

Built For Speed!

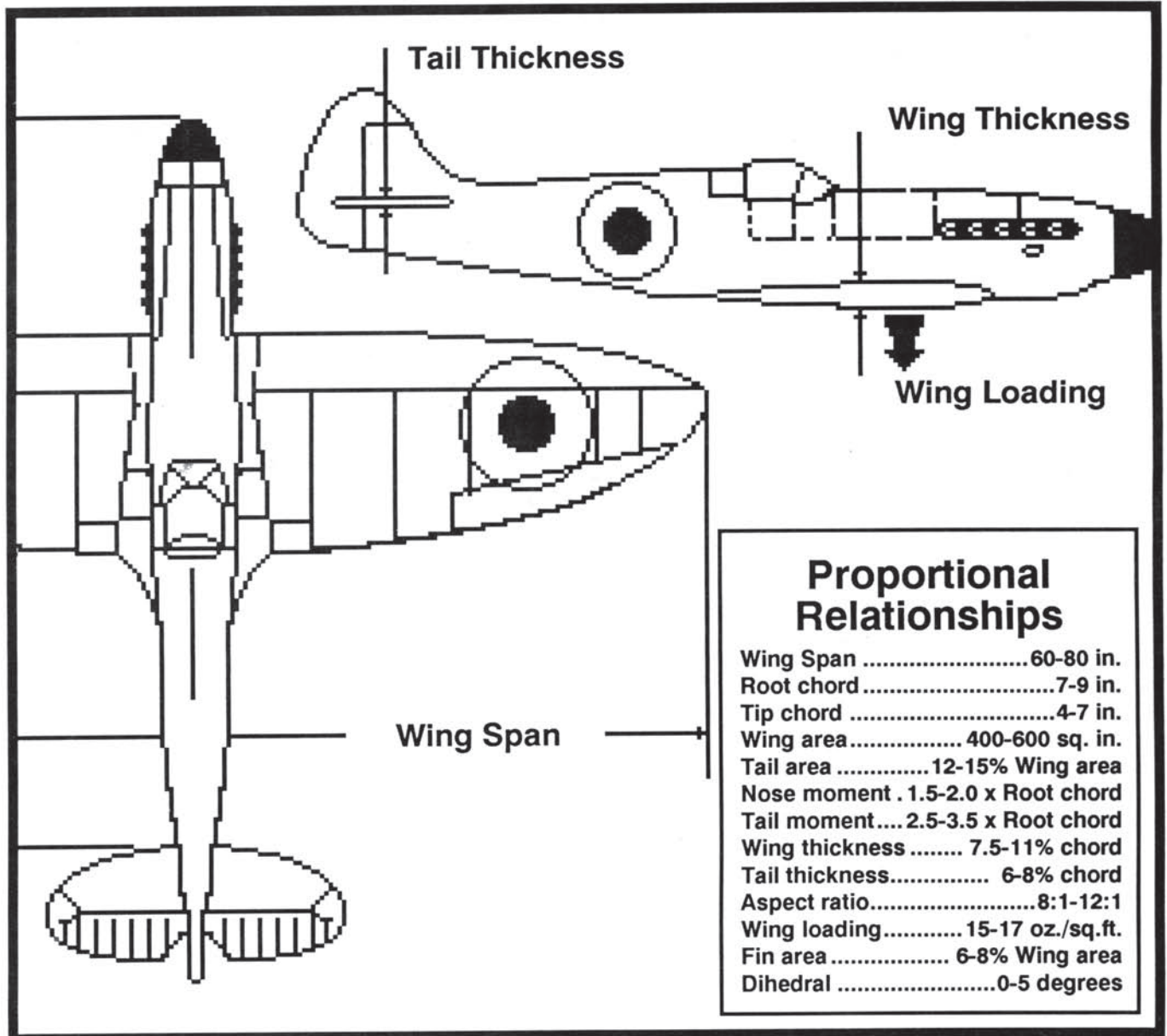
Design your own version of "Miss Go-Fast"
Part one in a complete how-to series!

Slope Soaring News

Vol. 2, No. 1

October 1989

\$1.50



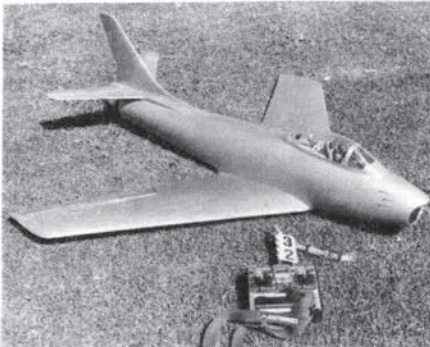
- Fly One of the Ultimate Slopes: Point Blanco, Oregon ●
- Getting Ready for the Torrey Pines Scale Fun Fly: Bob Reynolds' New, Little F-14B "Kitty Kat" ● Steve Turnbull's "Born Again" Bronco ● Charlie's 1/10-Scale Jet Hanger F-86 Sabre Jet ●
- Plus: "Quasi-Aerobic" Revisited ● "Dead Meat" — A Commie's Demise!

Wingin' It

86'd

Sabre Jets, we called them when I was an eight-year-old kid growing up in the state of Maine. Sabre Jets were the hot setup back in the late 50s, and we young "wannabe" fighter pilots loved them. They represented state-of-the-art fighter technology, and they fought (and *always* won, of course) against the dreaded look-alike Russian MiG-15s.

I've told everyone who listens that the planes I own now are the ones I wanted but couldn't afford back then. I had to grow up, somewhat, and get a job be-



Hot stuff, 1950s-style!

The 1/10-scale Jet Hangar F-86F is a beautiful kit.

cause, aside from a multitude of plastic models, Dad couldn't afford to buy me the fancy ones I dreamed of.

Now, thanks to Larry Wolfe at Jet Hangar Models (for producing the ducted-fan kit) and Harry Finch (for selling me his built, semi-successful slope soaring version of it), I finally have the plane of my young boy's dreams, a radio-controlled North American F-86F Sabre!

Although Harry had actually completed and flown the kit, he wasn't happy with its performance. When I first saw it, it was hanging on his building-room wall looking huge and beautiful but out of place. I wanted to see it in the air! He warned me about its shortcomings, then after a little pestering, finally accepted my check and let me take it home.

There it sat for months, using up an inordinate amount of shop space as it waited for me to wedge its revival into a busy schedule. Finally, about a month ago, that time arrived.

I looked it over, made a couple of sub-

tle changes I felt would improve its odds of surviving a reborn-maiden flight, and took it down to the Long Beach bluff. I didn't expect it to fly well at Long Beach, but that's where I test all my new planes. The 60-foot glide down to a soft, sandy beach allows most of them to live through even my most foolish building and pilot errors.

The 1/10-scale jet is too large for me to handle alone, so after an unusually long and detailed preflight check, flying buddy Greg Gentry pitched it over the edge for me.

It lost altitude immediately in a too-steep glide, obviously nose-heavy. I compensated with up-stick. It pitched back, slowly and controllably to level flight. I guided it through a wide S-turn (my standard first-flight pattern) and lined up for a landing on the beach. Then came the surprise: It held about three to six feet altitude and settled into an extremely flat glide that carried it 60-

Testing in "Spruce Goose land."

Carl Fountain winds up for the toss; Charlie gets nervous at Long Beach.



80 yards down the beach before lightly touching down and sliding to a stop. Where most power-scale gliders would have stalled, the F-86 accepted "up-stick" graciously, flaring out for a soft nose-high landing.

It's a pussycat! The combination of extreme wing sweep, dihedral *and* washout make it a very stable glider, yet in a high-lift flight at Point Fermin, it rolled quickly and cleanly in about one second. On the other hand, it doesn't like being upside-down very much.

Right now, I'm in the middle of preparing it for the November 24-26 Torrey Pines Scale Fun Fly. The fuselage had several fractures from Harry's earlier test flights, and the wing was sheeted with light balsa and covered with Monocote. Harry built a

CONTENTS

Site of the Month

Point Blanco, Oregon 4
Twenty years after his first look, Dan Fink went back to fly at Point Blanco. It was even better than he'd remembered!

Features

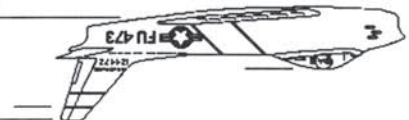
Looking for Miss Go-Fast..... 8
Ready to design and construct your own ultimate sloper? Here's Part One of a three-part series that will show you how to dream up and build a fast, aerobatic slope glider.

Scraps

Big Wheels..... 8
Kitty Kat 8
They Shoot Broncos 8
Dead Meat 9

Departments

Wingin' It..... 2
Letters 10
Want Ads..... 11
SSN's Favorite Dealer List 12
Coming Soon! 12
Subscription Form 12



"Oh, that's just Charlie, daydreaming again!"



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 editors.

ALL CONTRIBUTIONS should be addressed to SSN, c/o Charlie Morey, 2601 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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good-flying, relatively light (12.5-ounce wing loading) glider, but it wasn't strong enough to withstand the rigors of typical SoCal landings. (At least, not *my* typical SoCal landings.) I didn't add to the fuse-crack count during my test flights, but I couldn't land it without dinging up the soft balsa underbelly.

I reinforced and repaired the fuse, and I fiberglassed the wing. The soft leading edges were repaired, then covered with Aerospace Composites' No-Fray Carbon Fiber Tape. This high-tech product puts a hard outer shell over the wood, hopefully protecting it from minor rock damage on landings. I used a couple layers of K&B medium 'glass on the belly and covered the entire wing with



Say, "Aaaaahhh..."

Kim Reynolds' photo of the plane that's consuming my life!

one layer of K&B light, mainly for finish but also to toughen it up slightly.

At its lighter weight, the plane had a definite "floater" feel to it. By the time I'm through with it, the F-86 will probably weigh close to five pounds with a wing loading in the 15-16 oz./sq. ft. range. In good lift, it should perform at a speed much closer to scale

I'm now in the final sanding and painting stages. I picked up a decal set and a can of aluminum paint from Jet Hangar, and hopefully I'll have time to add panel lines and a few other little details before the Torrey Pines event.

All I need now is a MiG-15 to go heads-up against. And believe it or not, that's going to happen. DCU's Mark Hambelton (the company that manufactures the Jet Hangar fiberglass fuses) has made a fuselage in the same scale as the F-86, and he's building the first prototype from it now. He says he'll try to be ready for Torrey Pines...

Obviously, he hasn't heard that Saber Jets *always* win!

Chlie

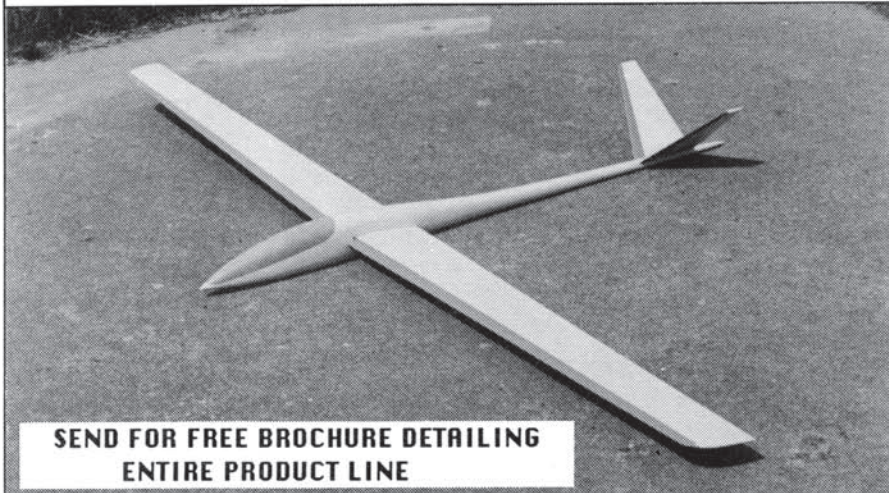
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Strictly light lift and/or thermal - order balsa skins. Use medium hi-start or medium winch.

Controls : 2 channel (pitcheron) use either electronic or mechanical mixer (electr. shown on drawing)- this gives aileron and elevator control.

Structure : Fuselage - Epoxy/glass/kevlar composite molding . Seamless, pressure laminated. Hatch pre-cut, holes drilled, tail mount holes pre-drilled. Weight 7ozs. Lay-up equivalent to 5 layers 4oz. cloth.

Dimensions :

Span = 78.75 ins / 2M Length = 44.5ins
Root chord = 5.7 ins Tip chord = 3.5 ins
Area = 362 sq. ins. / 2.5 sq.ft.
Weight = 18-20 ozs. (airframe only)
28-30 ozs. total
Wing loading = 12 ozs/sq. ft.
Airfoils : Eppler 374

Wings :

Blue foam cores
1/64th ply skins (aerobat-cruiser)
1/16th balsa skins (light lift; spars for winch/hi-start optional)

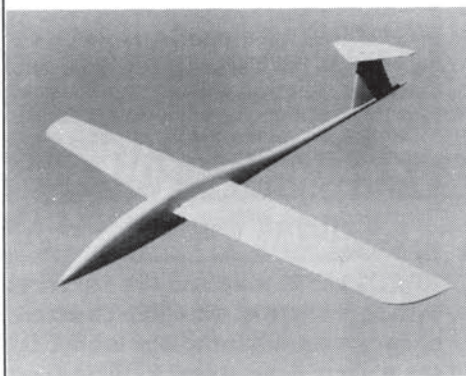
Tails :

Sheet balsa, plug on.

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Dimensions : Span = 58 in (2m light lift)

Root/tip chords = 6.5/4.5 ins

Aspect ratio = 11 (14 light lift)

Area = 305 (441) sq.ins.

Weight = 31 (36) ozs.

Wing loading = 15 (12) ozs/sq. ft.

Controls : 2 channel , Pitcheron

2 servos of 50 oz.-in. torque minimum

Electronic or mechanical mixing ok

Wing section : Eppler 374 @ 7.5% (9.5%)

Structure : Fuselage - light ply and bass , no glassing required.

Wing - Standard : blue foam cores , dense obechi skins, spruce LE.

- Light lift : balsa skins

Tail - all balsa , nylon bolt mounted

Pricing : Standard ROTOR kit \$67.95

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Covering all the angles!
(Left) South bowl, looking southwest. (Above) North face of the point. (Below) South face.



Site of the Month

Cape Blanco State Park

By Daniel Fink

Ever think about doing something for 20 years, and then when you finally do it, it's even better than you thought? (*Yeah... turning 21! — Charlie.*) Back in the summer of 1969, I took a trip up the Pacific coast from Southern California to Portland, Oregon. It was on that trip that I first saw Cape Blanco, and I've wanted to go back and fly there ever since.

Then, in July of this year, on the way to the AMA Nats in the Tri-Cities area of Washington to fly (gasp!) thermal sailplanes, I decided to check out Cape Blanco again. All I remembered about the spot was a high slope that seemed to stretch for miles and a lighthouse on the point. I knew it had an excellent campground within walking distance of the slope, and I couldn't remember any trees on the edge.

Miracles Do Happen

Well, boys, wishing sometimes actually works. Imagine a spot where in the space of 500 yards, you can fly off a slope that will work from a due south wind to one from due north. There are two bowls that face directly into the prevailing winds, plus a landing area that has no trees, rocks or stiff bushes to tear up the toys. I thought I had died and ended up where I didn't expect.

The cliff at Cape Blanco State Park is about 250 to 300 feet high with vertical faces on both sides of the bowls. The bowls themselves have a slope that would allow a walk down to retrieve a downed plane without the use of climbing gear.

Separating the two bowls is a point about 500 yards long and 100 yards wide. The lighthouse is on the end, and there's a fence that cuts off the outlying 2/3 of the point from the public. That still leaves a good usable 100 yards of slope to fly on. With south wind, you fly to the left, if it's north, you walk 100 yards and fly on the right. The prevailing wind is westerly, so cliff faces and bowls will be the norm.

**"I thought I had died
and ended up where I
didn't expect."**

The beach is wide and flat but fairly hard to get to from the cliffs. There are no apparent trails to the beach, but I did see walkers down there, so there must be a way.

The day I was there, the wind was very light, about six to eight knots. Lift was good enough then to fly a small hand-launch glider, and later in the afternoon, I flew a Coyote. I asked one of the

local residents about normal afternoon wind and was told that it typically reaches about 12 to 18 knots. I couldn't find out about any local action or other fliers in the area.

Reasons To Go

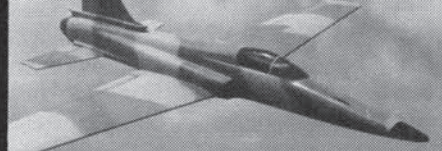
Other than the obvious one about flying on a great site, the area is very pretty, and there is some great camping and fishing in the area. It makes a great spot to stop on the way to the Tri-Cities Scale Fun Fly next year. If you're a sun-burned SoCal flier like me, the best reason may be to see some of the best scenery I've ever seen.

How To Get There

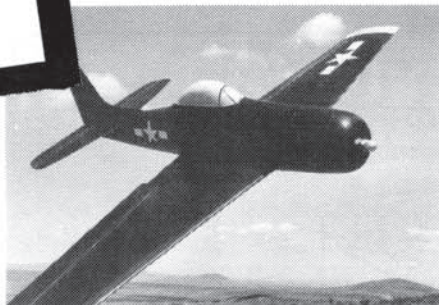
There are only two ways of getting to Cape Blanco. The coastal route is very scenic, although it takes a lot of time because it's very twisty and narrow. The scenery makes it worthwhile, though, and there are a lot of places to camp and fly north of Point Arena. From San Francisco to Cape Blanco, it takes at least two days on the coastal route.

From I-5, which is a lot faster, you go west from Roseburg on route 42 to Coquille, then cut to the coast on 42S to Bandon and south to Port Orford. Cape Blanco is about 11 miles north of Port Orford and six miles off highway 101. Follow the signs out of town, and you can't miss it.

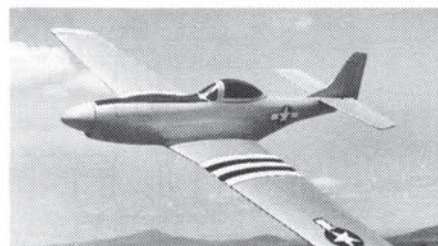
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Come join us! (Spectating’s free!)

Official Hotel: Holiday Inn @ I-15 & Miramar Rd. For discount rates, speak to Debbie Martin, 619/695-2300 and mention TPG president Gary Knapp.

Torrey Pines Scale Fun Fly Early Entry Form (Mail before Nov. 20)

Name _____ Address _____

City _____ State ____ Zip _____ AMA # _____ (You must be an AMA

member to fly at Torrey Pines. You may join when you arrive at the event.)

I plan to be there on ___ Friday ___ Saturday ___ Sunday ___ All three days

I plan to bring the following scale or power scale gliders:

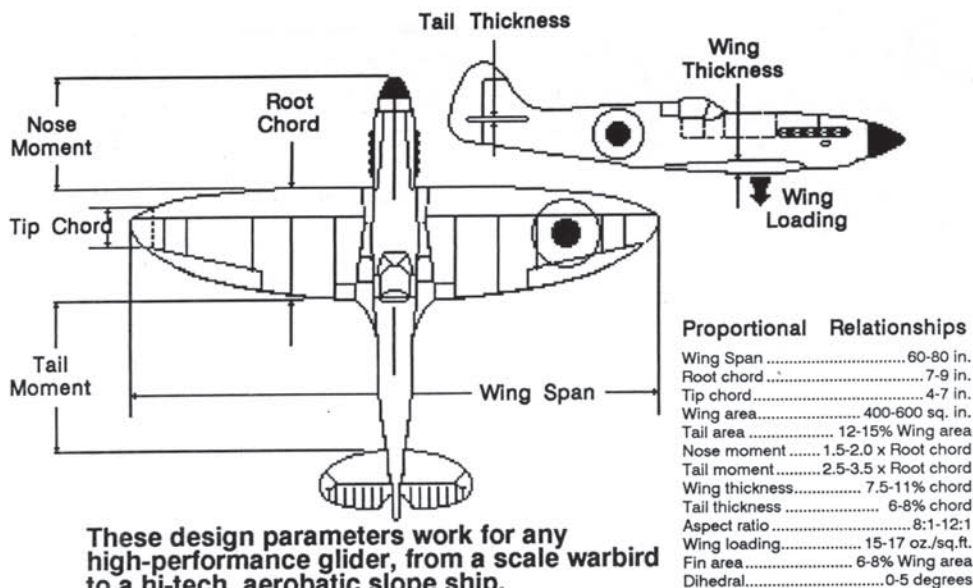
1. _____ 2. _____

3. _____ 4. _____

What...MORE?! _____

Please mail this form and a check for \$5.00 made out to “Torrey Pines Gulls” to TPG Fun Fly, c/o Slope Soaring News, 2601 E. 19th St., #29, Signal Hill, CA 90804; 213/494-3712. Do NOT mail your entry after Nov. 20, 1989!

Or sign up at the event. See ya there!



These design parameters work for any high-performance glider, from a scale warbird to a hi-tech, aerobatic slope ship.

Looking for Miss Go-Fast

Part One of an Epic Love Story

By Pete Marshall

Could this be your ad in the *Slope Soaring News* "personals" column?

Hi Gorgeous! I'm a good-looking, aggressive new pilot with a yen for the exotic. I've assembled three or four kits, and I can build pretty well now. I fly inverted, make all the right moves (most of the time), and I get bored flying rudder ships. I'm seriously into ailerons, aerobatics, and I want to go faster. But my aileron trainer just won't do it for me. You are sleek, beautiful, aerobatic and very, very fast. You are also sensitive, and have no vices, except speed. You love moonlit walks on windswept ridges, fresh ocean gales under your wings, and you thrive on getting loaded (with lead). You are one of a kind, not a kit. You live in my imagination. How can we meet and fall in love?

If this sounds like the kind of girl you'd like to meet, read on. I'll introduce you, and you can go as far as you want into the world of speed and aerobatics!

We'll put together an aerobatic sloper capable of speeds over 100mph, 300-foot diameter loops and four or five axial rolls going straight up!

This article is about design parameters and proportions. It will help you select the basic skeleton of your own "Miss Go-Fast." Her shape is alive in your imagination, and your job will be to flesh out the framework you have decided upon.

LEARN ON BEFORE YOU TURN ON

They say that if you can't draw it, you can't build it, so grab some pencils, erasers, rulers, french curves and lots of drawing paper. Start sketching and keep sketching until it looks right. But first, read this stuff...

FUSELAGE

The basic function of a fuselage is to hold the wing and tail apart at the proper incidence or angle to each other. A fuselage also comes in hand to stuff full of radio gear and lots of lead. Its shape isn't particularly important. So, if an original shape that pleases you just won't come out of your imagination, don't give up! Miss Go-Fast could be a

"This article is about design parameters and proportions. It will help you select the basic skeleton of your own "Miss Go-Fast." Her shape is alive in your imagination, and your job will be to flesh out the framework you have decided upon."

DeHavilland Dash 8 or a Reno P-51...whatever turns you on. Just stay within the design parameters outlined in the accompanying drawing.

WINGSPAN

Range: 60" to 80" with an optimum of 70" to 78". If you want to go real fast, you've gotta get really high. So, if you want to get up high and still be able to see your plane, you need some real wingspan. Plus, all other things being equal, big wings fly better than little wings.

ASPECT RATIO

The formula for calculating your aspect ratio is wingspan squared, divided by wing area. Range: 8:1 to 11:1, optimum 10:1 or 11:1.

With an aspect ratio below 6:1, performance or soarability drops noticeably at higher wingloadings. The airplane won't climb out very well nor will it climb very high.

SWEEPBACK

Leading edge: less than 10 degrees. Trailing edge: less than 5 degrees, optimum: 0 degrees trailing edge sweep. Jetlike sweepback does not enhance looping maneuvers, and it gives pitch stability (much the same as dihedral does to roll).

DIHEDRAL

Optimum: 0-2 degrees. If you opt for 0-degree dihedral, remember that your wings will look like they droop in flight. Add a 1-2" block under one wingtip when joining your wing halves, and the wings will look "right" in the air.

Of course, you know that dihedral in amounts over 5 degrees will give you unacceptable — too much — stability in roll (and we want to roll this baby, right?).

AIRFOIL SECTION

You can't go too far wrong with an Eppler 374 or RG-15 airfoil. The new Selig SD6060 is supposed to be hot...kind of an enhanced Eppler 374.

Before deciding to thin out your airfoil, think about what kind of flying site you'll be using. If your site is tight and doesn't have much operating space below the crest, go for a 9-11% section thickness. The thinned airfoils tend to mush-out and lose speed if you pull tight, "high-G" maneuvers.

On the other hand, if you intend to operate your fast lady only on big hills with big lift, then build a 7.5% Eppler 374 and keep the maneuvers big and smooth. This is a fast airfoil in the "big sky" environment!

WING AREA VS. WING LOADING

An optimum wing area is between 500

and 550 square inches. The greater the wing area, the greater the overall weight must be to arrive at our target wingloading of about 15 to 17 ounces per square foot (unballasted).

Speed is directly proportional to wingloading, so forget about building light. Instead, build it strong and very clean, avoiding unnecessary weight in the tail. For every extra ounce in the tail, you'll need four ounces in the nose to balance it.

CHORD AND TAPER

Avoid tip chords of under four inches, considering that Reynolds Number (RN) is related to chord length. Undesirable tip stall is aggravated by narrow tip chord and/or a high taper ratio. Purely rectangular "Hershey Bar" wing planforms give the best stall characteristics, but they look awful and slow down the roll rate. Form follows function in wing design.

TAIL AREA

The horizontal stabilizer has another function aside from providing pitch control. On any aircraft with a non-symmetrical wing airfoil, the stab's main purpose is to counter the pitch-down tendency at higher speeds. Unless you decide on a fully symmetrical wing section, you'll need a stab area of at least 10% of the wing area just to provide pitch stability in high-speed flight. A stab area of 12-15% is desirable to provide adequate pitch authority during low-speed flight (take off and landing). If you shorten the tail moment (T_m) to a value of less than the guidelines in our illustration, then you must increase the tail area (T_a) to maintain the same pitch authority and stability.

DRAWING MISS GO-FAST

You might head down to a drafting or stationery store and pick up some graph paper with different grid sizes. Now, you can sketch to a scale of 1" to one square (or whatever you prefer).

You can sketch out lots of planes and then check that they conform to the guidelines. If necessary, make changes until the proportions are correct, then draw your Miss Go-Fast full size.

A plan (top) view and profile in ink, full size will be required for the next step, the subject of Part Two of this series: "The Shaping of Miss Go-Fast," or "How To Build A Fiberglass Fuselage."



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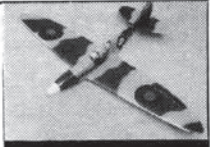
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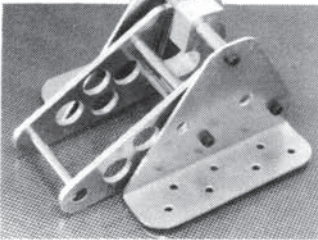
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Scraps...bits n' pieces from the world of slope soaring

BIG WHEELS

If you're among the scale sailplane fanatics who'll be playing at Torrey Pines over Thanksgiving Weekend, you'll want to talk with Bill Liscomb. Bill is a Torrey Pines Gulls club



Belly gear.

Top quality construction is obvious in Scale Glider Components' steel and alloy sailplane retracts.

member, and he's also the proprietor of Scale Glider Components. SGC manufactures excellent quality retractable landing gear hardware for your 1/5, 1/4 or 1/3-scale sailplane. There are two 1/4-scale units available, one for gliders under 10 pounds (Standard) and another for sailplanes heavier than 10 pounds (Heavy Duty). The quarter-scale units cost \$50,

Top Gun fun in a kitten-sized package!

Bob Reynolds pitches his "Kitty Kat" (a small F-14B Tomcat) over the rail at Long Beach with test pilot Carl Fountain at the sticks.



plus \$3.50 shipping and handling. California residents please add 7% sales tax.

Scale Glider Components also offers a superb quality DG 202 kit. You can catch up with Bill either at the fun fly or at 7034 Fern Place, Carlsbad, CA 92009; 619/931-1438.

KITTY KAT

Bob Reynolds caught the slope soaring world's attention when he brought his partially completed 1/10-scale F-14B Super Tomcat to the Unofficial Long Beach Fun Fly on Labor Day Weekend. Since then, he's been working hard to get it finished for the Thanksgiving Weekend event at Torrey Pines, but he's also been playing with another little project, the "F-14B Kitty Kat."

You see, Bob's main goal is to be first to fly a working swing-wing slope glider. And another Long Beach local flier, Phil Padilla, is out to beat him at it. So, Bob temporarily set aside his monster-sized Tomcat to build and work out the

bugs in the smaller plane. He completed it, flew it and got it trimmed. But now he needs a larger slope (or a lot more wind than has been coming into Long Beach lately) to utilize the swing-wing option. At the time of this writing, he has flown the plane numerous times, but he hasn't actually moved the wing. You may see the maiden swing-wing flight at Torrey Pines...



Bronc buster!

Steve Turnbull's excellent scratch-built OV-10 Bronco, before and at the moment of truth...

THEY SHOOT BRONCOS, DON'T THEY?

Steve Turnbull completed his OV-10 Bronco (shown built but unfinished in the Long Beach fun fly coverage last issue), and it was beautiful! Complete with olive drab paint, flat black markings, rivets and panel lines, it looked like a miniature version of the real thing, sans engines. It was light, well-balanced... easily a perfect flier. (Have you noticed yet that we're using past tense when talking about the plane?)

Then he tossed it off the Long Beach bluff. It rose from his hand, lifted slowly

into the air and began a gentle bank to the left.

"Nooooo!" Steve's shout was our first clue that things were going wrong. He had absolutely no radio control. The Bronc continued its left bank, sharper and sharper, then rolled over and pulverized itself on the slope.

But the OV-10 will rise from the wreckage with Steve philosophically taking



the opportunity to correct a couple flaws in the original design. It will fly again at Torrey Pines, hopefully with a rebuilt or brand-new radio!

DEAD MEAT

As you can see from this assemblage of aircraft body parts, there has indeed

been another midair tragedy in the skies over Southern California. The American, apple-pie-and-mother-loving F-20 pilot was on a routine strafing mission, flying in close formation with a second pursuit plane when the A-4 Skyhawk (painted in communist aggressor colors) strayed into allied airspace.

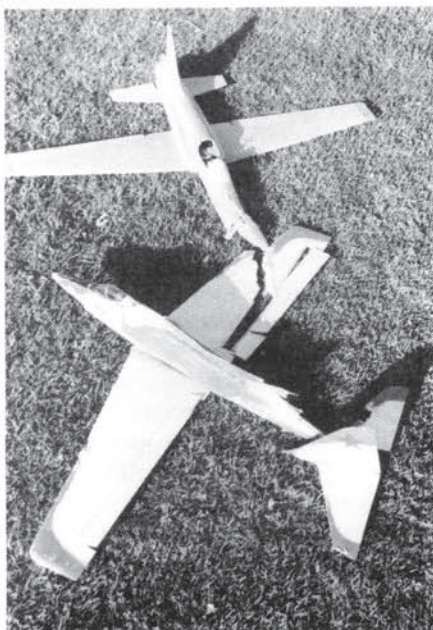
The dead enemy pilot is clearly visible, slumped over the stick in the cockpit of the shattered A-4 (with the name "Byronslav Brucekov" — well-known demented dictator of The People's *Combativik Modelski* — lettered on the side), while the missing canopy on the F-20 indicates that the heroic American pilot and Tom Cruise look-alike, Commander Chas H. Morey, was able to eject in time. The MIA American pilot has been credited with a kill and, should he survive the return climb up the face of Point Fermin cliff, will be allowed to repair the mildly battered nose on his airplane and sport a red star "kill" marking beside the canopy.

Brucekov's last words, as he plummeted to earth in fragments were reported to have been: "I wish I had my own newsletter so I wouldn't have to put up with this abuse from that #@&%! imperialist pig anymoooooooooooooore!"



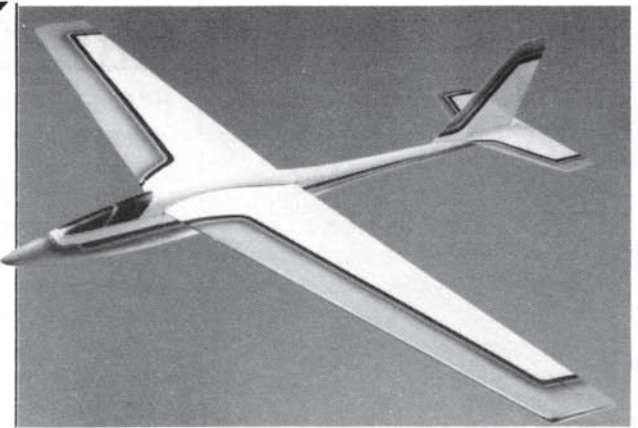
The grim remains...

...but that's the price the red menace must pay for messing with Uncle Sam's finest fighting machines.



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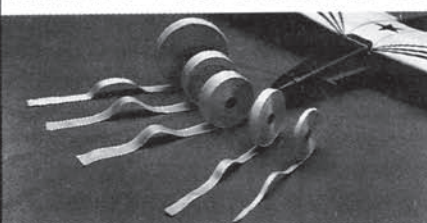
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FAR-FETCHED

Mr. Raskin's request for *SSN* to keep manufacturers from calling their gliders "fully aerobatic" is far-fetched and unreasonable. He stated that in order for a slope glider to be fully-aerobatic, it must have (1) ailerons, (2) elevator, (3) rudder and (4) a symmetrical airfoil. I fully agree on points one and two, but I totally disagree on three and four.

To be called aerobatic, a glider must have ailerons in order to do snap rolls (regular rolls are possible with rudder and elevator only). I also agree that the glider must have some sort of elevator (elevons for flying wings).

Rudders are not required to do most aerobatic maneuvers. The Silhouette and the Pharaoh are two examples of very aerobatic gliders; neither has a rudder. The Pharaoh has a symmetrical airfoil, and the Silhouette doesn't. Both can do every trick in the book. I bought a Silhouette because the box said, "fully-aerobatic" and was not let down. It is, by far, the best glider that I have ever flown!

I can see where a fully-symmetrical airfoil would give an advantage on a powered pattern ship, but not on a glider. I've flown gliders with fully-symmetrical airfoils in light lift, and I found that it was difficult just to stay airborne and harder still to gain altitude.

In the right lift, a fully-symmetrical airfoil can be fun, but most manufacturers design their gliders to fly in a variety of lift conditions. To accomplish this, they use a semi-symmetrical airfoil. The Silhouette has a semi-symmetrical airfoil, and it flies great inverted as well as in light lift.

Things are fine the way they are right now. You shouldn't agree or disagree on something just because an advertisement says so. Ask a few people who have tried the product or ask your hobby shop employees what they know about it. Use your own judgement for what's "fully-aerobatic" and what's not. Don't let anybody tell you what is good and what isn't. We all have different opinions.

**Van Hazewinkel
Newport Beach, CA**

SPECTACULAR FEATS

I'm writing about the "Truth in Advertising" letter in the September issue. I

looked through my current issue of *SSN* and couldn't find a single ad that stated "fully aerobatic." then, I got out all my back issues and found only one that claimed to be fully aerobatic. The ad says the ship has a modified Eppler 374 airfoil. The E-374 is "biased" toward upright performance without undue sacrifice of inverted performance.

My Webster's dictionary says aerobatic means "spectacular feats done in flying, as loops, rolls, etc." Seems to me if you listen the Webster, you can be fully aerobatic with an Eppler 374 or Clark-Y or even a NACA 6409. I think that all aircraft are fully-aerobatic; just some are easier to fly aerobatically than others.

A kit can't really be tagged as for beginners, intermediate fliers or advanced aerobatic fliers. Those tags are determined by the skill of the pilot, not his ship. There aren't any kits that meet Mr. Raskin's standards. If he wants to fly pattern ships, then let him fly power; leave the clean air for the good guys.

Keep up the good work, Charlie. I really enjoy *SSN*.

**Jim Metzger
LaVerne, CA**

I haven't heard back from Jef Raskin since printing his original letter, but in his defense, I'd like to offer a few thoughts.

Jef's involved in aerobatic competition. Just as regular power-plane pilots enjoy playing with aerobatics, we slopers can do the same. Yet, when the power-plane flier takes the next step and enters pattern competition, his aerobatic interest takes a finer focus, and he requires more specialized equipment. As the pattern plane must be vastly different from the normal sport plane to meet the more stringent demands required of it, a competition aerobatic sloper would also be entirely different from a good all-around slope glider. It would be weaker in some respects (like light-lift performance due to its symmetrical airfoil, perhaps), yet stronger in others (like inverted or outside maneuvers, due to that same airfoil).

I can understand why Jef Raskin needs a special slope glider, but I'm not convinced that the slope soaring industry at large should attempt to meet those specialized requirements. At least, not yet.

For those of you who may be interested, Jef has written an article about no-holds-barred aerobatic competition design in which he offers an even more specialized look at the requirements of fully-

aerobatic slope soaring aircraft. (Perhaps we should call them "ultra-aerobatic!") I've asked him for permission to print it in SSN, and I hope he'll consider it. It's a very interesting story! — Charlie.

DODGSON DESIGNS

You have been kindly sending me trade copies of your wonderful *Slope Soaring News*, and I am so impressed that I want to support your efforts with a real subscription. My check is enclosed.

As you may know, my primary interests are multichannel thermal multitask type gliders rather than slope soaring. However, your lighthearted touch and sense of humor as editor, and the spill-over content of many of your articles, makes *SSN* a pleasure for me to read. It also keeps me informed of the the latest slope glider design developments.

Keep up the good work!

Bob Dodgson
Dodgson Designs
21230 Damson Road
Bothell, WA 98021
206/776-8067

And thank you, Bob, both for the kind words and for your own newsletter which you've been sending me! Your customer support seems to be exceeded only by the quality of the product itself. I've printed the Dodgson Designs address so that *SSN* readers will know how to get in touch with you for more information on your product line. — Charlie.

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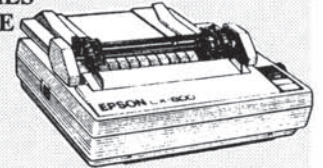
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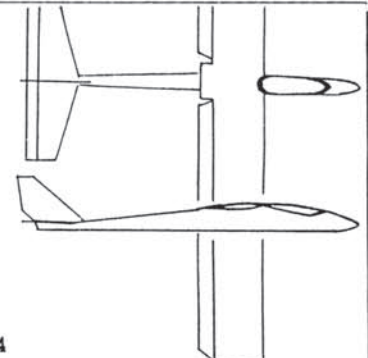
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