



# West Coast Canada: where seaplanes are the planes



**You can learn to fly seaplanes in Scotland, or while on holiday in Florida – but to experience them working for a living Derek Jones made the trip to the West Coast of Canada**



Photography, unless credited otherwise, by Morag Jones

**M**orag and I decided we needed another seaplane flying fix. Our previous forays had taken us to the lakes around Nelson BC, Jack Brown's Seaplane Base in Florida and Loch Earn in Scotland. In those episodes, the flying was mainly the academic business of getting a floatplane on and off the water to obtain and maintain our licences. This time, we felt it would be interesting to go somewhere where seaplanes work for a living. Where else but the area around Vancouver, Vancouver Island and the Gulf Islands?

A search of the Internet threw up several options but we settled on David Budd's Ocean Air operation, flying a Cessna 180H at Patricia Bay (known locally as Pat Bay) on Vancouver Island. David flies charters in the 180 and DH Beavers apart from training, and is highly experienced in West Coast operations.

We flew KLM to Vancouver and were picked up by David at the airport seaplane terminal after a

short taxi ride from the main terminal. The seaplane dock can be a busy place, with constant comings and goings of Turbine Otters, Beavers, and an assortment of Cessnas. I elected to be the fall guy to fly the trip across the Georgia Strait to Pat Bay under David's careful guidance.

First set up the cockpit so all ready to start and rudders down. The dock lines were released and laid along the float tops (amazingly they stay there in flight). With an apprehensive glance at the next aircraft moored downstream and under David's careful guidance, a hefty shove off into the current, dive into the cockpit, hit the starter and set 1,000 rpm.

Take a deep breath! Now there was time to slide the seat forwards, put on harnesses and headsets and carry out the after start checks, meanwhile taxiing downwind towards the bridge and watching out for other aircraft.

Pre take-off checks left to right, 20 deg flap, fuel on both, and clearance from Vancouver Tower

to "slide westbound." Turn to head down the river, rudders up, yoke hard back and full power 2,600 rpm applied with a bootful of right rudder. The nose rises, bow wave moves aft and ease the back pressure to get up on the step. I had forgotten the cobblestone ride experienced in even a small chop. A last thump and we were airborne; best climb speed is 77 kt, but in the interests of cooling, we cruise-climbed at 85 kt to our initial clearance of 500 ft and then further to 1,000 ft, turning onto a heading for the Active Pass reporting point between two Gulf islands. Cruise power, 23"/2,300 rpm, gave 105 kt. The engine is carburettor fed, so the regular dockwise checks included carb heat.

Once through the islands, we descended gently to 500 ft and rounded the north end of the Saanich Peninsula for Pat Bay. The seaplane dock, ramp and dispersal are part of the old WWII flying boat base and situated right off the end of Victoria International Airport's main runway. ATC therefore control all movements, albeit in a friendly and helpful manner.

After landing, we taxied straight to the ramp. A short burst of power to 1,200 rpm to get a cushion of water under the float noses, and we rode far enough up the ramp to disembark dry-shod. The aircraft recovery from the ramp was interesting. A front drive car which had been sawn in half supplied motive power, and had a hydraulic powered lifting cradle with castoring wheels rigidly attached to the front. The aircraft was lifted bodily and taken to be washed down, refuelled and parked - all very easy.

For our first three nights we stayed at Cartref B&B up on a hilltop north of the airport and run by Josie and Malcolm Shrimpton. We rated this establishment at the top of all the B&Bs we have stayed at over the years, both for its appointments and Josie's marvellous breakfasts. Not the usual bangers, eggs and beans by a long way, more cordon bleu style. Picture this; blue sky, a view south towards the Olympic Mountains and breakfast under a large sunshade on the patio. The gentle splashing of water from a small waterfall trickling into a tiny stream, humming bird sipping from a feeder and the occasional rumble from one of Mr Pratt and Mr Whitney's finest as a Beaver trundles past; absolute heaven, and Cartref is rightly popular, so you have to book early.

The next day was taken up with organising a hire car and a briefing from David. A car is a virtual necessity in this area, even if you don't plan on touring.

### The serious business of 180 handling

The day after, we got down to the serious business of getting used to the 180's basic handling characteristics, on and off the water. The aircraft was put down the ramp, this time facing outwards such that getting waterbourne was just a case of a gentle burst of power, combined with rocking the yoke fore and aft to unstick it. During the taxi out into the bay, the after-start checks were done in accordance with the checklist, including mags and prop with the yoke hard back to minimize spray erosion, but



Beaver floatplanes bob on the waters of Vancouver's busy seaplane dock



Ocean Air's Cessna 180H floatplane, fitted with long range tanks



Ramp recovery: you've heard of a halftrack - here they use a half-car!

unusually also checking mixture leaning and confirming a very low idle rpm with the carb heat selected, useful when approaching a dock.

After takeoff, we headed out at 1,000 ft, through the channel between Saltspring Island and Vancouver Island to a sheltered area between the Gulf islands of Valdes and Galiano and Vancouver Island. On the way, I investigated the handling. Although the 180 floatplane has the larger 185 fin and rudder, yaw stability was interesting. Yawing to the right and releasing the pedals produced a reluctant return to the straight and narrow. To the left, it just stayed there, cocked off and way out of balance. Overall the 180 felt a bit ponderous, needing proper rudder pedal coordination in turns, but exhibiting little change in yaw trim in most steady flight conditions. Stalls were completely undramatic with adequate aileron control down to the break – perhaps courtesy of the wing fences – a gentle nod at the stall and little wing drop.

The hazards to seaplanes on the water are many. Firstly, small waves and boat wakes that I would not even notice as a yacht sailor become a major consideration. Then there are floating

obstacles, in particular old logs, which can float just below the surface, and last but not least, water skiers and jet skis, which seem to be attracted to seaplanes like a magnet.

The direction of the wind can be ascertained by looking at moored boats, foam streaks and sheltered patches adjacent to the shoreline. All this adds up to a requirement for a very careful recce of the proposed landing area, flown at 80 kt/10° flaps, and not forgetting the takeoff area as well. Downwind at about 700 ft, the usual clockwise circular checks including rudders up and full carb heat, reducing power progressively to 15° and looking for 75 kt. Then 20° flaps, which was used for all normal landings. Turn onto final, reducing to 70 kt with the last checks of carb heat to *cold* and prop to max rpm. The next bit is the most critical – judging the round-out. Not theoretically terribly difficult if the surface is ruffled, but really difficult if glassy. David suggested an initial level off, followed by a slight flare to the planing attitude, and a satisfying hiss as the floats touched if you got it right

(at least that was the theory). Then power off and hold the attitude, not full aft stick as Piper exponents seem to recommend – the argument being that if you hit a wave at the wrong moment, you could get bounced into the air, then hit the tails of the floats which would pitch you nose-down into the next wave.

Rather to our frustration, both Morag and I found getting the touchdown consistently right took a while, resulting in some twitches from the right seat and substantial thumps from below. Water is not soft at touchdown speeds as there is no shock absorption anywhere in the float attachments. In the end, I found a more progressive round-out worked better for me rather than the two-stage process. I can understand David's idea, as it shows him that Bloggs is not going to fly him straight into the oggin. Once down to taxi speed, rudders are lowered, cowl flaps opened and checks made for the next takeoff.

### Variations on the theme

Variations on the theme explored on subsequent days included progressively steeper approaches over obstacles, using 30 and 40° flaps at 65 and 60 kt respectively, with limited landing space. The great advantage of this flying area was that all conditions from a small sheltered lake (with a rather dilapidated dock), to lakes affected by adverse wind conditions and the open sea are all available within a relatively small area.

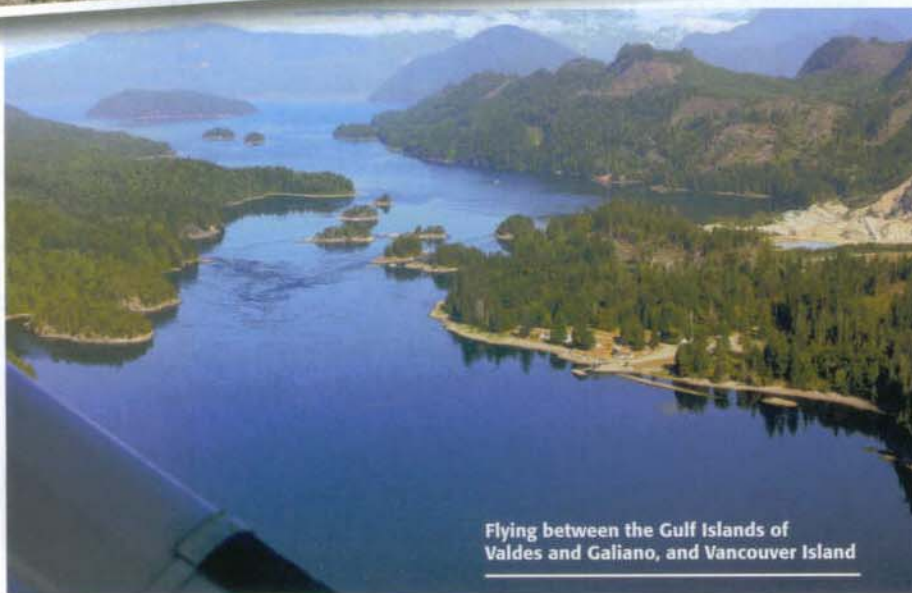
On just one day the wind breezed up towards 20 knots. In open water, light seaplane pilots would begin to question whether to stay on the dock, due to the inevitable accompanying waves. However, we set off to Shawnigan and Quamichan Lakes on Vancouver Island to explore the wind problems without the large waves. Seaplanes do not easily turn away from strong wind on the water; such is their tendency to weathercock. Thus a more forceful effort called the plough turn is required. Stick back, more power to sink the heels of the floats and full rudder. This tends to throw a lot of spray into the prop so once on a downwind heading, power is reduced again.

Ultimately with even more wind, this will not work either. This is where 'sailing' becomes an option and comes in two forms. Power sailing is used to move laterally. Rudders down, full flap, to create drag, rudder in the direction you want to go and opposite aileron to help with a bit of aileron drag. Whether you move sideways and forwards or sideways and backwards can be modulated by power, if necessary using carb heat and switching off one mag.

Power-off sailing is used to go backwards. Rudders up, flaps down and if you want to go backwards to the right (this takes a bit of thought), full left rudder and yoke to the right. This swings the tail to the right and off you go. Unfortunately with the flaps down, you can't see where you are going, so the idea is to get yourself downwind of where you want to go and off to one side, then power sail forwards and sideways to the dock if the space is restricted. However, the combinations are endless.



Ready to get waterborne



Flying between the Gulf Islands of Valdes and Galiano, and Vancouver Island



Touching down, having kept an eye open for floating obstacles like semi-submerged logs



In the air, the 180 seaplane's handling is distinctly ponderous

Takeoffs in even mildly rough water were not comfortable. There was a lot bouncing and banging, so the aim was to keep the noses of the floats a touch higher to avoid sticking them into a wave, and then get airborne with a positive pull. Unfortunately, you usually get bounced into air prematurely on the ragged edge of stalling, so a more extreme technique is to get onto the plane with flaps up, then at the minimum flying speed, yank the flaps down and pop off the water.

Landing requires touchdown at the minimum speed, therefore using full flap. However what you don't want is to hit the water with the flatter part of the floats in a stalled attitude. Power is used to adopt a slightly flatter attitude than normal, thus hitting the water with the vee'd part of the floats, choosing your moment carefully to coincide with a

"smooth". Then if necessary, dumping the flaps to nail it to the water.

Crosswind landings have similar considerations to landplanes using the wing-down technique, but always being aware that seaplanes are taller and prone to capsize. Also the air rudder loses its effectiveness quite quickly, resulting in a swerve into wind if you are not quick enough in getting the water rudders down.

On takeoff, particularly with the wind from the left, it was impossible to hold heading with the water rudders up, so there are two choices; aim off to one side and allow the aircraft to turn onto the takeoff direction, or leave the rudders down until the air rudder becomes effective, all the time holding full aileron into wind.

Step taxiing is a quick method of getting around on the water, rather than the tedious idle mode. Basically once the aircraft is on the step, power is reduced and you become a rather unmanoeuvrable ski boat. There are a few provisos: turns are executed with the air rudder – the water rudders being raised – and using the ailerons to maintain laterally level. This demands a bit more power. Turning from into wind to downwind is permissible, as centrifugal force and the wind

lifting the wing tend to cancel. From downwind to into wind is a no-no, as both effects are tending to capsize the plane.

As Cartref couldn't accommodate us for the whole period, we moved down into the local town of Sidney, situated on the east coast of the Saanich Peninsula. This had been a quiet seaside town and harbour in the past, a favourite for retired people and with an excellent selection of second-hand bookshops and places to eat in the town and round about. However it is now gearing itself up with marinas and modern apartments on the waterfront. We moved into Corbett House B&B, a different style completely to Cartref. Our accommodation was a very roomy suite with all the facilities for self-catering and the makings for breakfast provided fresh every day. Darren Corbett keeps a yacht in the marina and offers evening trips on request.

As we were on holiday and not doing a course, we tended to fly half days and took a weekend off in the middle to look around. At the airport, there is ▶



Mored in the serene waters of Princess Louisa inlet

the Heritage Museum which has a variety of well presented items, including an Eastman E 2 Sea Rover (the only one in the world), Bolingbroke Mk IV, Anson Mk II, Fleet Model 2 floatplane, Noorduyn Norseman, North American B-26 converted to a firebomber, Grumman Goose, Chipmunk, T-33 Silver Star, Seabee and several others undergoing restoration by volunteers.

The city of Victoria on the south end of the peninsular is a total contrast to Sidney, being a vibrant place with all the tourist attractions. While we were there, there was a Dragon Boat Festival going on in the harbour. Half way between, there is the large and stunning Butchart Gardens. This is very much in the North American style. The colour and variety of plants, waterfalls, fountains etc left us amazed. Not a weed, dead head or blemish visible anywhere. How do they do it? When we enquired, the answer was 456 full time staff, compared to the 500-odd employed in the gardens of the 70 properties of the whole National Trust in Scotland, and accounting for the rather steep entry fee. Once a week there is a spectacular firework display in the evening thrown in.

On the mainland, northwest of Vancouver, the terrain is a series of fjord like inlets, channels and islands, separated by 5 - 8,000 foot mountains with few roads and usually only easily accessible by boat or seaplane. David selected Princess Louisa inlet for us as a taster of this area.

First we crossed the straits for about 60 miles to the inlet between Nelson Island and the Sechart Peninsular. The tidal range in this area can be a massive 18 feet. All this water moving in and out causes some fierce currents in the narrower channels. We then wended our way for another 40 miles further inland following a winding route along Jervis Inlet, Princess Royal Reach, and Queens Reach between mountains rising to 7 - 8,000 feet on each side. Finally a sharp right turn into the

Heritage Museum exhibits include Fleet Floatplane...



Avro Anson and Noorduyn Norseman...



and this Grumman Goose



narrow Princess Louisa inlet and the opportunity to practice some glassy-water landings. Basically these are a test of faith. A steep turn onto final approach in the narrow channel and let down to 75 - 100 ft over or near to a reference feature where you can determine height above the surface. Then set the landing attitude, throttle to achieve a very low rate of descent, ignore the reflections in the water and wait. After usually a long pause, the floats touch when you least expect it, throttle back and release the breath that you have been holding. It tends to take up a lot of water. Many floatplanes have come to grief when this procedure was not followed: it just feels so unnatural.

Finally at the end of the inlet there was a small dock, well populated with yachts but the space for seaplanes left clear (not always the case as we were to see later). A path leads from the dock up to the spectacular Chatterbox Falls which empties water from a lake about 5,000 feet higher up.

Departure in the calm conditions gave us the chance to practice the takeoff from glassy water. If the surface is not ruffled, the floats are reluctant to break from the surface, particularly when heavily loaded. A rather controversial technique once on the step is to apply aileron and lift one float from the water. In this case we did indeed pop off the water, but then we probably would have anyway, and not everybody agrees that it is beneficial.

Having an interest in aviation history, I expressed the wish to visit Sproat Lake, the operating base of the two remaining Martin Mars Flying boats, now used as water bombers. From the air they didn't look all that large, but as we taxied up to them their huge size becomes apparent. The idea of hauling them around at low level on firebombing runs beggars belief. Also the coordination required between the two pilots and the two flight engineers (the systems are 1940s technology) when planing on the water to pick up another rapidly changing load of water must be quite something...

### Putting our skills to the test

Our next thing was to put our acquired skills to the real situations confronting seaplane pilots in this area. In the end this all comes down to docking in a wide variety of situations. David reckons it takes about 500 hours of float operations in this area to have experienced most of the variables and make all the usual embarrassing mistakes.

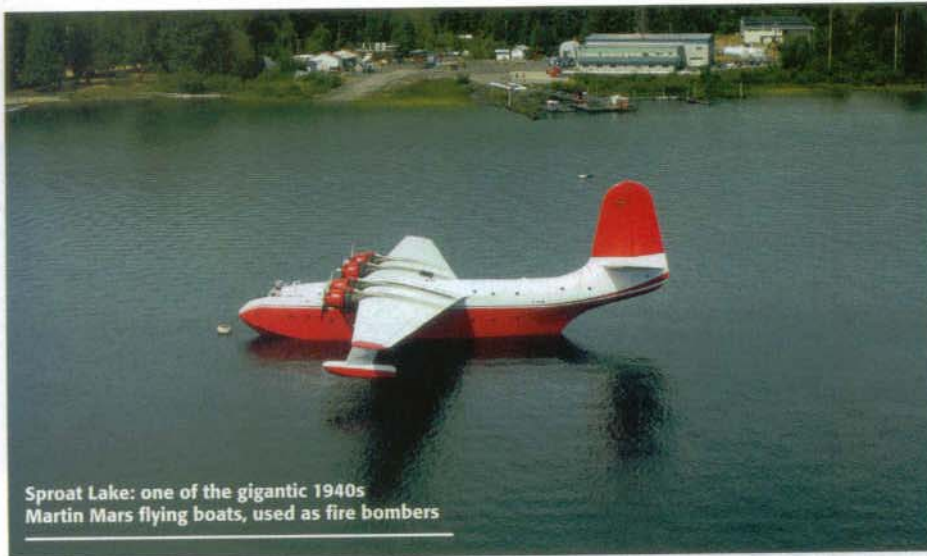
First we went to the Fraser River, upstream from Vancouver. Apart from the problems of shallows, rocks, assorted buoys, power cables, fishing boats with nets strung between them, other waterborne activities and bends in the river to look at, there is the question of tide or current. Ideally you land down-current and into wind, thus reducing the relative water speed on touchdown. If the wind and current are in the same direction, the current effect is considered to be about twice the wind effect. Thus, with a 5 kt current and a 10kt wind,



Glassy water - a serious hazard amid the obvious beauty all around

Leaping out to grab the handling line (easier when the dock's on your side!)





**Sproat Lake: one of the gigantic 1940s Martin Mars flying boats, used as fire bombers**

the effects cancel. With more wind, you land into wind.

When docking, because the water rudders are the more powerful, facing into the current is the preferred choice. However, because close to the bank you can get back eddies, the only sure way to tell is to turn perpendicular to the shore and see which way you are drifting. As you approach the dock, headset off, stow the harnesses, slide the seat back and turn parallel to the dock. Then judge the leap on to the dock and grab the handling line hanging from the wing/strut attachment. This pre supposes that the dock is on your side; otherwise you have to cross the wire stretched between the float noses, with the possibility of an early bath!

After a few sessions of this activity, we flew downstream for lunch at the Flying Beaver Restaurant on the Vancouver Airport Seaplane Dock. Here any mistakes are in full view of the knowledgeable gaze of the 'goofers', and a very careful approach was the order of the day. The consequences of not doing this were demonstrated perfectly by a Cessna 172 driver who came in down current at an angle, and went rattling off

down the dock until his handling line was grabbed by a bystander and the aircraft dragged to a halt.

Seaplane pilots give their intentions on Unicom frequencies, but when you throw into the equation yachts, power boats, canoes, water skiers and jet skiers of varying degrees of skill and experience, the potential for surprises is considerable. David said you have to consider all boaters as incompetent, drunk or mad (a foul slur on us sailors but probably a safe assumption).

At the end of our holiday, I came away with enormous admiration for the pilots who do this every day, not always enjoying the beautiful weather we experienced. The good weather pattern in the Straits is largely confined to the mid June – mid September period we understand.

David Budd provides a wide variety of options at Ocean Air from sightseeing and fishing trips, to Transport Canada Seaplane endorsements and 50 hr courses for those who intend to fly professionally. Or as we did, a Vacation Pilot Course, learning the techniques and having an enjoyable time in a magnificent area as well. The biggest problem is deciding when we can go back ■



**It can all become a bit too interesting, when you share a busy dock with sailing and motor boats**

## Vital statistics

### Costs and flights

Return flights, KLM Aberdeen to Vancouver via Schipol £835 per head. (It could be a lot cheaper by charter, but the flight days did not coincide with our leave dates.)

### Accommodation

- Cartref B & B: \$125 per night (exchange rate: Can\$2.09 to the £)
- Corbett House B & B: \$140 per night depending on length of stay,

### Flying costs

- Ocean Air hourly rate (2006) Cessna 180H floatplane: \$291.50 including taxes
  - Victoria Flying Club dual rate C152 - \$154 plus GST. Temporary members fee - \$30
- Note: Taxes on flying turned out to be non refundable, according to Canadian Customs

### Contact

- Ocean Air: tel (250) 655-1144 or (866) 655-1144, email: [info@oceanair.ca](mailto:info@oceanair.ca) web: [www.oceanair.ca](http://www.oceanair.ca)
- Victoria Flying Club: tel (250) 656 2833, email [info@flyvfc.com](mailto:info@flyvfc.com) web [www.flyvfc.com](http://www.flyvfc.com)

Transport Canada (Victoria Airport) Temporary Licence Validation – Just show your Passport, Licence, medical, valid ratings. Cost: \$45



Do you know what the Sierra Nevada mountain range looks like from space?

**We do.**



Jeppesen's VFR+GPS charts bring high-definition satellite data down to earth and make it easy to use for the VFR pilot. We use this imagery to enhance our VFR charts, so pilots can see the earth like they've never seen it before. The result is the most detailed VFR flying charts available. Jeppesen knows. Get Jeppesen VFR+GPS charts onboard your next mission.

For more information about VFR+GPS charts visit our special website [www.jeppesen.com/vfrgps](http://www.jeppesen.com/vfrgps) or contact your local authorized Jeppesen dealer or our UK office, 0800 085 5377 or (08000 UK JEPPE).

**JEPPESEN.**  
Making Every Mission Possible

Navigation Information | Flight Planning | Training | International Trip Planning