

Ground Reference Maneuvers- Turns About a Point

Conditions: Dual /VFR

Objective: Introduce turns about a point to help develop the ability to control the airplane while dividing attention between a ground reference point, the flight path, and the cockpit. Illustrate the effect wind has while trying to complete this maneuver and explain how to compensate for it.



Notes & Comments

Completion Standards

- ☐ Adheres to recommended safety precautions, clears the area, and select suitable emergency landing spot
- ☐ Understands the objective of a turn about a point and the affects of wind
- ☐ Divides attention between the outside & inside of the plane
- ☐ Holds altitude within 200ft and maintains and to some extent, a constant radius.
- ☐ Uses Checklists

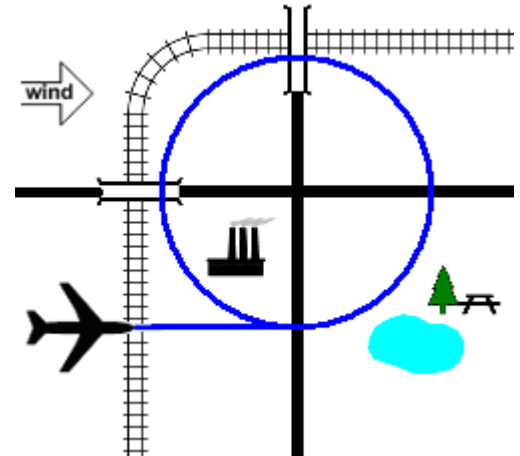
Air Echo Alpha 51, LLC



Preparation for Flight & Preflight Discussion

20- Min

- ☐ Equipment
 - Headsets/ Weather Briefing
- ☐ The Crew (*Pilot*)
- ☐ The Airplane (*Plane*)
- ☐ The Operation
 - Where- Practice Area
 - Why – Ground Reference Maneuvers
 - Turns About a point**
 - Maintain constant radius & altitude
 - Choose a well defined reference point
 - With emergency landing point
 - Determine wind direction
 - Enter maneuver on the downwind
 - 1 Steepest bank (45°max), highest GS
 - 2. Medium bank
 - 3 Shallowest bank, Lowest GS
 - 4. Medium bank
- ☐ The Environment
 - Review expected wind
 - Collision avoidance – clear the area



Ground Operations

20- Min

- ☐ Preflight Inspection (*Plane*)
- ☐ Engine Start-up
- ☐ Taxi
- ☐ Before Take-off Checks
- ☐ Normal Take-off / Landing

Ground Reference Maneuvers - Turns about a Point

20- Min

- ☐ Clear the area
 - Airspace – Class E or G
 - Altitude – 600 to 1000 AGL
 - Airspeed – V_a or below
 - No Traffic
- ☐ Determine wind direction
 - Aircraft drift, lake ripples, smoke, dust
- ☐ Choose ground reference point
 - Intersection of roads
- ☐ Determine Emergency landing spot
- ☐ Enter the maneuver on the downwind
- ☐ Turn 1- Downwind, Steepest bank (45°max), highest GS
- ☐ Turn 2- Crosswind, Medium bank
 - Gentle transition between turns
- ☐ Turn 3- Upwind, Shallowest bank, Lowest GS
- ☐ Turn 4 –Crosswind, Medium bank
 - Gentle transition between turns

Post Flight

15-Min

- ☐ Engine Shutdown
 - Use of Checklists
- ☐ Parking & Securing the Airplane
- ☐ Logbook Entry
- ☐ Review & Critique
- ☐ Next lesson, assignments