

ABTW_0013 - Deicing Pre-Session Learning 2019-2020
Answer Key

Acronyms and Common Terms

Acronyms and Common Terms

The coldest temperature at which deicing and anti-icing fluids have the acceptable characteristics to flow off aircraft surfaces during take-off is:

- ☐ °Brix
- ☒ Aerodynamic acceptance
- ☐ Holdover time
- ☐ Freeze point

Any surface of an aircraft that affects its ability to fly is a:

- ☐ Representative surface
- ☒ Critical surface
- ☐ Tactile surface
- ☐ Ground icing surface

A refractometer is an instrument used to determine the freeze point of a fluid.

- ☒ True
- ☐ False

ABTW_0013 - Deicing Pre-Session Learning 2019-2020

Answer Key

Contamination

Review – Contamination

Although all of these contaminants present danger to our aircraft, identify the contaminant that is one of the most difficult to identify and remove and presents the greatest danger for damaging the aircraft.

- ☐ Rime ice
- ☐ Cold soaked (wing) fuel frost
- ☐ Active frost
- ☐ Light snow
- ☒ Clear ice
- ☐ Rain

What surface contamination can be described as a milky white and opaque granular deposit which may form on the leading edge of the wing?

- ☒ Rime ice
- ☐ Hoarfrost
- ☐ Frost
- ☐ Clear ice

Which of the following is one of the most dangerous weather conditions that can ground an aircraft?

- ☐ Driving rain
- ☐ Light snow
- ☒ Freezing rain
- ☐ Freezing fog

ABTW_0013 - Deicing Pre-Session Learning 2019-2020
Answer Key

Boeing Aircraft Familiarization

Review – Boeing Aircraft Familiarization

Which of the following are critical surfaces? *Select all that apply.*

- ☒ Wings
- ☐ Fuselage
- ☒ Vertical Stabilizer
- ☒ Spoilers
- ☒ Rudder
- ☐ Radome
- ☐ Angle of attack vane

Engine cowlings should be deiced with Type I fluid.

- ☒ True
- ☐ False

What is the recommended technique for applying Type I deice fluid to critical sensing devices?

- ☐ Place covers over the devices before deicing
- ☒ Spray above and allow the fluid to run down over the devices
- ☐ Spray the devices directly
- ☐ Clear contamination from the devices using your hand

ABTW_0013 - Deicing Pre-Session Learning 2019-2020
Answer Key

The Pilot-in-Command (captain) must be notified when:

- ☐ Landing gear have been deiced with Type I fluid
- ☐ Critical sensing devices have been deiced with Type I fluid
- ☐ Fluid is accidentally sprayed into the APU inlet
- ☒ All of the above
- ☐ None of the above

Fill in the blank. Name one of the three axes of motion.

type your text here

Answers may include (not case sensitive):

- **Roll**
- **Role**
- **Pitch**
- **Yaw**
- **Longitudinal**
- **Lateral**
- **Vertical**

When deicing the windscreens, you must avoid spraying them directly since there is a possibility of thermal shock cracking the glass.

- ☒ True
- ☐ False

ABTW_0013 - Deicing Pre-Session Learning 2019-2020
Answer Key

Which of the following critical surfaces on the wing affects/controls the pitch of an aircraft?

- ☐ Spoilers
- ☐ Ailerons
- ☒ Elevators
- ☐ Flaps

Q400 Aircraft Familiarization

Review – Q400 Aircraft Familiarization

When spraying props from the bucket, why must the blades be sprayed from the side with the blades above the spinner?

- ☒ To avoid spraying fluid into the engine inlet
- ☐ To avoid getting fluid on the cabin windows
- ☐ To use fluid efficiently by ensuring any overspray helps with wing deicing
- ☐ To avoid accidentally spraying personnel on the ground

Note: “overspray” is an acceptable term.

The representative surface on the Q400 is:

- ☒ The outboard roll spoiler on the #1 side
- ☐ The leading edge of the #2 wing
- ☐ The #1 wing
- ☐ The area on the wing between the engine and the fuselage

ABTW_0013 - Deicing Pre-Session Learning 2019-2020
Answer Key

Select the FALSE statement about the Q400 fuselage strake.

- ☐ The fuselage strake adds lateral stability while the aircraft is in flight.
- ☐ The fuselage strake acts as a vortex generator.
- ☒ The fuselage strake must be anti-iced with Type III or IV fluid.
- ☐ The fuselage strake is a critical surface.

The PIC only needs to be notified if a static wick is broken off during spraying, not if it was missing beforehand.

- ☐ True
- ☒ False

Spraying fluid into the APU inlet must only be reported to the PIC if it causes damage.

- ☐ True
- ☒ False

Spraying fluid into the air pack intake or exhaust may cause smelly fumes to enter the aircraft cabin.

- ☒ True
- ☐ False

ABTW_0013 - Deicing Pre-Session Learning 2019-2020

Answer Key

Deicing and Anti-Icing the Aircraft

Deicing and Anti-Icing the Aircraft

Instructions

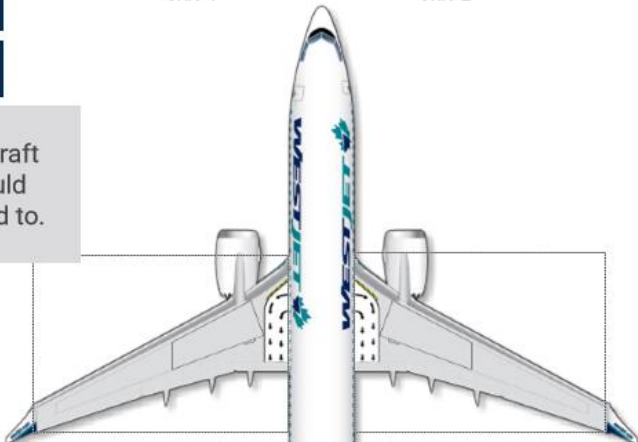
Dialogue

Click on the aircraft surface you would like to apply fluid to.

Side 1

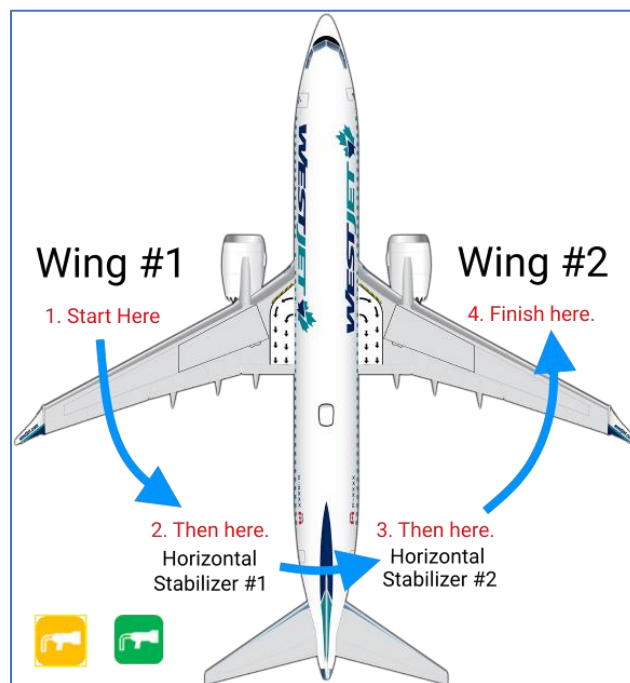
Side 2

Hint

A top-down view of a WestJet aircraft. The fuselage is white with blue and green accents. The wings are grey. There are four blue dots on the wings, one on each side, and two blue dots on the horizontal stabilizer. The aircraft is labeled 'Side 1' and 'Side 2' at the top.

In this exercise, learners must demonstrate they know which fluid (orange or green) to apply to the correct wing or horizontal stabilizer (tail wing). These must also be applied in the correct order.

Follow this pattern:



1. Click Wing #1
 - a. Click the yellow nozzle in the lower left corner
 - b. Click Wing #1 again
 - c. Click the green nozzle

ABTW_0013 - Deicing Pre-Session Learning 2019-2020

Answer Key

2. Click Horizontal Stabilizer #1 (the back tail wing on the left side)
 - a. Click the yellow nozzle
 - b. Click Horizontal Stabilizer #1 again
 - c. Click the green nozzle

3. Click Horizontal Stabilizer #2 (the back tail wing on the left side)
 - a. Click the yellow nozzle
 - b. Click Horizontal Stabilizer #2 again
 - c. Click the green nozzle

4. Click Wing #2
 - a. Click the yellow nozzle
 - b. Click Wing #2 again
 - c. Click the green nozzle

5. Collect a fabulous prize!