THE VALLEY FLYER

APRIL **1979**

PACKARD PHOTOGRAPHY
BURBANK

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President's Page

Well, if you were not at the March meeting, you missed one hell of an auction. We didn't have a lot of merchandise, but everybody was in the spirit. Framed-up and kit form airplanes dominated the action. George Finch did a fantastic job as auctioneer. In fact, if you scratched your head or picked your nose, you bought something. George is quick. Even Nate (the skate) bought something. Trouble was, he didn't wake up until 11:00 p.m. If you saw something you wanted, but didn't bid it, don't worry, that same item will most likely be at our next auction in October. What fun!

The first formula I race in So. Cal. was held 17, 18 March, at the basin. A great time was had by all even though it rained a couple of times. Only three crashed out of 29 airplanes, two by radio. Gary McPike (Valley Flyer) did an excellent job as contest director and Jeff Bertken was in his element as starter. Speaking of racing, our only Form I race of the year will be held 21 & 22 April. Ralph Rosen (X-Pres) will be the contest director. He needs some people to help him work the contest. I'm sure there will be a workers raffle. Adam McGrath won a brand new KTB 40 at the March race. Working at a race isn't what it used to be. It's easy and fun. Races nowadays are well organized and professionally run. I've noticed that even the racers themselves have mellowed slightly or should I say become seasoned. There doesn't ever seem to be any more flyer/worker conflicts as in past years. Equipment is excellent, and there is an emphasis on safety. While I'm on the subject of organization, our own club seems to be picking up again. Membership is coming along and everybody is beginning to pitch in. Now if we can just beat this Olympic Games thing. Write to Joy Picus, the district councilperson for the basin area. Hand written letters seem to get the best response.

For those of you who are interested, there will be sets of quickie 500 racing rules at the April meeting.

Since spring is here I thought what do you dust off after a long winter, besides your airplane? What else, your **RADIO**. How are your batteries, servos, etc? Mr. Lloyd Taylor will be at the April meeting and will be able to answer any of your questions. Don't miss it!! Dave Lloyd of "Dave's Custom Models will present the raffle.

Krazy Larry

THIS MONTH WE START ANNOUNCING A NEW NEW TYPE OF JUDGING AWARDS FOR THE MODEL OF THE MONTH CONTEST. NOTE THAT IT IS BROKEN DOWN INTO THREE CATAGORIES, --JUNIOR , SPORT AND COMPETITION. CONGRATULATIONS TO THE WINNERS WHO ARE:

JUNIOR	SPORT	COMPETITION
MARK LINDGREN	LYNN GUTHRIE	GARY MC PIKE
PIETENPOL	P-51 Susie Q	T2-40 PATTERN SHIP

Editor's Chat

This month we start with the biographies of our club members. Hopefully, with the cooperation of all, we will be able to each know the other better. We will probably find that we have a cross section of America in the club and a great amount of diversity in the way each member earns the money to support his or her hobby.

Thanks to Colby Evett, we have learned some of the history of the radio controlled model aircraft hobby in the Los Angeles area. The amount of work and study that it took to make a plane and controls, plus the ability to get it up and down in one piece speaks highly of those "Early Birds."

We're still hopeful of getting some more of last month's Questionnaire returned, so the results will be published next month. Me thinks there might be some intersting facts found when all the information is compiled and analyzed.

I can never understand how a month can go by so fast. It seems like a couple of days ago that I put the last issue into the capable hands of Dick Hager after getting the type set copy back from our good helpmate, Roger Peltier. It reminds me of a friend that pulled a 36-foot house trailer from Detroit to Los Angeles. He told me that something was wrong because it was about 20,000 feet up the mountains but only 5000 feet down. But he made it, and so did I for this month.

Way Back When in R.C.

It's not known exactly when, but shortly after the end of WW2 a group of model airplane enthusiasts that were interested in radio control met in the apartment of Howard Bonner and formed a club. Those intrepid souls were **Howard Bonner**, who later was to head Bonner Specialties, manufacturers of Radio Controls, escapements and other associated products; **Bill Deans**, who is responsible for the universally used Deans Connector on many receivers and servos; **Dick Shumacher**, who just a year or so ago, was killed in a Western Air Lines training flight; **Bill Butler**, who also has passed to the Great Beyond; **Camby Wilson**, who now lives back east, but whose name has come up at various times in our hobby magazines, and last, but surely not least, a fellow Valley Flyer, **Colby Evett**. They called the club the Los Angeles Radio Control Club, and who, if he has been in modeling for some time, has not heard of the LARC.

They flew any place they could find a open space with a forgiving owner or, at least, until someone ran them off. It seems that the field at Rosecrans and Western was pretty popular and they had it fixed up pretty good too. They also flew in the Sepulveda Basin with the field now located about where the Balboa Golf Course Club House is now.

With the general growth of radio control modeling, more and more clubs were formed in separate communities, and the LARC members were drained off to help start the new clubs. It is not known when the club was disbanded, but we all owe a debt of gratitude to those "Early Birds," because they and others fought to get the Los Angeles Parks and Recreation Dept. to put in a permanent field in the basin. More on that next month. One other item of interest. Rumor has it that the LARC treasury had about $700.00 in it at the time of the club's demise. With the interest accumulated, that money, if found, would hopefully assist modeling in the area as a scholarship fund or similar for our young hobbyists.

Remember the giant Navy Zeppelins of the 1930's with their built-in aircraft hangers and fleet of Curtiss pursuit ships? The same carrier/parasite philosophy was tried again in the early days of the jet age. The mother ship was to be the Convair B-36, and the parasite fighter was the McDonnell XF-85 Golbin.

The theory was that when the big bombers were menaced by enemy planes, certain ships in the formation would open their bays and launch fighters. After the engagement, the survivors would be retrieved by the mother ships through a trapeze arrangement, and be tucked away for future use.

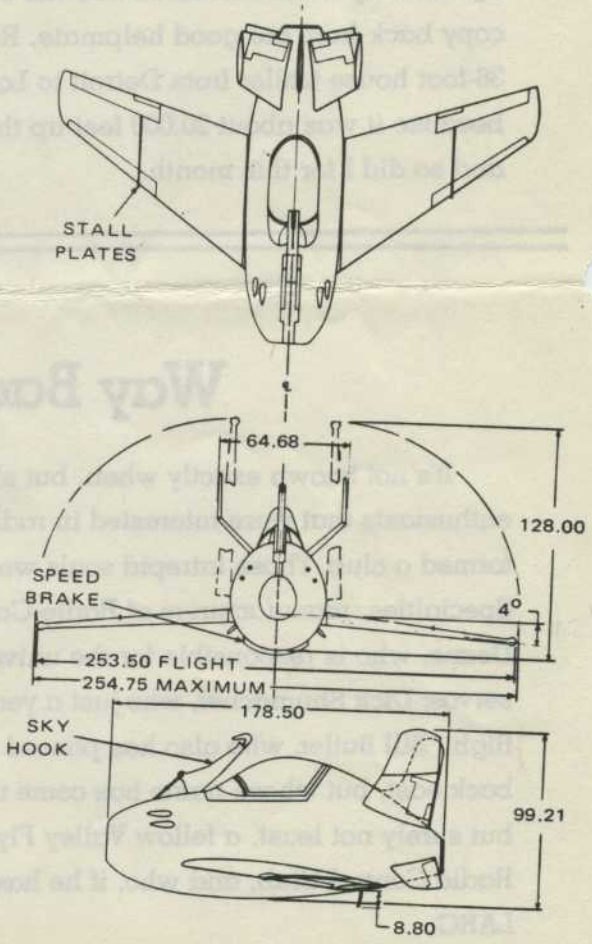
Thus was created the smallest and most unique jet fighter aircraft of all time. It not only had to fit into the 16' long bay of the B-36, but also had to equal or surpass the performance of enemy aircraft. This was a near impossible design problem.

The XF-85 Goblin with wings folded measured only 5' wide, 10' 3" high and less than 15' long. The pilot straddled a 3000 lb. thrust Westinghouse J34-WE-7 engine with about 30 minutes of fuel, and preliminary estimates promised a top speed of 664 m.p.h. Not bad for 1945! Four 50 caliber guns were grouped around the air intake. Instead of landing gear, there was a retractable hook for the trapeze of the carrier plane. Tail span was reduced by dividing it into six odd shaped surfaces. The Goblin had the appearance of a fat little bug in flight.

Ordered in October 1945, it was first flown on August 23, 1948 from a specially modified B-29. When the XF-85 attempted to engage the trapeze of the mother ship, its canopy was smashed and the pilot was forced to make an emergency landing on a belly skid. Another attempt in October succeeded, but the difficulty of recovering parasites had been demonstrated. Other difficulties presented themselves including unsatisfactory stability and control characteristics. Thirteen service test copies were cancelled after the two prototypes (S.N. 6523/24) were built. One XF-85 still survives - located at the Air Force Museum, Wright-Patterson Air Force Base, Ohio.

The first flying aircraft carriers, the Zeppelins, were impractical because of their immense size and vulnerability. The second was impractical due to higher flying speeds of the B-36 and the necessarily samll size of the parasite.

The Air Force moved on to more conventional bomber escort design with the long range McDonnell XF-88, armed with six 20MM guns. Thus ended the sage of the "flying flat-tops".



THREE VIEW – XF 85

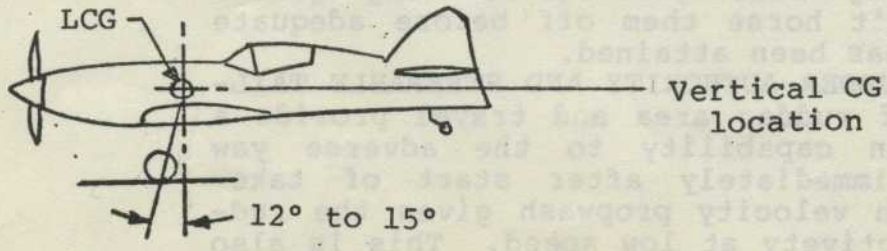
CONVENTIONAL LANDING GEAR ON R/C AIRPLANES (TAIL-DRAGGERS)

Did you ever pause for a moment between flights at the Basin to observe the ground handling qualities of the tail-draggers? Why do some models take off, land and rollout straight as an arrow? Others possess ground handling qualities as crooked and unforgiving as a politician! For a long time I explained this as pilot technique, but that isn't true.

After a couple of early disasters with tail-draggers, I resigned to build only tricycle gears until my piloting improved. Why would anyone want to tackle the tail-dragger anyway? For one reason most full size airplanes, past and present, that are desirable subjects for models are tail-draggers. Since I have been flying and designing man-carrying planes for 35 years, a model just isn't a model to me unless it bears some resemblance to a real plane. Imagine a P-40 or P-51 with a tricycle gear! Even the Sunday spectators would get a good laugh. After considerable study and experimentation with both full size and R/C model tail-draggers, I think I have some of the answers as to what causes good tail-dragging handling qualities.

1. LOW NOSE ATTITUDE Shorten the main gear and lengthen the tail gear. The bad effect of asymmetrical prop thrust is minimized.

2. MAIN WHEEL LOCATION Place the main wheels as close to the longitudinal center of gravity (LCG) as practical, but just forward enough to prevent nose-overs, to an excessive degree. A good location is shown in the sketch.



3. MAIN WHEEL ALIGNMENT Use one to two degrees of toe-in on each main wheel. Toe-in provides directional stability because as the model starts to swing around, the inside wheel slows down and somewhat aligns with the direction of travel to reduce the drag therof. At the same time, the outside wheel tends to speed up. The toe-in causes an increased skid and the resulting drag slows the outside wheel and tends to straighten the turn.

4. TREAD Place the wheels as far apart as practical. This to some degree overcomes the tendency of cross-winds to lift one wing. It also enhances the effects of any toe-in and reduces the effects of any toe-out.

5. WHEEL ROTATIONAL DRAG (Brakes with slight drag) Some device to keep the wheels from spinning free is desirable. This drag force holds back on the plane to provide increased directional stability, but easy does it or excessive nose-overs will result. This slight drag force comes into play at the instant of touchdown. A slight nose-down pitching moment is created that lessens the angle of attack, dumps some lift and helps glue the plane down to the runway. The drag on each wheel must be equal, otherwise ground-loops will result.

6. RIGHT THRUST Offset the engine thrust line in the right direction to oppose the ill effects of "P factor". Nose high attitudes on take-off cause the instantanous left and right halves of the prop to have different amounts of thrust. Also the prop slipstream spirals toward the vertical stab and rudder. Both of these effects cause the model to turn left (for CW engine rotation). Two to three degrees offset is satisfactory to correct this problem without causing any inflight problems except to cause rolls to be slightly barrel-shaped. Down thrust will also help the asymmetric thrust problem but generally is not desirable because it effects flight stability. It is usually used only on high wing planes or to correct special trim problems.

7. QUICK TAKE-OFFS Low wing loading and low power loading result in rapid acceleration and lift off at relatively slow speed after a short ground roll. High acceleration improves directional stability while the short ground roll limits exposure time to adverse effects. Planes with high wing loadings require long ground rolls, so don't horse them off before adequate flying speed has been attained.

8. HIGH RUDDER AUTHORITY AND STEERABLE TAILWHEEL Lots of rudder area and travel provide a quick reaction capability to the adverse yaw that occurs immediately after start of takeoff. The high velocity propwash gives the rudder high effectivety at low speed. This is also true for the elevators but not the ailerons. During landing, no propwash exists to permit good control as the air speed diminishes. The steerable tailwheel is helpful at this time, and it is an absolute necessity if you intend to taxi.

Naturally, few planes or models possess all these factors in the proper amount. No single factor will normally make or break a plane unless it is taken to the extreme. An "ANTIC" by Lou Proctor has very good ground handling qualities. Let's analyze it.

A. Nose (pitch) attitude on the ground is almost flat. Great!

B. Main wheel location is about right. Mine measured 20° per the example in item 2, but the very short gear compensated for the excess angle.

C. No toe-in is called for.

D. Tread is narrow and does result in occasional side-tipping especially in crosswinds. Note that the "ANTIC" has bamboo wing bows to keep from scrubbing the tips.

E. Wheel rotation drag is not specified but will cause a definite improvement. When the engine is idling a bit fast or when taxiing downwind, the drag and stability of toe-in is helpful.

F. Considerable right and down thrust are used to good advantage.

G. Quick takeoffs are spectacular. Power loading for an average .60 engine is about 110 oz/BHP. Wing loading is 16.4 oz/sq.ft. Compare this to a Formula I racer which has about 40 oz/BHP and 25.6 oz/sq.ft. Both planes have short ground rolls, but the power loading really predominates.

H. "ANTIC" has good rudder authority but lacks a steerable tailwheel. This severely handicaps ground operations. I found it necessary to add one.

All of the above factors were given high priority during the design and construction of my origional Kawasaki KI-61 "TONY". All flights show flawless ground handling qualities, for a tail-dragger, that is! Takeoff rolls are straight and true. Both full stall (three point) and high speed wheel (tail high) landings have been made which exceeded my wildest expectations. Power loading is estimated at 125 oz/BHP with my tired old ST .40 FR. Wing loading was a little high at 24 oz/sq.ft. Neither seems to cause any adverse effects on ground handling.

Why not analyze your own tail-dragger to see how it stacks up against the eight factors discussed above. This could lead to some interesting conversations during the winter hanger sessions. I would like to see someone take up where this discussion leaves off. Could some one do an article on piloting techniques for tail-draggers????

Bob Owens

R. C. "Bob" Owens

(This is an edited reprint of a 1974 V/F article)

Valley Flyer Biographies
No. 1

Colby Evett, the lead-off personality in this series was born in South Carolina in 1920. His interest in aviation caused him to build rubber powered models while a teenager and finally made him decide to follow Horace Greeley's advice and go west. He came out to the City of the Angels in 1939 and went to aviation school, determined to be a part of the business. Upon finishing the school he obtained a job at Douglas and worked himself up to supervisor. During his sojourn at Douglas, he was a member of the Bay Cities Gas Hoppers and was a free flight devotee. In 1944 he joined the Navy, went to Aviation Machinists' Mate School and was sent to active duty in a Carrier Aircraft Service Unit (CASU).

When the war ended he went back to his old job at Douglas, but the fascination of models was so great that he started the model shop in 1946 as a part time thing. In about four years he made it a full time thing and left Douglas. He also found time to attend radio school and got his ticket as W6IJX. With the new knowledge of radio he now had he designed and built a transmitter and receiver for a Super Buccaneer Plane he had built using escapements to operate the control surfaces. He was operating then on 6 meters but has since changed to 10 meters to get out of the congested band.

He has attended and participated in the Nationals for the past 20 years. His highest placing was fourth in R.C. Pattern in 1955. In fact most of his competition work was in Pattern because he was needed to make a program in the contests held locally. His flying time now consists mostly of training his customers and other beginners to fly R.C. models. He has about 4 planes that he has retired after 8-10 years of flying, but are still flyable. His latest venture is a Bob Violett A-4 ducted fan that will be flying in a week or so.

Colby feels that the hobby will expand and new and thereby more frequencies will be allocated by the F.C.C. He also feels that the "Almost Ready to Fly" (ARF) models are the coming thing. He thinks that quarter scale will become somewhat more of a factor in modeling than it is today, but will not match the smaller models in demand. He feels that the proposed limit of 40 lbs. and 4 h.p. is too high for the quarter scaler. He would like them built light to allow the use of the smaller engines which would, he thinks, be less dangerous.

Colby plans to retire when he doesn't enjoy building or flying models. After all, he's only been at it 31 years and is 59 years young. There's a lot of good in him yet.

FINI

EDITOR'S NOTE: My first R.C. job was a DeBolt Champ with a Citizenship 1 tube, single channel radio, using Bonner Escapments. The whole shebang was bought from Evett's Model Shop and flown until about 1954.

From the Editor:

Help is needed to determine the members who have been in the club the longest. These are the ones that we want biographical information on, for this series.

Thanks,

Bert A. Smith

CONTEST CALENDAR 1979 - SOUTHERN CALIFORNIA

January	27-28	Valley of the Sun Pattern Contest, Phoenix, AZ.
	28	1/4 Midget, QMRC, Mile Square
February	10	Quickie 500, Chula Vista
	11	Fun Fly, Chula Vista
	18	1/2A Race, BIRD Club, BIRD Field
	25	Quickie 500, Valley Flyers, Sepulveda Basin
March	4	1/4 Midget, QMRC, Sepulveda Basin
	10-11	Pattern & Scale, SGVRCL, Whittier Narrows
	17-18	Formula I, NMPRA, Sepulveda Basin
	25	Quickie 500, BIRD Club, BIRD Field
	31	
April	1	Western States Regional Championships Pattern and Scale, Eagles, SGVRCL, BIRD Club, Mile Square
	8	Quickie 500, SGVRCL, Whittier Narrows
	21-22	Model Expo, OCRCC, Mile Square
	21-22	Formula I, Valley Flyers, Sepulveda Basin
	28-29	MACS, Long Beach Convention Center
May	6	Gathering of Scale Uncontest, Scale Squadron, Mile Square
	19-20	Formula I, Bakersfield
	19-20	War Birds West, Scale, Morgan Hill
	26-27	Pattern and Scale, Fresno RC Club, Madera
	27	Open Fun Fly, SGVRCL, Whittier Narrows
June	2-3	BIRDs Open Pattern and Scale, Mile Square
	9-10	Formula I, Pop White Memorial, BIRDS/SGVRCL, Whittier Narrows
	16-17	Aeronuts Border Classic, Pattern and Scale, Chula Vista
	24	Quickie 500, Valley Flyers, Sepulveda Basin
	30	
July	1	Formula I, Chula Vista (Tentative)
	7-8	Pattern and Scale, OCRCC, Mile Square
	14-15	Golden Age of Scale, Morgan Hill
	15	Helicopter, SGVRCL, Whittier Narrows
	22	1/4 Scale, SGVRCL, Whittier Narrows
	29	Fun Fly, Anaheim RC Club, Mile Square

JULY 29 -AUGUST 5 - NATIONALS, LINCOLN NEBRASKA

August	11-12	Mammoth Scale Flyin, Morgan Hill
	12	1/4 Midget, SGVRCL, Whittier Narrows
	18-19	5th Annual Scale Meet, Scale Squadron, Mile Square
	25-26	Formula I, NMPRA, Sepulveda Basin
September	1-2	Pattern and Scale, Chula Vista
	9	Fun Fly, OCRCC, Mile Square
	9	AMA Scale/StandOff Scale/ Team Scale, Canyon Crosswinds
	15-16	Pattern, San Diego Drones
	22-23	Formula I, SLO Flyers, San Luis Obispo
	29-30	Pattern and Scale, SGVRCL, Whittier Narrows
	29-30	WWI Western Front Scale, Morgan Hill
	29-30	West Coast 1/2 A Championships, Sepulveda Basin
	23	1/4 Midget, QMRC, Mile Square

THE VALLEY FLYER

Bert Smith, Editor
18924 Malden St.
Northridge, CA 91324

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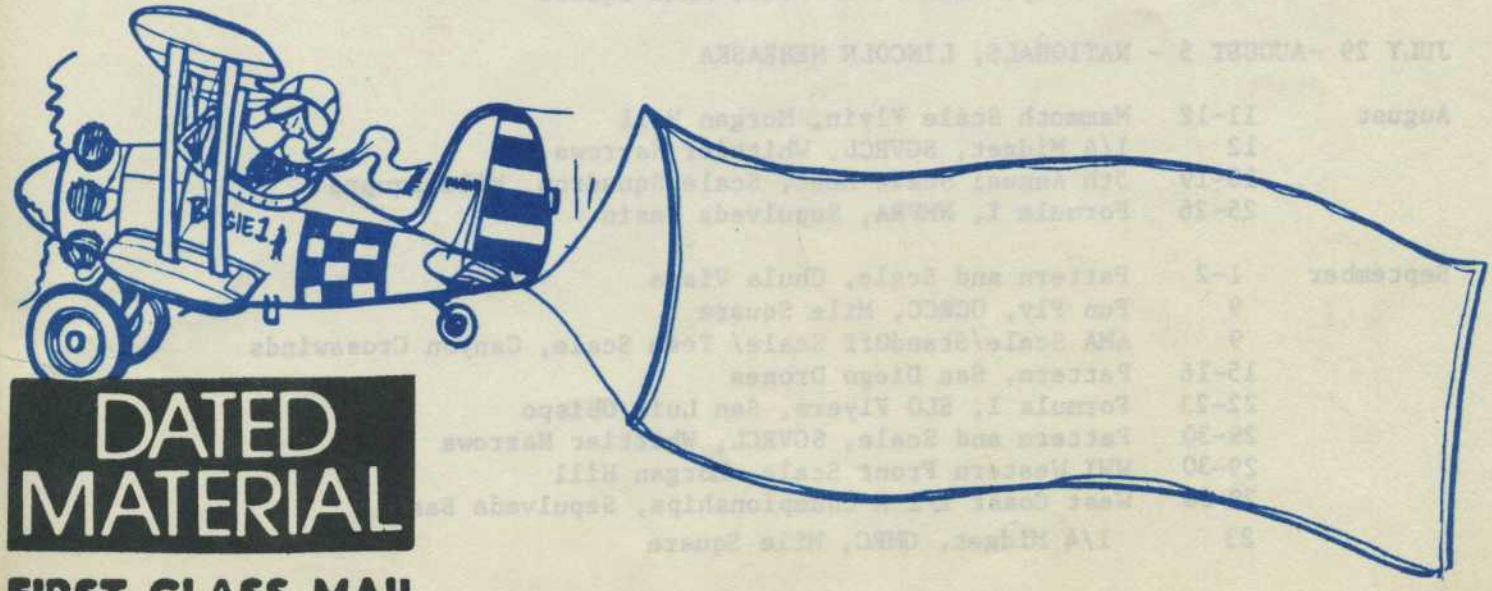

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