

VALLEY FLYERS

JANUARY 1974

NEWSLETTER



PACKARD PHOTOGRAPHY
BURBANK

This is a dedication ceremony for the new field with some of the more prominent club members on hand for the long awaited moment. What a waste of good champagne, you guys! You're supposed to drink it, not break it! I'm told that Bob Bleadon(the breakee), sustained a nasty gash from this.

PRESIDENT: Bob Smith VICE PRESIDENT: Bob Wilde SECRETARY: Ron Clem

ASS'T SEC.: Larry Rosenberg ASS'T TREAS.: Tom Mead TREASURER: Chuck Smith

EDITOR'S PAGE

"A Tough Act To Follow"

To top the performance of the board of the past year would be great, but darn near impossible. It's been said many times before, but at the risk of being repetitious I have to say again, thanks to all the board members of the past year for having done such a great job. I'm sure all the new board members will do their best to keep the momentum and spirit you've worked so hard to generate. We certainly have our work cut out for us. Your suggestions are welcomed. As newsletter editor, I have plans that, I hope, will be entertaining and informative to you and make the newsletter better over all. I'm still pretty much in the dark as to the business of being secretary and editor, so I'll probably be leaning on Larry Rosenberg to help steer me on the right path for a couple of issues- he certainly has had the experience!!

I will be in touch with many of you aspiring budding journalists..... to put the touch on you for an article on your particular field of interest in R/C. All articles are welcomed- you don't have to be a literary genius to write, and remember, you get out of the newsletter just what you put in. It's your newsletter, so don't be shy! This issue has an excellent article by Bob Owens on the mysteries of taildragger type airplanes. Try one, you'll like it! When I saw Bob at the basin on Christmas day, he and his son had three airplanes they were flying. No, not all at once, dum-dum! President Bob Smith and I met recently to see the new meeting place, but it was locked. Our understanding was that it would be open most any time but I guess 9:30 p.m. is too late! So, at the time of this writing, I still don't know what our facilities are like. OH! The Christmas party! If you weren't there, you missed a real show!! Loretta Hall and her "Propettes" did a show of satire based on what it was to live with us, (the good guys) but as viewed by them, (the bad guys). The show had an authentic humorous, no, downright laughable series of put-ons that had everyone roaring. The gals all worked hard and certainly deserve thanks and gratitude for putting up with us. Hardworking Loretta Hall, incidently, has taken on the job of NMPRA newsletter editor and I'm sure she'll be busy in the months to come. Reed Packard was given a T-2-A pattern airplane kit from the club for his unselfish efforts on club photography and the photo album. Bob Upton received a "NEW VALLEY FLYER'S" emblem, and I'm sure you'll see it sewn on his jacket in the near future. There were many other awards presented to people who have contributed so much in the past year- Jay Replogle, Bob Bleason, Stan Gordon, Bob Wilde, and others too numerous to mention in limited space. So, if you missed the Christmas party, brother, you missed something!! Kraft-Hayes is going to produce a schnerle .60 engine, and is running prototypes of the engine at this time. Delivery date and price to be announced at a later date. At first I heard Kraft was going to produce a high performance .60, a .40 (probably pylon), and a .15, but a recent conversation with Cliff Weirick disclosed that only a .60 will be produced for the time being. Kraft also will probably have an open gimbal stick of their own design for their high priced radios. A&L Manufacturing will market a new Formula 1 called the LR-1-A "Pogo". The airplane looks like a low wing "Rickey Rat", and will be available about mid-march. Want ads will be free in the newsletter this year. If you have large amounts of things to sell, send me a general description and I'll get it in as best I can. If your address changes-Please let me know so, I can correct my records. Don't forget- New meeting place, new meeting date. It's 4935 Balboa Bl. Encino Community Center, on the 9th of January. See you there!

Bob

So, You WANNA' FLY PATTERN?

This will give you an idea of what the pattern might look like if proposed changes now before the AMA Contest board are approved. These changes have been proposed by Ron Chidgey and Don Coleman, and as of this date I have not heard one way or another if they have been adopted. Take heed, and read.....

By Ron Clem

30 total maneuvers
10 each of "K" factors 5, 10, 15
A flight is 15 maneuvers, 5 from each group, plus:

Takeoff: K=5

Landing: K=1 Tri-gear

K=2 Taildragger

No spot landing!

Many added maneuvers to require light airplanes and lots of power.

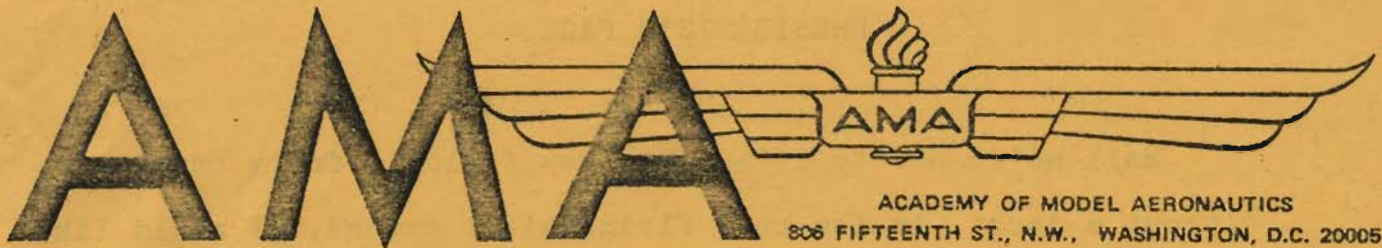
Some of the pattern:

- Continuous rolling circle
- Regular rolling circle (1 roll by quadrants)
- Square loop
- Figure "S" from bottom
- Slow roll
- Four point roll
- Vertical four point roll (going up)
- Vertical four point roll (going down!)
- Cuban 8 with $\frac{1}{2}$ snap rolls at center
- Knife edge with $1\frac{1}{2}$ snap to knife edge
- Loop with snap on top
- Loop with snap on bottom
- Loop with snap on top and bottom
- Double snap roll from level flight
- Four leaf clover
- Spin (3 turn)

Before you novice pattern fliers sell or burn your favorite pattern ship, let me hasten to add that this proposal will be for "C" class only, as all other classes will remain as is.

Every flight by contestant can be a different choice of maneuvers and sequence. Only votes by R/C Contest Board are yes/no, as proposal changes will not be allowed.

So, if you haven't experienced cardiac arrest by this time, get your favorite ship out and start practicing some of these maneuvers just to see what you're in for. Who knows, it just might make pattern interesting and challenging enough to have the pylon boys give it a try!!!



monthly mailing

TO: CHARTERED CLUBS, MODEL PRESS, EXECUTIVE COUNCIL,
CONTEST BOARDS, CONTEST COORDINATORS, NEWSLETTERS

Reprinting of items from this AMA Monthly Mailing is encouraged, particularly by club newsletter editors. This publication basically reflects the AMA HQ viewpoint and is written by the AMA Executive Director, except when other names are credited.

THE INFORMATION HEREIN IS FOR ALL AMA MEMBERS. IF REPRINTING IS NOT FEASIBLE PLEASE QUOTE AT CLUB MEETINGS OR PASS AROUND. PLEASE DO NOT BURY IN YOUR PERSONAL FILE!

LAKE CHARLES APPROVED FOR '74 NATS

NO. 83 DECEMBER, 1973

The AMA Executive Council has approved, in a special mail vote, going to Lake Charles Louisiana, for the 1974 National Model Airplane Championships. Opening day is expected to be Monday, August 5. Closing day could be Sunday, Aug. 11 or as late as Thursday, Aug. 15. -- the length of the Nats is currently under much discussion by members of the council and AMA's Nats Executive Committee.

The question of whether the Nats should be extended beyond the usual one week schedule has come up because for the first time in many years AMA is able to have as many days as desired for the Nats -- there are no military or other outside factors restricting the length of the Nats. At the same time there is considerable interest in adding events to the Nats which were impossible to accommodate previously.

What about the energy crisis? It's too early to tell yet but current Nats planning is based on optimism that the crisis may not turn out to be as bad as some have predicted. It is also hoped that even if many other meets are cancelled, due to weekend travel problems, the Nats may still be feasible. It is possible, for example, that modelers may be able to make one big trip during the year if many small ones are curtailed due to meet cancellations... In other words, if meet travel has to be aimed at only one big event the hope is that the Nats may be the one that people can somehow get to and the idea is to make the Nats bigger and better than ever to justify whatever sacrifice is involved.

A ten or eleven day Nats program could actually ease the travel problem if Sunday driving is impossible. By having the Nats start in the middle of one week and end in the middle of the next Sunday driving can be avoided altogether except for a minimum amount at the Nats site on the Sunday in between the beginning and the end of the event.

Hopefully, next month's news will give a clearer picture of what to expect. The Nats Executive Committee is planning to meet at Lake Charles in mid-January and their recommendations (subject to Executive Council approval) will probably be known in time for the next Monthly Mailing.

PRESIDENTS'S PAGE

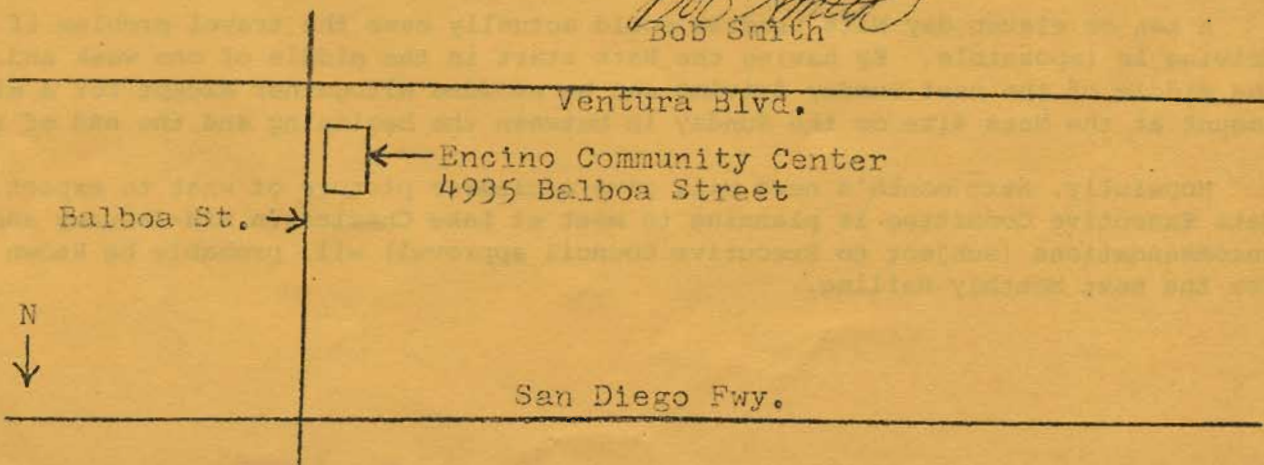
Well we're off to 1974. Our new field is fully paved and, without a doubt, is the best flying sight around. I would like to say that the people most responsible for the new field are: Bob Bleadon, Stan Gordon, Loretta Hall, and Ron Schorr. These people have devoted their time the past 4 years in getting our new flying sight. As a club, we owe these people an awful lot.

We, as your new board for 1974, have one main goal in mind; to keep the club interest growing, as it did so well this past year. Club activities planned for the new year will include: Combined fun fly and speed trails contest, Paper airplane contest, and a Club picnic. Activities such as these and many more will surely help our club growth. Club business for the new year will include: Completion of the frequency control at the field, and the planning and begining of field improvements (ie. fencing, grass areas, better toilet facilities).

Next meeting will be on Wednesday January 9th at the Encino Community Center at 4935 Balboa St. (directions below). Entertainment this month will be Lyle Shelton talking and showing films on air races (the real ones). Meeting will begin at 8:00 sharp.

See you then.

Bob Smith
Bob Smith



Conventional Landing Gears on R/C

Miniature Airplanes (Tail-draggers)

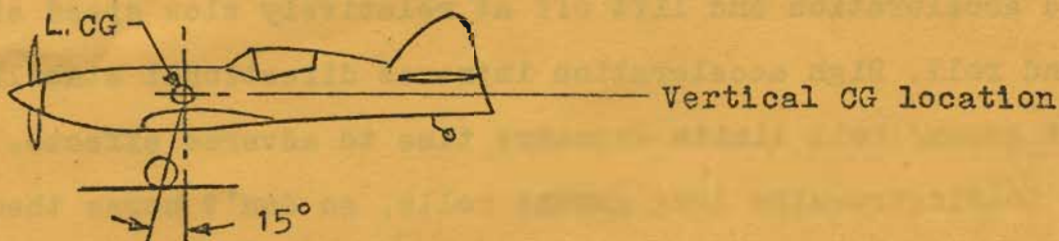
Did you ever pause for a moment between flights at the Basin to observe the ground handling qualities of the tail-draggers? Why do some models take-off, land and rollout as straight as an arrow? Others possess ground handling qualities as crooked and unforgiving as a politician! For a long time I explained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

After a couple of early disasters with tail-draggers I resigned to building only tri-gears until my piloting improved. Why would anyone want to tackle the tail-dragger anyway? Most full-size airplanes, past and present, that are desirable subjects for models are tail-draggers. Because I have been flying and designing man-carrying planes for 30 years a model just isn't a model unless it bears some resemblance to a real plane. Imagine a P-40 or P-51 with a tri-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 makes for good ground 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 (CG) as practical, but just forward enough to prevent nose-overs, to an excessive degree. A good location is shown in the sketch below;



3. Main Wheel Alignment Use one to two degrees of toe-in on each main wheel. Toe-in provides directional stability. As the model starts to swing around the inside wheel slows down and somewhat aligns with the direction of travel. The outside wheel speeds up, the toe-in causes a slight skid and the resulting drag tends to straighten up the turn.

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

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 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. Drag on each wheel must be equal, otherwise ground-loops will result.

6. Right Thrust Offset engine thrust line opposes the ill effects of "P factor". Nose high attitudes on take-off cause the left and right halves of the prop to have different amounts of thrust. Also the prop slipstream is spiraling toward the vertical stab and rudder. Both of these effects cause the model turn left (for CW engine rotation). Three or four degrees has proven ^{satisfactory} in correcting this problem and hasn't caused any inflight problems. Down thrust will also help the asymmetric thrust problem but does have effects on flight stability. It is usually used in high wing planes or to correct special trim problems.

7. Quick Take-offs Low wing loading and low power loading results 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 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 lots of travel provide quick reaction capability to adverse yaw that occurs immediately after start of take-off. The high velocity propwash gives the rudder high effectivity 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 airspeed diminishes. The steerable tailwheel is vital 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. My "ANTIC" by Lou Proctor does have 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 measures 20 degrees per the example in item 2, but the very short gear compensates.
- C. No toe-in is called for.
- D. Tread is narrow and does result in occasional side-tipping especially in crosswinds. Notice that the "ANTIC" has bamboo wing bows to keep from scrubbing the tips.
- E. Wheel rotation drag is not specified but would be a definite improvement. When your engine is idling a bit fast or 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 ounces per BHP. Wing loading is 16.4 Oz/sq.ft. Compare this to a Formula I racer which is 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 steerable tailwheel. This severely handicaps ground operations. I found it necessary to add one.

All the above factors were given high priority during design and construction of my original Kawasaki KI-61 "TONY" shown at the Nov,73 Valley Flyers Meeting. All flights todate have shown 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 exceed my wildest expectations. Power loading is estimated at 125 oz/BHP with my tired old ST 40 FR. Wing loading is a little high at 24 oz/sq.ft. Neither seem 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????

Respectively Submitted,

Bob Owens

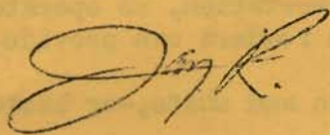
Bob Owens.

FROM THE PAST PRESIDENT

Ahead of us is a new year and a new board of directors full of enthusiasm and ideas to keep the Valley Flyers flying high. Now's the time to make your resolutions to do your part for the club. If you have ideas about what can be done to make the club more fun and enjoyable, "SPEAK OUT". Let the directors know! Under the able leadership of President Bob Smith and Vice President Bob Wilde, we should have another outstanding year.

I, for one, resolve to provide some articles for the newsletter and possibly run a sport-scale contest. I am going to do my best to provide whatever help I can to new flyers at the field and I am going to continue to spread the good word about the Valley Flyers to whoever (or is it whomever) will listen.

How about it? Are you ready and willing to help assure another good year?

A handwritten signature in cursive script, appearing to read "Jay R.", is written in dark ink.

Jay Replogle

Since there is so much interest in Formula 1 in the club, I thought the following news might be NEWS. As we go to press with this newsletter, I just received word that Terry Prather has broken the record for Formula 1 with a scorching 117.2!! It seems that breaking the record was about all Terry accomplished at the Tangerine Internats, held in Winter Park, Fla., as he had more than his share of problems. Early in the contest, he had a flameout before finishing the race, and while approaching to land, managed to graze a pine tree with his #1 airplane. The plane was repairable, but not in so limited a time, so he continued the contest with his #2 plane. Shortly thereafter he first broke the record with a 120.5. Then after having many problems with plugs, Terry finally got the stage set for an attempt on the record, as he was flying a heat by himself due to other people's crashing, etc., and was able to turn in this fantastic time. 117.2! That's the time to beat now boys. Eat your heart out.

OTHER NEWSLETTERS

Recently submitted to me was a copy of the Ram's Horn newsletter and I thought the following item in said newsletter might be amusing to you.....

The proprietor of the Cottontail Ranch, near Tonopah, Nev., has been asked to vacate the five acre premises- and to take her girls with her. Seems that the ranch is what used to be called a sportin' house, supposedly complete with landing field. A fly-in lie-in? There's an unpaved 8,000 foot strip called Lida Junction in the general area of Cottontail, and I looked it up in my airport directory. No fuel, no tie downs, no food, no lodging, no ground transportation, no operator, no fooling. I'd welcome any information you readers can provide- hard data that will answer such questions as:

Is the strip's beacon the usual green and white, -or basic red?

Can a pilot just touch and go?

Is the FAA thinking about erecting something like a tower there, and do they think they can really get it up?