



# Columbia Seaplane Pilots Assoc.

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BULL-A-TON

Winter 99-00

By now you have decided which calendar you are going to keep. Here are some events you may want to remind yourself of.

- Feb. 25 Wash. Seaplane Pilots annual dinner meeting 6:00 PM  
Boeing Museum of Flight Boeing Field Seattle  
You-all are invited to come early and see the Museum.  
For more info call John Sessions 206 587 4040
- Feb. 26-27 N.W. Aviation Trade Show Puyallup Wash.  
Seaplane Safety Seminar 1:00 PM Saturday in the  
Exhibition Hall. Info on future and history.
- Mar. 23-25 3th Annual Idaho Aviation Conference,  
At the Double Tree Hotel Boise. For more info.  
Check IAA Web Page <http://www.flyidaho.org>
- Apr. 9-15 SPA will be at Sun & Fun Lakeland Florida  
For lake Parker contact Geo Hindall 941 475 3870
- May 17 Wed. evening the Columbia Seaplane Pilots will have  
there annual business meeting at Aero Maintenance Hangar  
on Pearson Field Vancouver Wash. Hamburgers are free  
if you paid your dues. Call Bill Gough 360 735 9441
- May 20 Sat. WSPA/Museum of Flight Seaplane Day at Renton Wash.
- May 20-21 Alaska Aviation Trade Show, FedEx Hangar, Anchorage.  
For info. contact AK Airmens Asso. 907 245 1251
- July 26-31 SPA will be at Osakosh, Corn roast Sun. July 30  
For reservations contact SPA 301 695 2033
- Aug. 4-6 Stillwater Splash-in, Whitefish Montana.  
Contact Bill Montgomery 360 629 6100 x301
- Sept 10 Sun. Annual Columbia Seaplane Splash-in at Devils Lake.  
Contact Ken Heuvel 503 235 1420 or 541 994 5077
- Sept. 16-17 Oregon Air Fair, Fairgrounds at Albany OR.  
Contact NW Aviation Asso. 300 547 6922
- Sept 22-24 West Coast Splash-in at Clear Lake, California.  
Contact Wayne Cook, 415 472 0227
- Oct. 20-22 AOPA Expo 2000 Long Beach CA.

There are a lot of Avionics salesmen out there who are appearing on the programs of a lot of club meetings and telling a lot of lies about GPS. One of the lies is that you can do an NDB approach with a GPS without an ADF onboard.

To be IFR approved a GPS must be panel mounted with the required indicators and annunciators and have a current data base. The Aeronautical Information Manual (AIM) 1-1-21 GPS, C. use for IFR, explains all this in a confusing way. I will try to clear it up with some plain language.

Approaches go thru a lot of data and checks before they are published. In an effort to get the GPS system going they developed an approach overlay program for non precision DME and NDB approaches. LOC, LDA and SDF approaches were not used. These approaches were designed using existing information and not flight checked. In phase II of this program the ground based nav aid must be available as a backup.

When the overlay approaches have been flight checked in phase III they will become full blown GPS non precision approaches and the NDB or DME will not be a part of the name or ident. Just as an NDB at the outer marker is not a part of an ILS approach but it sure makes a localizer easier to find.

Precision GPS approaches are awaiting the commissioning of the Wide Area Augmentation System (WAAS) which is not likely to occur this year. When it does it will fall short of CAT I capability by providing approaches down to 400 feet and 3/4 of a mile.

Let's face it, the stuff is not user friendly yet. The work load for single pilot IFR trying to fly vectors and set up a GPS sequence causes a lot of confusion and errors. Equipment is moving and changing but the actual implementation is typically slow. Don't tear out the old reliable ground based equipment yet and keep in mind that anything new you buy today will likely be a boat anchor before they get this mess straightened out.

Seaplanes and Ice don't mix. It's hard for a non-professional pilot to stay current in the NorthWest. Many have given up on trying to keep their approach plates current. It used to be that you could prepare for a trip by buying a current set of NOAA plates and charts for ten bucks, go for a short ride under the hood with an instructor friend and be legally current. Maybe not safe but legal. Those days are gone. You can still buy the plates but the new Instrument Proficiency Check guidelines (FAR 61.57) are as comprehensive as the practical test for the original rating. The only difference is that a double eye instructor can do it. Maybe you think that the fact that it can now all be done in a simulator makes it easier. Well it's safer and easier on the instructor but when your done you'll have a new idea how screwed up an aircraft can be and how bad you can handle it.

Lake Aircraft are going the way of the Aero Commander with a proposed very expensive wing spar A.D. Note. This almost happened to Piper Cherokees because of corrosion in a few Ag planes. We can only hope that after a few owners spend a bunch of money for nothing as with the Pipers it will turn out to be a false alarm. Don't count on it. We don't have much clout.

I find it hard to comprehend that a Judge in Alaska could determine that "Step Taxiing" was an act of "Repositioning" not a part of take off or landing and therefore could not be done within 500 feet of anything man-made per FAR 91.119. The title of the rule is "Minimum Safe Altitudes" and the key word is "Operate." The FAA says you are operating an aircraft any time it is moving or the engine is running. That is why they have FAR 91.115 for water operations. What we need is for more jurisdictions to recognize that when a Seaplane is on the water it is a Vessel and has all the privileges and restrictions given to any other power boat. We are not an alien invading their territory. We are one of them and as Aron says we need to join them and work with them toward common goals. The boating world has a lot of clout. We can't fight 'em, let's join 'em.

Oregon has a new Mandatory Boater Education Law. The administrative rules are now being written and will be out later this year. The rules will recognize a Seaplane Pilots license to operate a Seaplane on the water but to operate any other boat you must obtain a boater education certificate. At first we thought we should be exempt as are holders of a Coast Guard License. On second thought we realized that most seaplane training courses spend little time on boating rules and regulations. To get this certificate you need only to show that you have completed a course by the Power Squadron, The Coast Guard Auxiliary or the Oregon Marine Board's home study course and/or equivalency exam.

A copy of this exam is enclosed. Fill it out and send it in. When the certificates are issued you will get one. If you don't know the answers to all the questions, take a hint.

One reason we are not popular with other boaters is that we are noisy. According to Oregon Law we are not noisy when we are a boat. The only time our noise levels exceed the limits for a boat is when we are taking off. This only lasts a minute and at that moment we are an aircraft only. If you have any problems involving noise, contact our President Aron Faegre. He is a professional and recognized expert on aircraft noise. He can give you statistics and other tools to work with.

We need to remind you again to monitor and announce your intentions on the Portland down town traffic CTAF, 122.075 when passing thru down town Portland. Helicopters and traffic watch planes will appreciate knowing where you are. This is a narrow corridor which follows the river outside of Class C airspace. The river is not considered to be congested surface for us.

Chapter fifteen in the old Flight Training Handbook was a pretty good reference for Seaplane training. As with anything published on Seaplanes there were a few items some of us took issue with. This book has been under revision since it was published in 1980. We worked with the new authors for the last couple years and understood that it would come out with a new format and better information. It didn't happen. The new ideas sat on a high mucky-mucks desk for a year and then were thrown out.

The new publication is called the Airplane Flying Handbook, FAA-H-8083-3. Chapter 16 is on Seaplanes. It is little changed from the old chapter 15. One of the modifications we requested had to do with the way they explain water drag on the floats. They make the statement that "The force of drag imposed by the water increases as the square of the speed." We agree but they have a drawing that shows the drag being greatest at the "hump" (plow) and diminishing thereafter. Anyone who has ever attempted a downwind take off knows that after you get on the step sometimes water drag increases to the point where acceleration stops. They solved this controversy by eliminating all reference to downwind take offs. Looks like I'm going to have to write my own book after all.

The requested deadline for comments on the supplemental Draft Environmental Impact statements on the Frank Church - River of No Return Wilderness was 02-01-00. You can still get your comments in and they will be stacked with the 1700 they already have. Last summer we flew into many of the back country strips they would like to close. This is truly a unique opportunity to have a wilderness experience without walking or riding a horse for about a week. Nowhere else in the contiguous U.S. can you do this. This is the way the wildlife parks are handled in Africa which I wrote about in the last bulletin. It will be a shame to lose this but they have to restrict the use somehow.

For the last 200 years our government has promoted the development of the West thru their policies regarding commercial development of Mining, Logging, Grazing and Recreation. It has worked too well. Times have changed. Mining has tapered off due to world competition. Logging has been restricted by the endangered species. Grazing is under attack. The source of the problem in the Frank Church Wilderness is the Commercial Float Boaters. They were given a large allotment and encouraged to promote the recreational use of the back country rivers. They did a good job. Now we have an overuse problem. The commercial operators have clout so the government takes the easy way out and restricts everybody else. I encourage you to see this beautiful country either by air or water while you still can.

As Usual

Dave



Somehow I forgot to mention in the last newsletter that our own Dave Wiley has been named "Seaplane Pilot of the Year" by our national SPA organization. I nominated Dave last spring with the simple statement:

In the seven years I've known Dave, he has been ever constantly working to promote success in seaplane issues. This has ranged from the mundane (yet important) training of seaplane pilots -- with those endless landings and takeoffs --, to the nerve wracking giving of the exam as an FAA designated examiner. As an A&P with inspection authority he has always been available to local and transient pilots to solve the technical problems of seaplane travel. On the political side, he has been a constant watch-dog, driving to Salem (our capitol) to work with our Aeronautics Division, our Marine Board, and our legislators who have concerns about seaplanes. When the seaplane-canoe accident occurred on the Willamette River, Dave was probably the key person who found a way to create a new seaplane law (a necessary politic response) which somehow both improved safety and protected seaplane landing rights.

I contacted some of our members to tell them what I'd done, and many of them sent letters of recommendation to accompany mine. In addition to this local support, Mike Volk let me know early on that SPA president J.J. Fry was a strong supporter of the nomination as well. Undoubtedly there were many deserving nominees and it was not until the middle of the fall that we learned that Dave was to receive the honor. Since Dave was leaving on his Africa-India-Nepal-Australia adventure, the only celebration we had locally was when a few of us from CSPA crashed the Wiley Family send-off party.

We had kept it a surprise from Dave -- Jody and the family knew already. So at one point in the dinner I dink-dink-dinked on the wine glass and made the announcement. Nothing is ever easy with Dave, and it wasn't to be here either. Dave first expressed his concern that perhaps there are others that should have gotten the award before him. I guess when you're a designated examiner at heart there's always something to be corrected and done a little better.

But the next day it seemed that a smile had set in on his face. Jody mentioned that while traveling in India and Nepal, Dave was regularly referred to as "Seaplane Pilot of the Year" with the highest respect, as if this was like being higher prestige than a 747 captain. And that's a concept that we in the CSPA would not argue with one bit!

Dave will be "crowned" at the WSPA meeting at the Boeing Museum of Flight on Friday night, February 25, 2000. The next day other seaplane events will occur at the NW Aviation Conference and Trade Show in Puyallup, Washington. Details on where and when the WSPA meeting will be are provided elsewhere in this bulletin. The more CSPA members in attendance the better! In addition, I interviewed Dave for an article that will be published in the next annual edition of SPA's *Water Flying*. The interview ended up ten long pages, and SPA is condensing that to five for the publication. The full ten pages will be put on the SPA web site. I learned a lot about Dave and Jody that I hadn't known.

As your president I am focusing my efforts for the organization on continuing to improve seaplane access and facilities in the state of Oregon. Oregon's Seaplane Law has now been adopted in similar form in Texas, and is expected shortly to be adopted in Michigan. Minnesota is said to be the next state working toward a similar law. National SPA says that they are working with various groups in different states trying to help continue this process.

I think the next logical step in improving seaplane access is for the seaplane community to more firmly join up as a member of the recreational boating community. Last fall I attended the annual meeting of the States Organization for Boating Access (SOBA) in Arkansas on behalf of CSPA and SPA to begin attempts at

forging a better alliance. One thing that I learned at that week-long meeting, was the obvious lesson that "money talks".

At the conference I learned that the driving force for all current national and local recreational boating facility, boating education, marine law enforcement, and recreational fishery improvements lies in a federal funding program. Someone realized that motorboats were putting fuel tax funds into the highway trust fund, and that this should be corrected. Federal taxes on fuel used in boats is now transferred from the highway trust fund to a marine fund. Also, many of the states are transferring state fuel tax funds back to marine facility funds. This is the finance structure that is currently fueling a massive improvement of recreational boating docks and facilities in all of the 50 states of the Union.

For those of us who fly seaplanes and want to be accepted as a vessel when on the water, it is vitally important that we be part of the boating facilities team rather than an outsider. My theory is that if we are financial participants in this national system of recreational boating facilities, then we can rightly expect equal access to those same facilities. And if we have access to the facilities, we must have access to the water surfaces.

Thus unless you, our CSPA members direct otherwise, I intend to pursue the concept that seaplanes should participate in this marine fund. When Oregon seaplane pilots purchase fuel and put funds into the aviation trust fund, it is equitable that some fraction of that amount should be put back into the recreational boating fund that creates access facilities, that finances marine sheriffs, and that generally performs the planning needed to ensure that there is good and safe public access to the waterways. Once we are a financial participant in that system, it seems to me that we can claim some ownership in that same system.

The United States was founded in part on this issue of "taxation without representation" -- it all goes back to the Boston Tea Party. Think of all the years that straight-float pilots in the lower 48 have fueled up and sent tax money to the aviation trust fund. Normally some portion of that tax would go to maintaining facilities, like runways, taxiways, lights, land acquisition and so forth at the national system of airports. Wouldn't it be great if some fraction of our taxes could go back to ensure our access to all the public waterways?

I think this is the next step we need to take. National SPA is not ready to work on this issue -- they are going to focus on helping other states pass a law like the one Dave Wiley helped us get here in Oregon. But I figure, Oregon was out in front in getting its state law passed, so why not be first on forging a way to become a more full member of the boating community?

I learned at the SOBA Conference that the national organization of marine sheriffs has come up with a new rallying cry for the entire recreational boating industry: "One team, one goal -- safety". Let's join that team.

Aron Faegre



## Portland to Lake Tahoe On Straight Floats

Portland to Lake Tahoe in a small plane is not in and of itself a complex matter, but then nobody who reads this seaplane periodical does anything in a straight forward way, I would guess. To fly straight floats to Tahoe is another game altogether, but a fun and beautiful game at that.

Over the years I have made several forays to my family's place on the east shore of Lake Tahoe. By no means am I the seasoned old man of seaplane flying that many of you are, but the high altitude continues to lure me. The vagaries of landing operations at six and seven thousand feet coupled with long overland cross countries on straight floats has changed my thinking and planning on these now common trips.

Normally I plan my trips to Lake Tahoe for early day departures from Portland. The air is cooler and thus the mountain waves and mountain turbulence are less. It is enough to keep a fully loaded 180 with a 520 engine at high altitude alone without fighting the up and down drafts of high mountains on a hot summer day. Most importantly is the likelihood of afternoon winds on the lake which blow predominantly from the west. PDX to Tahoe is one of the more wonderful rout transitions from the green lush Pacific Northwest to the high dry Sierra Nevada mountains that one can experience. The trip typically takes about three to three and one half hours on a straight GPS track.

Carrying two adults, two young teenagers, 480 pounds of fuel and an undisclosed amount of baggage, taking off from the Willamette River is not a major event. By the time we get to Tahoe, we are generally about 300 pounds lighter leaving me with 30 gallons fuel on board at best. The question is always not how I can get down, but rather where do I get the equivalent of 25 year old single malt scotch to get back. First one has to get there.

Coming over the mountains into the Tahoe basin is really a fine sight. The lake is blue and beautiful and really, really big. 12 miles wide and 26 miles long. Plenty of room on this one. But there are frequently boats; big ones, small ones, shallow draft and deep draft, and no one pays any attention to what is above them. There are not many seaplane operations on the lake. At 1,500 AGL over the lake, the boat wake doesn't always show up. Be wary, it is there and it goes on forever. I almost always set up for a glassy water landing since the shoreline is full of boats and seldom is there much early afternoon breeze. Remember the landing altitude, I am always amazed at the ground speed I have at six thousand feet MSL on a normal 75 degree day. Be on the pedals and the elevator like a cat, you are really screaming when you hit the water.

I have spent part of every summer for the last 40 years on the east shore of Lake Tahoe. The wind is a serious event and will present her viciousness regularly. FSS has access to the NOAA forecast for Winds on Water at Lake Tahoe. They generally have to landline

from PDX to RNO, but they will if you push them. It is pretty accurate and very important to the east shore. A "Three Day Blow" will start up in the early afternoon or late morning and blow 15 to 25 knots from the west until after dark, start up again the next day and so on for up to four days running. This wind causes waves of 3 to 4.5 feet from trough to crest and wavelengths from 3 to 6 feet. Beyond having to deal with a plane once you are on the water, the thought of a rough water landing in these conditions at typical high altitude ground speeds is so far outside my personal operating envelope it makes me shudder just to contemplate it. This is a serious lake when it blows. However, the west shore is always a bail out when things are lousy on the east side. Good luck finding anyone who will accommodate you in California now that Mike Brown is no longer at Homewood. Remember also that if you plan to camp on the east shore USFS lands, the beaches ALL face into the wind and if it starts to blow the water will pound you to pieces. When you see the blue line across the lake from shore, plan on the full force wind getting to your spot within 20 minutes!

Taking off from Tahoe is long and arduous but doable. I usually leave in the afternoon about 1 to 2 PM. From an aerodynamic stand point I am not a scholar. What I have found has been by trial and error and seems to work. On the beginning of my takeoff I use full power no flaps and generally have the heaviest duffel bag on the right front passenger's lap. It takes a little bit to get on the step, and once there, the duffel goes back to the baggage area. I then lean the mixture slightly for best horses and wait for a moment before adding one notch of flaps. I have never been successful at lifting a float or rushing rotation, it just has to fly when it is ready, and it always does once it is up on the step. Immediately after the plane breaks free I put the nose down build lots of speed and do my best to cool it off. After that, it is one foot at a time flying around the basin until I can clear the mountains.

Fifteen to thirty gallons available in the tanks is not much but the trip to Sutter County Airport (O52) (N039° 7.6' W121° 36.5') is all down hill to sea level and only about thirty minutes away. Tom King who runs Skybound Aviation on the field is a great guy and thinks straight floats are NOT crazy. If you call and make arrangements ahead of time (530.674.7700) he will drive his fuel truck over the levy to the water's edge due west of the airport and fuel you up for the normal cost of 100 LL. He is not always there on weekends, so be sure to call ahead. I try to slip him a little beer money for his efforts, but he is very agreeable to helping us out nonetheless.

Temperatures in the northern Sacramento Valley can be very high. On several occasions, I have leveled off for cooling every two thousand feet, but with the distance from Sutter County to the Redding this has not been a problem. The trip back to the Willamette on a GPS line is beautiful along the east flank of Mt. Shasta and thence up the very close and scenic west slope of the Cascades and then back to sea level.



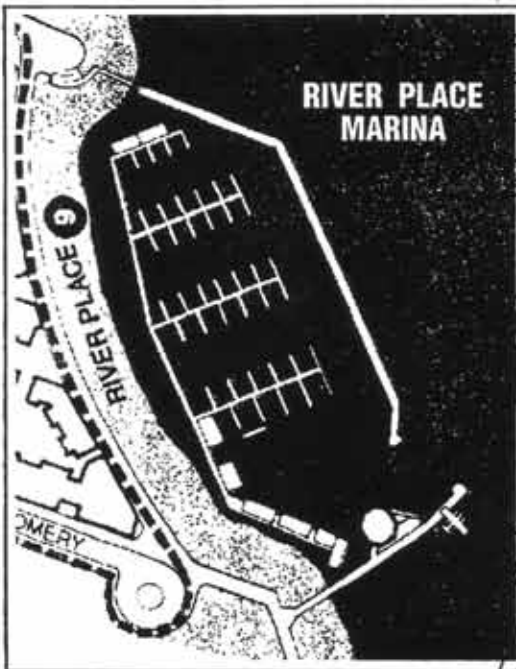
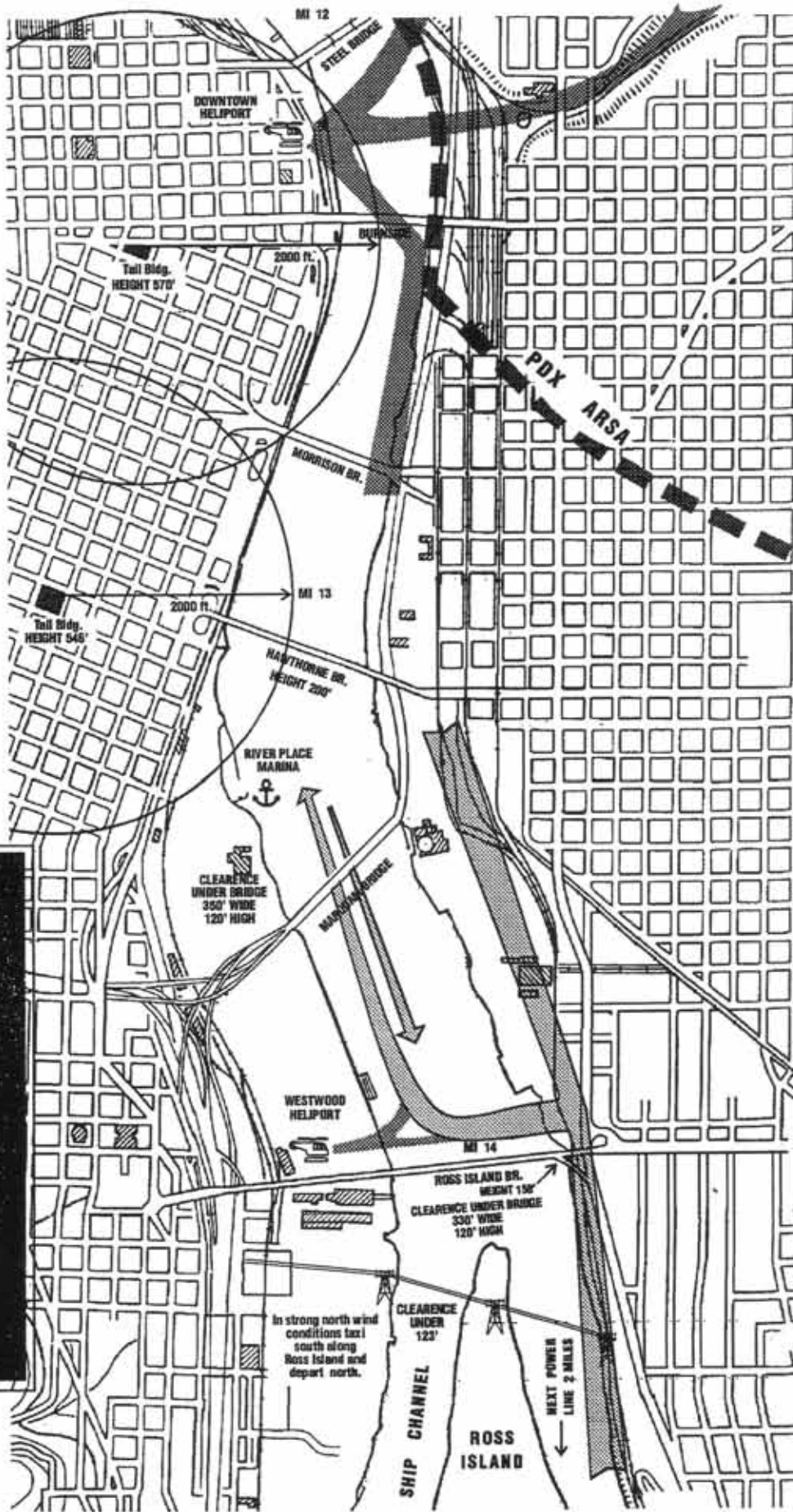
Columbia Seaplane Pilots Assn.  
10060 N.W. Fielding Road  
Lake Oswego, OR 97034

**Suggested approach and departure for light seaplanes to and from downtown Portland.**

When river is high from run off there is considerable drift and operations on the surface may be risky.

When wind is too strong for down wind take off or landing, operations should be moved one mile south to vicinity of Ross Island

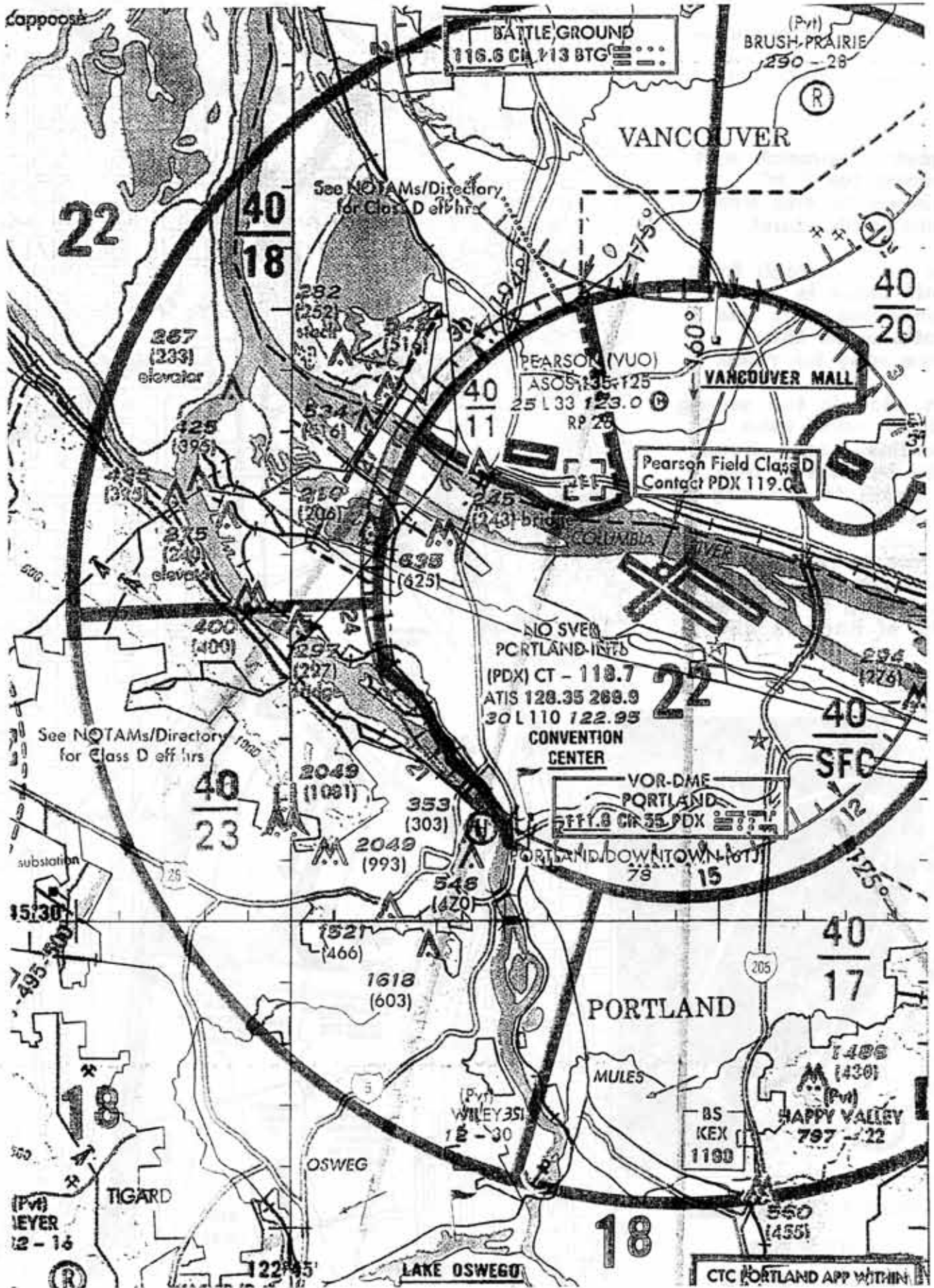
Distance between power lines north and south of Ross Island is 2 miles - height of lines is 150 ft.



**NEWPORT BAY RESTURANT**

Scale of Miles

3 3/4" = 1 Stat. MI.



# Boating Basics Exam

**INSTRUCTIONS:** This exam is designed to test your understanding of boating and safety laws. It consists of 50 multiple choice questions. Read each statement carefully. Use the form(s) on page 57 to fill in your answers. Each question has only one correct answer. If you have any questions about the exam, please ask your instructor before beginning. Good luck!

1. Most boating fatalities are the result of:
  - a) collisions with other boats or objects.
  - b) heart attacks from excitement.
  - c) capsizings or falls overboard.
  - d) lightning striking the victims.
2. You should always watch for changes in the weather while boating. Most changes come from the:
  - a) West.
  - b) East.
  - c) South.
  - d) North.
3. Regulatory Buoy in the Uniform State Waterway Marking System are recognized by:
  - a) their solid orange color.
  - b) their sizes.
  - c) their orange bands.
  - d) the red and green lights on top.
4. Being a courteous boater includes:
  - a) not throwing litter into the water.
  - b) keeping noise to a minimum at night.
  - c) watching your wake so as not to cause damage to other vessels or to shorelines.
  - d) all three of the above.
5. When boating near large vessels, you should:
  - a) avoid jumping wakes, riding close alongside, or cutting under the bow.
  - b) always underestimate the speed of a large vessel.
  - c) stay in the deep channels, and never move to the right of the channel.
  - d) ignore any whistle signals, because they are not meant for you.
6. The necessary length of a boat trailer is determined by:
  - a) the length of the car towing it.
  - b) the length of the boat.
  - c) the beam (width) of the boat.
  - d) state law.
7. When boating a small boat from a dock or low pier:
  - a) step onto the bow of the boat.
  - b) step into the center of the boat.
  - c) step onto a side of the boat.
  - d) jump into the boat.
8. A boat is less stable and more likely to capsize when:
  - a) overloaded or overpowered.
  - b) its load is kept low and evenly distributed.
  - c) empty.
  - d) in deep water.
9. Flanking hulls:
  - a) are designed to skim on top of the water.
  - b) require very little power to plow through the water.
  - c) are often found on very large trailer yachts.
  - d) cannot go very fast.
10. An example of negligent or reckless operation would be:
  - a) excessive speed in a congested area.
  - b) operating under the influence of alcohol or drugs.
  - c) operating in a swimming area with bathers present.
  - d) all three of the above.
11. If a boat capsizes:
  - a) grab a PFD and swim to the nearest shore.
  - b) grab a PFD, swim to the boat, and stay with the boat.
  - c) grab a PFD and yell until help arrives.
  - d) swim away from the boat as quickly as possible.
12. If you see something off the port beam, you are seeing something:
  - a) straight out from the middle of the vessel on the left side.
  - b) straight ahead of the vessel.
  - c) straight out from the middle of the vessel on the right side.
  - d) directly behind the vessel.
13. You should always have the following equipment on your vessel:
  - a) a Coast Guard approved wearable PFD for each person on board.
  - b) paddles or oars.
  - c) tool kit and spare parts.
  - d) all of the above.
14. When you are trying to bring someone into your boat from the water, you should bring them in:
  - a) over the bow.
  - b) over the side.
  - c) with a fishing pole.
  - d) over the stern.
15. Under the Lateral Buoyage System, you can tell which side of the channel a buoy is on by its:
  - a) color.
  - b) shape (unlighted buoys).
  - c) number.
  - d) all the above.

16. The following vessels always have the right-of-way:
  - a) sailboats.
  - b) sailboats using motors.
  - c) motorboats over 20 feet in length.
  - d) large ships in narrow channels.
17. One approved Type I, II or III wearable PFD for each person on board plus one Type IV throwable device is required:
  - a) only for boats less than 16 feet in length.
  - b) only for boats 16 feet or over in length.
  - c) only for canoes and kayaks.
  - d) only for sailboats.
18. To avoid a collision:
  - a) keep a sharp lookout for others.
  - b) know and follow the rules of the road.
  - c) be courteous.
  - d) all three of the above.
19. In poor visibility, motorboat operators must sound on the horn every two minutes:
  - a) one prolonged blast plus two short blasts.
  - b) two prolonged blasts.
  - c) one prolonged blast.
  - d) one prolonged blast plus three short blasts.
20. Fire extinguishers are classified, according to the type and size fire they can put out, by:
  - a) color of the containers.
  - b) size of the containers.
  - c) letters and numbers.
  - d) all of the above.
21. Before you buy a PFD, you should make sure that:
  - a) its color matches your boat.
  - b) its color contrasts with the color of your boat so it will be seen.
  - c) it is Coast Guard approved.
  - d) you don't have to make sure of anything at all. PFDs are the same.
22. The skipper of a boat is responsible for:
  - a) the safety of all guests.
  - b) the boat.
  - c) any damage the boat's wake may cause.
  - d) all three of the above.
23. There are four classifications of motorboats, broken down according to:
  - a) weight.
  - b) horsepower.
  - c) length.
  - d) capacity.
24. The conditions in which the human body loses heat faster than it can be produced is called:
  - a) shock.
  - b) suffocation.
  - c) hypothermia.
  - d) dry rot.
25. A vessel being overtaken must:
  - a) maintain course and slow down.
  - b) move to port.
  - c) hold course and speed.
  - d) move to starboard.

26. When you are in a lock system you should:
  - a) shut off the motor.
  - b) hang boat fenders on both sides of the boat.
  - c) follow the lock attendant's instructions.
  - d) all of the above.
27. Water skiers should always be able to control the actions of the boat through:
  - a) yelling.
  - b) foot signals.
  - c) hand signals.
  - d) large signs.
28. A sailboat usually has the right of way over a motorboat except:
  - a) when it yields to commercial vessels in narrow channels.
  - b) when the sailboat is the overtaking boat.
  - c) when it is under power.
  - d) all the above.
29. The operator of a boat involved in an accident must submit an accident report form if:
  - a) a person dies.
  - b) a person loses consciousness or receives medical treatment beyond first aid.
  - c) property damage is more than \$500.
  - d) any of the above.
30. The capacity plate tells:
  - a) the boat's speed.
  - b) the weight of the vessel when empty.
  - c) maximum load and horsepower rating.
  - d) how many PFDs must be on board.
31. A buoy flying a red flag with a white diagonal stripe indicates:
  - a) first leg of a sailing race course.
  - b) chers down — steer clear by at least 100 feet.
  - c) sail slalom course — steer well clear.
  - d) hatchery fish in area — proceed slowly.
32. Properly displayed boat numbers must be at least three inches high. In bold, block letters and:
  - a) be displayed on the rear half of one side of the bow of the boat.
  - b) read from left to right.
  - c) match the color of the boat.
  - d) read from right to left.
33. Low head dams are dangerous because:
  - a) there is a lot of water rushing over them and the fast current will carry the boat downstream.
  - b) water circulation at the base of the dam tends to trap a boat against the face of the dam and hold it there.
  - c) the bottom of the boat will be damaged when going over the dam.
  - d) all of the above.
34. Small utility boats and Jon boats:
  - a) can be powered by small outboard motors.
  - b) can be used as cat-toppers because of their light weight and size.
  - c) can be very tippy.
  - d) all three of the above.

**56 Boating Basics Exam**

35. Most boating accidents occur in small open boats on small inland bodies of water:  
 a) on weekends during the summer months.  
 b) during unexpected storms.  
 c) in the winter when the water is coldest.  
 d) on weekdays during the summer months.
36. The best method of anchoring is to:  
 a) slowly lower the anchor to the bottom by hand.  
 b) stand on the bow and throw the anchor.  
 c) underhand away from the side of the boat.  
 d) heave the anchor overboard by casting from the side of the boat.  
 e) tie up to a navigation aid.
37. If you are on shore and you are trying to assist someone who is in trouble in the water, you should remember the four basic steps in the following order:  
 a) reach, row, go, throw.  
 b) reach, throw, row, go.  
 c) reach, go, throw, row.  
 d) go, row, throw, reach.
38. If a person falls overboard, you should:  
 a) turn on your running lights to warn others.  
 b) use a life saving device to the person.  
 c) immediately speed the boat up so the person will not float away too far.  
 d) report the accident immediately.
39. U.S. Coast Guard approved Personal Flotation Devices:  
 a) do not include ski belts.  
 b) should be worn by all children and non-swimmers.  
 c) should be checked periodically to be certain they are serviceable.  
 d) all three of the above.
40. Most outboards are powered by:  
 a) stern drive (inboard/outboard) engines.  
 b) inboard engines.  
 c) outboard motors.  
 d) cars.
41. When going upstream or entering a channel from seaward:  
 a) the red buoy are on the port (left) side.  
 b) red/white red, right, returning.  
 c) stay close to shore to avoid other craft.  
 d) keep the black or green buoys on the starboard (right) side.
42. You should leave a copy of your boat plan with:  
 a) the Coast Guard.  
 b) a close friend or relative.  
 c) the President.  
 d) A Hull Identification Number (HIN):  
 a) It is used in the same way as a license plate in a car.  
 b) must be in bold, block letters of good proportion.  
 c) tells the manufacturer horsepower recommended for the boat.  
 d) is used in the same way as a serial number on a car.
43. A Hull Identification Number (HIN):  
 a) It is used in the same way as a license plate in a car.  
 b) must be in bold, block letters of good proportion.  
 c) tells the manufacturer horsepower recommended for the boat.  
 d) is used in the same way as a serial number on a car.
44. Navigation lights on pleasure boats are restricted to colors that are:  
 a) red, green, and white only.  
 b) white only.  
 c) red and green only.  
 d) red, blue, green, and white only.
45. You are approaching an area of considerable boating activity. You hear 5 short blasts from an air horn. This indicates:  
 a) a dock fire is in progress.  
 b) the danger signal.  
 c) an oil spill has occurred.  
 d) a vessel has its engine in reverse.
46. Alcohol affects:  
 a) judgment.  
 b) balance and coordination.  
 c) vision.  
 d) all of the above.
47. The U.S. Coast Guard requires all boats to carry visual distress signals when they are operating:  
 a) on inland lakes.  
 b) in U.S. coastal waters.  
 c) on rivers that are less than two miles across.  
 d) on streams.
48. A certificate of number:  
 a) must be carried on board whenever the boat is operated.  
 b) determines the boat's classification.  
 c) tells the passenger capacity.  
 d) must be displayed on the forward half of each side of the bow.
49. The correct way to load a small boat is:  
 a) carry equipment aboard yourself.  
 b) hand equipment to someone already on the boat.  
 c) throw equipment into the boat from the dock.  
 d) don't take any equipment at all.
50. If you are caught out in foul weather, you should:  
 a) stay where you are and not attempt to move.  
 b) reduce speed and head for the nearest shore that you can safely approach.  
 c) head out to the middle of the body of water so there will be less chance of hitting something.  
 d) abandon the boat and try to swim to shore.

**Continue your boating education.  
 For information, call 1-800-336-BOAT.**

CUT ALONG DASHED LINE

**Final Exam Answer Card**

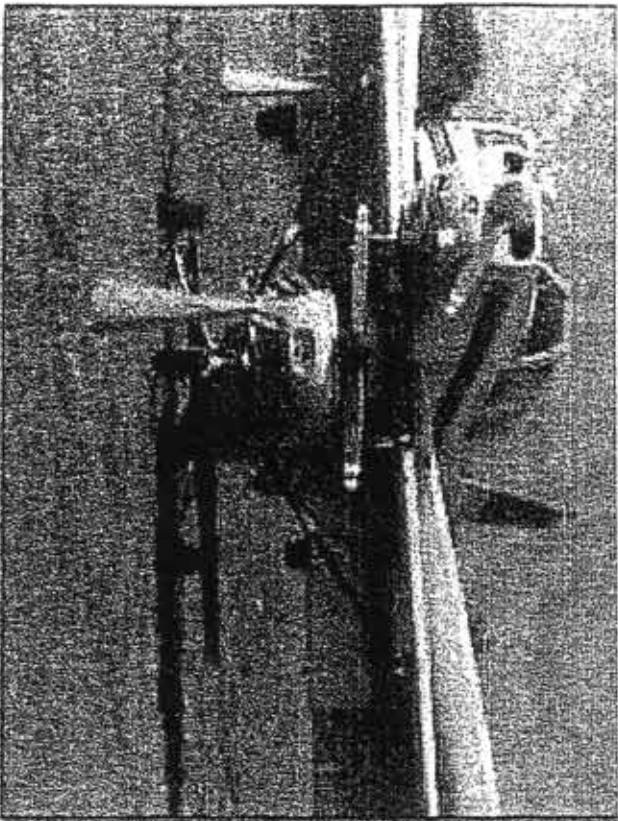
Submit answer cards to your instructor or place in envelope and mail to: Oregon State Marine Board, P.O. Box 14145, Salem, OR 97309-5065

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Signature \_\_\_\_\_ Age \_\_\_\_\_ M  F   
 Do you own a boat? \_\_\_\_\_ H.P. \_\_\_\_\_  
 What type? \_\_\_\_\_ Length \_\_\_\_\_

**Instructions:** A box appears for each column marked A, B, C, or D. Select the best answer and use a pencil or pen to fill in the box next to the question. If you change the answer, be sure to completely erase the first mark. Only one box should be marked for each question. When you have answered all the questions, fill in the other information and mail the card for grading and processing. Your certificate of completion will be mailed.

**Test begins on page 54.**

	A	B	C	D		A	B	C	D		A	B	C	D		A	B	C	D					
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	41.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	43.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	34.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	44.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	45.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	36.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	46.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	37.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	47.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	38.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	48.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	39.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	49.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	40.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	50.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Misc.

**Misc. FUEL STOPS**

Idaho, Burley  
 Bus: (208) 678-7118

Notes: Kevin at Aircraft Services two hours prior to arrival. Land on river east of railroad bridge near golf course. There is a boat ramp with good access. Kevin has street legal truck with 100L and Jet-A. Kevin says river is wide, deep and very slow.

Idaho, Caldwell

Bus: (208) 459-9455

Notes: Aylet Aviation-Lee Rice, 100L, Jet-A, Call ahead 30 minutes on 122.8 or 122.7. Land on water south of town, 1/4 mile south of bridge. Boat ramp, slow, deep and wide.

California, Marysville

Skybound Aviation

Tom King

Bus: (530) 674-7700

Notes: O52 Sutter County

**RELIABLE WIND REPORT EAST SHORE TAHOE**

ZEPHYR COVE MARINA

Bus: (775) 588-3833

**POSSIBLE PLACE TO HIDE @ TAHOE**

TAHOE CITY MARINA

LeChaire, Chris

Tahoe City, CA

Bus: (530) 583-1039

Notes: 1/4 mile east of Truckee River

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY, STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLANE NO. N \_\_\_\_\_ TYPE \_\_\_\_\_

Phone Business \_\_\_\_\_ Home \_\_\_\_\_

Enclosed: Dues for Postage, Etc. Special Fund \$ \_\_\_\_\_

Dues \$ 15.00 for Year \_\_\_\_\_ Legal Fund \$ \_\_\_\_\_

Scratch me off Mailing List.

Your mailing label shows the last year you paid dues, if ever. Check it. You may have already paid for this year. Our mailing list contains all seaplane owners and other persons who could need to know the information we send out regardless of their contribution to our postage and expense.

Our communications supported by your dues, may keep someone from doing something that will cause us to lose our seaplane privileges. The legal fund is for when it happens anyway.

**Columbia Seaplane Pilots Assoc.**

C/O KENNETH L. WRIGHT  
 17473 WALTA VISTA DRIVE  
 MILWAUKIE OR 97267