Basic Flight Maneuvers. Go back to the main Basic Aircraft Flight Page. The four fundamental maneuvers of straight-and-level flight, turns, climbs, and descents are the foundation of basic airmanship. Effort and continued practice are required to master the fundamentals. It is important that a pilot consider the six motions of flight: bank, pitch, yaw and horizontal, vertical, and lateral displacement. In order for an airplane to fly from one location to another, it pitches, banks, and yaws while it moves over and above, in relationship to the ground, to reach its destination. The airplane must perform the four basic flight maneuvers, or fundamentals of flight, are turns, climbs (constant airspeed), descents (constant airspeed), and straight-and-level flight (SLF). Climbing and descending turns may be included as fundamental combinations.

**SAFETY FACTORS.**

- Private Pilot Practical Test Standards (PTS), III. Airport and Traffic Pattern Operations, VI. Flight by Reference to Instruments, and VIII. Flight Maneuvering by Reference to Ground Objects: Straight-and-level flight, straight constant airspeed climbs and descents: maintain desired heading +/-10°, altitude +/-100 feet, airspeed +/-10 knots. Turns to headings: altitude and airspeed as above, maintain desired bank angle, roll out on desired heading +/-10°. Private Pilot PTS, V. Cross-Country Flying

Basic aircraft maneuvers (BFM) are tactical movements performed by fighter aircraft during air combat maneuvering (also called ACM, or dogfighting), to gain a positional advantage over the opponent. BFM combines the fundamentals of aerodynamic flight and the geometry of pursuit, with the physics of managing the aircraft's energy-to-weight ratio, called its specific energy. 476th Training Squadron Basic Flight Maneuvers. Barrel Roll - a coordinated roll in which the nose of the aircraft describes a circle around a point on or near the horizon. The maneuver is complete when the aircraft is wings level, abeam the reference point on the original side, at approximately entry airspeed. In this last quarter of roll, increase back stick pressure because gravity is now working against the lift vector. 1 AUG 2012 CHANGE 2

- Lazy Eight - a slow, lazy maneuver that describes a horizontal figure eight at the horizon.