

Product Review

CM Pro Lancair 46 A.R.F. by Geoff Blundell



When Steve emailed me to say he had a CM Pro Lancair to be reviewed I couldn't reply quick enough, I have wanted to do one of these beautiful aircraft for a long time now.

CM Pro's version of this aircraft is immaculate. Lifting the lid on the box revealed a well presented fibreglass fuselage that had one of the finest painted finishes I have seen. Also the 2 wings halves with the swept up wing tips, the stabiliser in two halves and the rudder were wrapped in plastic. The usual bags of high quality hardware were sealed off into little plastic bags relating to specific areas of the model. The fibreglass engine cowl was in its own separate box wrapped in plastic to preserve the brilliant paint job during transit.

WING

The wing is built up balsa and ply covered in a real iron on covering that makes it easy to get rid of any wrinkles. The ailerons were just slipped in and not glued, so I removed them and the "CA" hinges and prepared them for gluing. First of all, so the hinges will not slip past the centre point when I inserted them, I located the centre of the hinge and pushed a modelling pin through it, then placed it in the slot of the aileron.

Once all 3 hinges are done slot the aileron in place on the wing and glue the hinges as recommended with thin CA glue to wick into the hinge and wood. Before gluing the two wing halves together dry fit the locating dowel and aluminium joiner tube into a wing half and push the two halves together. Mine fitted together perfectly with no gaps so I pulled them apart and applied thirty minute epoxy and put them back together and set aside to dry.

Each aileron has its own servo, so the covering was cut away from where the servo bays are in the wing and the edges

given a once over with the iron to ensure the covering doesn't peel off. Each servo is screwed onto a moulded plastic servo cover and the wiring passed through the wing to a hole in the centre. After the control horn is fitted to the aileron simply hook it to the servo control rod and screw the cover into place. At this stage you can hook up your radio and set up the throws. The undercarriage is assembled with the fibreglass wheel pants and screwed onto the wing. Then the covered balsa gear wire fairings are trimmed and fitted.

FUSELAGE

I started up the back with the stabiliser halves. Sand away some of the paint on the fuselage where the stab root glues to it as this will make a better gluing surface. Once again dry fit the two halves of the stab with the aluminium joiner tube and when happy glue them on properly.

Once these are dry attach the elevators and rudder in the same manner as the ailerons, how's that, easy done. I then fitted out the servo bay with the 3 servo's, the one for the throttle required the assembly and gluing in of a little ply box that is provided. CM Pro provide two of these, one for each side depending if you fit a 2 or a 4 stroke engine.

The elevator is controlled by the conventional wood dowel and wire at each end

method that requires you to assemble. But the rudder is a metal cable pull pull system, this came with all the special equipment required of course, including an extra large servo arm.

I had never fitted one of these systems before and found it very easy and straight forward. The nose wheel was assembled with its fibreglass wheel pant and fitted in place on the fire wall. Then the supplied control rod was fitted between the rudder servo arm and nose gear. The 46 size 2 stroke engine was fitted to its mounts before attaching to the firewall, I find this easier than fitting the mounts to the firewall



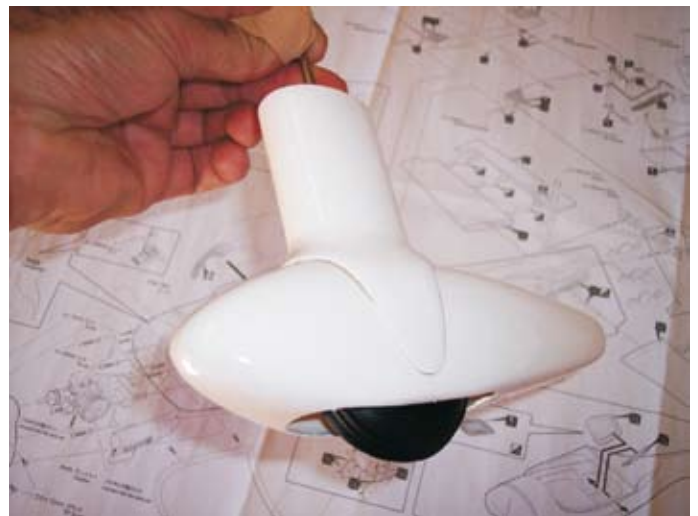
Trial fit the aileron then use thin CA to glue them in place. The wing panels fitted perfectly and are glued with thirty minute epoxy as are the plywood wing bolt plates. After the covering is removed of course.





I have never fitted a pull pull rudder control system before but found it to be quite straight forward.

The nose leg ready for installation.



first then placing the engine on them. Anyway, just make sure the distance from the spinner plate to the firewall is correct to allow the cowl to be fitted without any interference.

The fuel tank was plumbed and fitted with the fuel tubes being routed to the carby and remote fuel filler that I used. Being careful as you only have one, grind the appropriate holes in the cowl and screw it in place. The cowl is easily fitted with the standard muffler. With 5 servo's in this model I fitted an 1100mah battery to get the most out of a morning at the field. Fit the battery and receiver in an appropriate place to ensure the centre of gravity is not compromised. Bolt on the wing and check the centre of gravity is correct as per the instructions both laterally and longitudinally, give her a once over, iron out any wrinkles and your ready for the field.



The tailplane halves are glued with epoxy.

FLYING

As per the last model I reviewed the weather wasn't in my favour. There were terrible conditions for 4 weeks and if it did turn good for a day or two, I was at work at the prison doing 12 hour shifts from 8am till 8pm. The Meteorology Bureau kept forecasting "damaging winds" and "storms". I live in a court with a hill behind my house,

so it can be deceiving when I step outside in the morning to check the weather as we are very protected from it. There are some trees on top of the hill that give a very good indication of the wind conditions and nearly every day the trees were telling me what I did not want to hear and it was only 6am each morning when I checked. From that point on the weather just gets worse as the day heats up.

Well, with a deadline due I had to fly no matter what so I loaded the car and took Shirley and Aimee out to the club on a week day to give her a whirl. As we arrived



Fitting the .46 with a standard muffer is easy but check twice and grind once.





It not only looks groovy that's how it feels to fly the Lancair.



at the field the wind was already gaining strength but at least it was straight down the strip. The Lancair was checked over, the wing fitted and tank filled with fuel. The mandatory range check was completed and without further ado she was fired into life and sent out to the strip for some taxi tests. As the main gear was fairly well behind the centre of gravity she taxied well in the wind because it meant there was some weight on the nose wheel.

She proved to track pretty straight so I pointed her down the strip and pushed the throttle forward. After a very short run mainly due to the high winds, she was off into the sky, with a little trim on the elevator and ailerons she was flying hands off. I gained some height and basically ambled around the sky to get the "feel" of her prior

to any fast stuff. From up high I slowed her down for a stall test but in the high winds she virtually hovered before nosing over and gaining speed again, so I powered her up and off we went.

This model is very slippery in the air and really penetrated into the strong headwind at full throttle, it was quite surprising really as the fuselage looks as though it would have a fair amount of drag. Due to the short tail moment she can be twitchy with excessive control throws so make sure you have the radio set for dual rates or if you don't have a computer radio don't go past the deflections on the control surfaces as recommended by CM Pro. Not that this was a bad thing, it made for a lot of fun. After a few fast figure 8's left and right I did some nice big loops and the 46 size

engine running 10% nitro was ample power for this model.

The engine hardly seemed to notice the load it was pulling along behind it so a few immelman turns and the old top hat or two were thrown in that it handled with ease. After I had gotten to know her a little better she gave me the nod to go a little further with our relationship and she let me roll her over for some more fun. Inverted flight was a breeze and only required a little down elevator. I managed a few circuits in this configuration before she told me to be gentle with her in the current conditions as the wind was now gusting beyond 40kph.

I decided not to tempt fate by running the tank dry so I decided to bring her around on finals and brought her in with some throttle on to combat the headwind. As she came on down the glide slope it took a bit of work to keep her on track and she touched down quite well considering the conditions. That was great, if the winds were better I would have done it again but it wasn't worth the risk at this point.

SUMMARY

This model is finished off very well and looks fantastic, it goes together fast and all the hardware is very good quality. Though the "instruction manual" is only one (1) sheet of paper it is very self explanatory for a person that has assembled a few models before, and lets face it, you wouldn't be tackling this type of model if you were a beginner. I recommend you go and buy one of these, you will not be disappointed. So its by for now, have a great Christmas and New Years celebrations and be careful on the roads going to the flying field. The CM Pro Lancair 46 A.R.F is distributed to hobby shops by Model Engines Australia tel 03 8793 5555 www.modelengines.com.au