Point-in-Space Approach Examples

EXAMPLE 1

Under Part 91, the operator flies the published IFR PinS approach procedure that has a charted MDA of 340 mean sea level (MSL) and visibility of ¾ SM. When approaching the MAP at an altitude of 340 feet MSL, the pilot transitions from Instrument Meteorological Conditions (IMC) to Visual Meteorological Conditions (VMC) and determines that the flight visibility is ½ SM. The pilot must determine prior to the MAP whether the applicable basic VFR weather minimums can be maintained from the MAP to the heliport or execute a missed approach. If the pilot determines that the applicable basic VFR weather minimums can be maintained to the heliport, the pilot may proceed VFR. If the visual segment is in Class B, C, D, or the surface area of Class E airspace, it may require the pilot to obtain a Special VFR clearance.

EXAMPLE 2

For an operator to proceed VFR under Part 135, a minimum visibility of ½ SM during the day and 1 SM at night with a minimum ceiling of 300 feet. If prior to commencing the approach, the pilot determines the reported visibility is ¾ SM during the day, the pilot descends IMC to an altitude no lower than the MDA and transitions to VMC. If the pilot determines prior to the MAP that the flight visibility is less than ½ SM in the visual segment, a missed approach must be executed at the MAP.

Figure 7-15. Point-in-space (PinS) approach examples for Part 91 and Part 135 operations.

certified airspeed or flight below V_{MINI} should be annotated on the approach procedure. The distance also permits optimal blending of obstacle clearance criteria with non-instrument heliport approach areas.

The visibility minimum is based on the distance from the MAP to the heliport, among other factors (e.g., height above the heliport elevation when at the MAP MDA). The pilot is required to acquire and maintain visual contact with the heliport final approach and takeoff (FATO) area at or prior to the MAP. Obstacle or terrain avoidance from the MAP to the heliport is the responsibility of the pilot. Pilots need to level off when reaching the MDA, which may occur before arriving at the MAP, until reaching the visual approach angle on the approach path to clear the obstacles. If the required weather minimums do not exist, then the published MAP must be executed at the MAP because IFR obstruction clearance areas are not applied to the visual segment of the approach and a missed approach segment protection is not provided between the MAP and the heliport. As soon as practicable after reaching the MAP, the pilot advises ATC whether cancelling IFR and proceeding visually or executing the missed approach.

Inadvertent IMC

Whether it is a corporate or HAA operation, helicopter pilots sometimes operate in challenging weather conditions. An encounter with weather that does not permit continued flight under VFR might occur when conditions do not allow for the visual determination of a usable horizon (e.g., fog, snow showers, or night operations over unlit surfaces such as water). Flight in conditions of limited visual contrast should be avoided since this can result in a loss of horizontal or surface reference, and obstacles such as wires become perceptually invisible. To prevent spatial disorientation, loss of control (LOC) or CFIT, pilots should slow the helicopter to a speed that provides a controlled deceleration in the distance equal to the forward visibility. The pilot should look for terrain that provides sufficient contrast to either continue the flight or to make a precautionary landing. If spatial disorientation occurs and a climb into IMC is not feasible due to fuel state, icing conditions, equipment, etc., make every effort to land the helicopter with a slight forward descent to prevent any sideward or rearward motion.

All helicopter pilots should receive training on avoidance and recovery from inadvertent IMC with emphasis on avoidance. An unplanned transition from VMC to IMC flight is an emergency that involves a different set of pilot actions. It requires the use of different navigation and operational procedures, interaction with ATC, and crewmember resource management (CRM). Consideration should be given to the local flying area's terrain, airspace, air traffic facilities, weather (including seasonal affects such as icing and thunderstorms), and available airfield/heliport approaches.

Training should emphasize the identification of circumstances conducive to inadvertent IMC and a strategy to abandon continued VFR flight in deteriorating conditions. This strategy should include a minimum altitude/airspeed combination that provides for an off-