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Experimental Aircraft Association Chapter 33

A monthly publication of the Dr. Alexander M. Lippisch Chapter of the Experimental Aircraft Association, Cedar Rapids, Iowa.

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America's Wings

By Jim Zangger

As most of you already know, I've had a life long affiliation and fascination with Taylorcraft. From literally growing up on an airport where Taylorcrafts have been used for primary student instruction, now for well over fifty years, to having little choice as what aircraft to select when I wanted to do a restoration project. I've never had any regrets with my selection and have certainly enjoyed the friendships gained through owning this plane. I've had many pleasurable trips and experiences at a variety of shows. Although, by some standards, it's said to be slow, I've always rationalized that this allows me more time to enjoy the pleasure of flight!



I've flown quite a few long trips with it, including Leadville, Death Valley, quite a few shows and the first annual fly in at the new Taylorcraft factory in LaGrange, Texas this past spring. It has attracted some attention at various shows and the Pedal Taylorcraft has been popular as well and I'm hopeful that plans will be available soon. They will be to Marv's standards so it should be a good product!

The new Taylorcraft factory had always intended to provide factory direct sales, but as they are nearing their first delivery on January 15, 2005 of the first Taylor Sport, they have given four individuals authority to act as factory sales representatives to assist in new aircraft sales. I am privileged to have been selected as the sales representative for the central region and will be responsible for aircraft sales and establishing a dealer network. With the new Sport Pilot rule in place and the new Taylor Sport meeting these requirements, I am optimistic that it will become a very popular new aircraft!

AOPA Pilot magazine will be doing an article on the new factory including flight test reports on both the new Taylor Sport and one of the F-22's. This will be in the April issue and should be out in time for Sun N Fun.

My 1946 BC12-D has no electrical system, a 65hp Continental, me-

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chanical heel brakes, and 24 gallons of gas. The new Taylor Sport will be powered by a new Continental O-200 with a full electrical system, 42 gallons of gas, hydraulic toe brakes and a leather interior as an option. Should be quite a performer (not up to RV or LongEZ standards though!) and fully meets the LSA and Sport Pilot rules for those that may want to fly on their drivers license.

Taylorcraft est. 1935

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New 2005 TAYLOR SPORT

Sport Pilot Ready!

MADE IN

SPECIFICATIONS and PERFORMANCE

Continental Engine O-200-A 100 HP at 2750 RPM	Fuel Consumption6 GPH
Length22 Ft. 1-1/2"	Oil Capacity6 Qts.
Height6 Ft. 6"	Take Off Roll (Full Load)300 Ft.
Wing Span36 Ft.	Rate of Climb (1st Minute)775 Ft.
Airfoil NACA 23012	Best Rate of Climb70 MPH
Wing Area183.71 Sq. Ft.	Top Speed127 MPH
Wing Loading8.17 Lbs. Sq. Ft.	Cruise (True Airspeed)115 MPH
Seating Side-by-Side	Range650 Miles
Empty Weight890 Lbs.	Stall speed (Full Gross)43 MPH
Useful Load430 Lbs.	Service Ceiling18,000 Ft.
Gross Weight1320 Lbs.	Take Off/Landing Distance (Ft.) Over 50' Obstacles375/375
Power Loading15 lbs./HP	
Fuel Capacity42 Gal.	Price \$59,995⁰⁰

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All the new aircraft will have float and ski fittings and tow hooks are available for glider or banner towing. Two of the models will offer a nose gear for those preferring a tail wheel in the front! The F-22's will offer either the 118hp or 180hp Lycoming, either of which should make good performers in mountain areas.

With optional avionics they can be fully IFR equipped as well. Quite a few possibilities in what may well be the least expensive, new production, certified aircraft in the US.

I'm very optimistic at the opportunities this may provide and hope others are as enthusiastic as well. The Light Sport Airplane market should be very active and this will be one of the first, fully certified aircraft in this new category.

Taylorcraft has a very long and safe history having taught many people to fly over the years. Hopefully we can continue with this tradition.

First Flight - Mustang II

By Tom Meeker

After seven full years of blood, sweat and tears (mostly tears <g>) N144TM, "My Patience" made her maiden flight Saturday December 4, 2004. It was just me and the guys in the tower. It was a wonderful flight with only a few minor squawks. She flies just a little left wing heavy but over all control and stability were excellent. I didn't push the speed above 150mph because I didn't want to do flutter tests just yet. During approach to stall she has a wonderful warning buffet that starts showing itself a good 4 to 5 mph before the actual break. I only did one stall and it did much like most of the rest of you seemed to describe. First the quick break and nose pitch down, then, if you try to recover at all too soon, a sudden snap to the right and tries to enter a spin. It only took about half rudder or so to stop the spin in just over a quarter turn. Was doing 150mph when I came out of the dive and had lost 1000 feet. Stall speed was a bit higher than I wanted, about 69-70mph. Flaps made little or no difference and may have even pushed the stall speed up to 70-71. But then, I didn't let it develop a full stall with the flap. I have a trailing edge fairing at the wing/fuselage joint and the wing gap fairing runs all the way to the back of the flap (on top) to cover the flap gap as well. That takes a bit of area away from the opening to the top of the flap and may be why it has no affect on stall speed. Don't know. I figure with a CS prop, I won't be using the flap much anyway.

JFYI, empty weight 1150lbs. Wing tip tanks. O360 with Hartzel CS prop. Wheel pants not on for this flight. At 55% power she was doing 150mph cruise. With just me and 12 gal of gas, at 23" MAP and 2650rpm (not full power in other words) I was climbing at 120mph and 1500fpm. I can't wait to find out how she'll climb at full power and 90 to 100 mph. I was powered back because the governor was allowing the engine to over speed a bit (2760rpm) and my first reaction was to power back before I thought to pull the prop control out a bit. In all the panic after take off (my engine monitor was beeping at me like crazy because of the over speed) I ended up climbing at about 22-23 inches MAP and 2650rpm. I don't have my chart with me but that's a long way below 100% power and she still climbed like a rocket.

Take off was a breeze. Tail came up easy and just lifted off like a home sick angel. First landing (10 knot winds right down the runway with no gusting) went pretty good. She's real sensitive on pitch and I got a little pilot induced oscillation and wobbled it about three times before she plunked down on all three and stayed. It was so smooth afterwards that I thought I had bounced back up into the air, but she was down. I must have managed to get the wheels aligned right (and must have landed straight) because controlability on the ground was a breeze with no tendency to veer or swerve unless I pushed too much on the rudder. Much easier to steer than that crooked Citabria I flew to get my TD time. (JFYI, I shot for zero degrees toe. No toe in or out.)

For the locking tail wheel that came with the kit, I had some trouble at first getting that adjusted. When installed as received, with chains not loose (not tight but no slack) I had good steering control for taxi but could not get it to break loose for swivel when I wanted to lock one brake and just spin her around. Rudder movement was just not far enough to get the wheel to the break loose point and let it go free. I tried loosening the chains, which did allow me freedom to get to the swivel, but now I had little to no steering for taxi and had to use the brakes a lot to keep straight. I finally drilled new holes in the tail wheel control arm 1 inch inboard on each side from the original holes and attached the chains there (once again with no slack.) This gave me good steering for taxi and enough throw (and give in the chain springs) to allow the wheel to break into swivel when

I hit one wheel brake. Even though this increases the steering sensitivity a bit, I found it no problem on take off or landing when taxiing at 60 or even 70mph. I'm real happy with this setup.

Now just a few minor squawks to adjust and fix and time to plan for flight #2.

Hey, does anyone have any suggestions for reducing a heavy wing situation. I did put a trim tab on one aileron but it may be a bit small. Full right trim really stuck that tab up in the air but it did level out the airplane nicely. I'm considering rebuilding the ailerons anyway as there were a couple things about them I didn't like, one being the size and installation of the trim tab. Just wondered if there are any other fixes ya'all might know about. JFYI, I don't have wing tanks. I have the nose tank. I do have tip tanks and CS tanks but they don't feed the engine and, thus, are not good candidates for balancing out the heavy wing with fuel distribution. The aux tanks are generally full or empty. I'm looking for ideas.

Also, you guys with CS props, what are you getting for max rate of climb, max angle of climb and best glide speed? In other words, what procedure (thinking of the prop here) would you use to get max glide distance at engine out?

Well.... Thanks for all the encouragement over the years. For those of you still at it, keep building..... but don't forget your family. We survived and are now making up for lost time. It's a long hard haul but worth it if you keep your priorities straight through the years.



Last Meeting

By Tim Busch

Our Christmas party was held at the Ox Yoke Inn in Amana. We were blessed with great traveling weather, so getting there was no problem. The meal was excellent and the gift exchange was entertaining. We also had a special treat of videos from the Blakesburg and Rockford Fly Ins from long ago, with narration by some real old time EAA members. It was fun to see some really old airplanes flying.

Next Meeting

By Tim Busch

Our next meeting will be held January 12th at 7:00 pm in the Swisher Trust and Savings Bank meeting room, located at 59 Rose Ave, Swisher. The program for the evening will be a presentation on Civil Air Patrol by Leo Bertling. The Iowa CAP operates eight aircraft in the state: 5 C172s, 2 C182s, and a glider. Many of the aircraft are brand new. Leo will discuss CAP's role in Iowa Aviation, search and rescue activities, the cadet youth program, and how you can contribute and benefit (think lower costs than you can find anywhere!) from CAP.

Presidential Words

By Tim Busch

Happy New Year! Are you ready to bring in the new year with a bang? Do you have any resolutions this year? Maybe stopping that bad habit, or losing some personal baggage so your airplane can actually carry some? How about finishing an airplane, or starting one? What about ratings? I'm not a big fan of resolutions myself, but I did sign up to complete the multi-engine rating that I'd been telling myself to finish for the past five years. Hopefully next month I can report successful completion of the rating.

What a year 2004 was! The FAA finally turned on the Sport Pilot license. It will be interesting to watch the changes in general aviation due to Sport Pilot. I already like some of the new planes, such as the CT2. The topper for the year had to be Mike Melville's flights into space on Burt Rutan's latest creation, Space Ship One. It just goes to show: individuals are more efficient than governments, incentives work every time they're tried, and despite its faults, the United States, the land of opportunity, is still best country in the world. My favorite sign in the on site crowd said, "Space Ship One, Government Zero". I don't know about you, but as soon as the costs are within reach (\$200k is NOT in reach), I want a ticket on Virgin Aerospace! I wonder how long it will be before we see the first kit space plane?

It's winter flying season again. So far, we have been lucky with minimal cold and snow, although we saw a short streak of bitter cold in December. I often hear from potential student pilots that they are "waiting until summer" to learn to fly. My reply is that winter is the best time for flying! Sure, people don't like the cold, but airplanes would rather fly in winter than summer. With colder, denser air, the airplane develops more power, climbs faster, uses less runway, and the air is smoother and the visibility is better than in the summer. Besides, there are no soccer games or vacation trips to content with your time in the winter.

Of course, if you are building an airplane in your basement or garage this winter, you are probably looking forward to some nasty weather to force you to concentrate on your project. Don't forget to get outside and fly now and then, just to remind yourself how fun it will be to have that bird flying some day.

Happy building, happy flying, and we'll see you at the next meeting!

Editor's Rant

By David Koelzer

Well the elections are over and the Presidential Inauguration will be held on January 20th. This will be everyone's chance to wish our President a productive and happy four more years...well not quite everybody. There are a few people who have not been invited to the inauguration. In fact, they have been banned from coming within 60 miles of event. Who might they be? Michael Moore? Or perhaps Al Franken? No, it is General Aviation who will not be welcome and if you don't believe me just try and fly into the Washington D.C. Air Defense Identification Zone (ADIZ) on Jan. 20 and see if your welcome does not include a fighter escort complete with complimentary Sidewinder missiles.

But to be fair, this is all in response to the terrorist attacks over the past few years perpetrated using General Aviation aircraft. Remember, there was the attack on the USS Cole...no wait that was attacked by a boat, but then there was the Alfred P. Murrah Building blown up by a...oh yea, that was done with a Ryder truck. Well ok, what about Sept 11th when 4 privately owned Cessnas were hijacked... ahhh oh that right, those were commercial airliners. Well, General Aviation must have done something wrong otherwise we would be afforded the same rights and presumption of innocence guaranteed all citizens...right?

Fly Market

HANGAR FOR RENT: I currently have two hangars at the Vinton Airport but only have one airplane right now. Hoping to have my second one complete in the spring. So I am offering up the second one for the winter if anyone needs it. I travel a lot for work so if you are interested please call my cell phone. Dave Culbertson 319-350-7105

FOR SALE: Gas welding and cutting outfit: Torches, tanks, cart, extra hoses, rod for steel or aluminum; make offer. We are moving and can't take this with us. I also have a quantity of tooling plastic which I will give away free to the first taker. Tom Harris 362-6323 tom-anee-harris@juno.com

FOR SALE: 74x48 Wood prop (Cont), Exhaust w/ Heetmuf 65-100 HP Cont, Exhaust for Rotax 503-582, Cessna Parts, Battery box w/solenoid, Fenderpants for 120-170, Hood latch-New, Custom instrument panel for 140, Fenderpants for 150-182 for Piper pazz, Wing parts, Instrument panel, Control wheels, Master switch, Seats, Intercom w/2 Head sets, V.W. engine w/carb, Mag, Prop and Prop-Hub, Wing & Tail covers w/formers for U.V., 600X6 Wheels & Brakes. Contact John Banes 319-846-2033 banescc@inav.net



How to have a lot of fun:

- Step 1. Tie funny shaped balloons to your car.
- Step 2. Drive like a bat out of hell....
- Step 3. Watch people freak out !!!!



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In The January 2005 Issue...

America's Wings, First Flight - Mustang II

Chapter 33 Calendar

Jan 12 7:00 pm Chapter Meeting, Swisher Trust and Savings Bank, Civil Air Patrol by Leo Bertling

Feb 4-5 Midwest Regional Aircraft Maintenance Symposium and Trade Show Sponsored by: Iowa Chapter of PAMA, Gateway Center Hotel Ames, Iowa

April 12-18 Sun-n-Fun, Lakeland, Florida

April 24 15th Annual Fly-in/ Drive-in Breakfast Hosted by: The University of Dubuque Flight Team, Dubuque, Iowa Regional Airport



"He knows when you've been bad or good, so be good for GOODNESS sake!"