

# Instrument Departure and Arrival Procedures

## **Takeoff Minimums**

Published takeoff minimums apply to Part 135 and Part 121 (commercial) operations only. However, it is still good for general aviation, or Part \_\_\_\_\_ to follow them.

Standard takeoff minimums are

\_\_\_\_\_ statute mile visibility for airplanes with 1 or 2 engines  
\_\_\_\_\_ statute mile visibility for airplanes with 3 or more engines

Provided that you can climb at a rate of at least 200 fpm and climb on runway heading until you are at least \_\_\_\_\_ feet AGL before turning on course, you should be able to make a normal IFR takeoff.

Non-standard takeoff minimums are published in the approach plates.

## **Obstacle Departure Procedures**

Obstacle Departure Procedures (ODPs) are published for obstacles that require:

- A steeper climb gradient
- A specific flight path (turns, headings, altitudes etc.)
- Take off minimums that include a cloud ceiling in addition to visibility
- A combination of the above.

## **Instrument Departure Procedures**

Instrument Departure Procedures (DPs) are generally published for large, busy airports. They provide standard routing for aircraft leaving the airport. Often, they contain \_\_\_\_\_ to the enroute structure.

DPs are designed to:

- Separate departing traffic from arriving traffic
- Provide efficient interception of the outbound course
- Avoid noise-sensitive areas near the airport
- Simplify issuance of \_\_\_\_\_
- Reduce radio talk

There are two types of DPs:

- \_\_\_\_\_ DPs: ATC will provide vectors to a fix or route
- \_\_\_\_\_ DPs: the pilot must fly the published route

To accept a DP, you must have at least a textual description of it available in the cockpit. If you are not able to accept one, write “\_\_\_\_\_” in the remarks section of your flight plan – but be ready to copy a long clearance!

## **Standard Terminal Arrival Routes**

Standard Terminal Arrival Routes (STARs) are arrival procedures that provide a transition from the enroute structure to a fix or waypoint in the terminal area. Their purpose is to simplify \_\_\_\_\_ procedures. They can be published in both textual and diagrammatic form. To accept a STAR, you must have at least a \_\_\_\_\_ form in the cockpit. If you do not wish to be issued one, write “No STAR” in the remarks section of your flight plan.

## **Arrival and Departure Notes**

Pilots should plan their descents so that they are at the correct altitude when they begin their arrivals and approaches. Rate of climb and rate of descent may be calculated using tables published in the book of approach procedures.

If ATC has not imposed rate requirements on an aircraft in a climb or a descent, the aircraft should climb or descend at an optimum rate until within 1,000 feet of the assigned altitude. Then it should attempt to maintain a rate between \_\_\_\_\_ and \_\_\_\_\_ fpm.