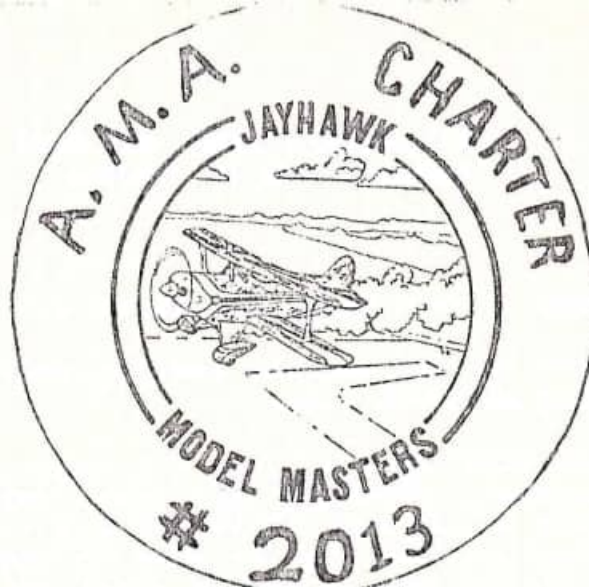


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ISSUE DATE: May 8, 1989

NEXT MEETING WILL BE:

DATE: May 20, 1989

TIME: 8:30

PLACE: All Seasons Motel, The Greenery fo breakfast

---Congradulations---

We have a new flyer that earned his wings this week. Dave Rosen completed his training in fine shape on Wednesday. "Theres some fellas that frequent Ida Grove every year that only wish they made takeoffs as nice as Dave." Tom Puckett spent the time learnin the kid what he needed to know. Ya both done good!

Our New Field Signs

Many thanks to Richard Ballard, Tom Puckett & Dave Rosen for the fine job they did putting up our new signs. The ground was hard, which made the work hard, which made it hard to find enough help, which is normal. We all need to thank them when we see them.

Our April 15 Meeting

A very short meeting at breakfast was held to pass on the normal information and prepare for some work at the field. Thanks to everyone that turned out to help. As most of you have seen, the pit fence is now in proper condition after having been completely rebuilt. Many of the holes and cracks have been filled, and we have a new addition in the pit. A real nice table, built by Darrel Andersen has been installed for everyones use. Darrel really put some effort into it, and it shows the quality work of his trade. While on the subject of trades, Dennis Sheppard painted the signs with our field name, and club rules. Good job Dennis!

???? DID YOU KNOW ????

Did you know that a 5 lb. airplane traveling 70 M.P.H. has 1064 ft/lb. of energy. Did you also know that this is a couple of hundred ft/lbs. more then a 44 magnum pistol at point blank range??

INCIDENTALLY, HERE ARE SOME
(DEFINITIONS TO PONDER)

INCIDENCE:

WEBSTERS: The range within which something falls or has an effect.

ROBARTS: The amount in degrees the leading edge is tilted up or down. (wing or stabilizer)

Of all the factors that make a plane fly right, incidence is probably the third most important. (Straight and Light being number 1 & 2) With this in mind, we need to explore INCIDENCE and find out what it is and what it does. We also need to look at ways to measure it.

Imagine if you will, flying a plane in which the wing is trying to climb or dive, while the stabilizer is trying to fly level. Given enough elevator trim the plane can be made to fly level but one surface is working against the other. With proper INCIDENCE on the wing and stab, both surfaces are flying at the same angle of attack, and as a consequence very little or no trim will be necessary.

Now that we know that INCIDENCE IS NOTHING MORE THAN THE AMOUNT OF TILT UP (POSITIVE) OR TILT DOWN (NEGATIVE) in a flying surface, it should be fairly easy to measure it. Almost all plans for either a kit or scratch-built aircraft include incidence measurements. On a design with a flat bottom wing (most good trainers) you can measure incidence with a ruler! All that is necessary is to block up the model until the stabilizer is level with the building surface. You then measure from the front and back of the wing to the building surface. "0" incidence would measure the same from both the leading and trailing edge of the wing. Some plans actually give incidence in inches rather than degrees.

What if you are not building a trainer? What if the plane you are building has a semi-symmetrical wing and a symmetrical stab! Rulers and tape measures are out! What you need now is an INCIDENCE METER such as the Robart Model Incidence Meter, or RMIM for short. This little sucker has pivoting V-Blocks on each end to fit any airfoil design and to assure perfect centering on the cord line. It also has a built-in bubble level to help in setting up the plane on the bench. Also, a bracket so that you can bolt the RMIM onto the prop shaft to measure engine thrust line. In addition, it has a jewelled meter movement that reads in 1/2 degrees to enable you to perfectly set incidence on any flight surface.

Some additional use's for the RMIM are:

*Checking Wash-Out and Wash-In on wing tips.

*Stabilizer levelling when you glue it onto the fuselage.

*Wing saddle leveling when fitting the wing to the fuse.

*Checking Fin & Rudder offset when glueing them in place.

*Measureing Wheel axle toe-in on landing gear.

*You can also use it as a regular "Level" around the house on some of those "Honey Do" projects that take up your model building time.

This last item could be the perfect excuse to run out to Prop & Wheel and buy one! You won't be sorry after using it on your next plane! RLB

THE PREZ SEZ!
TRANSMITTER FREQUENCY FLAG REMINDER

It is has now been over a year since the new channel Identification system for transmitters went into effect. Unfortunately we are still seeing a lot of radios at the field without the proper I.D. plaques in place on the antenna. Why is that?

Well I guess we will have to give you the benefet of the doubt and assume you somehow just didn't get the word!

In case you fall into this uninformed group of people let me remind you that our club will REQUIRE proper I.D. plaques and wind streamers on all transmitters used in the spring Fun-Fly and all future events.

Good I.D. systems are available from Ace R/C, Dubro, and several other companies. If you can't afford the \$3.00 or so to buy a set you can make your own from any number of items likely to be found laying around your workshop or in your Junque collection.

Its time to get with the program and get your transmitters marked properly with a black on white channel plaque and red wind streamer. Do it now! The people you share the field with will appreciate it!

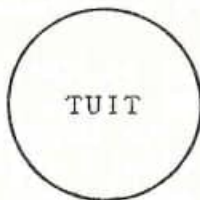
FLY SAFE! RLB

IS YOUR NAME AND ADDRESS IN OR ON YOUR PLANE?

IF NOT YOUR A.M.A INSURANCE MAY NOT COVER YOU IN CASE OF AN ACCIDENT. Item #6 of the general safety code requires you to have your plane clearly marked with your name and address or A.M.A. number.

There are any number of ways to mark your planes but perhaps the best I have found is the A.M.A. I.D. label #5084 available direct from A.M.A. headquarters member services. Price is 10 for \$1.00.

We urge you to mark your planes right now while you are thinking about it. Don't wait untill you get a round tuit!



FREE ROUND TUIT (JUST IN CASE YOU DON'T HAVE ONE!)

Prop Wash

It has been said that human beings are born with just two basic fears. One is the fear of loud noises. The other is the fear of falling. If this is true, then WHERE IN THE HELL DO WE GET JET PILOTS?

KIT REVIEW *** TOP FLIGHT HOT KANARY

If ever a plane was aptly named, it has to be the Hot Canary. This little 38" span biplane is rated for up to a .45 engine but any .40 should handle it just fine. Due to the exceptionally clean design, drag should be low (for a biplane) and speed should be up there with the best. With a hot .40 or .45 you had better be ready for action when you turn up the noise, because action is what you are going to get! Fully symmetrical wings and a straight-line design insure good aerobatic performance as well. The thick airfoil and light wing loading (17-20 Oz./ft. with 674 sq./in.) should also slow down well without any nasty tip-stall tendencies. Overall, this should be a good airplane for anyone who is looking for a high-performance biplane with the lines of a Goodyear racer. Now let's take a look at the kit.

It seems TOP FLIGHT has put together a kit that I am having problems classifying. While the plane is about as easy to build as a biplane can be, it could cause problems for an inexperienced builder. The plans are as good or better than any I have seen. Many detail drawings and building notes help you along the way. The instruction book, on the other hand, would prove almost useless without the excellent plan sheet. There are no photos and only a couple of line drawings related to wheel pants assembly! If TOP FLIGHT had intended to help the beginning builder, they missed the boat. An experienced builder on the other hand, would save time by tossing the book in the trash and building strictly from the excellent plans! What can I say? 50/50 good/bad in the plans and instruction department.

Moving on, wood quality is very good as far as type and grain selection go. This kit has a great deal of balsa block (wing tips, nose & cowl, cockpit fairing, etc.) that if not carefully selected could add a lot of weight. Fortunately all of the block wood is very light and borders on being contest grade. Some of the other wood however is so badly warped that it is hard to believe it came from the same kit! As a matter of fact, one piece of wing sheeting had to be trimmed 1/4" on each edge to get it straight enough to use. I feel this is inexcusable in a kit of this intended quality and price.

Other problems arose with the die-cut parts. I started with the wing ribs and was very impressed with the excellent die-cutting. The ribs almost fell out of the sheet and were uniformly good. Moving on to the fuselage sides was again a contradiction! The sides refused to come out of the sheet using normal means such as sanding the back side and X-acto knife surgery. I finally gave up and sawed them out with a jig-saw! I feel that Die-Crunched, or Die-Crushed would be better terms to describe the die-cut fuselage sides! Once again 50% excellent and 50% terrible in the wood and die-cut areas of the kit.

I found pretty much the same thing in the hardware package. Top Flight provides you with a plastic bag just bulging with all the hardware necessary to build the plane. Only the hinges provided seem to be made from an old coffee can lid! Junk with a capital "J"!!!

It is beyond me how Top Flight could have put together a kit like this. It almost seemed like there must be two groups of people deciding what to put in the box! As a matter of fact, that might be the problem. They obviously have a Top Flight group of people designing the kit (pun intended). On the other team however, might be the accountants who cut corners to save a few pennys here and there to hold costs down. The result is as I said. A 50/50 excellent/poor kit of a very nice biplane. Would I buy one? Of course I would! It's that nice an airplane once you get over the surprises in the box!!

RLB

NOTHING IS SO CONTAGIOUS AS ENTHUSIASM

WHY CRASH?

I WONDER WHICH MISTAKE
I'M GOING TO TRY TO
LEARN FROM TODAY



BY FLOYD LAWRENCE

(Reprinted From The Arcs 'Flypaper')

Only two things cause crashes — a failure mechanically or structurally in your airplane, or a failure of the pilot in judgement or lack of skill. Take care of each of these and you will not crash — but neither is easy!

Mechanical Inspection — a good time to inspect the mechanical condition of your airplane is during the wipedown after each flying session. You're going over the airplane anyway to clean it up. While you're doing it, check:

(1) All screws, particularly engine, muffler, and servo screws to insure that they are snug. (Loctite is a good idea on engines and mufflers, replace any servo screws that are not good and solid.) And don't forget those wheel collars, Kwik Links and control horns.

(2) Check all control surfaces to see that they are solid, that the hinges aren't loose and, again, that the control horns, links, and internal linkage are not loosening.

(3) Look for fuel leakage inside the fuselage particularly around the battery pack and receiver. At the same time, check that the clunk in your tank is falling freely.

(4) Examine the plugs for servos and battery (tape should be in place and no signs of wires chafing or under stress from things shifting inside the fuselage).

(5) Look for any signs of stress or structural failure particularly if you have made a hard landing during the session. (In fact, it's wise to check after any hard landing. We once had a wing fold after a landing that "didn't look that hard.") Unless you enjoy rebuilding, check if in doubt.

Pre-Flight Check List: With any defects corrected, here you are back out at the field ready to fly again. Or are you? (More than one day has been spoiled by a forgotten Tx or antenna.) A checklist reviewed before you leave for the field can prevent disappointment. Before you leave home:

(1) Use a checklist of items you'll need.

(2) Do a range check of your radio in your driveway or backyard to be sure that your radio is operating properly and that the servo response is normal.

(3) Be sure you have done all the things you said you were going to do following

your last wipedown check at the field.

At the field (using **Frequency Flag**) continue your pre-flight check list with:

(1) Re-confirm range with airplane assembled; (home range check is just fuselage with wing off — have a "normal" range for both wing on and wing off checks).

(2) Check wheels for free turning (dirt and oil can congeal making for ground loops).

(3) Open needle valve slightly to insure a rich setting on start of engine, lean just into a two-cycle at full throttle, and confirm setting by holding nose vertical.

(4) Go to idle for at least 20-30 seconds and check control surface operation, then go to full throttle again and re-confirm full throttle control operation. (Note: watch your prop blast on others and take no longer than necessary to avoid being a noise nuisance.)

These give you a good vibration check on your radio and on your engine. In adjusting your engine, remember what you are after is not peak power but good power with peak reliability!

Crash-proof flying begins by understanding that flying airplanes don't crash — (they can, of course, be flown into the ground).

As your plane builds airspeed, the rudder is effective first, then elevators, then the ailerons — and the controls stall in the reverse order. This means that you can pull your airplane into the air with the elevator — but not the airplane — flying. Unless the airplane has flying speed, it cannot be controlled.

That's why take-off is the most dangerous maneuver and landing is next most dangerous — in both cases the airplane passes through stall. Moral: don't lift off (cut throttle and abort the take-off) if there is any doubt about your airspeed and climb out gently without turning when you do take-off; keep your airspeed up on your landing approach until you are close enough to the ground to flare (stall to a touchdown safely).

Don't be afraid to use your throttle, if there is any doubt about your landing approach, go around and try again. And,

if you're in doubt, it's much safer to land hot and run off into the weeds than to stall in from six feet right in the middle of the field.

Think throttle at all times! If you get into trouble in the air, cut the throttle first, then try to figure out your difficulty. (If the problem is radio vibration, cutting throttle may help restore control; in any event it may give you time to think; lessen impact if all else fails.)

Think of the sky as a funnel with the field at the bottom — that is, the further away you fly, the higher you should fly. This is true both from the standpoints of visibility and control, and also from the standpoint of a possible engine failure — allowing you to glide safely back to the field. Getting into trouble at low altitude far from the field is almost a sure way to court disaster.

Learn from your mistakes. If something your airplane does surprises you, figure out what happened after you land. Were you bouncing on landing? (Touched down before you were stalled out?). Did you stagger in the air on take-off? (Insufficient airspeed?) Did the airplane fail to respond to a command? (Radio perhaps, but a stalled airplane can't respond) and so forth.

The key is to try to identify what the airplane is trying to tell you on each flight. Reading those messages gives you the capability of the airplane and teaches you what you can ask it to do and what you cannot ask it to do.

Use a flight plan. If you want to learn and improve, you need to ask your airplane questions, as well. That means creating a learning situation for each flight by planning what you are going to do on each flight before you take-off — and doing them at a safe altitude.

Without a flight plan you will not progress as quickly because you will either simply practice the same mistakes or fail to try new things. For example, if you're unsure of something — say, a right hand traffic pattern approach — practice it at a safe altitude. This is how you will add more maneuvers to your repertoire — all at a safe altitude. □



YAKOVLEV YAK-36 (1975)

Code-named "Forger-A" by NATO, the Yak-36 is a shipborne multirole fighter that can take off and land vertically. Unlike the single-engined British Harrier, it makes only partial use of vectored thrust; a forward pair of 8,000-pound-thrust jets angled downward provides vertical lift, while a larger, 17,600-pound-thrust engine with two rotating nozzles lifts the rear and propels the plane in level flight.