MAR 81 #3

NEWSLETTER

Fellow Osprey Builders:

In the last newsletter, Vol. 1 No. 2,I covered flight test off ground or first test flight. Now the real fun starts. Let's get it wet!

You may be a high time boat or float pilot but your little Osprey may be just a tad different from anything you flew before. On the premise that you and the Osprey are both new to the water lets try to give each other all the breaks we can.

Most important is the wedge that is added to the bottom 12" to 14" long from the step forward and runs from side to side. This wedge is no less than 3/16" thick at the step tapering to -0-" forward. Its shown on dwg. 38. When completed you should be able to lay a straight edge fore and aft and not have a rocker in the 14" length. Think of it as a trim tab to keep the hull flat on the water. If your Osprey porposies at step speed and you can't stop it with some elevator back pressure you either have a rocker in the wedge or it needs to be thicker at the step. You can lay up more wedge by glassing on one 6" wide layer side to side starting at the step then a 4" followed by two 2" strips. This 8 oz. cloth is then feathered. Now when you lay a straight edge you will see a slight concave condition. Its like bending a metal fixed trim tab down on a control surface. OK, back to getting wet!

Since you have already flown your Osprey from land and have enough time in it to feel comfortable take the wings off and tow it to the water. If you're lucky enough to have a strip next to the water so much the better.

You should have a chase boat and wear a crash helmet. A good life preserver is also a must.

The best water is a slight ripple up to about 3". Three to seven M.P.H. wind. Glass smooth water looks good but once airborne I'll guarantee you will never know exactly where you are by sight when you touch down so try to get a slight ripple.

Speed boaters are all bored. They are always looking for something new to see in their water and maybe, set up a drag race. I know, I used to be one! Try to pick a day or a place where boats are few unless you want your own navy.

Tell your chase boat crew your intentions for water runs. If a ramp is available taxi head first into the water. The tires tend to restrict gear down due to floatation so rig the assist springs accordingly. If the gear down seems too hard in the water don't force the push rods in compression until they bend something. Be sure you're in deep enough water to put the gear down. Your Osprey is much easier to taxi in the water with the gear down. Set the carb. idle as low as possible for semi-smooth running. You can taxi on one mag to slow it down. Practice with the gear up and the water rudder down. A blast of power will get a turn started if your weather cocking with the wind. Be sure to retract the water rudder prior to any high speed taxi. For the first high speed taxi head into the wind and apply full power with the stick full back. As you start forward the nose will come up and you will roll over the bow wave. Ease the stick forward as the speed builds up to about 25 M.P.H. Come off with some power as you reach about 30 - 40 M.P.H. If your Osprey tends to porpoise increase some stick back pressure until it stops. At 40 to 50 M.P.H. you should be planeing pretty flat. You will not get air born below about 55 M.P.H. Don't forget your chase boat. Pull the power off and come back on the stick and you will settle in like a duck. Turn around and make some down wind runs. Watch for boat wakes or any rough water.

On the first lift off just leave the power on and you can fly off at about 60 or 70 M.P.H. A little back pressure will help it off at these speeds. Assuming you have lots of water I recommend easing off the power down to about 3 ft. above the water, keeping enough power on to allow the hull to be pretty flat. Off with a little more power and on touch down just pop the stick forward about an inch or two or relax any back pressure and off with the power. Think of a wheel landing in a tail dragger. It's about the same technique. You're landing will be so smooth you will hardly realize you're on the water. The important thing is the flat approach and the forward stick to glue it on. Your Osprey will not nose under with this kind of landing. Step turns should be entered not over 50 M.P.H. Use full aileron with the float in the water feeding in rudder and back pressure on the stick. Add power as the turn progresses. If you start skipping sideways ease up on the rudder. Be sure you have plenty of room prior to doing step turns. If you fall out of a turn you sometimes end up turning the opposite direction.

Taxiing out of the water up a ramp is no problem. Be sure the nose wheel is straight to your course when it impacts the ramp. You can taxi up a very steep ramp if necessary.

I think the most difficult part of water work is exercising the right judgement on where to land, water conditions, trees and wires, etc. I know it's different than flying into a genuine airport. Please be prudent!

One more thing. Have a good battery and a spare armstrong engine called a paddle!

George Pereira