EAGLE AIRCRAFT

Commercial 150 Maneuvers

	LAZY EIGHTS		EIGHTS ON PYLONS
OBJECTIVE	To develop the pilot's feel for varying control forces, and the ability to plan and remain oriented while maneuvering the plane with positive accurate control.	**OBJECTIVE**	This training maneuver involves flying the airplane in circular paths, alternately left and right, in the form of a figure 8 around two selected pylons. In this case no attempt is made to maintain a constant turn radius. Instead, the plane is flown at such an altitude and airspeed that the line parallel to the aircraft's lateral axis and extending from the pilot's eye appears to pivot on each of the pylons.
ELEMENTS	1. Clearing turns 2. Establish 109 mph (95 knots) at 2400 RPM 3. Begin slowly pitching up and banking to obtain maximum pitch up and approximately 15° bank at the 45° point 4. Passing 45° point, bank slowly increasing to approximately 30°, pitch decreasing, passing through level flight attitude at the 90° point 5. Passing 90° point, both bank and pitch decreasing to maximum pitch down and approximately 15° bank at the 135° point 6. Passing 135° point, bank still decreasing while adjusting pitch to arrive at 180° point with 0° pitch and 0° bank at the entry altitude and entry airspeed 7. Perform maneuver in opposite direction	**ELEMENTS**	1. Clearing turns 2. Establish 109 mph (95 kts) at 2400 RPM 3. Select suitable pylons perpendicular to wind-line in unpopulated areas with an emergency landing site within glide distance 4. Enter at 45° to downwind at pivotal altitude 5. Abeam first pylon bank toward the pylon 6. Maintain correct lateral axis position (reference line on pylon) *Pylon forward – control forward – reduce bank angle* *Pylon rearward – control rearward – increase bank angle* 7. After completing turn on first pylon allow 3-5 seconds of straight and level, once abeam roll toward second pylon 8. After completing turn around second pylon, depart on entry heading

	STEEP SPIRAL		CHANDELLE
OBJECTIVE	Perform a continuous gliding turn, during which a constant radius around a point on the ground is maintained similar to turns around a point. The radius should be such that the steepest bank will not exceed 60°. This maneuver will improve pilot techniques for power-off turns, wind drift control, planning, orientation and division of attention.	**OBJECTIVE**	This maneuver is a climbing turn beginning from approximately straight-and-level flight, and ending at the completion of 180° turn in a wings-level, nose-high attitude at the minimum controllable airspeed. The maneuver demands that the maximum flight performance of the aircraft be obtained; that is the plane should gain the most altitude possible for the given degree of bank and power setting without stalling.
ELEMENTS	1. Clearing turns 2. Select ground reference point and altitude sufficient to continue through a series of at least 3 - 360° turns 3. Establish 70 mph (60 kts) power off-glide. 4. Abeam reference point, establish power-off gliding turn 5. Maintain 70 mph (60 kts) glide and constant turn radius about reference point not to exceed 60° angle of bank 6. Clear engine each 1,000' on upwind to minimize drift 7. Recover at or above 1,500' AGL on entry heading	**ELEMENTS**	1. Clearing turns 2. Power to 2400 RPM to establish 109 mph (95 kts) 3. Roll into immediate 30° bank in either direction 4. Smoothly apply full power 5. Begin pitch towards approximately 11° while increasing power to full throttle 6. Continue pitch towards approximately 11° until reaching 90° of turn 7. After 90° of turn begin reducing bank while maintaining approximately 11° of pitch 8. At 180°, wings level at approximately 5 kts above stall 9. Recover to cruise while maintaining final altitude

	POWER OFF 180° ACCURACY APPROACH AND LANDING
OBJECTIVE	This type of approach and landing involves the use of techniques to further develop judgment in estimating distances and glide ratios without power available in order to touchdown on a preselected landing spot.
ELEMENTS	1. Approach checklist completed before entering downwind 2. Slow to 109 mph (95 kts) at 2400 RPM 3. Specify touchdown point on downwind 4. On downwind establish 109 mph (95 kts), level, landing checklist completed 5. Abeam landing point, reduce power to idle, establish 70 mph (60 kts) descent, trim 6. Turn base at pilot's discretion based on altitude and wind conditions, flaps as necessary 7. Adjust pitch, flaps and airspeed as necessary to reach the desired landing spot. 8. Flare airplane so that main gear contacts the runway first 9. Maintain directional control and lower nose wheel before braking