

Says it all – light, strong, all wood framework contributes much to 'Puddlemaster's' delightful water, land and air handling.

ace PUDDLEMASTER

Fancy something different? Dereck Woodward tries an exciting little electric amphibian from America

Well, just what is a 'Puddlemaster' Ace R/C have long made kits in America – their Seamasters are popular flying boats in 40 and 120 sizes – and 'Ace' designer Scott Hartman crossed the Seamaster with an '05' electric package for 'Puddlemaster', an easy building, lightweight electric flying boat.

Hello sailor!

In the box is plenty of quality wood and one of the best hardware packages I've come across. Three rolled sheets – two plans, one of logical instructions with tick boxes alongside each step – help you turn the bits into your 'Puddlemaster'. I followed them, too, just for a change! Afterwards, a smart decal set will leave no doubt as to what your new model is called...

The wing

This has one spar, a spruce/balsa/spruce sandwich, fitted from the bottom of a flat bottomed section. It's a light wing with minimal sheeting – centre section and one bay each side to take the floats. The tips are triangular block – pleasant looking and efficient.

The wing builds fast and easy. If you're a purebred R/C modeller this could be the closest you come to building a free flight



She floats! 'Puddlemaster' setting off for the first flight of the meeting at Goosedale Model Centre's 1993 'Splash-In'.

structure. If you build free flighters, you'll be happy here.

1/16in ply dihedral braces either side of the spar join the wings, aided by the supplied 4in fabric bandage – Ace call it 'polymat' – over the centre section sheeting. When cyano'd in place, it had a rough surface – a few coats of sanding sealer solved that.

Hull

'Puddlemaster' sports a cunningly shaped flat bottomed hull, very light as befits all electrics; Scott knows much about getting the most from a structure. The sides don't match the fuselage plan – hardly surprising as the plan is 3/4 full-size (where's my

Graupner Speed 400?), but accurate diecutting means assembly is no problem.

The sides and formers are made from top and bottom halves that are glued together – cheaper and more flexible for manufacture. The formers have their grain running side to side which is far stronger than vertical grain.

The fuselage tapers from bottom to top in cross section; this is harder to keep square than a rectangular section and left me wishing I'd assembled the fuselage jig I've had for ages.

Unlike kits that toss in a few hints on R/C gear at the end, here the subject is covered as you go along. For example, you're halfway through the fuselage when you're told to fit the snakes.

There's plenty of R/C gear space in the bows, Ace recommend a non-battery eliminator circuit set-up so that you've a drop of energy left for a taxi back if you overrun your flight power. With a BEC, you could find yourself up a creek without a paddle, so to speak...

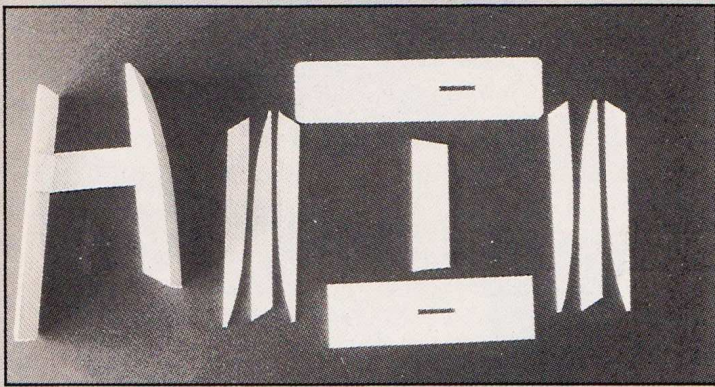
As servo loads are low and there are no bad vibes from a 600, I used a brace of Futaba S133 micro servos to drive the controls and a Futaba 114 speed control. Yes, okay, that is a BEC unit. Must watch

my watch!

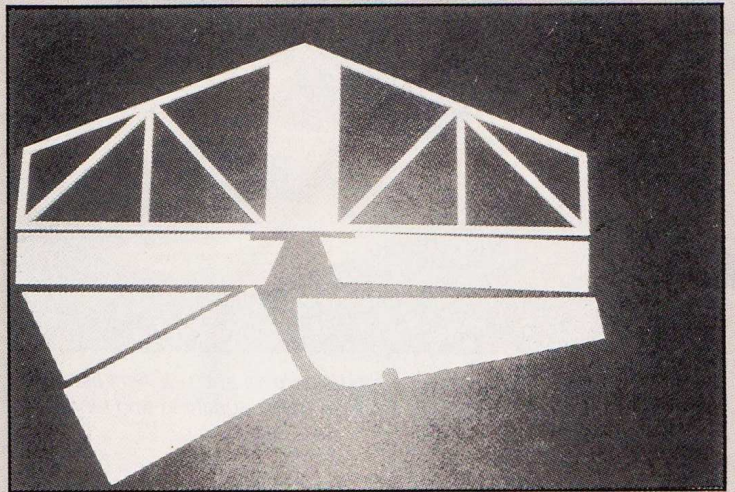
While cogitating on where to put the radio gear switch – missing from the instructions – I wrote to Ace RC – who wrote back with a couple of suggestions. They suggested that, if the switch faces the outside world, a waterproof one mounted high up was a good idea! The speed of reply was admirable. If you write to American manufactures, don't forget return postage – an SAE is good manners over there and pretty much guarantees a reply.

At the stern

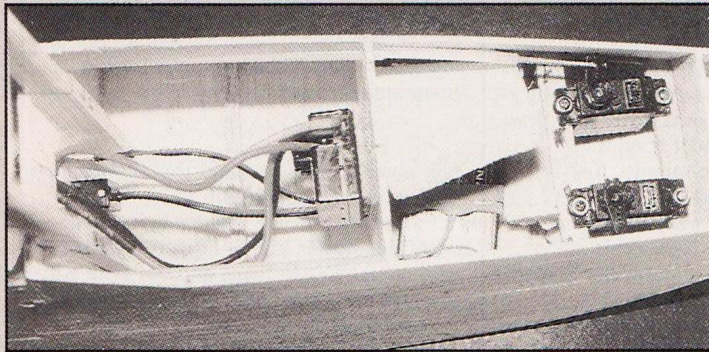
At the back comes a tailplane built from 1/4in square, with fin and moveables of light sheet. Interestingly, 'Puddlemaster' first



A float and a bit's worth of float! All balsa apart from the Liteply vertical strut, these are fastened either by Velcro for 'wet or dry flying' or permanently by gluing if you have a really handy lake.



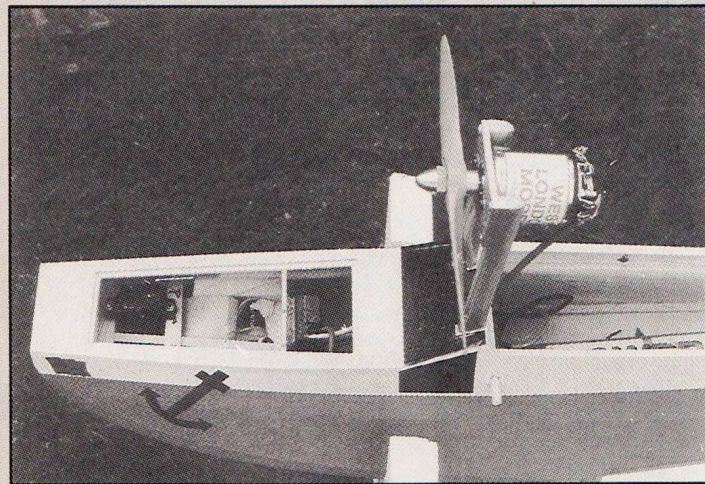
Really lightweight tailfeathers from strip and sheet. Rudder shape incorporates effective water rudder, steers fine in water.



Radio bay – minus some packing and the top decking. There're Futaba micro servos up front, Rx and a Futaba speed controller velcro'd to F2.



The underwing bay houses the nicad and gives access for RC gear and battery arming switches. Nicad is velcro'd to floor, index marks give accurate placement to adjust CG with different packs. 'Puddlemaster' takes off water and flies fine on 6 or 7 power.



The motor cooling is great! WLM Wetmag 20 sits aloft turning a 7in prop, APC 7 x 5 proved best. R/C and power train set-up is functional and good for learning the floatplane trade.

appeared as a magazine plan with all sheet tailplane. When Ace kitted her, it acquired the strip units. I wasn't keen on just gluing the 3/32in fin to the tailplane, so I added 1/4in triangular braces.

Making a splash!

The hull design looks good for water ops, with a flat, wide bottom and a well sited 'step'. To improve her balance, floats are fitted to a sheet panel let into the wing underside. Now, Ace appreciate you might not have "water, water, everywhere", but even landlubbers can find grass! If stuck with tarmac, fitting a set of wheels is covered, though the few parts needed aren't supplied for this. So the instructions detail removable floats using Velcro-type fasteners.

The floats are easily built, though I'd have preferred a full-sized drawing, rather than the 75% one. Each float comprises four ribs, a flat, die-cut top and cross grained bottom. I'd advise pinning the ribs together

and sanding to ensure they are all identical.

When I covered the wings, I treated the float mount areas with 'Balsaloc' and left the balsa uncovered where I fitted the Velcro. Contact adhesive doesn't stay on 'film long! When you want to water fly (aquaviate?), press-fit the floats. For grass field ops, off with the floats and hand launch..

Engine room

'Puddlemaster' is for 540/600 motors with six or seven cells. The plan lists the power combinations tried, the only 'exotic' being the Astro 05, so a motor and battery pack won't break the bank. I have flown my 'Puddlemaster' on both the West London Models 'Wetmag 20' and a Graupner Speed 600 BB, fed by 6 or 7 cell packs via a Futaba 114 speed controller. As to duration – around 8 minutes without too much fooling around at high power from the 1700 SCR packs. That throttle is really useful, as you don't need full power much.

A speed controller is good for increasing flight times – take off on full power, then reduce power and have extra time aloft. With a switch you're on full throttle all the time, at maximum current draw. Yes! Models *will* fly throttled back. Not many people know that...

Finish

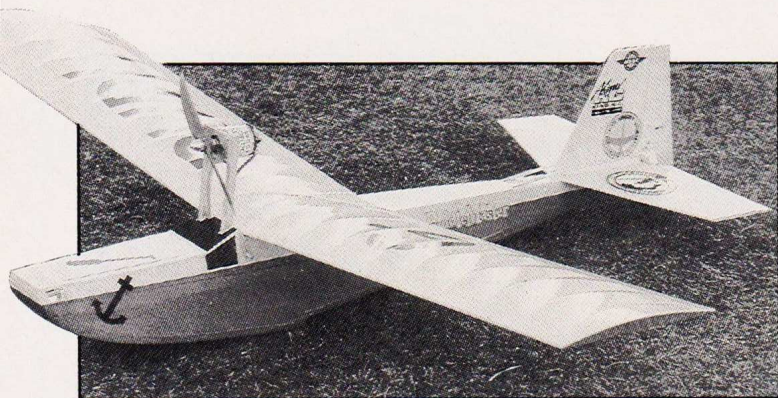
This model's covering does more than keep the airflow tidy! An overall coat of Clearcote, internal as well as external, should keep the woodwork dry. I was in a hurry to test her before a Goosedale Floatplane Meet, so 'film' went over that.

I used a trick that I read in an American review of this model, and covered her from the top down, instead of vice versa. This puts the 'open' edges of the film overlaps facing upwards and cuts down the chance of water arrivals lifting them. The floats and motor pylon are as easy to 'film' as a golf ball, so I gave them a few coats of sanding sealer and a coat of pant!

The instructions describe two methods of control surface hinging, either the classic sewn figure 8 hinges or heat sealing two strips of covering film together back to back for 'over and under' hinges after film covering.

Mylar strip would serve but could be too thick for the 3/32in fin. I used Ace's over and under film hinges on the rudder and glider style film hinges on the elevator. 'Over and under' won on free movement once I got the hang of things.

One last trick – three inches forward of the step is covered in stick-on trim to match the 'film covering. That'll get tatty instead of the covering and can be renewed when too far gone.



Minus the floats, 'Puddlemaster' makes a novel and practical electric sportster with sparkling performance for hand launching and landing on a grass field.

Velcro secures the flight nicad, so changes can be done quickly and the nicad used to fine tune the CG. I painted a line in the battery bay and put a matching line on each battery used. This allows me to drop a pack into the right fore and aft location.

Let's go flying

First off, grass was handier than a lake – or a puddle! She hand launches easily – just hold her in my left hand, full power and heave ho. There is slight nose down tendency at first – I've put that down to the high thrust line – but she soon climbs smartly away.

Handling in the air is well balanced. Though some pendulum action is present due to the hefty nicad well below a good amount of dihedral, this is a fine flying model with no vices. Turns are smooth, easily entered and exited, bank coming on and off smartly.

She will loop and roll – well to the left, not so good to the right – and can manage a wobbly Cuban 7.7/8, if you persevere. Inverted is not on – if you get her there, that flat bottomed section doesn't work upside down, dihedral and pendulum action see to the rest! Still life can be lively and fun.

One surprise came when I fitted a nicad a little aft – she will spin. The exit was smart with no drama. No sweat – I like spins and always explore that corner of the envelope.

There is little trim change between power on and off, despite the unusual thrustline. Trimming for powered flight by adjusting the thrustline is in the instructions – remember that it's the reverse of a high wing model and you won't go far wrong. Landing is easy – with a weight of only 41 ounces, 'Puddlemaster' can be slowed right up for landing. I was worried about the water rudder getting damaged on grass, but it's well clear of the ground as the model sits down on its step.

My first sessions were from land, so I would know how she handled when I went to Goosedale. My fourth outing was perfect, with zero wind, nil turbulence and freshly mown grass. The latter was wet – I couldn't resist attempting a 'slide and go'.

Round the circuit, then add a trickle of power on a low, shallow approach. As her 'step' touched the grass – open up slow and smooth, gently back on the stick and she's off. I was shooting slide and goes every flight from then on. Amazing, safe but it doesn't work on dry grass!

Down to the sea

Or Goosedale's lake, anyway. September 25/26 saw yours truly at the Goosedale International Model Centre for their 'Splash

In' waterplane meet. Now Rolin' Groundloop can make jokes (or so he thinks) but this really was the Dereck Woodward-owned 'Ace Puddlemaster' Splash-In! That's right – there I was, all on my own. A few brave souls flew large, noisy landplane models, even less flew smaller, quieter ones – and I tried the 'Puddlemaster' in landplane mode. Just to check the air, so to speak.

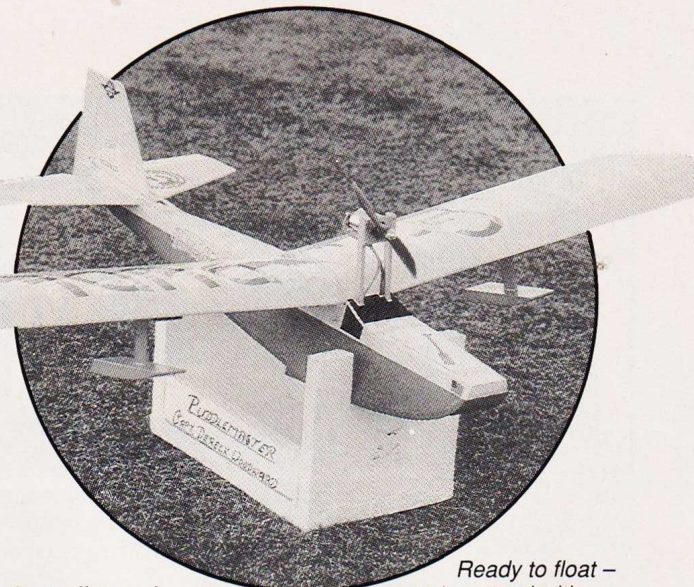
I soon had a crowd – well, more of a small gaggle. Even had a New Zealander. Jack Headley had taken a day off his English vacation to visit Goosedale and watch floatplanes. Hints were falling like Autumn's leaves as to my putting on my wellies – it isn't far to the lake, etc.

So off to the waterside. The wind is at 45° to the lake and off the trees – so what, wimps don't wear the SMA patch! I 'fuel up' and set 'Puddlemaster' onto the water. Photos are taken to prove she floats, I trickle on the power to see how she moves. Water steering is easy, though a float can get pushed under by the strong cross wind.

With practice, I find it possible to do a 180° turn from into wind to a downwind taxi. It's easier than taxying a taildragger landplane by far, so back around and swing into wind – a strong weathercock tendency is a trademark of water taxying, I'm told.

Open up, let her run into wind and we hear the 'patter, patter' of tiny floats running across the waves tops. Soon she's going flat out, I ease in the up and, hull streaming, 'Puddlemaster' is airborne where we're already good friends.

Cruise around to get some airborne shots and figure out that the best approach for today would have been to stay in Nell Gwynn's (Goosedale) new snack bar) and



Ready to float – on her stand with floats fitted and ready to head off to the Goosedale Model Centre's lake for our first flight off water. Model has impeccable manners all round.

talk about it. Slide around the best pattern, power off and 'splash and go'.

This is great fun! I've thought about waterplaning for years – if you have too, all I can say is "Get in there and do it". It's great fun and the "Ace Puddlemaster" gives you an easy-build kit that can fly off water quietly. At least one of that small group of watchers went away determined to order his own 'Puddlemaster' and that says volumes for this 'Ace' model.

Sailing into a setting sun...

'Ace RC' is American kitting at high standard, giving a pleasant building experience. At the UK price of around £45 she's good value. Going to America? The \$ price will make you smile – just tell Custom's it's a 'toy aeroplane' if you declare it. Either way – you'll really enjoy flying this unusual, yet practical model.

Known UK sources for the 'Ace Puddlemaster' kit are West London Models and the Sussex Model Centre. West London Models also supply the WLM 20 motor as used in the review model. I'd buy a pair of welly boots, too. Mine cost £10.99, are a fetching green and make messing about on the lake much more pleasant!



Here's a unique shot (below) of every flier and model at Goosedale's Splash-In. On top of that, it's the first off-water flight for both the review 'Puddlemaster' and the reviewer! Left: Cruising over the Goosedale Model Centre lake – the trees are further off than they look here. A rare crosswind made life exciting, but 'Puddlemaster' coped well.