SPECIAL ISSUE!

Complete coverage of the 1990 International Modeler Show



Sig's New "Ninja" Sloper ● DCU's All-Fiberglass Windstar Slope Racer ● VS Sailplanes' "Zulu" Fighter ● Airtronics' Incredible "Infinity" Radio ● Glidesigns' Ready-To-Fly "Lance" ● Cliff Hanger's Amazing F-18 Hornet ● Vortech's Light-Lift P-51 & Zero ● Cox's 2-3 Channel "Cobras"

Wingin' It

DANCIN' WITH THE FAT LADY

Ever flown a scale sailplane? Not power scale, I mean one of the big three- to four-meter ASW-20, DG-202, Discus or other down-sized version of a high-performance, composite construction, soaring machine.

Me, neither. Not until just lately, that is. Oh, Bill Liscomb has let me guide his big DG-202 back and forth offshore at Torrey Pines, and Bob Ratzlaff offered me a few minutes stick time with his ship up at the Washington scale event (I don't even know what it was—they all look so much alike!). But I'd never owned, launched and landed my own.

Let me tell you, they're weird! They don't handle anything like the zippy little power scale jets and warbirds that I love to fly on a regular basis. Actually, they work more like a full-size sailplane.

When Bill Liscomb let me play with his DG-202, it was about 200 feet above eye level and about 400 feet off the cliff at Torrey Pines. We were standing there talking, and he asked, "Wanta try it?"

Of course, I said yes (wouldn't you?), so he just handed me one of his complicated-looking, mega-channel Futaba transmitters, said "The rudder's not mixed; you have to use the left stick," and turned away to chat with someone else.

Okay, I thought. This can't be too tough. Bill can do it.

So, I got both thumbs working semisimultaneously, and proceeded to turn the DG back and forth, just like I knew what I was doing. Then, suddenly, in the middle of a nice smooth turn...it dropped right out of the sky! Most amazing tipstall I'd ever seen! (They're always more amazing when you're holding the transmitter.) Oh, it didn't crash or anything. Just fell about 40-50 feet and then responded to my anxious stick waggling and began to fly again.

"Bill!" I said as soon as my thumbs stopped demanding my entire mental capacity and allowed my speech facilities a few seconds of shared time. "Did you see that?!"

Bill turned from his conversation and glanced casually over at the plane.

"Tipstall?" he asked, "Oh yeah, they'll do that."

"Well, what did I do wrong, Bill? What should I have done?"

"Don't stall it," he said and turned back to his conversation.

Nonetheless, I was hooked. I knew I'd have to own one of those things before my slope soaring life could be complete. Little did I know that my next glider would have a 21-foot wingspan and weigh 28 pounds!

Gary Anderson of American Sailplane Designs had flown a huge ASW-20 at the 1989 Tri-Cities Scale Fun Fly, and just a few months ago, he phoned to place a listing for it in the SSN Want Ads section. I looked at it, daydreamed about it, procrastinated for a month or so, and then called up to ask him if he'd sold it. He hadn't. He was asking \$500 for the beast, and that included two quarter-scale Futaba aileron servos and an Airtronics spoiler servo because it was too much trouble to remove them. (The Futabas were linked with a wiring harness that converted them to an Airtronics plug-just what I needed for my Spectra radio.)

So, I made him an offer. He wasn't advertising in SSN then, and the price he was asking was worth about a year's worth of ads. It was a perfect opportunity for both of us, and a deal was cut.

It wasn't until I met Gary at Gillespie Field for dinner and to pick up the plane that I realized what I'd just acquired. When we loading the wings into my

Why waltz when you can rock n' roll?

"Bertha" prepares for her second dance with a handsome group of escorts.



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EDITORIAL CONTRIBUTIONS are welcomed. Unfortunately, we can't pay for them. Editorial material is selected based on its perceived value to the slope-soaring community, and the publisher assumes no responsibility for accuracy of content.

CLUB CONTRIBUTIONS are welcomed. Please keep us notified of your club's events and/or fun flying activities. Material printed will be selected at the discretion of the editor.

ALL CONTRIBUTIONS should be addressed to SSN, c/o Charlie Morey, 2801 E. 19th St., #29, Signal Hill, CA 90804. All contributions requested for return must be accompanied by return postage. The editorial deadline is the 15th of the month preceding the cover date. All material is subject to editing and revision as necessary to meet SSN requirements. We can accept Ascii text files over the phone or work with your IBM-compatible 3-1/2' or 5-1/4' disk. Please call first for details at 213/494-3712. Don't get depressed if you get our answering machine. Just leave your name, phone number and the purpose of your call, and we'll get back to you.

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VS sailplanes

GMC Safari van, the tips rested on the dashboard up against the windshield, and the roots barely wedged in against the back doors! I've been laughing ever since. It's so BIG!

Why would anyone want such a model? Where would you fly it?

At first, I had a hard time with those questions. I knew I could fly it at Torrey Pines and in Washington, but most of our SoCal sites have no landing area. Then I remembered a place we call Point A up on the Palos Verdes Peninsula. We checked it out and have made a couple flights there since. Pete Marshall, my Canadian buddy, came down on vacation and did the tossing honors along with Richard Jarel (it takes two!) for the first flight. On the second flight, the wind was over 30 knots, and it took three guys to hold onto the big sailplane, one designated tosser and one on each tip to keep it from flipping over!

Once in the air, the glider is absolutely regal. It flies like a B-52. The closest thing I can compare it to, is driving a huge old Cadillac with power steering and power brakes. You give it some input and then wait a couple seconds to see what's going to happen. It looks like it's moving slow, yet when it gets close to the hill, you realize that it's actually cruising right along!

I especially enjoy the landings! I put it through a standard full-scale landing pattern with a downwind approach, base leg and then raise the spoilers as it turns on final. It has a wonderful glide ratio; it flattens out, flares and touches down gently. There's a landing wheel, and its mass carries it along for a long roll out, and so far has always drawn a round of applause from witnesses.

Why own such a plane? Aside from the flying experience - which I love - I intend to mount a video camera on it and do some air-to-air and air-to-ground filming. It'll go into a library of cuts that I'll accumulate over the next year and finally edit into to a slope soaring video.

The video is a no-deadline project. Between my "real" job as Editorial Director of Dirt Rider Magazine and my hobby jobs of publishing SSN and Bungee Cord (the Vintage Sailplane Association newsletter), I've got more than enough time constraints on my life.

Still, it's a good 'nuf excuse to have "Bertha."



rotor



Standard ROTOR (all wood construction) \$64.95 -- features strengthened fuselage/ no glassing required.

Standard ROTOR (Kevlar/glass/epoxy \$114.95 fuselage--super strong)

2m light lift wing (slope--E374)

\$24.95



ROTOR combo (std wing, 2m wing, wood fuselage)

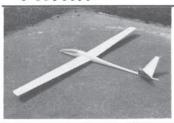
\$89.95

ROTOR combo (as above w/Kevlar \$137.95 glass/epoxy fuse)

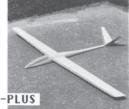
Thermal wing (\$ 3021-- 84in)

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max







BALSA WINGS

The ultimate light-lift slope cruiser! Stay twice as high as the floaters at twice the speed and look spiffy too!

> Wing loading 12 oz/sq ft 2m span E374 section Kevlar/glass fuselage

> > Complete kit

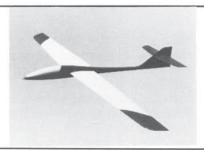
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Specifically for light to medium lift and sport aerobatics. Both versions are pitcheron-controlled (2ch).

> Wing loading 14 oz/sq ft 2m span E374 section Keular/glass fuselage

> > Complete kit \$124.95





TYPE: Heavy lift, sport/aerobatic/speed sloper CONTROLS: Wingeron+elevator, 2 channels No mixing required/std radio OK Wingeron servo = 50 oz in minimum STRUCTURE: Epoxy/glass/kevlar fuselage

1/64th ply/blue foam wings DIMENSIONS: Span = 68ins; area = 384 sq ins Aspect ratio = 12; length = 45 ins Typ. wt. = 40 oz; loading = 15 oz/sq ft Wing section = 7.5% E374

HICA kit

100 xıngu

TYPE: Light to heavy lift sport/aerobatic sloper. Lift range depends on strength of wing/builder's option.

CONTROLS: Same as KICA/ rudder optional 3rd channel STRUCTURE: Same as XICA, with various reinforcing options for wing internal structure.

DIMENSIONS: Span = 100 ins; area = 614 sq ins Aspect ratio = 16; length = 45 ins Typ wt = 51 oz; loading = 12 oz/sq ft Section = SD6060

> KINGU 100 kit \$170

Send for free product brochure showing complete kit line as well as options and replacement parts for ROTOR

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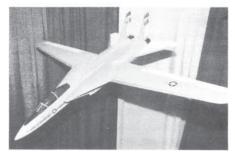




(Above) Mike Pratt designed Sig's new sloper, the Ninja. It's a wooden fused, foam winged, two-channel, Eppler 374-equipped 58-incher. (Top right) Ken Stuhr of VS Sailplanes displayed his new scale-looking, 44-inch span Zulu along with a complete line of high performance sailplanes including the Rotor, Vmax, Xica, Xingu and the new Ranger thermal ship. (Middle right) DCU's Mark Hambelton showed off an all-new Dan-Danrich-designed, 68-inch span slope racer called the Windstar I. A two-meter thermal competition version is also available. (Right) Here's DCU's new F-14! This one's a mock-up built just for the show, but the "real" one, a 50-inch span model with epoxy fiberglass fuse is on the way.







International Modeler Show

What's New For 1990?

By Charlie Morey

PASADENA, CA, JAN. 14-16, 1990

Bill and Anita Northrop's annual SoCal meeting of model industry movers n' shakers—the International Modeler Show—gives enthusiasts a preview of things to come... and boy, do things look good for 1990!

If the IMS is a reliable indicator, then slope soaring is alive and growing. Even Sig Manufacturing now offers their own slope plane, the Ninja. Assuming their experiment in "our" facet of the hobby is successful, we'll probably see other large kit manufacturers follow suit. In the meantime, however, our cottage-industry kit makers are doing a great job of keeping us supplied with a wonderful variety of new slope toys.

Sig Manufacturing

Although Sig is a large company, the Ninja was actually conceived in standard slope fashion by a one-man design and development team, Mike Pratt.

Mike produced a 58-inch span, two channel aileron/elevator ship equipped with a slightly-thinned 10% Eppler 374 airfoil (the standard E374 is 10.9%). Construction method includes a "user friendly" built-up wooden fuse and foam-core wing. The kit makes an excellent aileron trainer for those who are ready to make the transition from polyhedral rudder/elevator ships. It includes a 24-page instruction booklet with more than 100 photos to help in construction. Another thoughtful touch is the set of aileron torque rods prebent to provide differential. Suggested list price is \$59.95.

DCU

Mark Hambelton has been busy! DCU introduced more new products than anyone else, including the F-14 scale jet, the Microfly and two Windstars.

The Windstars were developed by Dan Danrich. The Windstar I is a 68-

inch span aileron model intended for slope racing. It features a European style epoxy fiberglass fuselage, including slip-on nose cone, and a straight wing with an SD7003 airfoil. The Windstar II is a thermal competition sailplane which utilizes the same fuselage as the Windstar I, but with a two-meter dihedral wing. Both planes are four-channel with aileron, rudder, elevator and either flaps (on the Windstar I) or spoilers (on the Windstar II).

The Windstar I kit comes with fiberglass sheeting for the wing, stab and rudder and carbon fiber spars. It will cost around \$180. The Windstar II will be offered as a semi-kit with fuse, foam cores for the wings and stabs, and some wood for \$130. Unlike other DCU kits, which are available only through hobby dealers, the Windstars will be available direct from DCU (to help keep the prices down).

The F-14 that was displayed at

Pasadena wasn't a flying model – just a mockup built for display at the showand it's due for a mid-year release. Mark has talked with F-14 slope glider expert Bob Reynolds about working on the kit's development, but to the best of my knowledge, no agreement has been reached yet between them. The F-14 features an epoxy fiberglass fuselage (like all DCU kits, except the Microfly), a 50-inch span and projected 32 to 36ounce flying weight with full-size radio. The kit will be released in fixed-wing configuration; if you want to make it a scale "swing-winger," that's up to you. No price has been established, yet.

The Microfly is a tiny addition to the popular Dragonfly and Super Dragonfly series. Instead of epoxy 'glass, the littlest "fly" features a vacuum-formed styrene fuselage. The 36-inch span glider has exactly one square foot of area and a ready-to-fly weight of 11 ounces with micro radio gear. Mark's literature describes it as, "small, fast, fun and inexpensive." It's scheduled for midyear release at a suggested list price of only \$29.95.

DCU continues to offer the Dragonfly, Super Dragonfly and the scale-looking Stryker, plus they've just added a line of power planes that includes a 1/4-scale Steen Skybolt biplane (yes, I'm already nagging him about a slope version of it for the scale fun flies), the Gyrfalcon sport plane, the Floppy advanced trainer/aerobatic sport plane and a 1/9-scale MiG-17 ducted fan kit (another good slope-conversion possibility!).

VS Sailplanes

Ken Stuhr shipped down a complete stock of high performance kits, display models and booth framework via Yellow Express (his buddies at Yellow Aircraft, another Washington-based model company) and made a major impact at the IMS.

VS Sailplanes's latest "pitcheron" models—the Rotor and Vmax—were accompanied by Ken's designs from the early '80s—Xica and Xingu—and his latest offerings—the Ranger thermal ship and the scalish-looking Zulu. Literature on his two power scale gliders—the Me-163 Komet and Horten Ho IX flying wing—was available although no display models or kits were there.

Pitcheron, in case you haven't been reading your SSN ads, is Ken's term for his control system that uses only wing

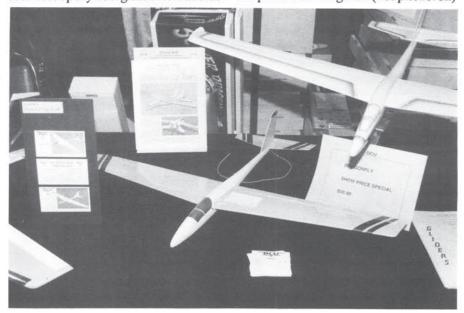
movement to control both pitch and roll. The tail surfaces on Rotor and Vmax do not move. Instead the wings rotate independently for roll (wingeron) and together for pitch. It works...honest!

The newest kit, Zulu, is a beautiful semi-scale F-14/MiG-29 look-alike that promises high performance to match its good looks. It features a 44-inch span with 2.7 square feet of wing, airframe weight of 22 ounces, flying weight of 30-35 ounces at a wing loading of 12 ounces per square foot.

The fuselage is a special one-piece, seamless epoxy fiberglass unit manufac-

tured by Ron Wagner using the same bladder-molding setup as on the other VS Sailplanes fuses. In other words, it's not molded in two pieces and then joined together in the conventional manner. Instead, the fuse is laid up as one single piece inside the female mold, and a "balloon" is expanded inside it to hold it against the mold. The result, of course, is an exceptionally strong part. Rotor and Vmax fuselages utilize the same process.

The kit that stole my attention, believe it or not, was the Zingu 100. It's one of Ken's older designs, a 98-inch span sailplane with wingeron (not pitcheron)



Plastic fuselages are (still) in!

DCU introduced the little 36-inch span Microfly with vacuum-formed plastic fuselage while Bob and Katie Martin *re*introduced their Duralene-fuselaged Coyote and SR-7 kits.







Cliff Hanger, Combat Models and American Sailplane Design.

(Top) That's Steve Peacock and Marty Silberstein with a whole boothful of Cliff Hanger power scale slopers, including the new F-18 Hornet. (Above) Derek and Byron Bruce's dad, Ed, dropped in to help the boys at the Combat Models booth. (Below) Gary Anderson's American Sailplane Design booth was full of goodies! Doug Hertzog hung out with Gary and showed off his Silhouette and Quicksilver kits on Friday and Saturday.



and full-flying stabilizer control, 15.5:1 aspect ratio, 7.5 ounce per square inch wingloading and an overall flying weight of less than 33 ounces.

He showed a bright red display model of it which, despite my protests and shameless cash offers, went back to Seattle after the show. Maybe next year...

Bob Martin RC Models

Bob and Katie Martin came over from Lake Havasu City, Arizona with a complete line up of kits, from the "standards" (Talon, Bobcat and Katie II) to the "reborn" (SR-7 and Coyote). No promises on the Hobie Hawk; none were displayed.

Regular SSN readers may remember Martin's "Rip Van Winkle" letter from the May 1989 issue, where he happily observed that slope soaring had finally gained popularity long after his years of trying to make a business of it. Back when Bob first designed the Coyote and SR-7, they were far ahead of their time. Now, time has now caught up with them (they're comparable with other current designs...not behind), and I'd like to see what's next. We keep waiting for new surprises to come from this original pioneer of slope soaring. How about it, Rip?

Cliff Hanger Models

Marty Silberstein and Steve Peacock made a major move from the slope dungeon (the low-ceilinged room where we all had booths last year) to the main floor with all the big-time displayers. And they came well prepared with at least one of every kit they offer, built and on display.

The new Cliff Hanger F-18 Hornet led the line-up which also includes the P-51 Mustang, F-20 Tigershark, P-40 Warhawk, F4U Corsair, F-8F Bearcat, F-5E Tiger II, KAI-100, T-6 Texan and their only non-scale model, the Cliff Hanger.

Cliff Hanger offers complete kits for \$89.95 or completely built gliders—painted and ready for your radio—for \$250.

Combat Models, Inc.

Brothers Byron and Derek Bruce operate a company that specializes in power-scale jets—Combat Models—and it all began with their foam F-16. I think almost everyone must have bought at least one of the foamies, judging from the impressive sales figures. It was exactly that support that en-







F-18 Hornet

KAI-100 (Zero)

P-51D Mustang

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Cliff Hanger Models, P.O. Box 9081, Torrance, CA 90508; (213)320-4530

couraged Byron to give up his "real job" as a fireman and dedicate his time to the model industry. (And the fact that he recently referred to the past year as "a year's vacation" doesn't make the rest of us any less jealous!)

In the past few months, three new models have been released—the formidable A-4 Skyhawk, a Russian MiG-27 and the tank-killing A-10 Thunderbolt (Warthog). The three new ones aren't foam-molded like the F-16; instead they offer conventional wooden fuselage and foam wing construction. List price on them is \$99.95, but they're



Pee Wee Penetrator.

Gary Anderson sells all the JM Glascraft Penetrator models.

for sale at discount prices well below that figure.

American Sailplane Design

Gary Anderson always hosts a huge IMS booth, and this year was no exception; his wares filled a space four-booths wide and his show prices made it the place for glider guiders to stop and shop.

Gary always invites the manufacturers of the kits he sells to come hang out with him, and this year, he was joined by Doug Hertzog of Douglas Aircraft. Doug has a new kit—an enlarged version of his popular Silhouette—called

Providing an elegant, time saving and economical finishing touch for modelers. Our lettering comes to you prespaced and prealigned—saving you hours of cutting and the fuss of aligning individual letters. These are not decals. Your text is custom computer cut in 3M Premium cast vinyl • 2 mil thin • 17 colors • 8 type styles including Military Block • ¼" to 12" high. NOW AVAILABLE: Stencil Mask & 1 Color Outlining! EZ TO APPLY PEEL PROTECTIVE BACKING Priced right with no minimum charge! For example, AMA numbers: 1/2" high = \$1.00; 1" PEEL OFF THE CARRIER TAPE high = \$2.00; 2' high = \$3.00 (+ \$1.25 P & H)PLACE ON YOUR SURFACE Call or write for complete info pack & sample. IT'S FREE! STEP BACK & ADMIRE YOUR WORK YOU'RE DONE! All orders processed upon receipt and shipped via first class mail. AMA VINYLWRITE CUSTOM LETTERING Custom Letter Today 16043 Tulsa Street Granada Hills, CA 91344 AMA 91691 The **VINYLWRITE** Wav (818) 363-7131 (Noon to 6 PM Pacific) . Mail order only! CA res. add tax. .



Slope Scale warbirds!

The warbirds from Brian Laird (shown) and Paul Masura's Slope Scale booth were on almost everyone's want-list.

the Quicksilver. The Quicksilver holds full-size radio gear (the Silhouette requires micro gear) and utilizes a thinned SD6060 airfoil along its 53-inch span (the Silhouette spans 43 inches). Suggested list prices on the Douglas Aircraft kits are \$58.95 for the Silhouette and \$78.95 for the Quicksilver. Both feature built-up wooden fuses and foam core wings. An optional fiberglass fuselage is available for the Silhouette.

American Sailplane Design offers discount pricing on many kits from slopers like the JM Glascraft Penetrators to thermal planes to electrics. Gary's catalog is a must-have item for every soaring pilot.

According to JM Glascraft's John Fotiu, a new two-meter size Penetrator (a P-51 Mustang look-alike) is on the way. A large power-scale (sorta) plane like that sounds very interesting! Stay in touch with Gary for info on availability.

Who's Who at the IMS

Airtronics, Inc.

11 Autry Irvine, CA 92718 714/830-8769

American Sailplane Designs

2626 Coronado Ave., #89 San Diego, CA 92154 Gary Anderson 619/575-5133

AMS Imports/Bauer Modelle

1110 S. Wells Ave. Reno, NV 89502 Arnold Wratschko 702/786-7733 702/825-4052 (FAX)

Cliff Hanger Models

P.O. Box 9081 Torrance, CA 90508 Marty Silberstein, Steve Peacock 213/320-4530

Combat Models, Inc.

Fightertown USA 8535 Arjons Drive, Suite R Miramar, CA 92126 Byron & Derek Bruce 619/536-9922

Composite Structures Technology

P.O. Box 4615 Lancaster, CA 93539 Matt and Gail Gewain 805/723-3783 Cox Hobbies, Inc.

1525 E. Warner Ave. Santa Ana, CA 92705 714/546-2551 714/540-7152

DCU

1556 S. Anaheim Blvd., Unit C Anaheim, CA 92805 Mark Hambelton 714/535-6969

Douglas Aircraft

P.O. Box 92472 Long Beach, CA 90809 Doug Hertzog 213/498-1737

Ed Cutler Plastics

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Futaba Corporation of America

4 Studebaker Irvine, CA 92718 714/455-9888

Great Planes/Kyosho

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5990 California Ave. Long Beach, CA 90805 Ken and Annette Williams 213/428-5423

MGA Enterprises

P.O. Box 5631 Fresno, CA 93755 209/224-4170

Sig Manufacturing Company

401-7 S. Front St. Montezuma, IA 50171 515/623-5154

Slope Scale

12935 Lasselle St. Moreno Valley, CA 92388 Brian Laird, Paul Masura 714/924-8409

Vortech Models

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VS Sailplanes

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"We don't do power, the airfoil IS the airplane."

- Sal, Stan, and Jay...The NSP Gang

Slope Scale

Southern California's Bluff Cove flying site has spawned a number of power scale manufacturers over the years, and Brian Laird's Slope Scale company is among them. Brian and his partner Paul Masura created a range of warbird slopers including the Spitfire, P-51 Mustang, A6M Zero, P-63 King Cobra, Me-109, FW 190 and the F6F Hellcat.

This year, they set up their first IMS booth and impressed the troops with the quality of their kits and the workmanship of their finished display models.

Most of their kits retail for \$69.95 for a Basic Kit (polyester 'glass fuse, foam cores, plans and instructions) or \$99.95 for a Complete Kit (which includes wood and hardware, too). The P-51 and Spitfire kits cost \$5.00 more.

Cheetah Models

The original combat slopers—the Cheetah and the Super Cheetah—continue to be best-sellers thanks to this father and son team, Bob and Larry Pet-

tyjohn. Aside from serving admirably in combat competition (where all planes tow streamers seven-times their span attached to their tails and the object is to tag each other's streamer), the planes make excellent aileron trainers for pilots facing the transition from floaters to aileron gliders. Their rotational molded fuselages are virtually unbreakable, and the flying surfaces are a quick, cheap build. Plus...spare parts are readily available, a deluxe feature for both fighters and beginners!

The Super Cheetah is now available



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end to: BIG WING 8980 Scranton St. Houston, Texas 7





Cheetah, Vortech/Sceptor and Glidesigns.

(Top) Bob and Larry Pettyjohn and their killer Cheetahs. (Above) Jeff Fukushima's Vortech power scale slopers. (Below) Glidesigns RTF Lance.



with an Eppler 374 airfoil for improved speed performance over the original.

Vortech Models/Sceptor Models

Remember Jeff Fukushima's P-51 and Zero? Jeff is a Long Beach Bluff Park regular who designed a pair of power scale gliders that will fly in light lift. We watched him develop them for a year or so, and then he just disappeared. Turns out he's been getting his kits together, and then he teamed up with Ed Cutler (of foam-core fame) to share a booth at the IMS.

Ed had purchased a number of kits from Mark Smith (Mark's Models/Dynaflite) and now offers them under the Sceptor Models banner. He also offers complete foam-cutting services to both manufacturers for their production runs and to individuals who need that special set of cores cut for a personal project.

Jeff, in turn, picked up two of the power planes from Ed, the Focke-Wulf 190-D-9 and the Mitsubishi A6M3 "Zero."

Jeff's power-scale slopers are most interesting to us, however, and they look great! Kits include epoxy fiberglass fuselages, foam cores, machine-sanded wood and hardware. The P-51 has a 50-inch span, flying weight of 31 ounces and a wingloading of 11 ounces. The Zero spans 52 inches, weighs 31 ounces and has a wingloading of 11 ounces per square foot. They list for \$98.95.

Glidesigns

Too busy to build? Talk with Chris and Gene Lovejoy! They've just begun to produce a ready-to-fly pod and boom slope ship called the Lance. The 48-inch span, two-channel glider features fiberglass/carbon fiber fuselage construction with balsa wing and full-flying stab. The machined balsa wing has a Selig 3021 airfoil, an 8.7:1 aspect ratio and 269 square inches of area for a wingloading of 11-13 ounces per square foot.

The best part is, it comes to you completely built, ready for covering (if you choose) and radio installation. The pushrod for the stab control and the aileron hardware is already installed; all you do is add the clevises and the standard-size radio.

So how much does all this wonderfulness cost? Just \$145, plus tax and shipping. And if that's not enough, wait a few weeks for their larger, four-channel two-meter version with rudder and flaps for only about \$45-50 more. Naturally, it's called the Lance-A-Lot.

Celerity Aero-Technical Design

Okay, I admit it; this one sent me looking for the dictionary. *Celerity* means "rapidity of motion; swiftness; quickness; speed." Now that we know what it means, what's it *really* mean? Curt Oliver's company (just call it C.A.D.) produces those neat little War Wings balsa free-flight gliders (\$5.50-6.50 each) of the F-14 Tomcat, MiG-23 Flogger, F-18 Hornet and the SU-27 Flanker that you may have seen hanging in your local hobby shop.

Now, C.A.D. also offers a radio-control version of the F-14. The "Tomkitty" is an all-balsa kit with a 45-inch span and a wingloading of 5.6- to 10-ounces per square foot. All wood parts are machine-cut, and it's capable of all two-axis maneuvers. With its conventional building techniques and for a suggested list price of \$55 (and of course, discount prices as soon as the dealers get it), it's a good way to get into power scale slopers.

MGA Enterprises

Need a pilot? Mary Gregory at the MGA Enterprises booth showed us the easy way out (at least if you're building big gliders). Fully constructed, dressed and painted figures in 1/4-, 1/6- and 1/8-scale are available in a variety of styles.

Pictured here is their latest addition, the 1/8-scale "Top Gun" pilot offered at a suggested list price of \$24.95. The 1/4-scale figures are available in three variations — World War I / aviator, Civilian/sport and World War II — at \$19.95, and the 1/6-scale busts are available in WWI and Civilian garb for \$29.95.

AMS Imports/Bauer Modelle

Arnold Wratschko displayed a booth full of exotic glider and power-plane kits including the complete Bauer Modelle line. This Reno, Nevada-based company can supply an assortment of high-performance sailplanes, scale gliders and even motor gliders for those who enjoy powered flight.

The quality of the kits he showed us seemed excellent, so give him a call (or FAX) and ask for a complete catalog and price list.

Composite Structure Technology

Ready to step up into the world of composite construction...but don't know how? Get in touch with Matt and Gail Gewain.







C.A.D., MGA, Composite Structure Technology and AMS.

(Top) Curt Oliver's balsa F-14 offers scale jet flight at a floater price. (Above left) MGA's "Top Gun" pilot comes fully painted. (Above right) Matt and Gail Gewain showed a neat vacuum bagging setup. (Below) Arnold Wratschko's AMS Imports booth featured a complete line of Bauer Modelle products.



Among other things, they can supply you with a complete vacuum-bagging system for only \$149.95 plus shipping and tax. It includes an electic industrial grade vacuum pump with a one-year manufacturer's guarantee, tubing and fittings, 13.5 square feet of each: 16-mil and 4-mil vinyl, mold release spray and vacuum distribution rope. You may also want to get their optional vacuum guage and regulator valve, especially if you're working with soft foam.

Of course, they also sell materials, in-

cluding Rohacell foam, carbon fiber sheets, carbon fiber tow, Kevlar 49 cloth and fiberglass cloth. The Rohacell foam appears to have a lot going for it. Their brochure claims that Rohacell foam cores have more than four times the strength of other foams, yet it's still easy to shape using the same tools you use now on balsa or other woods. The Gewains also offer information about advanced construction techniques with the Rohacell, including hollow molded wings.

Odds n' Ends

There are a number of items I saw at the IMS show that don't necessarily pertain to slope soaring but that were interesting and therefore worthy of mention.

Paul's Flying Stuff

Paul Stenberg offers a very nice-looking F-86 Sabre kit. It's not a sloper—in fact, it's intended for a small .21-size ducted fan and engine—but it's a 42-inch span model with lines of a winning power scale slope ship. It's the old House of Balsa kit from a few years back, if you can remember when Hobby Shack used to sell it. The fuse is fiberglass and it features a built-up wing. It's expensive at \$180 for the full kit (and they don't appear willing to offer a short kit for glider guiders), but it's nice if you've got the cash and the ambition to make it work.

When Paul bought the H.O.B. Sabre, he also picked up their fiberglass-fused, 50-inch span P-51 Mustang. Like the Sabre, it features a built-up wing. It's available for \$135. Three other models—the Denight Special Formual 1 Racer, the Thunderquickie II and the Cosmic Wind Formula 1 Racer—fill the PFS line-up, and each could be converted for slope.

Paul's Flying Stuff

P.O. Box 121, Escondido, CA 92025

619/743-5458

Ram Electronic Devices

Ever feel the need for either airplane lights or special sound effects? Check out the RAM inventory! Complete lighting (strobes, landing lights, nav lights...you name it) is available for your scale or night-flying needs.

How about a machine gun? Ram offers a small electronic sound maker that's adjustable in frequency to emulate the automatic firearm of your choice. A siren? A fog horn for north-

ern California coastal flying?

In addition to the novelty items, Ram offers loads of electronic devices, from battery checkers to electronic throttles to fail-safe devices to servo setters. Check 'em out for your electronic gadgetry needs.

Oh yeah, almost forgot. Ram also provides a variety of plastic pilot figures, including Old Timer, WWII U.S. Army, WWII U.S. Navy, WWII German and Jet, at \$5.95 each.

Ram Electronic Devices

4736 N. Milwaukee Ave., Chicago, IL 60630

RC Video Magazine

I went video nuts at this year's IMS show, and my spending spree included at subscription to RC Video Magazine. No, it's not all slope soaring. In fact, it's pretty weak in that area. But if you enjoy browsing other parts of the model airplane hobby, RC Video Magazine is a lot of fun.

(You know, if they got enough letters from us asking for slope stuff, they just might oblige. So even if you don't use the address and phone number below to place your subscription order, you might want to drop 'em a line and leave a strong hint...)

RC Video Magazine

P.O. Box 98, Lafayette, CO 80026

303/665-8204

800/873-3347 (Visa & MC orders only)

Bender's Aviation Gifts

Here's where I spent most of my video money (more than \$100, and that's at special show prices!). My interests run with the military planes, and Bender's selection really shines in that area. One of my favorites is "Red Sky," an air-show demo of the Russian MiG-29 Fulcrum as well as their huge six-engine AN-225 and the SU-26M aerobatic competition plane. The MiG-29 flight is absolutely unbelievable! Of course, I needed the one called "Fighting Sabres" and...before I knew it, a bunch of my show bucks were resident in Mr. Bender's cash register. Contact 'em for a complete listing, and get on their mailing list for updates.

Bender's Aviation Gifts 1795 Fisk Ct., Thousand Oaks, CA 91360 805/495-7302

K&A Models Unlimited

Ken and Annette Williams produce a pair of slope gliders, the Mini-I and the Kam-U. The little Mini-I is a 28.5-inch span, two-channel glider intended for experienced pilots while the larger 50-inch span Kam-U is reportedly a very stable flier for both experienced and learning aileron pilots.

The Mini-I requires mini radio gear to get down to its flying weight of 9.5 to 10 ounces. The Kam-U accepts standard-size radio gear. Both kits feature built-up wooden fuselages with machine-cut wood, foam core wings, complete hardware packages, full-size blueprints and written instructions.

Suggested list price on the Mini-I is \$34.95, and the Kam-U goes for \$59.95.

K&A Models now manufactures foam core wings, stabs and verticals in almost any size, taper or quantity. Contact Ken or Annette for information on foam core pricing and availability.

Airtronics, Inc.

These guys are paying attention to the soaring community, and I for one intend to support them in return. I've purchased four Airtronics radios in the past year (I'm converting over from Brand F), and I'm very happy with the results. And, judging from the gear seen at Pasadena, I guess I'm going to have to shovel some more money their way. The best just keeps getting better...

In June, look for big changes from Airtronics. The most obvious will be the new transmitter case styling. Their entire line will assume the streamlined look of the prototype/dummy Tx shown in the photo with rounded corners and molded-in handle.

At the same time, they're coming out with two exciting new radios, the Infinity and a sailplane radio that's basically a less expensive Vision.

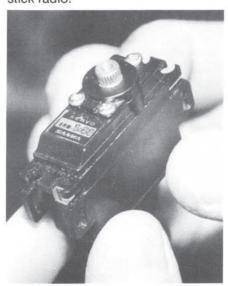
The Infinity will be the absolutely most amazing radio on the market. Included in the transmitter is a full-range frequency scanner and a 16-bit, 16 mhz processor "synthesizer" that can select any RC channel at will.

When you show up at the hill, activate the scanner to see what frequencies are in use. Pick a clear one, then connect your transmitter and receiver with a special cable and set your radio to a clear frequency—any one you like! Call out your frequency, turn on and toss off. What could be easier? No more waiting. (The only catch I can see to this system

is your responsibility to carry a whole selection of frequency flags so that your flying buddies will know which one you're on today!)

The Infinity will be completely programmable—a lot like the current Vision except that you'll change the setting by touching the liquid-crystal display (LCD) screen instead of pressing buttons. It has 10-channels and a whole world if mixing possibilities. The guys

K&A, Airtronics and Cox Hobbies.
(Right) Ken and Annette Williams with their Kam-U and Mini-I slopers.
(Below) Airtronics's new Tx case design. (Below center) Airtronics' allmetal SRM-141 servo with sidemounting tabs. (Below right) Cox Hobbies' sharp Cobra Three single-stick radio!



who fly the huge scale or high-performance F3B/slope-racer sailplanes will think they've gone to heaven. Of course, this technology costs money, so plan on dropping at least \$1,000 on this beauty after typical hobby-shop discounts.

Getting back to reality... The new, unnamed sailplane radio is essentially a six-channel version of the popular Vision. It obviously doesn't have as many channels, and it doesn't offer all the mixing capabilities. But it does offer many of the same features-like memory for four sailplane setups, "crow" landing mix, camber-changing ability, elevator compensation mix, twoaileron-servo capability, snap roll and four anything-with-anything mixing options. It will come packaged in the new transmitter case with the LCD screen for programming, and best of all, it'll sell for about \$200 less than the Vision.





Since the discount price for the Vision is around \$550, I'd expect the new radio to come in at about \$350... and that's an excellent price for such a capable system! (Uh-oh! I just felt my wallet wince as I typed that last sentence... I think my bank account's in trouble again!)

Airtronics also will offer a hot new servo, the Sanwa SRM-141. It's small enough to imbed in your wings for aileron or flap control, but it has two innovative features that set it apart from any other. For starters, it has all metal gears and shaft (remember how Carl Fountain sheared off his aileron servo shaft when he stuffed last month's test plane, the Super Dragonfly, into the ground? Never again! With the SRM-141's metal gears and shaft, the less-expensive and easier-to-fix plastic servo arm will take the beating.)

But that's not all! Besides being com-



pact and durable, the SRM-141's case has four extra servo-mounting tabs on it. Ever had to glue, tape or silicon-seal a servo into your wing? No more. Now there are tabs on the case *sides*, so you can screw 'em in or out at will.

Suggested list on the servo is \$79.95. It will replace two discontined models, the 401 and the 403. It has 42 in.oz. of torque, and it's due here in March.

Cox Hobbies, Inc.

Cox Hobbies showed two very goodlooking radio systems, the two-channel, single-stick Cobra and three-channel, single-stick Cobra Three. The transmitter cases are rounded and smoothed to fit the hands, and the single-stick control is perfect for most slope soaring applications. The proportional third channel on the Cobra Three is controlled with a small lever on the back of the transmitter case within easy reach of

DESIGNED TO FLY!



Silhouette

The ultimate combination of speed, energy retention, and maneuverability. Excellent in light lift. Small radio required.

Wing Span	43 in.
Wing Area 232 s	q. in.
Wing Loading 9-11_oz./s	q. ft.
Airfoil Modified (8%) Epple	r 374
List Price \$5	58.95
Balsa sheeted foam core wing	
Spruce leading and trailing edge	stif-
feners	
Balsa and ply fuselage	752
('Glass fuse available factory dir	ect)



Quicksilver

A very fast and aerobatic sport glider for the intermediate to advanced pilot. Standard radio O.K.!!!

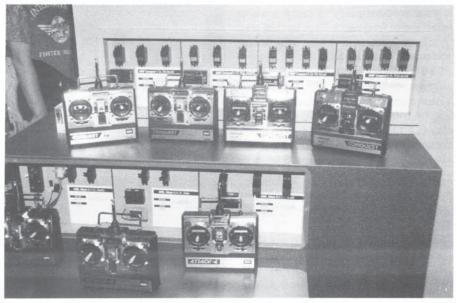
Wing Span 52 in.
Wing Area 362 sq. in.
Wing Loading 10-13 oz./sq. ft.
Airfoil Modified (8%) SD6060
List Price \$78.95
Balsa sheeted foam core wing
Spruce leading and trailing edge stif-
feners
Light plywood fuselage sides w/birch
doubler

DEALER/DISTRIBUTOR INQUIRIES INVITED!

Douglas Aircraft

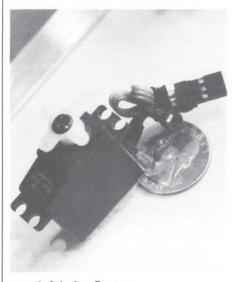
MODEL AVIATION
P.O. Box 92472
Long Beach, CA 90809
213/498-1737

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Futaba, JR and Kyosho.

(Above) Futaba has added four- and six-channel FM and PCM systems to the Conquest line. (Below left) JR's JRS305M micro servo with metal gears...and they're talking about adding a top-of-the-line sailplane radio to their product line. (Below right) Great Planes offers two Kyosho radios systems: a five-channel PCM and seven-channel FM with dual-conversion receivers.



your left index finger.

The radio systems come with battery boxes for alkaline batteries, but a charge socket is built into the transmitter if you decide to upgrade to nicads. Prices? Under \$80 for the Cobra and around \$100 for the Cobra Three. Nice!

Futaba

The Conquest line of radios has been expanded to include two new FM and two new PCMs – both four-channel and six-channel versions. All four include a trainer system.

The 4NBF Conquest six-channel FM system is offered at a suggested list price of \$249.95, with the six-channel



6NFK FM going for \$329.95. The 4NBP Conquest four-channel PCM package will retail for \$359.95, and the six-channel 6NPK PCM Conquest goes for \$459.95. Of course, actual prices will be much lower once they've gone through our industry's elaborate discount process.

That's about it from Futaba. Unlike Airtronics, there's nothing specifically for sailplane pilots...and no indication that there ever will be.

JR Radios

The JR line of radios is distributed exclusively by Hobby Dynamics of Champaign, Illinios. And although they don't have a sailplane-specific radio system, yet, Tom Kikuchi was present at last year's Tri Cities Scale Fun Fly in Washington interviewing pilots to ask what features we'd like to see in one. So, it sounds like one's in the works, most likely a 10-channel version with full mixing capabilities. In other words, some strong competition for the Airtronics Vision.

At present, JR offers a full line-up of excellent products, including their topof-the-line PCM-10. The PCM-10 offers LCD "touch-screen" programming for seven sets of function and trim settings (compared with the Vision's ability to store info on four planes), and although it has such unnecessary items as throttle-curve settings, it still would serve as an excellent sailplane package. I don't have the prices on this one; check the Hobby Dynamics ads in some of the other publications for details. I'll keep an eye out for their announcement of the new sailplane radio and will print the information here as soon as it becomes available to me.

In the meantime, JR does offer a full line of radio systems and components that will more than fulfill our two- to four-channel requirements. One example that caught my attention is the tiny JRS305M micro servo with metal gears. As you can see, it's slightly larger than a quarter; actual measurements are 1.14-inches high by .50-inch wide by 1.10-inches long. It weighs .65 ounce, produces 16.7 oz./in. of torque and rotates 60° in one-quarter second.

Kyosho Series 91 Advance Radios

Great Planes Distributing showed their new Kyosho radios at the IMS, and although they're starting conservatively with just two models, they appear to offer the right stuff.

There's a five-channel/four-servo PCM that's offered at a suggested retail price of \$290 and a seven-channel FM model with a \$319 price tag. They meet and exceed 1991 AMA technical guidelines with their dual-conversion, narrow-band recievers.

There wasn't much information available on them at the time (the rep we spoke with wasn't even sure how many servos would come with the seven-channel radio), but they'll be worth watching in 1990 and beyond.

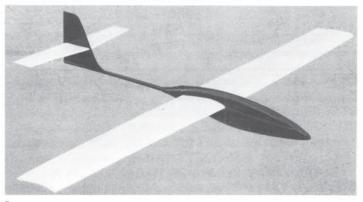
That's all, folks!

Thanks to Bill and Anita Northrop for a 1990 preview!





LANCE



T'S BUILT! JUST COVER AND FLY!

pan48 in	loading11-13 oz/sq ft
ength	radio2 chan STANDARD or micro
irfoilSelig 3021	wingmachined balsa
rea269 sq in	fuseglass and carbon fiber
spect ratio8.7:1	hardwareready except for serve
tabfull flying	ends

The Lance is a rugged, highly aerobatic sloper. it's low drag and modern airfoil provide good penetration and thermalling ability. It's predictable handling and good stall characterisics make the Lance a pleasure to fly.

\$145 plus \$4 shipping and handling, California residents add \$9 sales tax.

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SLOPE SCALE

HIGH PERFORMANCE SLOPE GLIDERS!

- Fiberglass Fuselages
- Foam Core Wings
- 46 in. span, 320 sq. in
- 12-15 oz./sq. ft. wingloading

Basic Kit Sug. Retail: \$69.95 One-piece fuselage • Foam Cores Plans & Instructions

Complete Kit Sug. Retail: \$99.95* One-piece fuselage • Foam Cores Pre-cut Tail Surfaces • Wood & Linkages • Plans & Instructions (*Spitfire/Mustang.....Sug. Retail: \$104.95)

F6F Hellcat Now Available!

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ENTRY FEE INCLUDES	ONE ENTRY TO RAFF	LE & BANQUET	.\$35.00
ADDITIONAL MODELS	QUANTITY	@ \$2 EACH = \$	
TOTAL ENTRY FEE, AD	DDITIONAL MODELS		
AND ADDITIONAL BAN	IQUET FEES (*see belo	w)\$	
Late Registration Fe	ee will be an additional \$	5. Sorry, no except	ions!
	BANQUET DINNER	3	

Clover Island Inn, May 26, 1990 at 7:00 p.m.

Banquet will include three entrees, salad, choice of potato, vegetable, roll, butter, beverage and dessert.

Also included: No-Host Bar, Guest Speaker, Slide Presentation, Raffle and Pilot's Choice Awards.

Additional Banquet Guests

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Room rates: (1-2) \$34.00, (3-4) \$39.00

Sponsored by Tri City Soarers, 632 Meadows Drive East, Richland, WA 99532; 509/627-5224

SCRAPS

CALIFORNIA SLOPE RACERS

Good things are happening in the world of slope racing. A new AMA chartered organization, California Slope Racers, has been formed, and they've already begun to promote slope racing events.

The big event of the year, the International Slope Race, has been scheduled for July 7-8 at Davenport, California. The site is across from the Big Creek Lumber Company, 15 miles north of Santa Cruz.

For more information, call contest director Ray Kuntz at 213/645-4269 or assistant contest director Daryl Perkins at 818/358-8707.



Harley's Hinges.

Check out these gapless wonders at your local Ace R/C dealer.

RUBBER BABY BUGGY **BUMPERS**

Don't waste your time trying to say that real fast four times. It's got nothing to do with this Scraps item anyway, except that Harley Michaelis of Harley's Hobbies in Walla Walla, Washington utilized the same technology to create gapless hinges. (Harley's the same guy who built the high-performance "Orca" sailplane featured in one of the magazines recently.)

Ace R/C now offers Harley's Hinges – actually two 18-inch pieces of Latex rubber – and a good, complete set of instructions about how to use

them correctly. As you know, drag is a dirty word in soaring circles, and Harley's Hinges offer an easy way to construct tight hinge joints on your elevator, rudder, ailerons, flaps or spoilers. Check it out at shops that stock Ace R/C products!

DON'T DO IT YOURSELF

If you're not one of the world's best builders (and have no aspirations of ever becoming one), you might want to give Western Aircraft Composites a call. Marc and Josh Tamsky will cut custom foam cores to your specifications, vacuum bag your wings and make a fiberglass mold for your fuselage design. It's sorta like having your own workshop with professionals to manufacture your bright ideas. They also carry a complete line of modern composite materials including carbon fiber, fiberglass, S-2 glass, Kevlar, epoxy resins and unidirectional fiberglass. They're located in southern California (San Diego area), and you can get in touch with 'em at 619/457-5286.

PARTS IS PARTS...

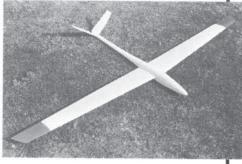
Looking for a fiberglass fuselage to start your next scale or high-performance sailplane building project? Give Jerry Slates a call at Viking Models, USA. Jerry produces semikits (epoxy fiberglass fuselage, canopy and plans) for the following scale models:

models.	
1/6-scale ASW-17	\$55
164-inch span ASW-20	\$75
1/6-scale DFS Rehier V2	\$50
1/4-scale DG 100/200	\$50
1/4-scale Jantar 2A	\$125
1/4-scale Kestrel 22	\$125
1/4-scale Libelle	\$125
1/5-scale Nimbus	\$75
1/4-scale Salto	\$125
1/4-scale SZD-30 Pirat\$125	
He also offers the following non-	
scale fuselages:	
Bounty Hunter	\$50
Callisto	\$45
Contestant	\$55
Europa	\$45
Facctor	\$55
Falcon	\$50
Smoothie	\$50
Zen	\$55
Contact Jerry at Viking Models	7000 To

Contact Jerry at Viking Models, USA, 2026 Spring Lake Drive, Martinez, CA 94553; 415/689-0766, and be

SNIPE!

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- Extremely Fast and Acrobatic!
- Set Your Own Roll Rate, 100° to 720° Per Second!
- Kits Available Now!



Intended for Experienced Pilots. Radio with Dual Rates Recommended.
Fast Building. Build the tail and paint. Finish in 10-15 Hours.
\$160, plus \$5 Shipping and Handling.

Wing Span: 72 in. Aspect Ratio: 14.4:1 Wing Loading: 14-16 oz./sq. in Weight: 35-41 oz. Wing Area: 360 sq. in. Airfoil: HQ 1.5/9

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Epoxy fiberglass fuselage • Foam core wing • Precut balsa and plywood • Generous hardware pack •

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Aerobatic Slope Soarer

wingspan: 60 in. wing area: 480 sq. in. airfoil: Eppler 374 (mod.) length: 36 in. weight: 26 to 34 oz.

radio: 2 channel min. (std. size)

Price: \$34.00

S&H: \$3.50 For more info or to order, write to

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Sonata: 2m thermal soarer Odyssey: F3B, Racer

Manta: sloper

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...that even a slow-moving, two-pound "floater" can do considerable damage if it crashes into a home, a car or a spectator?

ARE YOU AWARE ...

...that your membership in the Academy of Model Aeronautics includes a \$1,000,000 insurance policy that covers such unpleasant incidents?

ARE YOU INTELLIGENT, RESPONSIBLE...

...and able to dial a telephone? Then call this number **today**, and ask the AMA representative who answers the phone to send you a membership application form.

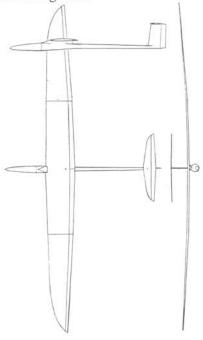
703/435-0750

sure to ask for his catalog.

SYNERGY!

Rick Spicer has been campaigning a series of Synergy models in F3B competition for the past several years. Typical of F3B ships, they're absolute state-of-the-art, all-composite construction with removeable nose cone, T-tail, pylon-mounted three-piece wing, molded hollow core sandwich wing and stab fabricated from fiberglass/carbon fiber and Rohacell.

Although his past efforts have been for personal consumption only, Spicer now offers a complete kit—Synergy III—at the introductory price of \$525, cheap considering the degree of sophistication and prefabrication! It's available in two versions as shown in the following chart.



72.9
WING III III-A
Planform parabolic multi-taper
Airfoil SD-2048 SD-2048
Span 120 in 108 in.
Area 956 sq. in 914 sq. in.
Loading
Minimum 12.75 13.1
Maximum 20.5 21.5
Aspect ratio 14.1:1 12.6:1 STAB
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A THANK-YOU NOTE FROM THE REYNOLDS FAMILY...

When a new baby comes along, a whole new level of responsibility comes with it. It isn't just you, your sweetheart, and fun and games anymore. Now, you have to give of yourself to a mostly nonappreciative sibling. And give of yourself, you do! Well, Kim and I "arrived" on your slope as a couple of "newborn" slope soaring enthusiasts, and you gave of yourselves.

- Maurice, who first encouraged me to make a first flight of a new model on my own.
- Herb, who took charge of Kim and me and made sure that we got started off on the right foot
- Bob White, whose enthusiasm is contagious and whose low-lift flying skills taunt me on.
- "Freedom" Bob, who by his problems and trials, made me appreciate my lot in life a whole lot more.
- Stu, whose acceptance Kim and I enjoyed early in our trials
- Les Green, who doesn't let up and keeps encouraging me to go that one step farther.
- Dick Vader, a teachable master. He asks, and then listens, even to a young upstart.
- Charlie, who watched us from a distance and then accepted us with open and supportive arms.
- Ken, who has been a consistant and gentle friend to both Kim and me.
- Andy Patton, who gave me much-needed encouragement and help in getting the Tom Cat ready for the fun fly at Long Beach.
- Doug Hertzog, who I thank for the encouragement he gave just by offering to let me fly is Silhouette.
- Phil Padilla, who lit the fires of the competitive spirit under me that helped me focus my energies on the Tom Cat projects.
- Allen Rockwell, who willingly shared his finding about the aerodynamic performance of his fixed-wing F-14 glider.

Thank you all!

Plus, a special thank you to all of you who have done things for Kim and me that we don't recall in detail but that still added up to our growth and enjoyment in this sport /hobby.

Now...in a very small way, a slight repayment of a large debt that is owed Carl Fountain. Most of you regulars have taken on the burden of piloting a first flight of someone else's plane, and many of you have been "bit" by the experience. Carl has allowed me to put him into that thankless position of risk, not once, not twice, but three times (so far). And he's been "bit" by it all three times!

I owe you, Carl, more than a debt of thanks, and I'm looking for some way to express my gratitude to you. Until then, please accept my heartfelt thank you!

> Bob and Kim Reynolds Lakewood, CA

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