Objectives
To compensate for the effects of visual illusions, inertia, and stress when operating the aeroplane close to the ground.

1. Considerations
Inertia
- Inertia and sensation of speed seen clearly at low level
- At cruise speeds need lots of anticipation and airspace to turn aeroplane

Visual Effects
- Effect of wind can lead to visual illusions
- Flying into wind, groundspeed is low → lowering the nose or ↑ power
- Downwind, groundspeed high → nose attitude being raised / power ↓

Poor Visibility Configuration
- Airspeed _______ kts, Flap setting _______
- Reduced Airspeed
  - Less inertia and lower groundspeed → more time to think and react to obstacles + reducing turn radius
Flap
- ↑ lift and drag and adversely affects the I/D ratio
- ↑ lift → ↓ stall speed
- Poorer I/D ratio means higher power setting needed to maintain straight and level

Low Flying Zone
- Inspect low flying zone and prep aeroplane before entering
- Stay within the boundaries, do not descend below _______ ft
- If low-level over water, wear lifejackets
- On entering, broadcast EET in the zone – when leaving, ake a vacating report

2. Airmanship
- Poor visibility configuration used

H Height > 200 ft agl
A Airframe Config stated
S Security Loose articles & harnesses secure
E Engine Fullest tank, pump ON, mixt RICH, SADIE, carb heat
L Locality Boundaries identified
L Lookout Wind indications, obstructions, birds, forced landing sites
L Lights All external lights ON

3. Aeroplane Management
- Carb heat use
- Fuel management
- Use of power during turns with flap lowered

4. Human Factors
- Obstructions difficult to detect at low level
- Flying close to the ground is stressful, can lead to narrowing focus
- Poor Vis Config used to give more time
- Avoid bad wx

5. Air Exercise
Low Flying Zone Boundaries
- Complete the HASELLL checks and at 1000 ft agl fly around the edge of the LFZ
- Using a powered descent, enter the LFZ

Visual Illusions
- Superimpose horizon over the terrain
- Look at effect wind has on turning, and how to track over the ground with a crosswind
- Note effects of flying upwind and downwind on the groundspeed

Effects of Inertia
- Maintain straight and level – note the reaction time needed to initiate a manoeuvre
- Medium level turns noting the reaction times required and the radius of turn

3-D Effect
- Terrain/obstacles – wires, sun, shadow, mechanical turbulence

Poor Visibility Configuration
- Reduce power to _______ rpm, maintain straight and level flight, lower the flap to _______ degrees
- As airspeed ↓ to configuration speed, ↑ power (about _______ rpm) to maintain straight and level. Trim
- Note the reduced speed

Visual Illusions

Groundspeed is higher
Apparent skid

Wind

Groundspeed is lower
Apparent slip