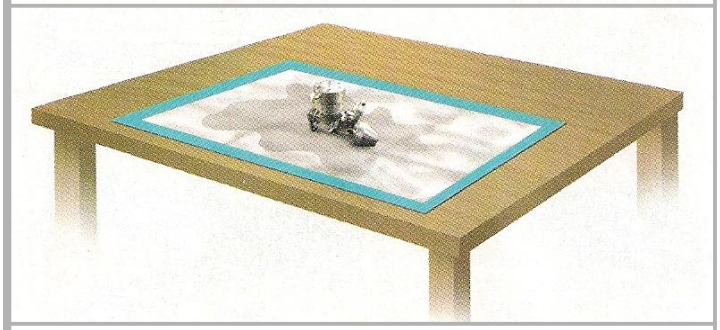
BOARD of DIRECTORS: ***(pick three)***

John Granberg
Wendell Hottmann
Bill Kinney
*Tony Kremm
Steve Purcell

(*indicates incumbent)

The floor is still open for any nominations.

WORK BENCH PROTECTION



Your local pet store has these inexpensive puppy-training pads available and are pretty handy to have in your workshop area. These absorbent pads are backed with a leak-proof vinyl, so they ideal for messy jobs such as repairing and cleaning engines. They cushion anything you drop on them… especially tiny screws and/or nuts that usually bounce and roll off onto the floor. I'm sure we all have been there and done that more than once. Most puppy-pads come in packs of 20.

The BUILDER'S WORKBENCH

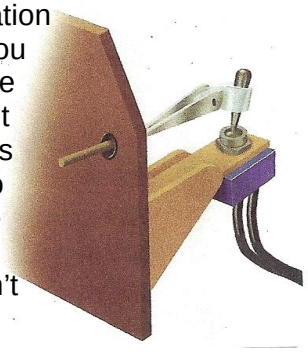
HIDDEN SWITCHES

Some people don't like to have a on/off slide-switch that looks out of place on their scale model. Here's a way to tuck it away where it won't be the first thing an admirer sees, if they see it at all.

First look at the picture and see how this clever idea works. Now, use your imagination and decide where possibly you could implement something like this. Perhaps the activating dowel could be down inside an open cockpit? Tapered and shaped like an radio antenna mast just behind the canopy? How about one of the machine-guns on your war-bird?

When you find the 'perfect spot', securely mount the toggle switch in line with the hole the dowel will emerge to the outside of your aircraft. If you wish to use a flex cable, drill the appropriate routing holes and glue the outer housing to these holes to keep everything in line and secure.

Attaching it to the switch can be done in many ways. The picture shows a nylon tube clamp and a control rod end, but here, once again, let your brain mix with your imagination and engineer out what you need. You most likely have everything you need right there in your miscellaneous parts tray. If you're going to use a flex cable, Solder the portion of the cable that will be protruding so it doesn't fray and unravel.



BOARD of DIRECTORS

meetings

These meetings are held on the same evening as the **MARCS** General Membership meeting, (first Thursday of the month) after its adjournment.

General Membership meeting: 7:00 / 9:00 pm
Board of Directors meeting: 9:00 / 10:00pm

Both meetings are held in room: 201-B. Club members are welcome to stay and observe the Board meeting. A Club member may have the floor by being recognized by the Chairperson. Input or opinions must be brief and to the point as the overall meeting time is limited.

AGENDA: November 5, 2009

New sign ~ New entrance route
Club overall financial status

2010-MARCS EVENT SCHEDULE

EVENT NAME	DATE	LOCATION
New Year Day, Hot Chili, Fun-Fly	January-1,2010	Kettle Field

Additions, dates, and further information will be posted as it becomes available.