CAMPBELL HELICOPTERS - AIRCRAFT CRITICAL SURFACE CONTAMINATION EXAM

Name: _____ **Date:** _____

References:

1. When In Doubt
2. Company Operations Manual
3. Canada Flight Supplement

Reviewed & Corrected to 100%

By: _____

Signature: _____

Date: _____

This exam meets the requirements for initial and annual critical surface contamination training in accordance with the COM. Section 6 (6.12):

1. Responsibility of the pilot-in-command and other operations personnel
2. Regulations related to operations in icing condition
3. Weather conducive to ice, frost and snow contamination
4. Inspection before flight and removal of contamination
5. In-flight icing recognition
6. Hazards related to critical-surface contamination by ice, frost and snow

1. If you encounter icing and cannot leave the area you should?
   a) Continue flight until clear of ice
   b) Land at the nearest airport so you can de- ice
   c) Land as soon as possible
   d) Turn on the pitot heat, windshield heat, and close the cabin fresh air vents

2. Candidates taking the program on adverse effects of aircraft surface contamination:
   a) need not to be tested.
   b) shall be tested on the use of de-icing and anti-icing equipment.
   c) shall be examined to verify they understand and are able to apply the concepts taught.
   d) shall write an examination on the concept and use of de-icing and anti- icing equipment.

3. An air carrier shall provide training to crew members on the adverse effects of aircraft surface contamination:
   a) biannually,
   b) annually,
   c) biennially,
   d) on initial hiring only.

4. “Surface contamination” when applied to a rotorcraft air transport training program means any:
   a) frost, ice or snow on or adhering to the critical surfaces of an aircraft.
   b) material or fluids, including frost, ice or snow, on or adhering to the critical surfaces of an aircraft.
   c) material or fluids on or adhering to the main or tail rotors of an aircraft.
   d) materials or fluids, including de-icer fluid, on the rotors and control surfaces of an aircraft.

5. When a crew member of an aircraft observes frost, ice or snow adhering to the wings of an aircraft before commencing take-off, the crew member:
   a) shall immediately report that observation to the PIC.
   b) need not report that observation if the aircraft has recently been de-iced.
   c) shall immediately report that observation to a designated crew member.
   d) unless designated, need not report that observation.

6. In all cases, the ultimate responsibility for ascertaining that the aircraft is in a condition for safe flight rests with the PIC:
   a) and the flight operations manager.
   b) only.
   c) and flight dispatch.
   d) and the company chief pilot.

7. No person shall commence a flight in an aircraft:

   a) unless it has been de-iced if frost, ice or snow conditions exist.
   b) unless assured that adhering frost, ice or snow will slide off on take-off.
   c) if frost, ice or snow is adhering to the critical surfaces.
   d) if frost, ice or snow adhering to the critical surfaces cannot be removed on take-off by the aircraft de-icing systems.

8. Who may inspect an aircraft before flight to determine if frost, ice or snow is adhering to the critical surfaces? The PIC and:

   A. a flight crew member of the aircraft designated by the PIC to carry out the inspection
   B. the operations officer
   C. the de-icing crew
   D. a person designated by the operator who has received training concerning surface contamination
   E. any Aircraft Maintenance Engineer

      a) A, B, C, D, E.
      b) A, B, C, D.
      c) A, B, C.
      d) A, D.

9. Prior to take-off, the PIC cannot confirm that the aircraft is "clean". Take-off:

   a) may be commenced provided the hold over time has not been exceeded.
   b) may be commenced provided the anti-ice fluid used was of the type that prevents ice or snow from sticking to the critical surfaces.
   c) may be commenced provided the amount of ice, snow or frost does not exceed that specified in the company operations manual.
   d) must not be attempted until confirmation is obtained that the aircraft is clean.

10. Where frost or snow conditions exist, no person shall commence a flight in an aircraft unless the aircraft:
   a) has been de-iced.
   b) has been inspected to determine whether any frost, ice or snow is adhering to the critical surfaces.
   c) skin temperature is warm enough to ensure that adhering frost, ice or snow will slide off on take-off.
   d) power and runway length are sufficient to allow acceleration to Vr plus 30% before rotation.

11. A covering of dry snow remains on a parked aircraft during a sunny, warm winter afternoon. The next morning the pilot could expect to find:
    a) a light dusting of snow.
    b) no snow or ice.
    c) a layer of slush.
    d) a dusting of snow on top of ice

12. Are company aircraft allowed to be operated in forecasted icing conditions? Under what circumstances could you commence a flight if icing was forecast?
    a) No, If current pilot reports or weather reports indicate that icing conditions no longer exist
    b) Yes, If icing was not in your indented flight path, and it was only light icing

13. If the contaminant cannot be removed, under what circumstances could you commence a flight?
    a) None, the flight must be cancelled or postponed
    b) After you got most of the contaminants off, you can fly

14. What two performance issues will occur with ice build-up, relative to the autorotational capacity?
    a) Lower Rotor RPM
    b) High Rotor RPM
    c) Low Rate of decent
    d) High Rate of decent