Carrier Wave

Newsletter of the Phantom Flyers R/C Club

http://phantomflyersrc.com

CLUB OFFICERS	Work	Home
President – Herb Johnson	777-7605	-
Vice Pres – Ed White	232-8178	(636) 207-9895
Secretary – Jim Arnac		(636) 940-0421
Treasurer – Gary Leubbert	233-0672	(636) 447-3417
Safety Officer – Jan Jansen	234-2459	(314) 921-9420
Mactivities Rep – Larry Leuschke	234-5116	(314) 537-1472

Field Manager: By Committee

Chief Flight Instructor: Al Bone (636) 723-4062

Activities Committee Chairperson - Dan Abel (314) 830-0138

Board of Directors -	Work	Home
Phil Moore	234-4663	(636) 928-5342
Ed White	232-1479	(636) 441-6431
Jim Wortkoetter	233-0735	(636) 947-1034

Send Membership Renewals to:
James Arnac
3103 Elm Street
St. Charles, MO 63301

Send Newsletter Items to:
EDITOR – Brian Kretchmar
12 Pin Oak Court
St. Peters, MO 63376

Phone (home): (636) 928-6501
Work Mailcode: S106-6405
Phone (work): 232-3195
email: briankretchmar@charter.net

June/July 2004

Notes From The Editor: *(Brian Kretchmar)*

Thanks to Benny Lanterman for the Float Fly photos in this issue. It looks like (almost) everyone had a good time!

Club Meeting Dates & Location

28 Jul 04 - Field
25 Aug 04 - Field
22 Sep 04 - St. Peters Senior Center
25 Oct 04 - St. Peters Senior Center (Note: Not typical meeting date)
30 Nov 04 - St. Peters Senior Center (Note: Not typical meeting date)
04 Dec 04 - TBD

BAT Awards

As many of you know, the club has been participating in a Phantom Works Unmanned Aerial Vehicle Program. The program uses two (2) radio-controlled aircraft called BATs. These aircraft have on board cameras and autopilots and are capable of flying autonomously. Recently RC Club members Jeff Brundt and Mitch Galatioto were recognized for their efforts during the early program phases and received a Bronze Phantom Award from the Unmanned Systems Virtual Rapid Development Center (VRDC) Team. The award consisted of a certificate, a Phantom Works coffee mug and a bronze Phantom Works lapel pin. Club pilots Dan Abel, Jan Jansen, Herb Johnson, and Ed White have also been involved and contributed greatly to the program.

Company efforts like the 1/3 scale Piper Cubs we built for the old McDonnell Douglas Missile System's Company and this UAV program have earned our club a great reputation within the company. Our continued support of company projects and our efforts to promote the company, aerospace, and the club to our community have made our club one of the best in the country. Thanks to everyone for their support and congratulations to Jeff and Mitch!

Meeting Minutes, March 24, 2004 *(Ed White)*

Phantom Flyers RC Club Meeting Minutes - June 23, 2004

President Herb Johnson opened the meeting at 7:00 PM with 13 members in attendance. There were no new members present. The May meeting was pretty much washed out by the weather, though it is duly noted that Dan Abel actually flew that evening.

Treasurer's Report – Report was accepted as presented.

Secretary's Report – No report, there was no May meeting. Ed White is acting secretary. If anyone is interested in the position, contact Ed or Herb Johnson.

Recreation Report – Seattle is setting up a Recreation website and will include a link to our website.

GSLMA Report – There will be a Gumball Rally on July 17 hosted by the Spirit's. If you haven't seen it, the Buder Park website is worth a look (www.flybuder.com)

Field Manager's Report – Overall the field is looking good. We still plan to seal the runway this year, probably after the pattern contest. The pavilion screens were damaged by vandals and are in need of repair. An improved design is in work. A work party had been scheduled but needed to be rescheduled.

Safety Officers Report – Just a reminder. When flying, **ALL** pilots should stand on the **DOWNWIND** side of the center taxiway (field safety rule 22).

Activities Report – Dan Abel reported that the Club BBQ was well attended with 40 people enjoying the food. The next event is the E-Fly on July 24-25. The field will be open to gas flyers after 4:00.

Old Business – UAV support continues with the club supplying several pilots now qualified to fly the Bat UAV's. Congratulations to Ed Kachman on 25 years with the company.

New Business – There was no new business.

The meeting was adjourned at approximately 7:50 PM. A raffle followed.

Ed White, acting Secretary

FINISHES: Covering materials for RC models

(by Pat Tritle, Reprinted from the June 2004 AMA National Newsletter)

Many years ago, covering a model airplane meant hours at the workbench, inhaling dope fumes, spraying tissue or silk with water to draw it tight, and waiting many hours drying time between coats of dope to seal and paint the cover. I've heard this era of modeling referred to as "the good old days."

Personally, I really enjoy doing this type of covering, but for the modeler with a limited amount of hobby time, there are several alternatives that require far less skill and still produce a nice looking finish in less time and with a lot less effort.

Within the realm of iron-on covering, there are three basic types: the weaves, the Mylars, and the synthetic tissues. Within those major groups are some subgroups. For the weaves, there is Solartex (also found as Colortex) and Super Fabric. Also in that group, you'll find 21st Century pre-painted fabric, Nelson Lightfab, and Super Coverite. These materials are available in eight basic colors.

In the Mylar realm, there is MonoKote, UltraKote, TowerKote, EconoKote, Oracover, and Nelson Litefilm. The color selection of these materials is excellent.

Finally, there are iron-on synthetic tissues, found under the names Litespan, Airspan, and Black Baron Coverlite. Again, color selection is limited to about a dozen choices, including some fluorescents.

Iron-on fabrics

As weaves go, my favorite is Solartex simply because it's the easiest to use. It lays down nicely, it's easy to remove the wrinkles, and it goes around compound curves beautifully. The downside is that over time, the adhesive will release and the cover will fall off the model. A simple cure is to brush on a coat or two of Balsarite (the type recommended for film covering) before you cover your model.

TABLE OF WEIGHTS	
Litefilm	.600 oz./sq. yd.
Airspan	.673
Litespan	.849
Colored Transparent MonoKote	1.685
Opaque Colored MonoKote	2.224
Nelson Litefilm	1.600
21st Century Fabric	2.310
White Super Coverite	2.400
Colored Super Coverite	2.700

Nelson Lightfab is a lighter grade of the same type of material. I recommend this one for .40 size or smaller models. For models larger than that, stay with Solartex or others in that family.

21st Century fabric is by far the most difficult of all the fabrics to use. I have found that this material is difficult to apply, does not tighten well, and is torture to use around compound curves. The shrinkage is limited, offers little rigidity when applied over open structures, and does not hold its shape well in direct sunlight. However, over sheeted surfaces, the material does lie down nicely, but it requires a fair amount of maintenance to eliminate the bubbles that occur when it is exposed to heat or direct sunlight.

With the exception of the 21st Century fabric, all of these materials, when used on liquid-fueled airplanes will require some type of sealer coat to eliminate fuel soaking that holds dirt and grime in the weave and is very difficult to remove.

Iron-on films

There are two basic classes of iron-on films: MonoKote and UltraKote. The easiest way to distinguish one from the other is that MonoKote is stiff, where UltraKote is more pliable and rubbery. These films are available in several colors, but MonoKote still offers the best selection. The MonoKote class materials are applied and shrunk at a higher temperature than

UltraKote, but UltraKote handles compound curves much more easily, though offers less torsional strength than MonoKote over an open structure.
Over fully-sheeted models, I prefer UltraKote since it goes on with much cooler temperatures and is not prone to bubbling like MonoKote. For trimming, UltraKote can be applied over MonoKote since it is applied with cooler temperatures, though MonoKote shouldn't be ironed onto UltraKote. Also, when MonoKote is applied with heat as a trim material over MonoKote, the adhesive will tend to gas off and cause bubbling between the layers. The only way to avoid this problem is to apply the trim with commercially available solvents or even Windex glass cleaner (or other types of cleaners that contain Ammonia D).
Finally, there is Nelson Litefilm, which is also available under the name Solar Film, and is recommended for small park flyer electric models, although I've heard of people using it on gas models up to .10 size with excellent results. This material is applied at very low temperatures, shrinks beautifully, and handles compound curves better than any other iron-on material I've used. What's even better is that it will shrink only as much as needed to eliminate puckers and wrinkles and will not distort even the lightest of airframe structures.
Even though Litefilm is applied at very low temperatures, the adhesive is very aggressive, and as a result, the material is prone to sticking to itself if the adhesive side contacts itself. The instructions offer a clear description of the solution and should be followed closely.

Synthetic iron-on tissue
The iron-on synthetic tissues are available in two types: Litespan and Airspan. Litespan is also available from Black Baron under the name Coverlite. Both of these materials are identical, except that Litespan has a sealer coat applied and Airspan doesn't.
This type of material is an excellent choice for electric park flyers, but I've also used it on gas models up to .074 size engines. Neither of these materials has adhesive applied, so before it is ironed onto the model, a coat of Balsa-Loc must be applied to the model, everywhere you want the cover to stick. Having used several different adhesives to apply Litespan, I found the water-based Balsa-Loc to be the best choice since it releases with heat, allowing the cover to be pulled and tugged around to eliminate wrinkles.
The downside to this material is that it doesn't do compound curves well. Airspan is better than Litespan, but neither is all that great. Also, the material has a very limited shrink, so the wrinkles need to be pulled out before shrinking begins. Finally, this is a low temperature application and is very sensitive to overheating. Once overheated, it will never shrink again. This is by far the most difficult of any of the lightweight iron-on covers to use, but once you get the hang of it, it works nicely for a "tissue look" cover. Trim is applied using Japanese or domestic tissue and can be applied using dope or water-based varnish. Since I always add tissue color trim, I prefer Airspan since it starts out lighter, and a sealer coat will be added over the trim anyway, ultimately producing a lighter finish.

Conclusion
The one thing all of these materials have in common is to get good results, they must be applied properly. More heat isn't necessarily better and won't cover a sloppy job of applying the cover or preparing the surface to which the cover is applied. The best advice is to follow the manufacturers' recommendations for application and shrinking temperatures, and to use the material best suited for the type of model you're building.

from The Flying Machine News
Rocky Mountain Flying Machine
Bob McCachren, editor
Albuquerque NM

The story of WD-40

(Submitted by DAVE DAGGY Reprinted from the June 2004 AMA National Newsletter)

The product now known as WD-40 began as a search for a rust preventative solvent and degreaser to protect missile parts.
It was created in 1953 by three technicians at the San Diego Rocket Chemical Company. Its name comes from the project that was to find a “water displacement” compound. They were successful with the 40th formulation, thus WD-40.
The Corsair Company bought it in bulk to protect their Atlas missile parts. The workers were so pleased with the product, they began smuggling it to use at home. The executives decided there might be a consumer market for it and put it in aerosol cans. The rest, as they say, is history.
It is a carefully guarded recipe known only to four people, one of whom is the “brew master.” There are about 2.5 million gallons of WD-40 manufactured each year. It gets its distinctive smell from a fragrance that is added to the brew.
WD-40 has been designated the “official multipurpose problem-solver of NASCAR,” a ringing endorsement if there ever was one. I told my NASCAR-loving sons about this, and they said they couldn’t imagine how WD-40 could solve the Jeff Gordon problem.
In celebration of their 50th year, the company conducted a contest to learn the favorite uses of its customers and fan club members (yes, there is a WD-40 Fan Club). They compiled the information to identify the favorite use in each of the 50 states. I was curious about Georgia and Alabama and found the favorite use in both states was that it “penetrates stuck bolts, lug nuts, and hose ends.” Florida’s favorite use was “cleans and removes lovebugs from grills and bumpers.” California’s favorite use was penetrating the bolts on the Golden Gate Bridge.
Let me close with one final use—the favorite in the state of New York: WD-40 protects the Statue of Liberty from the elements. No wonder they’ve had 50 successful years.

from The Tail Spinner
Longmont Aircraft Modelers Association
Mike Guliza, editor
Longmont CO

2004 Schedule

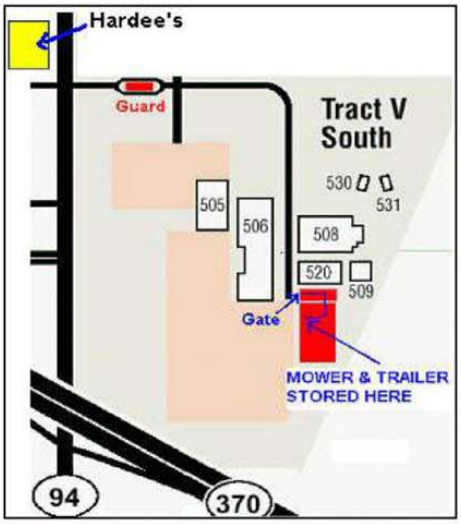
EVENT	2004 DATE	DAY	2004 CD
SNOW FLY	1-Jan	THUR	
CLUB MTG - BLDG 33	28-Jan	WED	CLUB PREZ
CLUB MTG - BLDG 33	25-Feb	WED	CLUB PREZ
SWAP MEET	13-Mar	SAT	PHIL MOORE
CLUB MTG - BLDG 33	24-Mar	WED	CLUB PREZ
FIELD WORK PARTY	27-Mar	SAT	
PACK 30 ROCKET LAUNCH	17-Apr	SAT	GARY LUEBBERT
CLUB MTG - **ST. PETERS CITY HALL**	28-Apr	WED	CLUB PREZ
CARRIER FUN FLY	2-May	SUN	AL BONE
FLOAT FLY PRACTICE : 12-4 PM	15-May	SAT	DON VETRONE
CLUB MTG-FIELD	26-May	WED	CLUB PREZ
FLOAT FLY : 9:30 AM -12	29-May	SAT	DON VETRONE
PATTERN SEMINAR 12 NOON	5-Jun	SAT	ED WHITE
FAMILY BBQ and BUILD-A-PLANE : 11 AM	13-Jun	SUN	DAN ABEL
CLUB MTG - FIELD	23-Jun	WED	CLUB PREZ
ELECTRIC FLY	24-Jul	SAT	BRAD YOUNG
ELECTRIC FLY	25-Jul	SUN	DAN ABEL
CLUB MTG - FIELD	28-Jul	WED	CLUB PREZ
FUN FLY @ MTG	28-Jul	WED	
PATTERN PRACTICE JUDGING	7-Aug	SAT	BILL AHRENS
FIELD PREP FOR CONTEST	14-Aug	SAT	BILL AHRENS
PATTERN PRACTICE JUDGING	14-Aug	SAT	BILL AHRENS
CLUB MEETING - FIELD	25-Aug	WED	CLUB PREZ
PATTERN CONTEST	28-Aug	SAT	ED WHITE
PATTERN CONTEST	29-Aug	SUN	ED WHITE
HELICOPTER FLY IN	18-Sep	SAT	
HELICOPTER FLY IN	19-Sep	SUN	
CLUB MTG - **ST. PETERS SENIOR CENTER**	22-Sep	WED	CLUB PREZ
CLUB MTG - **ST. PETERS SENIOR CENTER**	25-Oct	MON	CLUB PREZ
CLUB MTG - **ST. PETERS SENIOR CENTER**	30-Nov	TUES	CLUB PREZ
CHRISTMAS DINNER	4-Dec	FRI	CLUB PREZ

Mowing Schedule

2004 Phantom Flyers RC Club Flying Site Mowing Schedule

Dates shown are Friday date, get with your partners to schedule specific day/time.
Mowers are located in a fenced lot south of building 520 (St. Charles complex on HWY 94N).
Call Security Services Communication Center - 314-232-2821 to open gate if after 3:30 on weekdays, and anytime on the weekend.
Report any equipment problems to Jim Wortkoetter, grounds problems to Phil Moore
IF YOU ARE UNABLE TO MOW, IT IS YOUR RESPONSIBILITY TO FIND A REPLACEMENT.

Apr-04					
	2	9	16	23	30
Person Towing	Jones, Steve	Douglas, Jack	Statzer, Matt	Douglas, Jack	Jansen, Jan
	Galatioto, Mitch	Bone, Al	Moore, Phil	Jensen, Pete	Ahrens, Bill
	Basile, Greg	Alexander, Gary	Teeple, Steve	Peters, Matt	Pierangeli, G.
May-04					
	7	14	21	28	
Person Towing	Atkinson, Tom	Kattleman, Emory	Leuschke, Larry	Luebbert, Gary	
	Jurenka, Steve	Garrett, Art	Pickup, Alan	Young, Brad	
	Abel, Dan	Vetrone, Don	Johnson, Herb	Wortkoetter, Tim	
Jun-04					
	4	11	18	25	
Person Towing	Evans, Dave	Ramsey, Tom	Snawder, Dave	Plonka, Jim	
	Niemann, Al	Galatioto, Mitch	O'Mara, Rick	Behrens, Bob	
	Holland, Jeff	Jost, Richard	Tribuno, Micheal	Behrens, Geoffrey	
Jul-04					
	2	9	16	23	30
Person Towing	Wortman, Dave	Atkinson, Tom	Dick, Randy	Albert, Donn	Jansen, Jan
	Bilodeau, Joe	Sundman, Dan	White, Ed	Hensen, Derek	Ahrens, Bill
	Bagby, Brian	Rothermel, Jeff	Keen, Ben	New	Pierangeli, G.
Aug-04					
	6	13	20	27	
Person Towing	Leuschke, Larry	Dick, Randy	Kattleman, Emory	Evans, Dave	
	Guntorius, Mike	Wortkoetter, Tim	Garrett, Art	Corzine, Steve	
	Young, Brad	Checkett, David	Rothermel, Jeff	Kramer, Don	
				Pattern Contest	
Sep-04					
	3	10	17	24	
Person Towing	Snawder, Dave	Ramsey, Tom	Statzer, Matt	Bernard, Davis	
	Niemann, Al	Basile, Greg	Jensen, Peter	Johnson,Herb	
	Tribuno, Micheal	Sundman, Dan	Greenwood	Holland, Jeff	
Oct-04					
	1	8	15	22	29
Person Towing	Wortman, Dave	Albert, Donn	Wortkoetter, Jim	Douglas, Jack	Dauble, George
	Brown, Rick	Behrens, Bob	O'Mara, Rick	Kachman, Ed	Bone, Al
	Checkett, David	Behrens, Geoffrey	Buhse, Paul	Peters, Matt	



Hints & Tips *(Reprinted from the AMA National Newsletter)*

Free building materials
It's election time and soon there will be tons of free building material available. In most parts of the country, coroplast signs are used by people running for office. Almost everywhere, the signs have to be down within a few days of election. If you see a sign up past that date, do your civic duty and toss it into the trunk of your car. It's great for things like elevators or even building whole 1/2A airplanes. Last year, I saw a 75 mph airplane with the wing built out of coroplast. Check out some of the SPAD Radio Control sites on the Web for some creative uses.
Another thing to keep your eyes open for is new-home construction. Formica discards are great for making durable templates to cut foam wings. Even short lengths of two-by-fours can be cut into pine wing spars if you have a table saw. Scraps of foam bead board are useful to cut foam wings or even wing tips.

from Great Plains Combat News
Control Line Combat Newsletter
for the Great Plains
Bob Furr, editor
Omaha NE

Tips for Balancing a New Airplane
(Reprinted from the AMA National Newsletter)

Here's a neat idea for balancing your new airplane in "all directions at once."

A model airplane has one point of balance where the wing's center of gravity (CG) and the fuselage centerline intersect. That's where the secret lies, and here is how you can use that point to get a perfect balance for your new airplane.

When you build the wing, install a light plywood block at this intersection (your plans will show the recommended CG). For a high-wing model, the block should be installed on the top of the wing. On a low-wing model, the block should be installed on the bottom of the wing. Mark the center of the CG on the block and leave the wing uncovered so any unnecessary weight can be added for lateral balance.

When you are ready to balance, install a small screw eye into the block and hang the assembled airplane from the eye bolt. Fasten sufficient (use as little as possible) weight to the main spar of the wing to achieve lateral balance. Now, move the battery, receiver, or weight as required to attain proper balance, from front to back. This simple system will result in an accurately balanced model.

from *The Cam Journal*
Central Arizona Modelers Inc.
Marvin Hinton, editor
Sedona AZ

GSLMA MINUTES *(May 5, 2004, submitted by Bill Ahrens)*

GSLMA MINUTES JUNE 2, 2004

MEETING OPENED: 7:00 PM
ATTENDANCE: Balsa Busters (AMA & IMA), Lone Eagles, Boeing Phantom Flyers, Signal Chasers, Thermaleers, Laf. Esq., Whirley Birds, MVSA, St. Louis R/C
MINUTES: May Minutes approved as written

TREASURER'S REPORT: Old Balance $5749.54 New Balance $5613.68
2004 Buder Permits Issued in May – 18

OLD BUSINESS:

- Mike Durbin and Chuck Ganser continue to work on a work day at Buder to recondition the flying surfaces. It is estimated that the cost of materials for the R/C field would be about $1000.00. The cost of doing the C/L field professionally would be about $2600.00. No firm decisions yet.
- The St. Louis Fair celebration at Buder, scheduled for May 29, was postponed until June 12, 2004. All clubs are asked to reverify that their participants will be able to attend June 12. Call Steve Mizerany at 636-225-1076 to confirm.

NEW BUSINESS:

- On May 15-16 Laf. Esq. sponsored the Midwest Speed and Racing Championship event at Buder. It featured sixteen events. Forty-seven award presentations were made to participants from seven states.
- The St. Louis Science Center is interested in broadening its relationship with GSLMA. GSLMA is being invited to sponsor a static display of models at the center; to sponsor flying demonstrations; and to use the Science Center as the GSLMA meeting place. A motion was made to schedule one or two monthly meetings at the Science Center to see how it would work out. The motion carried. Arrangements for August and September meetings at the Center are in progress. Dates and times for these meetings will be announced at the July GSLMA meeting.
- Steve and Dion met with the Parks Dept. the last week of May 2004. The following are three noteworthy results from that meeting:
  - GSLMA can cut the grass adjacent to the flying surfaces any time we wish to do so, and to whatever length is best for us,
  - Engine Starting Time at Buder can be anytime after the park opens. The 8:30 AM rule no longer applies,
  - Parallel parking of vehicles towing trailers for large aircraft is permitted on the R/C parking lot along the edge closest to the trees.

  More such meetings are planned.
- Steve Mizerany suggested that we think about staging a "Buder Park Flying Model Extravaganza" in 2005. This would be a two-day event that would include all types of flying models including rockets. Clubs are asked to discuss this idea and come back with comments and recommendations.

MEETING ADJOURNED: 8:10 PM
NEXT MEETING: Wednesday, July 7, 2004 at 7:00 PM in the East Room of St. Louis County Library on Lindbergh Blvd.