

# Circuit introduction

## CIRCUIT TRAINING

### Objectives

- To take-off and follow published procedures that conform to the aerodrome traffic circuit, avoiding conflict with other aircraft.
- To carry out an approach and landing using the most suitable runway.

### Considerations

#### Take-off

<b>Slipstream</b>	Strikes tail and yaws aeroplane
<b>Torque</b>	Tries to rotate aeroplane and yaws aeroplane
<b>Keeping straight</b>	With rudder as required – look ahead
<b>Crosswind</b>	Tries to weathercock aeroplane, keep straight
<b>Headwind</b>	Reduces take-off roll – always take-off into wind
<b>Tailwind</b>	Increases take-off roll
<b>Climb angle</b>	Headwind increases climb angle
<b>Take-off into wind</b>	To minimise ground roll and distance to 50 feet
<b>Power</b>	Full power for maximum performance
<b>Flap</b>	Usually not used
<b>Runway length</b>	Calculated length required for take-off

#### Landing

<b>Wind</b>	Into wind to reduce ground roll and distance from 50 feet
<b>Flap</b>	↑ L and D, lower stall speed and lower nose attitude
<b>Power</b>	Controls RoD, more airflow over elevator and rudder
<b>Brakes</b>	On ground only
<b>Runway length</b>	Calculated length required for landing

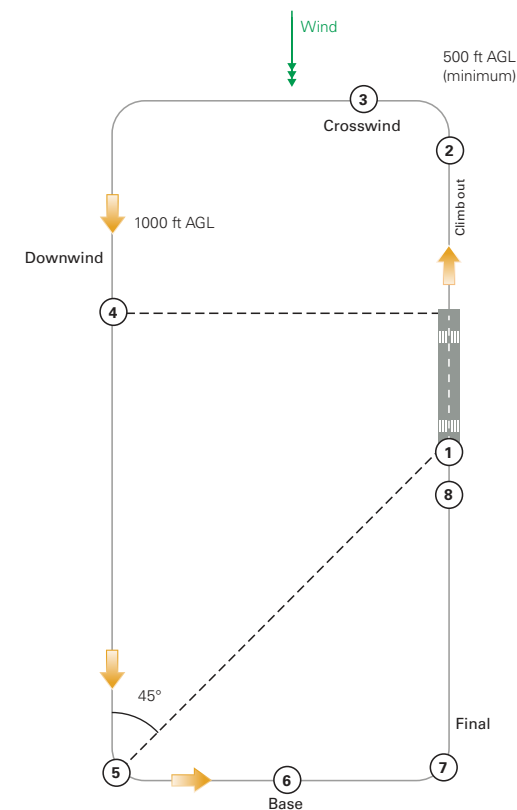
### Airmanship

- ATC/Traffic
- Checklists
- Right of Way rules

<b>U</b>	<b>Undercarriage</b>	Down and locked
<b>B</b>	<b>Brakes</b>	Brake pressure checked, park brake off
<b>M</b>	<b>Mixture</b>	Mixture rich
<b>F</b>	<b>Fuel</b>	Fuel on fullest tank, fuel pump on, pressure checked
<b>H</b>	<b>Harnesses and hatches</b>	Seatbelt secure and doors/canopy closed

### Air exercise

- Take-off**
  - Reference point and line up checks
  - Hold on brakes
  - Keep straight
- Climb out**
  - Separation
  - After take-off checks
  - Turn at 500 feet AGL
- Crosswind**
  - Tracking and lookout
- Downwind**
  - Downwind radio call
  - Checks
  - Spacing
- Base turn**
  - Lookout
  - Reference point
  - Carb heat HOT
  - Power reduced to \_\_\_\_\_
  - Turn
  - Airspeed \_\_\_\_\_
  - Flap – first stage
- Base leg**
  - Track
  - Flap – further stage(s)
  - Attitude controls airspeed
- Final**
  - Anticipate turn – 500 feet
  - Aim point
  - Attitude controls airspeed
  - Power controls RoD
  - Short final carb heat COLD
- Landing**
  - Landing assured, close throttle
  - At 50 feet nose progressively raised for roundout/flare
  - Look down end of runway
  - Progressively increase back pressure to control sink
  - Touch down on main wheels
  - Let nosewheel settle
  - Keep straight
  - After-landing checks – clear of runway



### Aeroplane management

<b>S</b>	<b>Suction</b>	Suction gauge operating in the green range
<b>A</b>	<b>Amps/Alternator</b>	Alternator functioning correctly
<b>D</b>	<b>DI</b>	DI synchronised to compass and functioning correctly
<b>I</b>	<b>Ice</b>	Carb ice checked for and carb heat applied if required
<b>E</b>	<b>Engine</b>	Temperatures and pressures are in green range

### Human factors

- Landing cues
- Workload/priorities