

PROP

PLANE

WASH



Vol. 197

November 1991

OFFICERS OF THE S.T.A.R.S. CLUB

PRESIDENT - DAN WILLIAMS
652-7740

VICE-PRESIDENT - DAVE SIKORSKI
699-4719

SECRETARY - BOB WASSEL
457-5706

TREASURER - LON SAUTER
695-2448

A REMINDER STARS MEMBERS



STARS MEETING
NOVEMBER 13, 1991

Time: 7pm Place: Town of Schroepfel
Offices



THROUGH RAIN, SNOW, SLEET OR HAIL,
THE MAILMAN GOES ON HIS APPOINTED
ROUNDS; BUT HE CAN'T DELIVER IF THE
ADDRESS IS WRONG. IF YOU MOVE,
PLEASE ADVISE US OF YOUR NEW ADDRESS.

THE PREZ SEZ

We have something important coming up that I'd like to talk about. A nominating committee headed up by Mark O'Connell is putting together a list of nominees for the offices of president, vice-president, secretary, and treasurer. I understand that he's having somewhat of a hard time getting that list together. With all this talk about incumbent re-election in the papers right now, there doesn't seem to be much in the way of competition against those people. They stay in office year after year while everyone gripes and moans about the lousy job being done. No-one seems to want to take the initiative and do something about it. What I'm trying to do is make you guys think about our Club, our officers (me, too!), and if you don't think a good job is being done, DO SOMETHING ABOUT IT! This is your chance. Maybe I've done a good enough job, maybe not. But I think it would be healthy for the Club if there were more people wanting to run for the offices. I'd like to see two for each.

While on the subject of elections, I've been asked to run again. I'm thinking about it, and one thing that comes to mind is the lack of people wanting to take charge of a job, committee, or other task and be responsible for making sure that it gets done. I don't think it's too much to ask, and it would make things easier for me, so I don't have to watch for every little thing. If the President of the United States had to do every little thing, he wouldn't be there very long. That's why he has a cabinet. I'm asking for the same thing. If I decide to run again, it'll be because I feel I can get someone to take charge of a few things. And I'm looking for some different people, not the same ones all the time. They're going to get burned out too.

As you know, the CNYMAA Symposium is being held at the Fairgrounds, in the Horticulture building. There is going to be some serious room for just about anything your heart desires. We could use some help. Let me or Phil Morgan know. It could be good, or not. It will depend on the ideas you bring up at the meeting. We'll get them to the Association. I think it's time we had some fresh thoughts for this show.

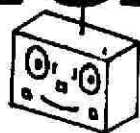
And now for the most important part! Ed byrnes from the sailplane club has graciously offered his time at our meeting to teach a little about how to use vacuum bagging for building our models. This should be an excellent program, and I hope you realize just how lucky we are to have someone like Ed in our local model community. Come out and see what he can teach you, and show your support and appreciation for what he is doing for us.

Enough for now. I hope to see ALL OF YOU at the meeting.

Dan

THE PLANE PROP WASH IS THE OFFICIAL
NEWSLETTER OF THE STARS CLUB; & AS
SUCH, ALL PROCEEDS FROM ADVERTISE-
MENTS, SUBSCRIPTIONS, ETC. GO TO
FURTHER ENHANCE THE TREASURY OF THE
STARS CLUB. THE PURPOSE OF THE PLANE
PROP WASH IS TO KEEP THE MODELERS OF
THE STARS CLUB & SUBSCRIBERS AWARE OF
HAPPENINGS WHICH INFLUENCE OUR HOBBY.
THERE IS NO INTENT TO SHOW FAVORITISM
TOWARD ANY CLUB, HOBBY SHOP OR INDI-
VIDUAL. WE HOPE YOU ENJOY OUR NEWS-
LETTER.

LON'S RC SERVICE



2062 RABBIT LANE
PHOENIX, N.Y. 13135
(315) 695-2448

Your Professional Approach To Aero Modeling

MARGE'S HOURS

tues-fri 12noon - 8pm
saturday 9am - 5pm

LON'S HOURS

tues-fri 6:30pm - 8pm
saturday 9am - 5pm



RADIO PRICES ARE FALLING!

Focus 4ch FM system (list \$199.95) normally \$133.75 - NOW - \$127.25
with 4 servos

Focus 6ch FM system (list \$229.95) normally \$172.50 - NOW - \$164.00
with 4 servos

Also, new lower prices on Airtronics and Futaba radio systems.

**LON'S R/C SERVICE IS THE SHOP THAT CAN SATISFY
ALL YOUR MODELING NEEDS.**

**WE HAVE OVER 1800 DIFFERENT ITEMS IN INVENTORY!
WE SHIP VIA UPS DAILY.**

Classifieds

FOR SALE: Kyosho Valencia electric sailplane. 72" wing span, already to fly, gear driven 05 motor & battery, installed Futaba radio with rudder-elevator motor control, ch 46...\$150
Call Bob Elkovitch at 252-3474

FOR SALE: Four Futaba radios, 5LK transmitter & receiver packs only...\$50 firm. One radio (tx-rx only) ch 38,44,46,52. Call Bob Elkovitch at 252-3474

SPACE IS AVAILABLE FOR INDIVIDUALS WISHING TO SELL OR TRADE IN EACH ISSUE OF THE NEWSLETTER FOR A NOMINAL FEE OF 50 CENTS PER AD. CONTACT MARGE SAUTER AT 2062 RABBIT LN, PHOENIX, NY 13135.

CALENDAR OF UPCOMING EVENT

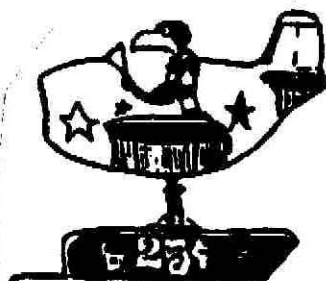
November 13 - STARS meeting

November 23 - 4th Annual Breakaways Auction at Masonic Temple, Fulton, NY 7pm

January 25 - CNYMAA MODEL AIRCRAFT SYMPOSIUM NY State Fair Grounds

June 20-28 - AMA NATS at Chicopee, Massachusetts

ANY MODEL AIRPLANE CLUB WISHING TO ADVERTISE A FORTHCOMING CONTEST OR EVENT CAN ACQUIRE A FULL PAGE AD FOR THE TRIFLING FEE OF \$2. A NOTICE IN THE CALENDAR OF EVENTS IS OF COURSE FREE.



Minutes of 10-9-91 STARS meeting

19 members, 5 associate members, 2 junior members, 4 guests present. Meeting was called to order by president, Dan Williams, at 7:03 PM. Minutes of September meeting were approved. Treasurers report was given by Lon Sauter and approved. With the resignation of Dave Webb, we welcome John Digesare to full membership in the club.

Association report: Dan Williams reported the association postponed purchase of public address system. Minutes of last association meeting were in September Prop Wash. Symposium scheduled for Hortaculture building at State Fairgrounds. STARS responsibilities not set at this time.

AMA report: Skip Davis suggested a committee be set up to look into arranging for a bus to 1992 Nationals at Westover AFB in June/July.

Field report: Bob Prugger reported recent raking work party was a success. Regarding pavillion, Bob suggested crushed stone base with 5/4" flooring over 2x6 sub runners. Several construction methods were discussed. Fran Worth volunteered to draw up a plan for building the pavillion floor. Motion by Lon Sauter to allocate up to \$1200. for pavillion floor with Fran's plan was discussed and approved.

Old business: Bob Elkovitch showed a sample plastic mug which could have STARS logo to be sold at air show. Bob stated 3 weeks of notice needed for ordering. Art Rose extended his thanks to all who followed club safety rules for a safe flying season.

New business: Dan Williams sought volunteers for club booth committee for symposium. Jim Mirra, Skip Davis, Mark O'Connell, Art Rose volunteered to set up club booth. Bob Elkovitch offered video tapes for show. Dave Sikorski suggested to raffle a race plane kit at the symposium. Motion by Jim Mirra for club to purchase two Scat Cat kits to raffle at the symposium was approved. Mark O'Connell, Chris O'Connell, and Hilary Nortz were appointed to the Nominating committee to present slate of officers for STARS 1992 year. Dan Williams received a positive response from those present for having a club Christmas dinner. Several locations were proposed and Doug Harrington volunteered to look into the Home Style Buffet at Shop City as a possible location. Dates sought are Saturday, 12/7 or 12/14; a \$5. gift exchange was suggested.

Show & tell: Tim Hahn brought in his Fun One w/Enya .40 engine. Dave Sikorski brought in his Eureka pattern ship. Doug Harrington brought in his Great Planes big Stik .40. Lon Sauter brought in box of old plane plans.

Meeting was adjourned at 8:35 PM.

Bob Wassel

Just Plane Fact

PROPS:

Frank and I were watching a young chap change a prop on his Florio Flyer .40 at recent Fun Fly. He reamed out the center hub with a flatblade screwdriver and then dulled the leading and trailing edges of the prop with a knife blade. When it was his turn to fly, he re-tuned his piped OS engine to the maximum possible rpm with the new prop and then continued on with his events in the Fun Fly. During the touch and go part of the Timed event, he stubbed the engine and broke blade off his new nylon fibre prop that he had just mounted before the flight. After the flight he sat down on the ground directly in front of us and dug out another prop from his flight box and proceeded to "balance" it as he had previously.

This led to a discussion about balancing props, prop efficiencies, and the pros and cons about the new composite and/or fibre filled props. Props, in general, were reviewed quite extensively over a period of four months ending in the March 1990 issue of Model Aviation. The articles were written by Vess, Heatcoat and Nagel and described the fundamental mechanisms causing sound generated by propellers. They found that propellers used in model airplane applications had efficiencies usually less than 50 percent. This means that only one half of the engines power was used to generate useful thrust, the remainder was lost due to primarily prop noise and other losses (like dynamic and static imbalances). Full scale prop efficiencies have been measured as high as 85 percent!!

Why aren't model engine propellers more efficient? According to Dick Perry, the MA control line columnist, traditionally, prop manufacturers developed their products based on trial and error and actual field use. If a prop was found to give above average performance, that brand was used by those who needed the most effective prop for the type of flying involved. New products were introduced by manufacturers limited by material structural considerations of wooden props or with arbitrary casting requirements for synthetic props. So, where does this lead us? The good people at APC used computer aided design and manufacturing techniques to develop propeller shapes that could be converted into digital commands which, in turn, directed milling machines to make production molds. Those molds were used to produce the long fibre composite material similar bladed props that some of us now use at the flying field.

Again, according to Dick Perry, APC props are molded from long fibre composite materials that has over twice the strength of unreinforced nylon and up to 30 percent stronger than nylon props made with short glass fibres. The final product is very stiff. A stiffer prop is more efficient and due to its CAD/CAM designed airfoil, the APC prop is quieter. And a quieter prop turns less torque into noise allowing more power to be converted into THRUST!!

And what is the down side to these new fancy props?? Weight. I took three balanced props of the same diameter and weighed them on the digital postal scale at work. Here are the results:

Rev-Up Special Pro-2,12-6	0.6 oz
APC C-1,12-6	1.3 oz
APC C-2,12-6	1.5 oz

There is a significant difference in mass between a standard wooden prop and a APC sport fibreglas composite prop!! This additional weight will slow acceleration and deceleration times of that fancy engine of yours but would probably improve the reliability of the idle due to the increased flywheel effect of the heavier prop.

Anyway, what is the bottom line here?? If you want the most effective prop for your aircraft, make sure that it is balanced, free of nicks and daves, sharp as a tack, and as quiet as possible. And an effective prop equates to more vertical performance. Remember, one cannot be too thin, too rich, or have too much horsepower!

Uncle Michael

Your Professional Approach To Aero Modeling

LON'S HOURS
tues-fri 6:30pm - 8pm
saturday 9am - 5pm



Also, new lower prices on Airtronics and Futaba radio systems.

WE HAVE OVER 1800 DIFFERENT ITEMS IN INVENTORY!
WE SHIP VIA UPS DAILY.

PEARL HARBOR TO DESERT STORM FIFTY YEARS OF AMERICAN AVIATION EXCELLENCE



CENTRAL NEW YORK
MODEL AIRCRAFT ASSOCIATION

Presents



16th Annual Symposium & Model Show
Modelers & General Public are Cordially Invited

SATURDAY - JANUARY 25th - 1992, 9 a.m. to 5 p.m.
NEW YORK STATE FAIRGROUNDS
THE NEW HORTICULTURAL BUILDING
60,000 sq. ft. of Ongoing Live R/C Demonstrations

- CLUB BOOTHS
- DEALER BOOTHS
- A.M.A. BOOTH
- SWAP SHOP
- MODEL SEMINARS
- RCMAA/AMA
- TRANSMITTER CERT.
- MOVIES & VIDEO TAPES
- STATIC DISPLAY
- COMPETITION
- R/C AIRPLANES
- R/C BOATS
- R/C CARS
- R/C HELICOPTERS
- FREE FLIGHT
- ROCKETS

CONCESSION STAND
MODELING DEMONSTRATIONS

See: Flying Demo's (Weather Permitting)

DINNER SATURDAY NIGHT FOLLOWING SYMPOSIUM
A.M.A. DISTRICT II MEETING

Admission: Day of the Show

Adults: \$5.00 - Students & Senior Citizens: \$4.00 - Under 12 Free

ADVANCE TICKET SALES

Adults: \$4.00 - Students & Senior Citizens: \$3.00 - For Tickets, Contact:
Jim Abrams - P.O. Box 461 - Fulton, New York 13069

1992 CNYMAA SYMPOSIUM DISPLAY RULES

ENTRY FEE.....FREE WITH ENTRANCE TICKET

DRAWING.....A DRAWING FOR A PRIZE WILL BE HELD AT THE
PRESENTATION OF AWARDS. EACH ENTRY WILL
BE ELIGIBLE.

CLASSIFICATIONS

TRAINER AIRCRAFT

SPORT AIRCRAFT

SPORT SCALE AIRCRAFT

GIANT SCALE AIRCRAFT

HELICOPTER

SAILPLANE

PATTERN AIRCRAFT

ELECTRIC AIRCRAFT

S.A.M.

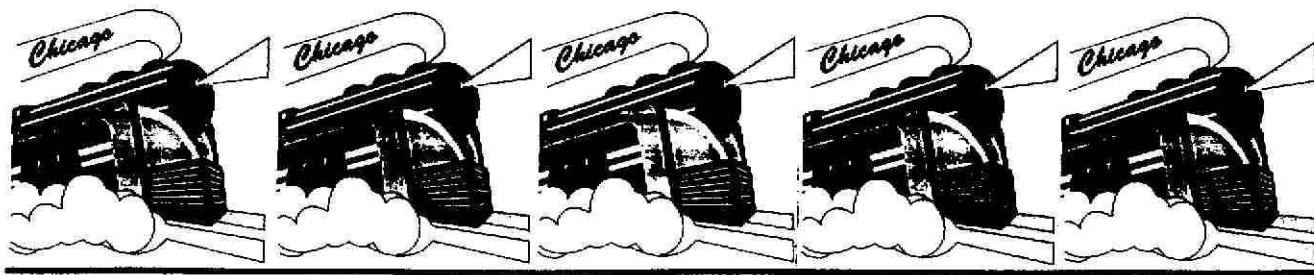
R/C CARS

R/C BOATS

ROCKETS

GENERAL RULES

1. ALL ENTRIES MUST BE IN THE DESIGNATED STATIC DISPLAY
AREAS FROM 11:00 AM UNTIL THE AWARD PRESENTATION TO BE ELIGIBLE
FOR ANY AWARD AND THE DRAWING.
2. PREVIOUS FIRST PLACE WINNING MODELS ARE NOT ELIGIBLE HOWEVER
THEY ARE ELIGIBLE FOR DISPLAY AND WILL BE ELIGIBLE FOR THE
DRAWING.
3. CONTEST OFFICIALS WILL BE RESPONSIBLE FOR DETERMINING THE
CLASSIFICATION OF EACH ENTRY.
4. EACH CONTESTANT MUST HAVE CONSTRUCTED AT LEAST 80% OF THE ENTRY.
5. ANYONE WISHING TO DISPLAY A MODEL WITHOUT ENTERING IS
WELCOME TO DO SO.
6. IN EACH CLASSIFICATION AWARDS WILL BE GIVEN FOR FIRST,
SECOND, AND THIRD PLACE. PRIZES WILL BE AWARDED FOR BEST
JUNIOR, BEST FILM, BEST PAINT FINISH, AND BEST IN SHOW.



The 1991 Chicago Model Hobby Show

WE'RE BACK FROM THE CHICAGO SHOW!
AND THOUGHT YOU MIGHT LIKE TO SEE A
SMALL SAMPLING OF THE ITEMS WE SAW
FIRST HAND!

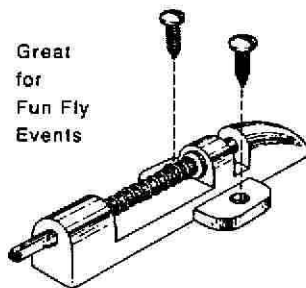
KWIK HINGES

Du-Bro is proud to announce our new Kwik Hinges to our hinge line. Our new Kwik Hinges are very easy to install. Simply use a hobby knife to make a slot in the wood. Kwik Hinges are super thin and extremely strong. Du-Bro Kwik Hinges have 140 glue pockets on each side of the hinge. These glue pockets combined with C/A glue will give you an extremely strong bond to your aircraft. You can purchase either the pre-cut 3/4" x 1" Kwik Hinge or the 2" x 12" sheet allowing you to cut your own.

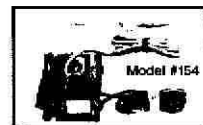


BOMB RELEASE

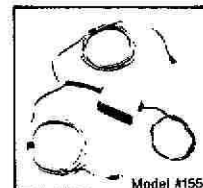
Great
for
Fun Fly
Events



Xenon Strobes

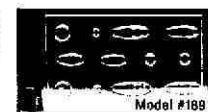


The model #154 is a real xenon strobe unit requiring 2.4V to 3.6V DC power source to operate. The flash tube is removed approx. 8" away from the PC Board. You can extend the tube up to 38" without affecting strobe operation. The strobe weighs approx. 3 oz. and will run for approx. 4-6 hours off of 3.6V.



The model #155 Dual Synchronized strobe is a twin Xenon Strobe unit requiring 2.4V to 4.8V for operation. Flash rate varies with voltage. Unit will flash approx. 1 time every 6 seconds with 2.4V, every 2 seconds with 3.6V, and once per second with 4.8V. The two flash tubes remove from one PC Board approx. 36". You can extend the flash tubes approx. 72" from PC Board. PC Board comes in a protective case. The strobe unit weighs approx. 15 oz. and will run for approx. 24 hours off of 3.6V.

The Model #188 Lens Covers (set of 12) are vacuum formed, 30 mil ABS plastic in 6 different shapes. They are excellent to cover #180/#88 lighting system lights for protection.



R/C CHANNEL ANALYZER

"The Best Insurance For Interference Free R/C Flying!"

If you were to own only
one set of RC videos,
this should be it.

★★★★
First class production, first
class instruction from a
top gun & flyer.
Dave Patrick



**VOLUME 1
AVAILABLE NOW!**

It's the "Wring It Out" aerobatic instruction series
featuring Dave Patrick.

Experts who've reviewed these tapes agree—whether you're an experienced RCer or a beginner who's ready for something more than straight and level flying, "Wring It Out" is just the ticket.

THREE TAPES COVER IT ALL.

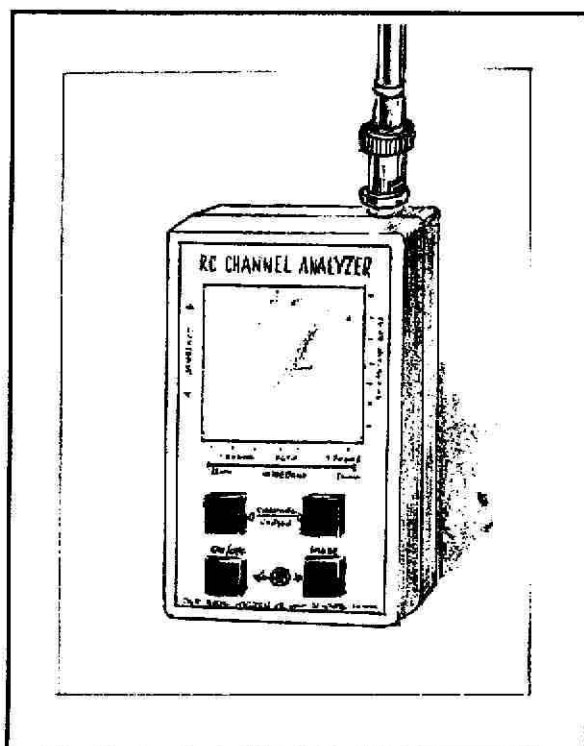
By studying and practicing from all three tapes in sequence, experienced flyers as well as beginners can attain the kind of aerobatic refinement that we've all admired when watching the pros. The tapes' real-time split-screen imaging and perfect blend of

voice-over and live sound gives "Wring It Out" a real edge over less-professionally produced videos, and your progress will be the proof.

A VALUE THAT CAN'T BE BEAT.

Best of all, the "Wring It Out" series is priced so you'll be able to own the full set of originals without resorting to low-quality copies. "Wring It Out" volumes are at your dealer's, or phone (800) 6-FLYING to order direct.

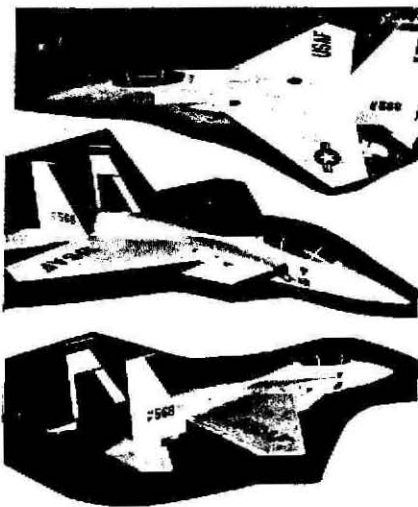
**CARL GOLDRIED
MODELS INC.**



Fly safely into the 90's with
Aero Spectra Corp.'s new
R/C Channel Analyzer — a
hand held spectrum analyzer
for the 72 MHz R/C band.

The R/C Channel Analyzer is designed for easy operation consisting of a compact, light weight (13 oz.) case; an easy to read LCD display board that is contrast adjustable; a single on/off button (with auto shut off); a mode select button featuring 3 modes of operation; and 2 keys to set center frequency in ZOOM and/or SIGNAL STRENGTH modes. Power is provided by a single 9V battery. Each unit comes with a complete set of illustrated instructions and a handy carrying pouch.

A SPORT SCALE RADIO CONTROLLED FLYING MODEL OF AMERICA'S FRONT LINE AIR SUPERIORITY FIGHTER.



SPECS: Length: 67"
Wingspan: 51"
Weight: 10½
Channels: 4/5 with retracts
Power: Byrojet

The Ultra Eagle is the Ultimate Ducted Fan Trainer designed with the Grass Field Flyer in mind.

This extraordinary aircraft was designed for modelers that want to fly ducted fans, but don't have the luxury of a nice hard surface runway, who don't have a lot of building time and for those that don't want to pay an arm and a leg to get started.

The Ultra Eagle's grass field take offs are smooth, powerful and predictable. It is fully maneuverable



in all modes of flight and its slow flight stability makes landings and touch & go's easy as your favorite prop driven aircraft.

The Ultra Eagle's hand-layed fiberglass construction is lightweight, strong and forgiving. With its rugged construction and the landing gear mounted firmly in the fuselage, not in a delicate foam wing, the durability of this kit is unmatched on the market today.

PRESSURE FITTINGS

We have two new sizes of pressure fittings to add to our line, 8-32 and 10-32. These are ideal for mounting on your mufflers or crankcase.



DEMOUNTABLE HINGE

Demountable for easy:

- Construction
- Finishing
- Repair



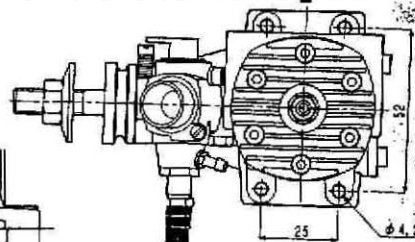
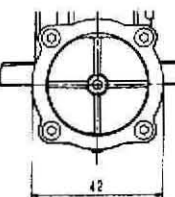
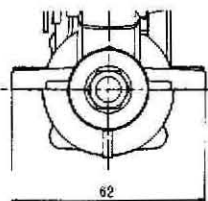
The Fourmost Demountable Hinge is a gapless Nylon hinge that allows the modeler to easily remove the control surfaces from the model. A 1/32 inch (0.8 mm) piano wire holds the hinge in place. The Hinge may be installed easily with CA adhesives. The Hinge is sold in packages of 12 - 6 inch (15.24 cm) segments, which is sufficient to span 3 feet (.91 meters) of hinge. Although it is manufactured in white, the Hinge may be dyed or painted to match any finish. The Hinge deflects plus or minus 45 degrees.

Product No. 141

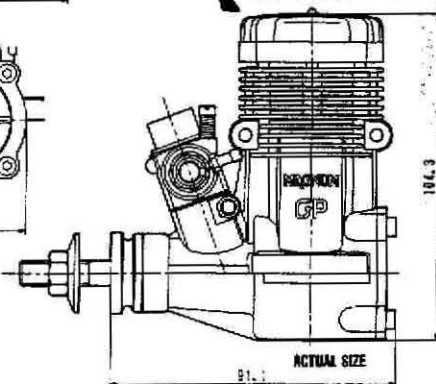
3 ft. (91 cm) per package

Full Size GP.65 Template

While you are waiting for your engine use this template to lay-out your engine compartment!



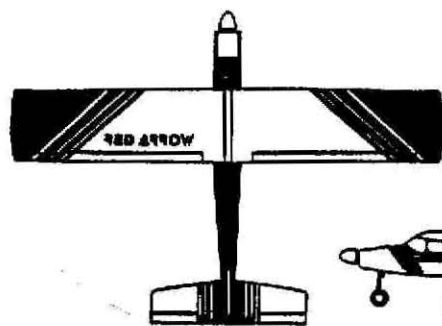
MAGNUM



2 YEAR UNCONDITIONAL GUARANTEE

All guaranteed Magnum engines against all manufacturing defects and premature component wear for two years, unless damage is caused.

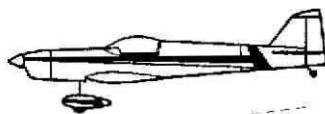
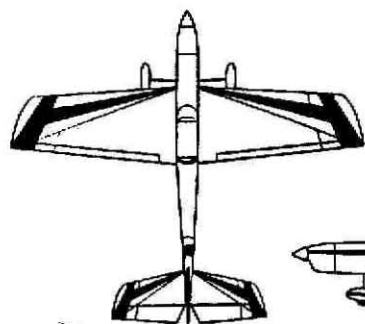
ALL DIMENSIONS IN MILL METERS



RED ARROW 20/40 H

High wing ARP trainer, balsa fuselage, balsa sheeted foam core flat-bottom wing, white Ultracote covering with red trim. 4 ch radio required. (20 size has semi-symmetric wing.)

Model	20H	40H
Length (in)	36	42
Span (in)	51	55
Wing Area (sq in)	460	554
Engine (cu in)	.19-.30	.40-.50



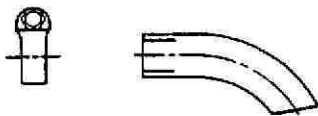
JAVELIN

F3A high performance ARP, balsa fuselage, balsa sheeted foam core wing, white Ultracote covering, complete with trim sheet. 4-5 ch radio required.

Length (in)	51
Span (in)	58
Wing Area (sq in)	612
Engine (cu in)	.40-.50

EXHAUST DIVERTER

Aluminum Exhaust Diverter Won't Burn Out!
Comes in 4 Sizes.

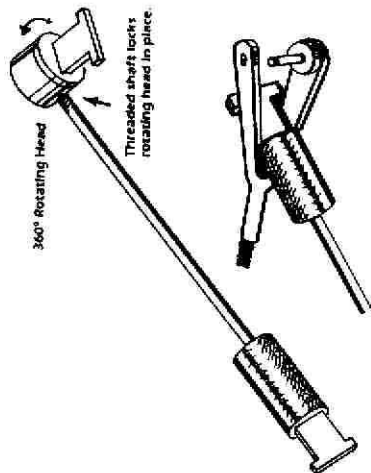
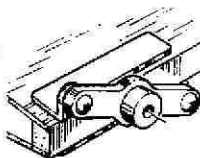


#319 DRILL JIG

Used to guide & drill mounting holes for hinge points.

Adjustable for all control surfaces.

Hardened steel, removable drill bushings for use with 1/8" & 3/16" dia. drills.



KWIK-LINK REMOVAL TOOL

It's about time! That is the reaction we got when we showed the prototype Kwik-Link removal tool to modelers. Finally, a tool that can get into almost any place to remove Kwik-Link clevises with ease. At one end the tool is in a fixed position and the other with a 360° rotating head which simply locks in place with the thread shaft. 1/pkg.

★ Quick-Built "Fold & Fly Technology" -

AirCore planes "fold up" and glue together in a few evenings with simple contact cement or CA glue. No sanding or special tools required! Each kit includes a fully illustrated construction manual to help you get to the flying field fast!

★ Pre-decorated, show-room looks -

Most AirCore planes are completely pre-decorated with vivid colors to guarantee compliments at the field!

★ 100% U.S. Made - Every piece in your kit is made in the U.S. What that means to you is parts availability, customer service and a very caring attitude.

Classic 40 "Ultimate Bush Plane"

... "a Classic little tail dragger" Model Builder

CoroStar 40, "Warbird Extraordinary"

... "get a CoroStar and fly the heck out of it" Model Builder

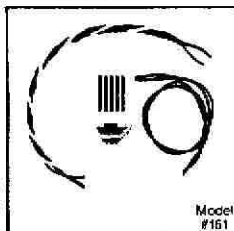
The Colt 40 SLT Sport Low-Wing Trainer

... "AirCore material is not only easy to build with, but it's also unbelievably tough!" Model Airplane News

Explorer Floats

... "Leave the pilot's box and head for the lake - Float Freedom takes you to the great outdoors!"

Sonic Alarm



The Model #161 Sonic Alarm has many uses. It will warn you if another flyer is on your frequency. You can use it to range test your radio. Or use it to help locate a downed aircraft that is out of sight. Plug it into an unused channel or in parallel with a servo. Alarm will last approx. 36 hours off of the receiver battery. The current drain is 20 ma when activated and 4 ma/h when idling. The #161 Sonic Alarm WILL NOT WORK ON PCM RADIOS. Radio connectors not supplied.

REMOTE FUEL CONTROL VALVE

The Remote Fuel Control Valve is a device that allows the modeler to have complete control of his needle valve setting throughout the model's operation.

The modeler can adjust the needle valve setting midflight, maintaining the optimum RPM for various flight and engine conditions.

When the model is on the ground the Remote Fuel Control Valve enables the modeler to adjust the needle valve setting, while keeping his hands clear of propellers and other moving parts of the engine. The Remote Valve also provides a shutoff function. This may be activated while airborne or while on the ground, ensuring safe engine operation.

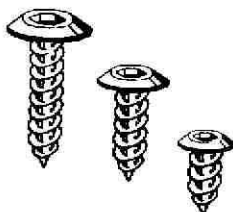
Product No. 142

Glow Fuel Only

FOURMOST PRODUCTS

BUTTON HEAD SHEET METAL SCREWS

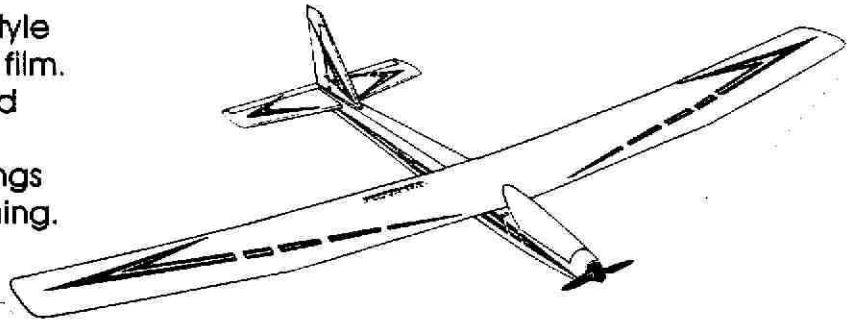
Our field testing staff came up with this idea. Button head sheet metal screws! This new design is by far the best way to mount servos, cowls, landing gear, etc. The large head of the screw acts as a washer and they also have a socket head for easy, no slip installation. 8/pkg.



FEATURES

- Silent electric power and slow, gentle flight characteristics make any open area your flying field.
- Spinner, folding prop, and electric motor with wiring harness are included.
- Quick-build, modular construction, ARF style
- Pre-covered with multi-colored polyester film. Color design is on both sides of wing and stabilizer.
- Recessed nose wheel smooths out landings and protects fuselage nose from scratching.
- Powerful Mabuchi 550 Motor included
- Wing span 78 1/2 inches

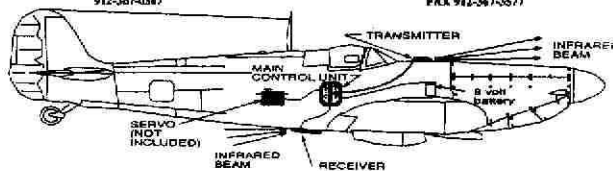
ELECTROSOAR MK III 2 METER ELECTRIC SAILPLANE



READY-TO-FLY

ACE MAKER™

BY AMERICAN MODEL PRODUCTS INC.™, RT. 3 BOX 57 BAXLEY, GA 31513
912-367-4587 FAX 912-367-3577

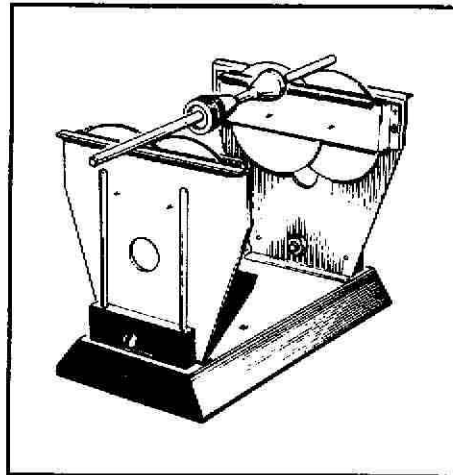


ACE MAKER is the most sophisticated R/C combat unit in the world utilizing the latest in infrared technology. The unique multiple hit system features a three second burst of smoke from your smoke system for the first hit, for the second hit and the third hit. With the final hit, a forty five second burst of smoke comes from your plane.

ACE MAKER installs in 40 size planes and above with proper consideration for the extra room and weight required for the ACE MAKER and your smoke system. The main control unit is equipped with a main power switch for easy hook up of ACE MAKER's transmitter, receiver and battery harness. A single 9-volt alkaline battery supplies the power for ACE MAKER, and your smoke servo. ACE MAKER is designed to fire continuously therefore no additional channels are required.

A note about smoke systems. First, for aerial combat, a smoke system that works like a trigger is not altogether necessary. You just need a good stream of smoke clearly visible from the ground. In general, a propeller is not required, nor is a special smoke muffler for 60 sized engines; however, 40 size engines and some 60 size engines may require a propeller. Additionally, since the volume of smoke required is considerably less than that required for aerobatics, the capacity of the smoke tank can be 2 in 4 oz. The smaller smoke tank provides for easy installation as well as requiring only a small amount of smoke fluid. Additional tips on smoke systems are contained in ACE MAKER'S instruction manual.

As shown above, the transmitter is mounted on top of the fuselage and the receiver is mounted on the bottom of the fuselage or wing. The main control unit and battery are mounted inside, with the main power switch mounted like your flight pack power switch.



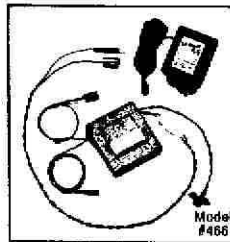
High Point® Balancer will balance:

- Model Aircraft Propellers
- R/C Helicopter Rotorhead and Tail Assemblies.
- R/C Boat Propellers
- R/C Car Tires & Wheels
- Aircraft Spinners
- Ducted Fan Rotors

The Ultimate In R/C Combat

466 Digital On-Board Glow-Plug Battery System

The Model #466 Digital On Board Glow Battery System was designed for Single Cylinder Engines on Helicopters, Boats, Small and Large Aircraft for starting and maintaining a reliable idle at low throttle. This device can be switched on from your transmitter at any time you desire using any available channel, or it can be paralleled with your throttle servo using a "Y" cord for automatic operation at low throttle settings (adjustable set point). There is a DEAN's external charge jack, that will let you charge or "boost" the on board battery from an external 1.5 volt DC source or overnight charge using the A/C adapter provided. There is a remote L.E.D. indicator that can be mounted in the dash or any convenient place to monitor the switching circuit that lets you know when the glow plug is turned "ON". It is opto coupled to eliminate any possibility of radio interference from the engine linkages or wiring. System includes the Electronics (inside a plastic box for protection), plug harness, and the A/C Charger. The total weight is 30 oz. including batteries.



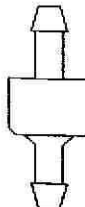
Auto Plug Product No. 138 Size 1/16 inch (1.6 mm) I.D.

This product may only be used with glow fuel.

The Auto Plug / Valve may also be used in conjunction with bladders to eliminate continual pinching of the line during the fueling process.

The Auto Plug can be used in place of a plug in fuel systems that utilize muffler pressure.

The Fourmost Auto Plug / One Way Valve can be used in a variety of instances that require the maintenance of air or fuel pressure.



Flow In
One
Direction Only



Join The Sport Flyers Association. Get Complete Coverage For \$25.00 A Year, And A Lot More.

Sport Flyers Association

Sport Flyers Association was created by modelers for modelers to provide the best insurance coverage for model flying at the lowest possible cost.

No politics, elections, or hassles. Our goal is to save our members money, build and support flying clubs, and make model flying fun, again!

Our Policy on Model Flying Insurance

- \$1,000,000 Liability Coverage
- Member to Member
- Over \$70 Million in liquid assets plus an "A" rating from the A.M. Best Co. backs our insurance coverage
- Just \$25 per year for full Adult Membership
- Just \$15 per year for Non-Powered Free Flight and Youth Membership

Fly safely and earn Zero Claims Awards

Everyone benefits from safe model flying, and we believe in rewarding our members for flying safely. Members earn points for safe flying, continued membership, and completing an annual safety check. Additional points can be earned for recruiting new members to Sport Flyers Association and the Zero Claims safety program.

All Sport Flyers members can use their Zero Claims points for:

- Cash Rebates
- Product purchase discounts
- Travel awards

The top 5% of Sport Flyers members with the best safety and recruiting records can earn free hobby and R/C products, travel awards, air show trips, and much more.

The Sport Flyers Flying Club Program

Our goal is to build your flying site, not ours. The Sport Flyers Flying Club Program is designed to generate money and members for your club. We've created a Flying Site Development Fund to build your flying sites, and sponsor events to build your club treasury.

Being a member club of the Sport Flyers Association allows you to maintain affiliation with any other association or modeling organization. Now you can provide the best available coverage at the lowest price to your members, and still participate in your traditional club events. Being a member club of the Sport Flyers Association means you'll receive more—not less, including:

- Flying Clubs and site owners insured free for the first year
- Daily membership passes
- National advertising to publicize your club events
- Club money making programs including "Dial-An-Expert", "Fly 'n Try", product demos and air shows
- Certified Flight Instructor Program

The Sport Flyers Travel Club

Become a member of the Sport Flyers Association, and save up to 70% on your full scale flying as well. Use our members only 1-800 number for reservations and greater discounts on air show and hobby event travel.

Save enough on your first trip to pay for your membership for the next five years! Even better, each time you fly we make a contribution to the Flying Site Development Fund.

1-800-745-3597



Part # Description

#001 Standard Clamp-Jaws opening to 5-1/4 inches with cork jaw pads UPC 7-38424-00001-5

#002 Standard Clamp-Jaws opening to 9-1/2 inches with cork jaw pads UPC 7-38424-00002-2

#201 Replacement Cork Jaw Pads, self-sticking 4 per package UPC 7-38424-00201-9

#202 Replacement solvent and fuel resistant Rubber Jaw Pads, self-sticking 4 per package UPC 7-38424-00202-6

#203 Replacement heat and chemical resistant Teflon (GoreTex) Jaw Pads, self-sticking 2 per package UPC 7-38424-00203-3

