

command must notify ATC as soon as possible and obtain an amended clearance. In an emergency situation which does not result in a deviation from the rules prescribed in 14 CFR Part 91 but which requires ATC to give priority to an aircraft, the pilot of such aircraft must, when requested by ATC, make a report within 48 hours of such emergency situation to the manager of that ATC facility.

**g.** The guiding principle is that the last ATC clearance has precedence over the previous ATC clearance. When the route or altitude in a previously issued clearance is amended, the controller will restate applicable altitude restrictions. If altitude to maintain is changed or restated, whether prior to departure or while airborne, and previously issued altitude restrictions are omitted, those altitude restrictions are canceled, including departure procedures and STAR altitude restrictions.

**EXAMPLE–**

**1.** *A departure flight receives a clearance to destination airport to maintain FL 290. The clearance incorporates a DP which has certain altitude crossing restrictions. Shortly after takeoff, the flight receives a new clearance changing the maintaining FL from 290 to 250. If the altitude restrictions are still applicable, the controller restates them.*

**2.** *A departing aircraft is cleared to cross Fluky Intersection at or above 3,000 feet, Gordonville VOR at or above 12,000 feet, maintain FL 200. Shortly after departure, the altitude to be maintained is changed to FL 240. If the altitude restrictions are still applicable, the controller issues an amended clearance as follows: “cross Fluky Intersection at or above three thousand, cross Gordonville V–O–R at or above one two thousand, maintain Flight Level two four zero.”*

**3.** *An arriving aircraft is cleared to the destination airport via V45 Delta VOR direct; the aircraft is cleared to cross Delta VOR at 10,000 feet, and then to maintain 6,000 feet. Prior to Delta VOR, the controller issues an amended clearance as follows: “turn right heading one eight zero for vector to runway three six I–L–S approach, maintain six thousand.”*

**NOTE–**

*Because the altitude restriction “cross Delta V–O–R at 10,000 feet” was omitted from the amended clearance, it is no longer in effect.*

**h.** Pilots of turbojet aircraft equipped with afterburner engines should advise ATC prior to takeoff if they intend to use afterburning during their climb to the en route altitude. Often, the controller

may be able to plan traffic to accommodate a high performance climb and allow the aircraft to climb to the planned altitude without restriction.

**i.** If an “expedite” climb or descent clearance is issued by ATC, and the altitude to maintain is subsequently changed or restated without an expedite instruction, the expedite instruction is canceled. Expedite climb/descent normally indicates to the pilot that the approximate best rate of climb/descent should be used without requiring an exceptional change in aircraft handling characteristics. Normally controllers will inform pilots of the reason for an instruction to expedite.

#### **4–4–11. IFR Separation Standards**

**a.** ATC effects separation of aircraft vertically by assigning different altitudes; longitudinally by providing an interval expressed in time or distance between aircraft on the same, converging, or crossing courses, and laterally by assigning different flight paths.

**b.** Separation will be provided between all aircraft operating on IFR flight plans except during that part of the flight (outside Class B airspace or a TRSA) being conducted on a VFR–on–top/VFR conditions clearance. Under these conditions, ATC may issue traffic advisories, but it is the sole responsibility of the pilot to be vigilant so as to see and avoid other aircraft.

**c.** When radar is employed in the separation of aircraft at the same altitude, a minimum of 3 miles separation is provided between aircraft operating within 40 miles of the radar antenna site, and 5 miles between aircraft operating beyond 40 miles from the antenna site. These minima may be increased or decreased in certain specific situations.

**NOTE–**

*Certain separation standards are increased in the terminal environment when CENRAP is being utilized.*

#### **4–4–12. Speed Adjustments**

**a.** ATC will issue speed adjustments to pilots of radar–controlled aircraft to achieve or maintain required or desired spacing.

**b.** ATC will express all speed adjustments in terms of knots based on indicated airspeed (IAS) in 5 or 10 knot increments except that at or above FL 240 speeds may be expressed in terms of Mach numbers in 0.01 increments. The use of Mach