READY ...OR NOT?

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Always have a way out of winter weather

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Aviators know winter weather conditions can deteriorate quickly and create a wide range of issues they must deal with, including poor visibility, turbulence and icing. However, they have two tools to help them manage the challenges: flight planning and frequent weather briefings.

A successful flight in winter weather begins with an accurate weather briefing the flight crew must continually update during the course of the flight. As always, the pilot in command has the overall responsibility to evaluate all aspects of the flight to determine if it can be conducted safely, and he or she must continually reevaluate en route weather to identify changing adverse conditions. Passenger and crew safety must be the top priority.

It is important for the flight crew to always plan for a “way out” and not get boxed in by weather conditions during a flight. Weather briefings may quickly become outdated because conditions can change rapidly, depending on atmospheric changes common during the winter months.

Once the flight is planned, the crew must determine if the aircraft is properly equipped for the anticipated flight conditions. The preflight inspection pays close attention to de-ice and anti-ice equipment that would play a crucial role if icing conditions are encountered. Then, it is smart to get a weather update prior to takeoff to ensure there have been no significant changes along the planned flight path. If the pilot in command makes the decision to take off in instrument meteorological conditions during the winter months, close attention must be paid to the possibility of ice accumulation on the aircraft.

The flight crew must continually monitor for ice buildup and take necessary measures to ensure the situation does not create a loss of lift capability for the aircraft. If ice formation on aircraft flight control surfaces becomes excessive, increased power settings will be needed to counter the reduced lift capability. Depending on the rate of ice buildup, anti-ice and de-ice systems may be sufficient to safely control the issue, but it is never a good idea to remain in icing conditions for extended periods of time.

Pilots never want to find their aircraft in a stall or spin condition. If weather conditions are deteriorating to a point the flight crew is not comfortable, one option is requesting a change to an altitude that is out of IMC conditions, if possible. Asking for vectors to avoid bad weather is another option. As a last resort, the crew may want to land as soon as possible at the nearest suitable airport and remain there until the weather improves.

Pilots must maintain situational awareness during changing weather conditions. It is important they continue to be proactive and not find themselves in an unsafe flight situation because of poor weather or command influence. Good flight planning and continually monitoring weather conditions are the best ways to ensure the safety of the crew and passengers, while also achieving mission success.

For more information on aviation safety, visit https://safety.army.mil.