

# Private SES ACS

## I. Preflight Preparation

Change 1 (6/15/2016)

<b>Task</b>	<b>Task F. Performance and Limitations</b>
<b>References</b>	FAA-H-8083-1, FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-25; POH/AFM
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with operating an aircraft safely within the parameters of its performance capabilities and limitations.
<b>Knowledge</b>	The applicant demonstrates understanding of:
<i>PA.I.F.K1</i>	1. Elements related to performance and limitations (e.g. takeoff and landing, crosswind, tailwind and headwind, density altitude, glide performance, weight and balance, climb, cruise, descent, powerplant considerations) by explaining the use of charts, tables, and data to determine performance.
<i>PA.I.F.K2</i>	2. Factors affecting performance to include atmospheric conditions, pilot technique, aircraft condition, and airport environment.
<i>PA.I.F.K3</i>	3. The effects of loading on performance.
<i>PA.I.F.K4</i>	4. The effects of exceeding weight and balance limits.
<i>PA.I.F.K5</i>	5. The effects of weight and balance changes over the course of the flight.
<i>PA.I.F.K6</i>	6. Aerodynamics.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
<i>PA.I.F.R1</i>	1. Performance charts.
<i>PA.I.F.R2</i>	2. Limitations.
<i>PA.I.F.R3</i>	3. Variations in flight performance resulting from weight and balance changes during flight.
<i>PA.I.F.R4</i>	4. Published aircraft performance data as it relates to expected performance.
<b>Skills</b>	The applicant demonstrates the ability to:
<i>PA.I.F.S1</i>	1. Compute weight and balance for a given scenario, which includes practical techniques to resolve out-of-limit calculations and determine if the weight and balance will remain within limits during all phases of flight.
<i>PA.I.F.S2</i>	2. Use aircraft manufacturer's approved performance charts, tables, and data.
<i>PA.I.F.S3</i>	3. Evaluate takeoff and landing performance based on the values calculated.
<i>PA.I.F.S4</i>	4. Evaluate environmental conditions.

## I. Preflight Preparation

<b>Task</b>	<b>Task G. Operation of Systems</b>
<b>References</b>	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-23, FAA-H-8083-25; POH/AFM.
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk

	management, and skills associated with the safe operation of systems on the airplane provided for the flight test.
<b>Knowledge</b>	The applicant demonstrates understanding of:
<i>PA.I.G.K1</i>	1. Major components of the systems:
<i>PA.I.G.K1a</i>	a. Primary flight controls and trim
<i>PA.I.G.K1b</i>	b. Flaps, leading edge devices, and spoilers as appropriate
<i>PA.I.G.K1c</i>	c. Powerplant and propeller (basic engine knowledge)
<i>PA.I.G.K1d</i>	d. Landing gear
<i>PA.I.G.K1e</i>	e. Fuel, oil, and hydraulic
<i>PA.I.G.K1f</i>	f. Electrical
<i>PA.I.G.K1g</i>	g. Avionics
<i>PA.I.G.K1h</i>	h. Pitot-static, vacuum/pressure and associated flight instruments
<i>PA.I.G.K1i</i>	i. Environmental
<i>PA.I.G.K1j</i>	j. Deicing and anti-icing
<i>PA.I.G.K1k</i>	k. Water rudders (ASES, AMES)
<i>PA.I.G.K2</i>	2. Normal operation of systems.
<i>PA.I.G.K3</i>	3. Common errors made by pilots.
<i>PA.I.G.K4</i>	4. Abnormal operation of systems (recognition of system failures/malfunctions).
<i>PA.I.G.K5</i>	5. Systems interaction and pilot monitoring of automated systems.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
<i>PA.I.G.R1</i>	1. Mishandling a system failure.
<i>PA.I.G.R2</i>	2. Troubleshooting system failures/malfunctions.
<i>PA.I.G.R3</i>	3. Mismanagement of airplane systems, which can cause a problem or system failure.
<i>PA.I.G.R4</i>	4. Determining and/or declaring an emergency.
<i>PA.I.G.R5</i>	5. Failure to identify system malfunctions or failures.
<i>PA.I.G.R6</i>	6. Outside/environmental factors affecting the systems, including improper fueling, carburetor ice, extremely cold temperatures, and vapor lock.
<i>PA.I.G.R7</i>	7. Detection and management of threats and errors.
<i>PA.I.G.R8</i>	8. Ineffective monitoring of automation.
<b>Skills</b>	The applicant demonstrates the ability to:
<i>PA.I.G.S1</i>	1. Explain and operate the airplane's systems.
<i>PA.I.G.S2</i>	2. Use checklist procedures.
<i>PA.I.G.S3</i>	3. Use immediate action items during emergency operations, as applicable.

## I. Preflight Preparation

<b>Task</b>	<b><i>Task I. Water and Seaplane Characteristics, Seaplane Bases, Maritime Rules, and Aids to Marine Navigation (ASES, AMES)</i></b>
<b>References</b>	FAA-H-8083-2, FAA-H-8083-23; AIM; USCG Navigation Rules, International-Inland; POH/AFM; Chart Supplements U.S.
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with water and seaplane characteristics, seaplane bases, maritime rules, and aids to marine navigation.
<b>Knowledge</b>	The applicant demonstrates understanding of:
<i>PA.I.I.K1</i>	1. The characteristics of a water surface as affected by features, such as:

PA.I.I.K1a	a. Size and location
PA.I.I.K1b	b. Protected and unprotected areas
PA.I.I.K1c	c. Surface wind
PA.I.I.K1d	d. Direction and strength of water current
PA.I.I.K1e	e. Floating and partially submerged debris
PA.I.I.K1f	f. Sandbars, islands, and shoals
PA.I.I.K1g	g. Vessel traffic and wakes
PA.I.I.K1h	h. Other features unique to the area
PA.I.I.K2	2. Float and hull construction, and their effect on seaplane performance.
PA.I.I.K3	3. The causes of porpoising and skipping, and the pilot action required to prevent or correct these occurrences.
PA.I.I.K4	4. How to locate and identify seaplane bases on charts or in directories.
PA.I.I.K5	5. Operating restrictions at various bases.
PA.I.I.K6	6. Right-of-way, steering, and sailing rules pertinent to seaplane operations.
PA.I.I.K7	7. Marine navigation aids, such as buoys, beacons, lights, and sound signals.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.I.I.R1	1. Local conditions.
PA.I.I.R2	2. Impact of marine traffic.
<b>Skills</b>	The applicant demonstrates the ability to:
PA.I.I.S1	1. Assess the water surface characteristics for the proposed flight.
PA.I.I.S2	2. Locate and identify seaplane bases for the region.
PA.I.I.S3	3. Identify restrictions at local bases.
PA.I.I.S4	4. Perform correct right-of-way, steering, and sailing operations.
PA.I.I.S5	5. Identify marine navigation aids in the local region.
PA.I.I.S6	6. Demonstrate understanding of all knowledge Task elements.

## II. Preflight Procedures

<b>Task</b>	<b>Task E. Taxiing and Sailing (ASES, AMES)</b>
<b>References</b>	FAA-H-8083-2; FAA-H-8083-23, FAA-H-8083-25; POH/AFM; AC 91-73; Chart Supplements U.S.; AIM.
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with safe taxiing and sailing operations, including runway incursion avoidance.
<b>Knowledge</b>	The applicant demonstrates understanding of:
PA.II.E.K1	1. Positioning aircraft controls for wind, water and sailing procedures, including the use of flaps, doors, water rudder, and power so as to follow the desired course while sailing.
PA.II.E.K2	2. Airport markings, signs, and lights.
PA.II.E.K3	3. Aircraft lighting.
PA.II.E.K4	4. Towered and non-towered airport operations to include ATC communications and pilot actions before takeoff, before landing, and after landing at towered and non-towered airports.
PA.II.E.K5	5. Visual indicators for wind.
PA.II.E.K6	6. Airport information resources including Chart Supplements U.S., airport diagrams, and appropriate publications.
PA.II.E.K7	7. Good cockpit discipline during taxi and sailing, including maintaining a sterile

	cockpit, proper speed, separation between other aircraft and vehicles, communication procedures.
PA.II.E.K8	8. Procedures for appropriate cockpit activities during taxiing and sailing including taxi route planning, briefing the location of Hot Spots, communicating and coordinating with ATC.
PA.II.E.K9	9. Rules for entering or crossing runways.
PA.II.E.K10	10. Procedures unique to night operations.
PA.II.E.K11	11. Hazards of low visibility operations, other aircraft and vessels.
PA.II.E.K12	12. Proper engine management including leaning, per manufacturer's recommendations.
PA.II.E.K13	13. Requesting progressive taxi instructions if there is any doubt on understanding or ability to comply with a taxi clearance.
PA.II.E.K14	14. Proper technique for the conditions, including idle, plow or step taxi, preventing and correcting for porpoising and skipping.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.II.E.R1	1. Distractions during aircraft taxi.
PA.II.E.R2	2. Task management during taxi or sailing.
PA.II.E.R3	3. Confirmation or expectation bias as related to taxi instructions.
PA.II.E.R4	4. Recording taxi instructions/clearances.
PA.II.E.R5	5. Improper resource management.
PA.II.E.R6	6. Porpoising and skipping.
PA.II.E.R7	7. Other aircraft, vessels, and hazards while on the water.
<b>Skills</b>	The applicant demonstrates the ability to:
PA.II.E.S1	1. Perform a brake check immediately after the airplane begins moving.
PA.II.E.S2	2. Position the flight controls, flaps, doors, water rudder, and power correctly for the existing wind, water and sailing conditions and to prevent and correct for porpoising and skipping so as to follow the desired course while sailing.
PA.II.E.S3	3. Uses the appropriate idle, plow, or step taxi technique.
PA.II.E.S4	4. Exhibit procedures for steering, maneuvering, maintaining taxiway, runway position, and situational awareness to avoid runway incursions.
PA.II.E.S5	5. Plan and follow the most favorable course while taxiing or sailing, considering wind, water current, water conditions, and maritime regulations, as appropriate.

#### IV. Takeoffs, Landings, and Go-Arounds

Task	<b>Task A. Normal Takeoff and Climb</b>
PA.IV.A.S10	10. Retract the landing gear and flaps in accordance with manufacturer's guidance.
PA.IV.A.S11	
PA.IV.A.S12	12. Maintain directional control and proper wind drift correction throughout the takeoff and climb.
PA.IV.A.S13	13. Comply with responsible environmental practices, including noise abatement and published departure procedures.
PA.IV.A.S14	14. Complete the appropriate checklist.
PA.IV.A.S15	15. Comply with manufacturer's recommended emergency procedures related to the takeoff sequence.

## IV. Takeoffs, Landings, and Go-Arounds

<b>Task</b>	<b>Task B. Normal Approach and Landing</b>
<b>References</b>	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-23; POH/AFM
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a normal approach and landing with emphasis on proper use and coordination of flight controls.  <i>Note: If a crosswind condition does not exist, the applicant's knowledge of crosswind elements must be evaluated through oral testing.</i>
<b>Knowledge</b>	The applicant demonstrates understanding of:
PA.IV.B.K1	1. Available landing distance.
PA.IV.B.K2	2. Stabilized approach and interpretation and use of visual glide slope indicators.
PA.IV.B.K3	3. Energy management.
PA.IV.B.K4	4. Atmospheric conditions.
PA.IV.B.K5	5. Wind conditions and effects.
PA.IV.B.K6	6. Emergency procedures during approach and landing.
PA.IV.B.K7	7. Land and hold short operations (LAHSO) or option to refuse LAHSO restriction.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IV.B.R1	1. Failure to select the appropriate runway based on wind, pilot capability, and airplane limitations.
PA.IV.B.R2	2. Exceeding the manufacturer's maximum demonstrated crosswind component.
PA.IV.B.R3	3. Windshear.
PA.IV.B.R4	4. Tailwind.
PA.IV.B.R5	5. Wake turbulence.
PA.IV.B.R6	6. Task management.
PA.IV.B.R7	7. Low altitude maneuvering.
PA.IV.B.R8	8. Collision avoidance, scanning, obstacle and wire strike avoidance.
PA.IV.B.R9	9. Failure to follow the right-of-way rules.
PA.IV.B.R10	10. Obstacles on approach and landing paths.
PA.IV.B.R11	11. Failure to recognize the need to perform a go-around/rejected landing.
PA.IV.B.R12	12. Low altitude stall/spin.
PA.IV.B.R13	13. Land and hold short operations. (LAHSO).
PA.IV.B.R14	14. Failure to adhere to sterile cockpit requirement.
<b>Skills</b>	The applicant demonstrates the ability to:
PA.IV.B.S1	1. Ensure the aircraft is on the correct/assigned runway.
PA.IV.B.S2	2. Scan the landing runway/areas and adjoining areas for possible obstructions for landing.
PA.IV.B.S3	3. Complete the appropriate checklist.
PA.IV.B.S4	4. Consider the wind conditions, landing surface, and obstructions to select a suitable touchdown point.
PA.IV.B.S5	5. Establish the recommended approach and landing configuration and airspeed, and adjust pitch attitude and power as required.
PA.IV.B.S7	7. Make smooth, timely, and correct control applications:
PA.IV.B.S7a	a. During the round out and touchdown (ASEL, AMEL)
PA.IV.B.S7b	b. During the round out and touchdown to contact the water at the proper pitch

	attitude (ASES, AMES)
PA.IV.B.S8	8. Touch down smoothly at a speed that provides little or no aerodynamic lift.

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#### IV. Takeoffs, Landings, and Go-Arounds

Task	<b>Task B. Normal Approach and Landing</b>
PA.IV.B.S9	9. Touch down within the available runway or water landing area, within 400 feet beyond a specified point with no drift, and with the airplane's longitudinal axis aligned with and over the runway centerline.
PA.IV.B.S10	10. Maintain crosswind correction and directional control throughout the approach and landing sequence.
PA.IV.B.S11	11. Execute a timely go-around decision when the approach cannot be made within the tolerances specified above or for any other condition that that may result in an unsafe approach or landing.
PA.IV.B.S12	12. Utilize after landing runway incursion avoidance procedures.

Task	<b>Task G. Confined Area Takeoff and Maximum Performance Climb (ASES, AMES)</b>
<b>References</b>	FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-23; POH/AFM
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a confined area takeoff, maximum performance climb operations, and rejected takeoff procedures.
<b>Knowledge</b>	The applicant demonstrates understanding of:
PA.IV.G.K1	1. The need to calculate a confined area takeoff.
PA.IV.G.K2	2. The effects of aircraft configuration.
PA.IV.G.K3	3. The effects of water surface.
PA.IV.G.K4	4. How to calculate the takeoff distance.
PA.IV.G.K5	5. Takeoff power.
PA.IV.G.K6	6. Obstruction clearance.
PA.IV.G.K7	7. Wind conditions and effects.
PA.IV.G.K8	8. Minimum safe altitude.
PA.IV.G.K9	9. Density altitude.
PA.IV.G.K11	11. Emergency procedures during takeoff and climb.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IV.G.R1	1. Failure to select the appropriate takeoff/runway area based on wind, pilot capability, and aircraft limitations.
PA.IV.G.R2	2. Exceeding the manufacturer's maximum demonstrated crosswind component.
PA.IV.G.R3	3. Water conditions.
PA.IV.G.R4	4. Obstruction clearance.
PA.IV.G.R5	5. Climb attitude and stall awareness.
PA.IV.G.R6	6. Windshear.
PA.IV.G.R7	7. Tailwind.
PA.IV.G.R8	8. Wake turbulence.
PA.IV.G.R9	9. Failure to make an appropriate go/no-go decision.

PA.IV.G.R10	10. Task management.
PA.IV.G.R11	11. Low altitude maneuvering.
PA.IV.G.R12	12. Wire strikes.
PA.IV.G.R13	13. Obstacles on the departure paths.
PA.IV.G.R14	14. A rejected takeoff and predetermining takeoff abort criteria.
PA.IV.G.R15	15. An engine failure during takeoff and climb.
PA.IV.G.R16	16. Criticality of takeoff distance available.
PA.IV.G.R17	17. Failure to adhere to sterile cockpit requirement.
<b>Skills</b>	The applicant demonstrates the ability to:
PA.IV.G.S1	1. Ensure the aircraft is properly configured.
PA.IV.G.S2	2. Verify ATC clearance and that there is no aircraft is on final before crossing the hold short line.
PA.IV.G.S3	3. Ensure the aircraft is on the correct takeoff center path.
PA.IV.G.S4	4. Ascertain wind direction with or without visible wind direction indicators.
PA.IV.G.S5	5. Calculate the crosswind component and determine if it is beyond the pilot's ability or aircraft capability.
PA.IV.G.S6	6. Position the flight controls for the existing wind conditions and set the flaps as recommended.

<b>Task Task H. Confined Area Approach and Landing (ASES, AMES)</b>	
<b>References</b> FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-23; POH/AFM	
To determine that the applicant exhibits satisfactory knowledge, risk management, and <b>Objective</b> skills associated with a confined area approach and landing with emphasis on proper use and coordination of flight controls.	
<b>Knowledge</b> The applicant demonstrates understanding of:	
PA.IV.H.K1	1. Landing distance.
PA.IV.H.K2	2. Hazards of a confined area.
PA.IV.H.K3	3. Obstruction clearance.
PA.IV.H.K4	4. Stabilized approach.
PA.IV.H.K5	5. Energy management.
PA.IV.H.K6	6. Wind conditions and effects.
PA.IV.H.K7	7. Density altitude.
PA.IV.H.K8	8. Emergency procedures during approach and landing.
PA.IV.H.K9	9. Land and hold short operations.
<b>Risk</b> The applicant demonstrates the ability to identify, assess and mitigate risks, <b>Management</b> encompassing:	
PA.IV.H.R1	
	1. Failure to select the appropriate waterway based on wind, pilot capability, and aircraft limitations.
PA.IV.H.R2	2. Exceeding the manufacturer's maximum demonstrated crosswind component.
PA.IV.H.R3	3. Water conditions.
PA.IV.H.R4	4. Obstruction clearance.

PA.IV.H.R5 5. Climb attitude and stall awareness.
PA.IV.H.R6 6. Windshear avoidance.
PA.IV.H.R7 7. Tailwind.
PA.IV.H.R8 8. Wake turbulence.
PA.IV.H.R9 9. Task management.
PA.IV.H.R10 10. Low altitude maneuvering.
PA.IV.H.R11 11. Failure to confirm your gear position in an amphibious aircraft.
PA.IV.H.R12 12. Collision avoidance, scanning, obstacle and wire strike avoidance.
PA.IV.H.R13 13. Failure to follow the right-of-way rules.
PA.IV.H.R14 14. Obstacles on approach and landing paths.
PA.IV.H.R15 15. Failure to recognize the need for a go-around/rejected landing.
PA.IV.H.R16 16. Low altitude stall/spin.
PA.IV.H.R17 17. Land and hold short operations (LAHSO).
PA.IV.H.R18 18. Failure to adhere to sterile cockpit requirement.
<b>Skills</b> The applicant demonstrates the ability to:
PA.IV.H.S1 1. Ensure the aircraft is aligned with the correct/assigned waterway.
PA.IV.H.S2 2. Scan the landing runway/area for possible obstructions for landing.
PA.IV.H.S3 3. Complete the appropriate approach and landing checklist.
PA.IV.H.S4
4. Consider the wind conditions, landing surface and obstructions to, and select the proper landing path.
PA.IV.H.S5
5. Establish the recommended approach and landing configuration and airspeed, and adjust pitch attitude and power as required.

## Takeoffs, Landings, and Go-Arounds

<b>Task Task I. Glassy Water Takeoff and Climb (ASES, AMES)</b>
<b>References</b> FAA-H-8083-2, FAA-H-8083-23; POH/AFM
<b>Objective</b>
To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a glassy water takeoff and climb.
<b>Note:</b> <i>If a glassy water condition does not exist, the applicant shall be evaluated by simulating the Task.</i>
<b>Knowledge</b> The applicant demonstrates understanding of:
PA.IV.I.K1 1. Water effects on operations.
PA.IV.I.K2 2. The effects of glassy water on acceleration and lift-off.
PA.IV.I.K3 3. When and why to use the glassy water takeoff and climb technique.
<b>Risk</b> The applicant demonstrates the ability to identify, assess and mitigate risks, <b>Management</b> encompassing:
PA.IV.I.R1 1. Failure to select the appropriate takeoff path.
PA.IV.I.R3 2. Water conditions.
PA.IV.I.R3 3. Obstruction clearance.



PA.IV.I.R4	4. Climb attitude and stall awareness.
PA.IV.I.R5	5. Windshear.
PA.IV.I.R6	6. Wake turbulence.
PA.IV.I.R7	7. Failure to make a go/no-go decision.
PA.IV.I.R8	8. Task management.
PA.IV.I.R9	9. Low altitude maneuvering.
PA.IV.I.R10	10. Wire strikes.
PA.IV.I.R11	11. Obstacles on the departure path.
PA.IV.I.R12	12. Rejected takeoffs and failure to identify a takeoff abort point.
PA.IV.I.R13	13. An engine failure during takeoff and climb.
PA.IV.I.R14	14. Criticality of takeoff distance available.
PA.IV.I.R15	15. Failure to adhere to sterile cockpit requirement.
<b>Skills</b>	The applicant demonstrates the ability to:
PA.IV.I.S1	1. Position the flight controls and flaps for the existing conditions.
PA.IV.I.S2	
	2. Clear the area, taxi into takeoff position utilizing maximum available takeoff area and align the airplane on the waterway.
PA.IV.I.S3	3. Retract the water rudders as appropriate; advance the throttle smoothly to takeoff power.
PA.IV.I.S4	
	4. Establish and maintain an appropriate planing attitude, directional control, correct for porpoising, and increase in water drag.
PA.IV.I.S5	
	5. Utilize appropriate techniques to lift seaplane from the water considering surface conditions.
PA.IV.I.S7	
	7. Retract flaps after a positive rate of climb has been verified or in accordance with aircraft manufacturer's guidance.
PA.IV.I.S9	9. Maintain directional control and proper wind drift correction throughout takeoff and climb.
PA.IV.I.S10	10. Complete the appropriate checklist.

## V. Takeoffs, Landings, and Go-Arounds

<b>Task</b>	<b>Task J. Glassy Water Approach and Landing (ASES, AMES)</b>
<b>References</b>	FAA-H-8083-2, FAA-H-8083-23; POH/AFM
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a glassy water approach and landing.  <i>Note: If a glassy water condition does not exist, the applicant shall be evaluated by simulating the Task.</i>
<b>Knowledge</b>	The applicant demonstrates understanding of:
PA.IV.J.K1	1. When and why glassy water techniques are used.
PA.IV.J.K2	2. How a glassy water approach and landing is executed.

PA.IV.J.K3	3. Landing distance.
PA.IV.J.K4	4. Stabilized approach.
PA.IV.J.K5	5. Energy management.
PA.IV.J.K6	6. Wind conditions and effects.
PA.IV.J.K7	7. Density altitude.
PA.IV.J.K8	8. Emergency procedures during approach and landing.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IV.J.R1	1. Performing a go-around/rejected landing.
PA.IV.J.R2	2. Low altitude stall/spin.
PA.IV.J.R3	3. Wind shear.
PA.IV.J.R4	4. Tailwind.
PA.IV.J.R5	5. Wake turbulence.
PA.IV.J.R6	6. Task management.
PA.IV.J.R7	7. Low altitude maneuvering.
PA.IV.J.R8	8. Collision avoidance, scanning, obstacle and wire strike avoidance.
PA.IV.J.R9	9. Failure to follow the right-of-way rules.
PA.IV.J.R10	10. Obstacles on approach and landing paths.
PA.IV.J.R11	11. Failure to adhere to sterile cockpit requirement.
PA.IV.J.R12	12. Failure to confirm your gear position in an amphibious aircraft.
<b>Skills</b>	The applicant demonstrates the ability to:
PA.IV.J.S1	1. Scan the landing waterway/area for possible obstructions for landing.
PA.IV.J.S2	2. Consider the wind conditions, water depth, hazards, surrounding terrain, and other watercraft.
PA.IV.J.S3	3. Consider the wind conditions, landing surface, and obstructions to select the most suitable approach path and touchdown area.
PA.IV.J.S4	4. Establish the recommended approach and landing configuration and airspeed, and adjust pitch attitude and power as required.
PA.IV.J.S5	5. Maintain a stabilized approach and the recommended approach airspeed, +10/-5 knots and maintain a touchdown pitch attitude and descent rate from the last altitude reference until touchdown or as recommended by aircraft manufacturer to a safe maneuvering altitude.
PA.IV.J.S6	6. Make smooth, timely, and correct power and control adjustments to maintain proper pitch attitude and rate of descent to touchdown.
PA.IV.J.S7	7. Contact the water in the proper pitch attitude, and slow to idle taxi speed.
PA.IV.J.S8	8. Maintain crosswind correction and directional control throughout the approach and landing sequence, as required.
PA.IV.J.S9	9. Complete the appropriate checklist.

<b>Task</b>	<b>Task K. Rough Water Takeoff and Climb (ASES, AMES)</b>
<b>References</b>	FAA-H-8083-2, FAA-H-8083-23; POH/AFM
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a rough water takeoff and climb.  <i>Note: If a rough water condition does not exist, the applicant shall be evaluated by simulating the Task.</i>
<b>Knowledge</b>	The applicant demonstrates understanding of:
PA.IV.K.K1	1. Water effects on operations.
PA.IV.K.K2	2. The effects of rough water on acceleration and lift-off.

PA.IV.K.K3	3. When and why to use the rough water takeoff and climb technique.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IV.K.R1	1. Failure to select the appropriate waterway based on wind, pilot capability, and aircraft limitations.
PA.IV.K.R2	2. Exceeding the manufacturer's maximum demonstrated crosswind component.
PA.IV.K.R3	3. Water conditions.
PA.IV.K.R4	4. Obstruction clearance.
PA.IV.K.R5	5. Climb attitude and stall awareness.
PA.IV.K.R6	6. Windshear.
PA.IV.K.R7	7. Tailwind.
PA.IV.K.R8	8. Wake turbulence.
PA.IV.K.R9	9. Failure to make a go/no-go decision.
PA.IV.K.R10	10. Task management.
PA.IV.K.R11	11. Low altitude maneuvering.
PA.IV.K.R12	12. Wire strikes.
PA.IV.K.R13	13. Obstacles on the departure path.
PA.IV.K.R14	14. A rejected takeoff and predetermining takeoff abort criteria.
PA.IV.K.R15	15. An engine failure during takeoff and climb.
PA.IV.K.R16	16. Criticality of takeoff distance available.
PA.IV.K.R17	17. Failure to adhere to sterile cockpit requirement.
PA.IV.K.R18	18. Failure to retract the landing gear in amphibious aircraft.
<b>Skills</b>	The applicant demonstrates the ability to:
PA.IV.K.S1	1. Position the flight controls and flaps for the existing conditions.
PA.IV.K.S2	2. Clear the area, taxi into takeoff position utilizing maximum available takeoff area and align the airplane on the waterway.
PA.IV.K.S3	3. Retract the water rudders as appropriate; advance the throttle smoothly to takeoff power.
PA.IV.K.S4	4. Establish and maintain an appropriate planing attitude, directional control, and correct for porpoising, skipping, and increase in water drag.
PA.IV.K.S6	6. Retract flaps after a positive rate of climb has been verified or in accordance with aircraft manufacturer's guidance.
PA.IV.K.S8	8. Maintain directional control and proper wind drift correction throughout takeoff and climb.
PA.IV.K.S9	9. Complete the appropriate checklist.

<b>Task</b>	<b>Task L. Rough Water Approach and Landing (ASES, AMES)</b>
<b>References</b>	FAA-H-8083-2, FAA-H-8083-23; POH/AFM
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with a rough water approach and landing.  <i>Note: If a rough water condition does not exist, the applicant shall be evaluated by simulating the Task.</i>
<b>Knowledge</b>	The applicant demonstrates understanding of:
PA.IV.L.K1	1. When and why rough water techniques are used.
PA.IV.L.K2	2. How a rough water approach and landing is executed.

PA.IV.L.K3	3. Landing distance.
PA.IV.L.K4	4. Stabilized approach.
PA.IV.L.K5	5. Energy management.
PA.IV.L.K6	6. Wind conditions and effects.
PA.IV.L.K7	7. Density altitude.
PA.IV.L.K8	8. Emergency procedures during approach and landing.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IV.L.R1	1. Failure to recognize the need to perform a go-around/rejected landing.
PA.IV.L.R2	2. Low altitude stall/spin.
PA.IV.L.R3	3. Windshear.
PA.IV.L.R4	4. Tailwind.
PA.IV.L.R5	5. Wake turbulence.
PA.IV.L.R6	6. Task management.
PA.IV.L.R7	7. Low altitude maneuvering.
PA.IV.L.R8	8. Failure to confirm gear position in an amphibious aircraft.
PA.IV.L.R9	9. Collision avoidance, scanning, obstacle and wire strike avoidance.
PA.IV.L.R10	10. Failure to follow the right-of-way rules.
PA.IV.L.R11	11. Obstacles on approach and landing paths.
PA.IV.L.R12	12. Failure to adhere to sterile cockpit requirement.
<b>Skills</b>	The applicant demonstrates the ability to:
PA.IV.L.S1	1. Adequately survey the intended landing area.
PA.IV.L.S2	2. Consider the wind conditions, water depth, hazards, surrounding terrain, and other watercraft.
PA.IV.L.S3	3. Select the most suitable approach path and touchdown area.
PA.IV.L.S4	4. Establish the recommended approach and landing configuration and airspeed, and adjust pitch attitude and power as required.
PA.IV.L.S5	5. Maintain a stabilized approach and the recommended approach airspeed, or
PA.IV.L.S6	6. Make smooth, timely, and correct power and control adjustments to maintain proper pitch attitude and rate of descent to touchdown.
PA.IV.L.S7	7. Contact the water in the proper pitch attitude, considering the type of rough water.
PA.IV.L.S8	8. Maintain crosswind correction and directional control throughout the approach and landing sequence.
PA.IV.L.S9	9. Complete the appropriate checklist.

## IX. Emergency Operations

<b>Task</b>	<b>Task A. Emergency Descent</b>
<b>References</b>	FAA-H-8083-2, FAA-H-8083-3; POH/AFM
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with an emergency descent.  <b>Note:</b> ( <a href="#">See Appendix 6 – Safety of Flight Multiengine Considerations,</a> )
<b>Knowledge</b>	The applicant demonstrates understanding of:
PA.IX.A.K1	1. Glide speed, distance.
PA.IX.A.K2	2. Stabilized approach.

PA.IX.A.K3	3. Energy management.
PA.IX.A.K4	4. Wind conditions and effects.
PA.IX.A.K5	5. Situations, such as depressurization, cockpit smoke and/or engine fire that require an emergency descent.
PA.IX.A.K6	6. Emergency procedures.
PA.IX.A.K7	7. Communications.
PA.IX.A.K8	8. ATC clearance deviations.
PA.IX.A.K9	9. ELTs and/or other emergency locating devices.
PA.IX.A.K10	10. Radar assistance to VFR aircraft.
PA.IX.A.K11	11. Transponder.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IX.A.R1	1. Wind.
PA.IX.A.R2	2. Failure to select a suitable landing area.
PA.IX.A.R3	3. Failure to plan and follow a flight pattern to the selected landing area considering altitude, wind, terrain, and obstructions.
PA.IX.A.R4	4. Improper aircraft and propeller configurations.
PA.IX.A.R5	5. Improper management of tasks associated with an emergency descent.
PA.IX.A.R6	6. Low altitude maneuvering.
PA.IX.A.R7	7. Collision avoidance, scanning, obstacle and wire strike avoidance.
PA.IX.A.R8	8. Having the right-of-way in an emergency.
PA.IX.A.R9	9. Failure to maintain situational awareness during an emergency descent.
PA.IX.A.R10	10. Low altitude stalls/spins.
<b>Skills</b>	The applicant demonstrates the ability to:
PA.IX.A.S1	1. Analyze the situation and select an appropriate course of action.
PA.IX.A.S2	2. Establish and maintain the appropriate airspeed and configuration for the emergency descent.
PA.IX.A.S3	3. Establish appropriate propeller pitch (if constant speed), flap deployment, and gear position (if retractable) relative to the distance and altitude to the selected landing area.
PA.IX.A.S4	4. Exhibit orientation, division of attention and proper planning.
PA.IX.A.S5	5. Maintain positive load factors during the descent.
PA.IX.A.S6	6. Complete the appropriate checklist.

## IX. Emergency Operations

<b>Task</b>	<b>Task B. Emergency Approach and Landing (Simulated) (ASEL, ASES)</b>
<b>References</b>	FAA-H-8083-2, FAA-H-8083-3; POH/AFM
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with emergency approach and landing procedures.
<b>Knowledge</b>	The applicant demonstrates understanding of:
PA.IX.B.K1	1. Glide speed and distance.
PA.IX.B.K2	2. Landing distance.
PA.IX.B.K3	3. Hazards of other than hard surfaced runway.
PA.IX.B.K4	4. Stabilized approach.

PA.IX.B.K5	5. Energy management.
PA.IX.B.K6	6. Wind conditions and effects.
PA.IX.B.K7	7. Density altitude.
PA.IX.B.K8	8. Emergency procedures.
PA.IX.B.K9	9. Communications.
PA.IX.B.K10	10. ATC clearance deviations.
PA.IX.B.K11	11. Minimum fuel.
PA.IX.B.K12	12. Selecting a landing location.
PA.IX.B.K13	13. ELTs and/or other emergency locating devices.
PA.IX.B.K14	14. Radar assistance to VFR aircraft.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IX.B.R1	1. Wind.
PA.IX.B.R2	2. Failure to select a suitable landing area.
PA.IX.B.R3	3. Failure to plan and follow a flight pattern to the selected landing area considering altitude, wind, terrain, and obstructions.
PA.IX.B.R4	4. Improper management of tasks associated with an emergency approach and landing.
PA.IX.B.R5	5. Low altitude maneuvering.
PA.IX.B.R6	6. Startle response.
PA.IX.B.R7	7. Collision avoidance, scanning, obstacle and wire strike avoidance.
PA.IX.B.R8	8. Having the right-of-way in an emergency.
PA.IX.B.R9	9. Obstacles on approach and landing
PA.IX.B.R10	10. Low altitude stall/spin.
PA.IX.B.R11	11. Failure to maintain the appropriate airspeed (e.g., best glide speed, minimum sink speed) or configuration during the descent.
<b>Skills</b>	The applicant demonstrates the ability to:
PA.IX.B.S1	1. Analyze the situation, select an appropriate course of action, and select a suitable landing area.
PA.IX.B.S2	2. Establish and maintain the recommended best glide airspeed, $\pm 10$ knots.
PA.IX.B.S3	3. Plan and follow a flight pattern to the selected landing area considering altitude, wind, terrain, and obstructions that would allow a safe landing.
PA.IX.B.S4	4. Prepare for landing, or go-around, as specified by the evaluator.
PA.IX.B.S5	5. Complete the appropriate checklist.
PA.IX.B.S6	6. Make appropriate radio calls, when conditions allow.

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## IX. Emergency Operations

<b>Task</b>	<b>Task C. Systems and Equipment Malfunction</b>
<b>References</b>	FAA-H-8083-2, FAA-H-8083-3; POH/AFM
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with system and equipment malfunctions appropriate to the airplane provided for the practical test and analyzing the situation and take appropriate action for simulated emergencies.
<b>Knowledge</b>	The applicant demonstrates understanding of:
PA.IX.C.K1	1. The elements related to system and equipment malfunctions appropriate to the airplane, including:

PA.IX.C.K1a	a. Partial or complete power loss
PA.IX.C.K1b	b. Engine roughness or overheat
PA.IX.C.K1c	c. Carburetor or induction icing
PA.IX.C.K1d	d. Loss of oil pressure
PA.IX.C.K1e	e. Fuel starvation
PA.IX.C.K1f	f. Electrical malfunction
PA.IX.C.K1g	g. Vacuum/pressure, and associated flight instruments malfunction
PA.IX.C.K1h	h. Pitot/static system malfunction
PA.IX.C.K1i	i. Landing gear or flap malfunction
PA.IX.C.K1j	j. Inoperative trim
PA.IX.C.K1k	k. Inadvertent door or window opening
PA.IX.C.K1l	l. Structural icing
PA.IX.C.K1m	m. Smoke/fire/engine compartment fire
PA.IX.C.K1n	n. Any other emergency appropriate to the airplane
PA.IX.C.K1o	o. Glass cockpit operations
PA.IX.C.K2	2. Supplemental oxygen.
PA.IX.C.K3	3. Load factors.
PA.IX.C.K4	4. High drag versus low drag.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.IX.C.R1	1. Hazardous attitudes.
PA.IX.C.R2	2. Failure to complete a preflight inspection.
PA.IX.C.R3	3. Improper maintenance.
PA.IX.C.R4	4. Failure to use the proper checklist during a system or equipment malfunction.
PA.IX.C.R5	5. Failure to recognize situations, such as:
PA.IX.C.R5a	a. Depressurization
PA.IX.C.R5b	b. Cockpit smoke
PA.IX.C.R5c	c. Fire
PA.IX.C.R6	6. Loss of orientation, failure to divide attention, and improper planning.
PA.IX.C.R7	7. Failure to properly manage the airplane's energy during a system or equipment malfunction.
<b>Skills</b>	The applicant demonstrates the ability to:
PA.IX.C.S1	1. Analyze the situation and take appropriate action for simulated emergencies, with reference to at least three of the systems listed in the Knowledge section above.
PA.IX.C.S2	2. Complete the appropriate checklist or procedure.

## XII. Postflight Procedures

<b>Task</b>	<b>Task B. Seaplane Post-Landing Procedures (ASES, AMES)</b>
<b>References</b>	FAA-H-8083-2, FAA-H-8083-23; POH/AFM
<b>Objective</b>	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with anchoring, docking, mooring, and ramping/beaching.  <i>Note: The examiner shall select at least one after-landing procedure (anchoring, docking and mooring, or ramping/beaching).</i>

<b>Knowledge</b>	The applicant demonstrates understanding of:
<i>PA.XII.B.K1</i>	1. Mooring.
<i>PA.XII.B.K2</i>	2. Docking.
<i>PA.XII.B.K3</i>	3. Anchoring.
<i>PA.XII.B.K4</i>	4. Ramping/beaching.
<i>PA.XII.B.K5</i>	5. Post-landing procedures.
<b>Risk Management</b>	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
<i>PA.XII.B.R1</i>	1. Distractions during aircraft taxi and parking.
<i>PA.XII.B.R2</i>	2. Proximity of other aircraft, vehicles, and people when operating on airport or water surfaces.
<i>PA.XII.B.R3</i>	3. Spinning propellers.
<i>PA.XII.B.R4</i>	4. Failure to manage Tasks during taxi and parking.
<i>PA.XII.B.R5</i>	5. Confirmation or expectation bias.
<i>PA.XII.B.R6</i>	6. Failure to manage the automation
<i>PA.XII.B.R7</i>	7. Airport security.
<i>PA.XII.B.R8</i>	8. Water and environmental impacts on securing a seaplane.
<b>Skills</b>	The applicant demonstrates the ability to:
<i>PA.XII.B.S1</i>	1. Select a suitable area for anchoring, considering seaplane movement, water depth, tide, wind, and weather changes.
<i>PA.XII.B.S2</i>	2. Use an adequate number of anchors and lines of sufficient strength and length to ensure the seaplane's security.
<i>PA.XII.B.S3</i>	3. Approach the dock or mooring buoy in the proper direction considering speed, hazards, wind, and water current.
<i>PA.XII.B.S4</i>	4. Approach the ramp/beach considering persons and property, in the proper attitude and direction, at a safe speed, considering water depth, tide, current, and wind.
<i>PA.XII.B.S5</i>	5. Ensure seaplane security in a manner that will protect it from the harmful effect of wind, waves, and changes in water level.