GIVING WINGS AVIATION
1170 AIRPORT ACCESS RD.
TRAVERSE CITY, MI 49686
231-943-2033
info@flyGWA.com

FLOAT PLANE TRAINING MANUAL

THIS MANUAL IS ORGANIZED AROUND THE AIRPLANE SINGLE ENGINE SEA TASK CHART FOUND IN THE CURRENT PRACTICAL TEST STANDARDS AND DRAWS ON INFORMATION IN THE FAA SEAPLANE OPERATIONS HANDBOOK (8083-23). THE TASKS HIGHLIGHTED HERE ARE ONES THAT WILL BE TESTED. KEEEP IN MIND…YOU MAY BE ASKED TO DEMONSTRATE PROFICIENCY ON MANUEVERS PREVIOUSLY TESTED FOR YOUR RATING. THIS MANUAL IS DESIGNED TO OFFER YOU A REFERENCE GUIDE FOR PREPARING FOR THE ORAL AND FLIGHT EXAM. PLEASE BE FAMILIAR WITH THE PTS, AS A DOCUMENT PRIOR TO ARRIVING FOR YOUR TRAINING.

OPERATION OF SYSTEMS

(REFERENCE POH AND BAUMANN FLIGHT MANUAL SUPPLEMENT)

THE AIRFRAME AND ENGINE N8490L

- 1968 CESSNA 172 SKYHAWK
- LYCOMING 0-360 A4M (180 HP @2700 RPM)
- McCauley SEAPLANE PROP (82 INCH BY 46 INCH PITCH)
- POWERFLOW TUNED EXHAUST
- MICRO AERODYNAMICS VORTEX GENERATORS
- HORTON STOL KIT

FLOATS

- BAUMANN Bf2550A AMPHIBIOUS FLOATS. (STC SA01815CH)
- ALUMINUM RIVETED CONSTRUCTION
- 436LBS MOUNTED WEIGHT INCREASE
- RETRACTABLE TWIN WATER RUDDER SYSTEM
- ELECTRIC/HYDRAULIC GEAR ACTUATION SYSTEM (MANUAL BACK-UP PUMP)
- AUDIBLE GEAR POSITION SYSTEM
- 8 WATERTIGHT COMPARTMENTS PER FLOAT.
- 2550LBS DISPLACEMENT PER FLOAT.

FUEL SYSTEM

- 38 GALLONS USEABLE (AVGAS ONLY)
- GRAVITY FED FROM BUILT UP INTERNAL FUEL TANKS

ELECTRICAL SYSTEM

- 14V SYSTEM
- 70 AMP PLANE POWER ALTERNATOR
- 12V LIGHT WEIGHT BATTERY (ON FIREWALL)

AVIONICS

- GARMIN 530 IFR ENROUTE GPS/COM/NAV
- GARMIN AUDIO PANEL
- GARMIN TRANSPONDER
- S-TEC AUTOPILOT WITH ALT HOLD
- ANGLE OF ATTACK INDICATOR

PERFORMANCE AND LIMITATIONS

"The performance information in the basic Pilot's Operating Handbook for the landplane is not applicable to the Cessna model 172I equipped with Baumann BF2550A amphibious floats. There will be a small difference in the rate of climb" (Baumann POH supplement)

- MUST BE OPERATED AS A NORMAL CATEGORY AIRCRAFT.
- GROSS WEIGHT 2500LBS.
- NO ACROBATIC MANUEVERS, INCLUDING SPINS APPROVED.
- MANEUVERING SPEED 105 KTS (120MPH)
- COMPUTE WEIGHT AND BALANCE (SEE WEIGHT AND BALANCE SHEET)

WATER AND SEAPLANE CHARACTERISTICS

The ability to read the water's surface is an integral part of seaplane flying. The interaction of the wind and water determine the surface conditions, while tides and currents affect the movement of the water itself. Features along the shore and under the water's surface contribute their effects as well.

WIND AND WAVES

1. WAVES ARE USUALLY CAUSED BY WIND MOVING ACROSS THE WATER.
2. THE HIGHER THE SPEED OF THE WIND, OR THE LONGER THE WIND ACTS ON THEM, THE LARGER THE WAVES GET.
3. CALM WATER BEGINS TO SHOW WAVE MOTION WHEN THE WIND REACHES 2KTS.

4. THE HEIGHT OF WAVES DEPENDS ON THREE THINGS:
    1. WIND SPEED
    2. LENGTH OF TIME
    3. DISTANCE OVER WHICH THE WIND ACTS ON THE WATER (FETCH)

- **HOW TO TELL WIND DIRECTION IN LAKES AND SHELTERED WATERS.**
    1. STRIP OF CALM WATER ON UPWIND SHORE
    2. WAVES ARE PERPENDICULAR TO THE WIND DIRECTION
    3. WIND STREAKS ARE PARALLEL TO THE WIND.
    4. FLAGS, MOORED BOATS, ETC.

- **CHARACTERISTICS OF A WATER SURFACE AS AFFECTED BY DIFFERENT FEATURES, SUCH AS-**
    1. SIZE AND LOCATION
    2. PROTECTED AND UNPROTECTED AREAS
    3. DIRECTION AND STRENGTH OF WATER CURRENT
    4. FLOATING AND PARTIALLY SUBMERGED DEBRIS
    5. SANDBARS, ISLANDS, AND SHOALS
    6. VESSEL TRAFFIC AND WAKES

- **FLOAT CONSTRUCTION**
    1. DECK
    2. KEEL
    3. CHINE
    4. STEP
    5. SISTER KEELSON
    6. SPRAY RAIL
    7. BOW/STERN
    8. WATER RUDDERS
    9. AMPHIBIOUS VS STRAIGHT

(SEE FIGURE 2-3 IN 8083-23)

- **PORPOISING - CAUSES AND WHAT TO DO**

1. INCORRECT PLANING ATTITUDE SETS UP A RHYTHMIC PITCHING MOTION CALLED PORPOISING. THE MOTION WILL STEADILY INCREASE IN AMPLITUDE UNLESS THE PROPER PITCH ATTITUDE IS REESTABLISHED.
2. USUALLY CAUSED BY HOLDING THE NOSE TOO LOW DURING PLANING.
3. HOLDING THE NOSE TOO HIGH CAN CAUSE PREMATURE LIFTOFF AND RESULT IN A STALL.
4. STOP THE PORPOISE BY APPLYING TIMELY BACK PRESSURE ON YOKE.
5. AFTER SECOND OSCILLATION PULL POWER TO IDLE AND HOLD YOKE ALL THE WAY BACK
6. NEVER “CHASE” THE OSCILLATIONS AS THIS MAKES THEM WORSE.

- **SKIPPING-CAUSES AND WHAT TO DO**

    1. SKIPPING IS A FORM OF INSTABILITY THAT OCCURS WHEN LANDING AT EXCESSIVE SPEED WITH THE NOSE TOO HIGH. CROSSING A BOAT WAKE CAN ALSO CAUSE SKIPPING
    2. INCREASE BACK PRESSURE ON THE ELEVATOR CONTROL WHILE ADDING SUFFICIENT POWER TO PREVENT THE FLOATS FROM CONTACTING THE WATER.
    3. RESET PROPER PITCH ANGLE AND REDUCE POWER GRADULY.
    4. SKIPPING OSCILLATIONS DO NOT TEND TO INCREASE IN AMPLITUDED, BUT THEY ARE HARD ON THE AIRFRAME AND MAY LEAD TO PORPOISING.

SEAPLANE BASES, MARITIME RULES AND AIDS TO MARINE NAVIGATION

- KNOW HOW TO LOCATE A SEAPLANE BASE ON A CHART (ANCHOR WITH TICK MARKS INDICATES SERVICES)
- RIGHT AWAY RULES 91.115.
- WHITE AND YELLOW ROTATING BEACON FOR SEAPLANE BASES.
- "RED RIGHT RETURNING" (SEE FIGURE 1-2& 1-3))

TAXING & SAILING

- AMPHIBIOUS AIRCRACT WEATHER VANE AWAY FROM THE WIND WHEN ON A HARD TAXIWAY SURFACE. STEER WITH LIGHT BRAKING. BE CAREFUL TO NOT OVER HEAT THE BRAKE DISKS BY RIDING THE BRAKES. POSITION THE FLIGHT CONTROLS THE SAME AS YOU WOULD A DEDICATED LANDPLANE.

- FLOATPLANES WEATHER VANE INTO THE WIND ON THE WATER.

- ON THE WATER YOU WILL VIRTURALLY ALWAYS BE IN MOTION AND HAVE NO BRAKES! HAVE A PLAN AND STAY AHEAD OF THE AIRCRAFT.

- THREE TYPES OF WATER TAXING (ATTITUDES OR POSITIONS)
    1. IDLE
        - BUOYANCY OF THE FLOATS SUPPORTS THE ENTIRE WEIGHT OF THE FLOATPLANE.
        - ENGINE @ IDLE TO CONTROL SPEED, ENGINE TEMP AND PROP SPRAY.
        - ELEVATOR CONTROL HELD FULL AFT! (UNLESS STRONG TAILWIND COMPONENT)
        - CROSS BOAT WAKES OR SWELLS @ A 45 DEGREE ANGLE

    2. PLOWING
        - DONE WITH ¾ POWER.
        - ADDED POWER SHIFTS CENTER OF BUOYANCY AFT, DUE TO INCREASED HYDRODYNAMIC PRESSURE ON THE BOTTOMS OF THE FLOATS.
        - CREATES HIGH DRAG COMBINIED WITH POOR ENGINE COOLING.
        - TAXING IN THIS POSITION IS NOT RECOMMENDED. USUALLY JUST A TRANSITIONAL STATE.
        - PLOW TURNS (SEE FIGURE 4-10)

3. PLANING OR STEP POSITION
    - A/C WEIGHT SUPPORTED BY HYDRODYNAMIC LIFT RATHER THAN THE BUOYANCY OF THE FLOATS. (AERODYNAMIC LIFT TO A DEGREE TOO AS THE SPEED OF THE WING THROUGH THE AIR INCREASES.)
    - THINK WATER SKI! AS THE FLOAT MOVES FASTER THROUGH THE WATER THE PITCH ATTITUDE CAN BE CHANGED RAISING THE REAR OF THE FLOATS.
    - ONCE ON THE STEP THERE IS ONE PITCH ATTITUDE THAT PRODUCES THE LEAST DRAG. FIND THE "SWEET SPOT" AND SHE WILL FLY!
    - NOSE TOO HIGH- REAR OF FLOAT CAUSE DRAG AND SHE SETTLES
    - NOSE TOO LOW- (I.E. DRAGGING) FRONT OF FLOATS CONTACT THE WATER AND FEELS LIKE APPLYING BRAKES ON A LAND PLANE.
    - TAXI ON THE STEP BY REDUCING TO 60 TO 70 PERCENT POWER (APPROX. 2000 RPMS)
    - RETRACT WATER RUDDERS!
    - CENTTRIFUGAL FORCE TENDS TO TIP THE FLOATPLANE TOWARDS THE OUTSIDE OF A TURN. AEILERONS INTO THE TURN TO COUNTER CENTRIFIGUL FORCE. UNLESS NEEDED TO KEEP UPWIND WING FROM LIFTING.

- SAILING IS A METHOD OF GUIDING THE SEAPLANE BACKWARD USING THE WINDS AS THE MAIN MOTIVE FORCES. SAILING IS USED OFTEN BECAUSE WIND, WATER CONDITIONS, OR LIMITED SPACE MAKES IT IMPRACTICAL TO ATTEMPT A TURN. BECAUSE OF "KEEL EFFECT" THE STERNS OF THE FLOATS WANT TO GO IN THE DIRECTION THAT THEY ARE POINTED.

    1. POSITION THE YOKE THE WAY YOU WANT THE TAIL TO GO. USE FULL OPPOSITE RUDDER
    2. WATER RUDDERS UP!
    3. IF WIND IS STRONG, STERN OF FLOATS COULD DIG. USE FULL FORWARD ELEVATOR TO KEEP THE STERNS OF THE FLOATS UP AND THE SEAPLANE'S NOSE DOWN.
    4. ADDING POWER CAN HELP AS WELL.
    5. LOWER WING FLAPS AND/OR OPENING THE DOOR CAN INCREASE DOWNWIND MOTION IN LIGHT WINDS.

RUNWAY INCURSION AVOIDANCE

- SEE PTS TASK F

NORMAL AND CROSSWIND TAKEOFF AND CLIMB

- DURING YOUR TRAINING IN THE 172, YOU WILL BECOME VERY FAMILIAR WITH THE G-F-A-R-T-Y CHECKLIST. PRIOR TO EACH TAKE OFF AND LANDING WHETHER ON LAND OR WATER WE WILL ORALLY CALL OUT EACH ITEM. YOU WILL BE EXPECTED TO DO THE SAME ON YOUR CHECKRIDE. LANDING THE AMPHIB ON THE RUNWAY WITH GEAR UP WILL BE AN AUTOMATIC FAILURE☺. LANDING ON THE WATER WITH THE GEAR DOWN MAY RESULT IN DEATH☹.

  G-GEAR
  F-FLAPS
  A-AREA CLEAR
  R-RUDDERS
  T-TRIM SET
  Y-YOKE

- MAKE NORMAL TAKEOFFS INTO THE WIND!
  1. FLAPS 10-15
  2. WATER RUDDERS UP
  3. ELEVATOR FULL AFT
  4. APPLY POWER SMOOTHLY AND QUICKLY
  5. MAINTAIN DIRECTIONAL CONTROL WITH RUDDER
  6. WHEN NOSE REACHES ITS HIGHEST POINT, EASE THE BACK PRESSURE TO ALLOW PLANE TO COME ONTO THE STEP
  7. FIND THE SWEET SPOT AND NOTE THE ATTITUDE AND SPRAY PATTERN.
  8. FIRST TURN WITH 10 DEGREES!
  9. AVOID OVERFLYING HOUSE AND NOISE SENSITIVE AREAS AND REDUCE POWER AS APPROPRIATE TO MINIMIZE NOISE.

- IN RESTRICTED OR LIMITED AREAS YOU MAY NOT ALWAYS BE ABLE TO TAKE OFF INTO THE WIND. YOU MAY HAVE TO USE ONE OF SEVERAL CROSSWIND TAKEOFF TECHNIQUES. (SEE PAGES 4-12 TO 4-14)

  1. CONTROLLED WEATHERVANING
  2. USING WATER RUDDERS
  3. DOWNWIND ARC

- DOWNWIND TAKEOFFS

  1. LONGER TAKE OFF RUN. WING MUST FIRST BE ACCELERATED TO THE SPEED OF THE WIND AND THEN TO THE CORRECT AIRSPEED REQUIRED FOR LIFT-OFF.
  2. FLOAT DRAG- INCREASES AS SPEED INCREASES THROUGH THE WATER.

NORMAL AND CROSSWIND APPROACH AND LANDING

- SURVEY THE INTENDED LANDING AREA
- G-F-A-R-T-Y CHECK
- FLAPS 20
- APPROACH 70 MPH
- MAINTAIN CROSSWIND CORRECTION AND DIRECTIONAL CONTROL TRHOUGHOUT THE APPROACH AND LANDING SEQUENCE.

CONFINED AREA TAKEOFF AND MAXIMUMUM PERFORMANCE CLIMB

- IF WIND CONDITIONS ALLOW IT, BEGIN TAKEOFF RUN DOWNWIND AND STEP TURN INTO THE WIND FOR TAKEOFF. EXCERSISE EXTREME CAUTION AS WIND AND CENTRIFUGAL FORCE ARE ACTING IN THE SAME DIRECTION.

- IN SOME CASES, WATER MAY BE ADEQUATE BUT HIGH TERRAIN CREATES A CONFINED AREA. TERRAIN BLOCKS WIND CREATING GLASSY CONDITIONS. MAY BE BEST TO SPEND NIGHT AND TAKEOFF IN THE COOL MORNING, OR LEAVE CARGO OR PAX BEHIND.

CONFINED ARA APPROACH AND LANDING

- THERE ARE MANY LAKES A FLOATPLANE CAN LAND IN THAT MAY NOT BE ABLE TO GET OUT OF! KNOW YOUR PERFORMANCE. TAKE-OFF RUN IS MUCH LONGER THAN THE LANDING RUN!
- SURVEY THE INTENDED LANDING AREA.
- G-F-A-R-T-Y CHECK
- FLAPS 30
- APPROACH 65MPH
- STEEP APPROACH TO CLEAR OBSTACLES
- CONTROL GLIDEPATH WITH POWER, AIRSPEED WITH PITCH
- FULL STALL LANDING

GLASSY WATER TAKEOFF AND CLIMB

- MORE DIFFICULT IN TWO WAYS:
    1. SMOOTHNESS OF THE WATER HAS THE EFFECT OF INCREASING DRAG, MAKING ACCELERATION AND LIFT-OFF MORE DIFFICULT.
    2. THE LACK OF VISUAL CUES TO THE FLOATPLANE'S HEIGHT ABOVE THE WATER CREATES A DANGEROUS SITUATION UNLESS A POSITIVE RATE OF CLIMB IS MAINTAINED.

- TAKEOFF TECHNIQUE IS THE SAME UNTIL ON THE STEP.
- FLAPS 10-15
- ONCE ON THE STEP, APPLY ENOUGH AILERON PRESSRE TO LIFT ONE FLOAT OUT OF THE WATER.
- ALSO CAN TAXI IN A CIRCLE TO ROUGHENING THE SURFACE OF THE WATER.

GLASSY WATER APPROACH AND LANDING

- GLASSY WATER LOOKS INVITING AND MAY GIVE PILOT A FALSE SENSE OF SAFETY.
- MORE DANGEROUS DUE TO LACK OF VISUAL CUES TO DETERMINE HEIGHT ABOVE THE WATER.
- DANGER IS TO FLARE TOO HIGH OR TOO LOW.
- EXPECT FASTER DECELERATION…EXPECT IT AND MAINTAIN THE PLANING ATTITUDE.
- SEVERAL SIMPLE WAYS TO OVERCOME THE VISUAL ILLUSIONS:
    1. SIMPLEST IS TO LAND NEAR THE SHORELINE USING THE FEATURES ALONG THE SHORE TO GAUGE ALTITUDE.
    2. MAKE FINAL APPROACH OVER LAND, CROSSING THE SHORELINE AT THE LOWEST POSSIBLE SAFE ALTITUDE SO THAT A RELIABLE HEIGHT REFERENCE IS MAINTAINED TO WITHIN A FEW FEET OF THE WATER SURFACE.
- ALWAYS PERFORM GLASSY WATER LANDINGS WITH POWER.
- @ TWO HUNDRED FEET ABOVE THE WATER CONFIGURE FOR LANDING
    1. CARB HEAT ON
    2. POWER TO IDLE
    3. FLAPS 20
    4. APPROACH 70MPH
- @ TREE TOP LEVEL, INCREASE POWER TO APPROXIMATELY 1800RPMS AND ASSUME THE LANDING ATTITUDE.
- ENSURE A STABILIZED DECENT OF NOT MORE THAN 150 FT/MIN. LESS IS BETTER!
- ONCE ON THE WATER USUAL SENSES TO ENSURE AIRCRAFT STAYS ON THE WATER
    1. SEE-A SLIGHT NOSE-DOWN PITCH
    2. HEAR- THE SOUND OF WATER
    3. FEELS- THE DECELERATION FORCES.
- BE SURE OF ALL THREE BEFORE CLOSING THE THROTTLE.
- GLASSY WATER LANDINGS CONSUME CONSIDERABLE LANDING DISTANCE. HAVE A GO AROUND POINT IN MIND AND BE SURE THERE IS SUITABLE DISTANCE FOR THE GLIDE, TOUCHDOWN AND WATER RUN.

ROUGH WATER TAKEOFF AND CLIMB

- THE OBJECTIVE IN A ROUGH WATER TAKEOFF IS SIMILAR TO THAT OF A ROUGH OR SOFT FIELD TAKEOFF IN A LANDPLANE: TO TRANSFER THE WEIGHT OF THE AIRPLANE TO THE WINGS AS SOON AS POSSIBLE, GET AIRBORNE AT A MINIMUM AIRSPEED, ACCELERATE IN GROUND EFFECT TO A SAFE CLIMB SPEED, AND CLIMB OUT.
- FLAPS 20
- SLIGHTLY NOSE HIGH (KEEPS TIPS UP AND SPRAY DOWN)
- RELATIONSHIP OF THE SPACING OF THE WAVES TO THE LENGTH OF THE FLOATS IS VERY IMPORTANT.
- IF WAVELENGTH IS LESS THAN HALF THE LENGTH OF THE FLOATS, THE FLOATPLANE IS ALWAYS SUPPORTED BY AT LEAST TWO WAVES AT A TIME. LONGER WAVELENGTH MEANS ONLY ONE

WAVE SUPPORTS THE FLOAT AT A TIME. THIS CREATES DANGEROUS PITCHING MOMENTS AND TAKEOFF SHOULD NOT BE ATTEMPTED.

ROUGH WATER APPROACH AND LANDING

- ROUGH IS A VERTY SUBJECTIVE AND RELATIVE TERM. WATER CONDITIONS THAT CAUSE NO DIFFICULTY FOR SMALL BOATS CAN BE TOO ROUGH FOR A FLOATPLANE.
- WIND DIRECTION AND SPEED MUST BE WEIGHED ALONG WITH THE SURFACE CONDITIONS OF THE WATER.
- IN GENERAL, MAKE THE TOUCHDOWN AT A SOMEWHAT FLATTER PITCH ATTITUDE THAN USUAL. THIS PREVENTS THE FLOATPLANE FROM BEING TOSSED BACK INTO THE AIR AT A DANGEROUSLY LOW AIRSPEED. IT ALSO HELPS THE FLOATS TO SLICE THROUGH THE TOPS OF THE WAVES RATHER THAN SLAMMING HARD AGAINST THEM.
- AVOID DOWNWIND LANDINGS IN ROUGH WATER.

EMERGENCY DESCENTS

- POWER TO IDLE
- FWD SLIP AS NEEDED
- PITCH FOR Vno (top of the green arc)

EMERGENCY APPROACH AND LANDING

- PITCH FOR BEST GLIDE SPEED 75 MPH!
- WORK THE EMERGENCY! (SEE ATTACHED EMERGENCY PROCEDURES)
- FIND A SUITABLE PLACE TO LAND.
- IF ALTITUDE PERMITS, ATTEMPT A RESTART.
- BRIEF PASSENGERS THOROUGHLY ON EXIT STRATEGY!
- AVIATE! NAVIGATE! COMMUNICATE!
- FLY THE AIRPLANE!

ANCHORING

- EASIEST WAY TO SECURE A SEAPLANE ON THE WATER SURFACE.
- LENGTH OF ANCHOR LINE SHOULD BE SEVEN TIMES THE DEPTH OF THE WATER.
- ALLOW FOR WINDSHIFTS.
- MAKE SURE ANCHOR IS SET, BY WATCHING TWO POINTS ON LAND TO SEE IF ANCHOR IS DRAGGING.

DOCKING AND MOORING

- KEY TO SUCCESSFUL DOCKING IS IN THE PLANNING!
- FLOATS ARE FRAGILE; HITTING SOMETHING LIKE A DOCK CAN CAUSE EXTENSIVE DAMAGE.
- PLAN APPROACH TO KEEP WIND ON THE NOSE OF THE FLOATPLANE AS MUCH AS POSSIBLE.
- MANAGE YOUR SPEED! IDLE MIXTURE CUT-OFF BEFORE REACHING YOUR DOCK.
- PLAN YOUR STRATEGY FOR EXIT INCASE YOU NEED TO ABORT THE DOCKING ATTEMPT.
- BE CAREFUL OF INEXPERIENCED HELPERS THAT MAY COME TO THE DOCK TO TRY AND HELP.
- BRIEF PASSENGER IF THEY ARE EXPECTED TO HELP.
- SLOW! SLOW! SLOW!

RAMPING/BEACHING

- SUCCESS IN BEACHING DEPENDS PRIMARILY ON THE TYPE AND FIRMNESS OF THE SHORELINE.
- INSPECT THE BEACH CAREFULLY BEFORE USING IT. EITHER FROM THE AIR OR BETTER YET ON FOOT.
- APPROACH THE BEACH AT AN OBLIQUE ANGLE SO YOU CAN TURN OUT IF THE BEACH IS NOT SUITABLE.
- STERNS OF FLOATS SHOULD BE ON SHORE WHEN POSSIBLE. TIE THE TAIL TO A SOLID OBJECT AHSORE.
- CONCRETE BOAT RAMPS ARE GENERALLY NOT SUITED FOR SEAPLANES.
- SEE FIGURE 6-9 AND 6-10 FOR MORE INFO ON RAMPING.

Oral Prep Quiz

1. WHAT IS THE BEST FORM OF WATER TAXI?
2. THE WORST WATER TAXI POSITION IS? WHY?
3. WHICH TAXI TURN IS USED IN WINDY CONDITIONS? WHY?
4. WHEN MAKING A STEP OR PLOW TURN, WHAT CONDITIONS HAVE THE CAPABILITY OF CAPSIZING A FLOAT PLANE? WHY?
5. THE CHECKLIST WE USE IN THE CESSNA 172 AMPHIB IS?
6. WHAT IS THE MOST DANGEROUS CONDITION FOR LANDING A FLOATPLANE? WHY?
7. DESCRIBE THE TECHNIQUE FOR A GLASSY WATER LANDING.
8. WHAT IS THE NAME USED TO DESCRIBE THE WAY A FLOATPLANE TURNS INTO THE WIND ON THE WATER?
9. WHICH WAY DOES AN AMPHIPIOUS FLOATPLANE WEATHERVANE WHILE TAXING ON LAND?
10. WHERE SHOULD THE YOKE SHOULD BE POSITIONED DURING IDLE TAXI? PLOW?
11. WHAT FORM OF TAXI DO WE USE TO COVER LONG DISTANCES AND SAVE TIME?
12. WHAT POSITION SHOULD THE WATER RUDDERS BE IN DURING TAKEOFF AND LANDING? WHY?
13. DESCRIBE THE TECHNIQUES FOR POWER-OFF SAILING.
14. DESCRIBE THE TECHNIQUES FOR DOCKING THE FLOATPLANE.
15. DESCRIBE THE TECHNIQUES FOR BEACHING THE FLOATPLANE.
16. LIST THREE REASONS A FLOATPLANE PORPOISES.
17. DESCRIBE THE PARTS OF THE BAUMANN BF2550A FLOATS.
18. WHEN ON THE WATER, WHAT IS THE BEST WAY TO DETERMINE THE DIRECTION OF THE WIND?
19. WHEN FLYING, WHAT ARE SOME WAYS TO NOTE THE DIRECTION OF THE WIND?
20. WHY DOES THE FLOATPLANE TURN DOWNWIND IN THE PLOW POSITION?
21. WHAT DO YOU DO TO STOP SEVERE PORPOIOSING?
22. WHAT SHOULD YOU DO TO STOP MINOR PORPOISING?
23. WHAT IS THE GROSS WEIGHT OF N8490L?
24. WHAT IS THE USEFUL LOAD?
25. FUEL CAPACITY?
26. BEST RATE OF CLIMB SPEED?
27. BEST ANGLE OF CLIMB SPEED?
28. BEST GLIDE SPEED?
29. WHO HAS THE RIGHT OF WAY BOATS OR FLOATPLANES? WHY?
30. WHAT REGULATION EXEMPTS US FROM HAVING TO CARRY LIFEVESTS WHILE TAXING ON THE WATER?
31. WHO HAS THE RIGHT OF WAY, THE FLOATPLANE TAKING OFF OR THE FLOATPLANE LANDING?
32. WHITE CAPS START TO FORM ON THE TOP OF WAVES AT APPROXIMATELY WHAT WIND SPEED?
33. WHEN DO WIND STREAKS START TO FORM ON THE WATER?

34. WHAT IS THE COLOR OF A ROTATING BEACON AT A SEAPLANE BASE?
35. IDENTIFY A SEAPLANE BASE ON A CHART.
36. AS FAR AS DESIGN, WHAT IS THE MOST IMPORTANT AREA OF THE FLOAT? WHY?
37. ON FLOATPLANES WHAT IS THE MOST IMPORTANT PART OF PREFLIGHT?
38. WHAT DOES THE “2550” MEAN ON THE FLOAT MODEL?
39. HOW MUCH OF THE AIRPLANE’S GROSS WEIGHT MUST EACH FLOAT SUPPORT?
40. WHAT IS THE PURPOSE OF THE KEEL?
41. LIST 5 ITEMS THAT A GOOD FLOATPLANE PILOT LOOKS FOR WHEN FLYING OVER A POTENTIAL LANDING SITE?
42. DESCRIBE THE TECHNIQUE FOR THE PLOW TURN AND WHAT FORCE MAKES THE FLOATPLANE TURN DOWNWIND FROM THE PLOW POSITION? WHY?
43. SHOULD YOU TURN INTO THE WIND IN THE PLOW POSITION? WHY?
44. DESCRIBE A MAXIMUM PERFORMANCE TAKE OFF. (CONFINED AREA)
45. HOW MUCH DO THE FLOATS WEIGH?
46. LOCATION OF THE BATTERY?
47. HOW MUCH ANCHOR ROPE IS NECESSARY TO ANCHOR IN 10 FEET OF WATER?
48. WHAT IS THE MAXIMUM FLAP SETTING IN N8490L?
49. WHAT ARE THE RULES REGARDING BOUYS WHEN RETURNING TO HARBOR?