Follow the Four “C’s”:
Helicopter Pilots in Inadvertent IMC Situations

Inadvertent entry into Instrument Meteorological Conditions (Inadvertent IMC) is a situation where deteriorating weather appears instead of the expected visual meteorological conditions. Inadvertent IMC encounters are some of the most demanding, disorienting, and dangerous conditions a pilot can experience and they result in the highest percentage of fatal injuries from helicopter accidents. Recent data from the U.S. National Transportation Safety Board show that more than 80 percent of Inadvertent IMC accidents result in fatalities.

A pilot’s immediate actions after encountering inadvertent IMC usually will determine the outcome of the entire event. Pilots who possess a plan of action prior to encountering it are more likely to experience a successful outcome (staying alive) than those who are less trained and less proficient in the recognition and recovery procedures.

Immediate Actions

If Inadvertent IMC occurs, helicopter pilots can follow the 4 “Cs”: Control, Climb, Course, and Communicate.

Control - Fly the aircraft. Refocus the scan inside the cockpit to the primary flight instruments – airspeed, altitude, and attitude.

Climb - As soon as the aircraft is under control by reference to the instruments, a controlled climb should be initiated. Inadvertent IMC encounters often occur at low altitudes where rising terrain poses a serious threat. The pilot should initiate a straight ahead controlled climb to an altitude that will provide obstruction clearance in the area of operation. Always review Maximum Elevation Figures (MEF) on VFR charts prior to departure.

Course - After the aircraft is in a controlled climb, the pilot can elect to turn to a new heading if known obstacles are ahead and/or divert to a different location with forecasted weather conditions or better known weather conditions.
Communicate - After the pilot has control of the aircraft, initiated a climb, and is on a course, he or she should communicate with Air Traffic Control regarding their intentions and need for assistance.

Avoiding Inadvertent IMC

Careful preflight planning will allow pilots to focus their attention on maintaining control of the aircraft and reduce the distraction of having to formulate a complete plan in the midst of a dangerous situation. Pilots must be prepared to deal with (recognize & accept) such inadvertent IMC encounters whenever they occur in a reliably disciplined and practiced manner. Additional preparations include:

- Get a good forecast for departure, en route, and arrival.
- Avoid flight in Marginal VFR (MVFR).
- Check weather ahead of you en route, use ATC & Flight Watch.
- Use planned En Route Decision Points (EDPs).
- Recognize signs of deteriorating weather, obscured hills, fog, visual precipitation, and descent below planned altitude.
- Assess the situation and if the signs back up the warnings, decide to land or turn around before you get to inadvertent IMC.

Fly prepared. Fly safe.