



PROPER AVIATION COMMUNICATIONS

OBJECTIVE

Demonstrate understanding and application of the concepts of pilot communications procedures in the airport environment, including consequences of their inadequate or improper use.

PROCEDURE

Instruct students to work individually to answer the following questions.

QUESTIONS

1. Why is it important for a pilot to read back ATC instructions and include a full aircraft callsign in the radio call?

Properly reading back ATC instructions ensures the correct message was passed to the correct aircraft, and that the pilot understood what ATC meant. It gives ATC the opportunity to make a correction if anything was in error or misunderstood.

2. You're a passenger in your friend's Cessna 172. You approach runway 17 at taxiway Alpha and your friend calls Tower and tells them you are ready for takeoff. Tower responds by saying "Skyhawk 12345, hold short runway 17 at Alpha for arriving traffic." Your friend responds with "Skyhawk 12345, roger." Tower calls back, saying "Skyhawk 12345, hold short runway 17 at Alpha." Why did Tower repeat its radio call? Did your friend make an error?

Pilots are required to read back hold short instructions. Since the pilot did not in this case, the tower is repeating it to prompt a readback. If they're not successful, they may bluntly direct the pilot to "read back hold short instructions."

Yes, your friend made an error since the expectation is that the pilot reads back all hold short instructions.

3. As you approach an airport flying your Cessna 172, Tower asks you to slow down to 60 knots to give more spacing to a slower aircraft in front of you. Based on your current conditions, you do not feel that you can safely slow to that speed. How should you respond to Tower's instruction?

The best option for a pilot who cannot safely follow ATC instructions is to say "unable," and then let the tower figure out how to handle the situation. The pilot could also volunteer to take another action (for example, executing a 360-degree turn for spacing) that would meet the tower's needs without having to slow down, but that offer should be preceded by explicitly stating the pilot is unable to slow to the requested speed. The PIC is ultimately responsible for the safe operation of the aircraft, and the PIC in this instance determined 60 knots was an unsafe operating speed.



4. After a long and mostly uneventful flight, you had to divert from your intended final destination (a simple, small town airport) to a large international airport with multiple crossing runways and a complex taxiway arrangement. After landing, you manage to dig out the airport diagram to help increase your awareness, but you're still having a hard time figuring out the layout of the complex airport. What can you ask for or say to ground control to help you successfully taxi on the unfamiliar airport?

Ask for progressive taxi instructions. The ground controller will provide turn-by-turn instructions across the airport to the intended parking location. It is sometimes helpful, though not necessary, to let ATC know that you were a divert (which tells them you hadn't planned to be there) and that you are "unfamiliar" with the airport layout.

5. As you review an airport diagram prior to taxi, you see a hot spot annotated at an intersection. What does the hot spot mean? Where could you find more information about it?

A hot spot is "a location on an airport movement area with a history of potential risk of collision or runway incursion, and where heightened attention by pilots and drivers is necessary." You should increase your attention at that area, because in the past pilots have made errors at that location resulting in increased risk of incidents. The FAA describes hot spots in detail in the Chart Supplement.

6. List three things you could do in your flight preparation, communications, or flying that would increase your awareness and reduce the possibility of a runway incursion or unintentional pilot deviation.

Responses may include any three of the following, or responses similar to them:

- *Read back all ATC instructions.*
- *Review airport layouts during planning.*
- *Keep an airport diagram available in the cockpit.*
- *Request progressive taxi.*
- *Study and use proper phraseology.*
- *Write down taxi instructions.*
- *Listen for other pilots' radio calls.*
- *Follow standard operating procedures and regulations.*