UNIT 1.17 – UTILITY SYLLABUS

Examiners are reminded when assessing competency for certain elements of this syllabus, consideration must be given to the Group of aircraft intending to be utilised for the Utility endorsement. I.e. 60°AoB level or descending turns or use of top rudder as referenced cannot be conducted in Group D aircraft and therefore cannot be assessed.

ELEMENT: 1. FLIGHT PREPARATION AND GROUND ASSESSMENT

Flying Standards	Pilot Certificate	Inst Rating
1.1 RA-Aus Operations Manual (OM)		
Candidate demonstrates knowledge of OM requirements in regards to low flying	2	1
1.2 CAR, CASR, CAO 95.55, 95.32, 95.10		
Candidate demonstrates knowledge of the legal requirements in regard to low flying, use of radio, minimum distances from public roads, persons, property and buildings	2	1
1.3 Aircraft readiness		
Candidate confirms aircraft suitability for proposed operation	2	1
Equipment and documentation as required by legislation is identified and secured in the aeroplane, and internal and external checks are completed in accordance with approved checklist	2	1
Aeroplane take-off and landing performance, weight and balance is calculated in accordance with the aeroplane Flight Manual for the proposed operation and ambient conditions	2	1
Pre and post flight logbook and flight administration is completed in accordance with Technical manual and/or Operations manual	2	1
1.4 Pre-flight assessment of location - Property familiarisation		
Complete a physical assessment of the property, including proposed landing and take-off areas, location of wires, trees, fences, dams, local terrain and other considerations	2	1
Station personnel briefed regarding anticipated operations, expectations of pilot, effective communications, etc.	2	1
Identification of potential dangers, managed appropriately	2	1
Position of yards, personnel, vehicles, stock, fences, dams, etc.	2	1

1.5 Emergency response planning		
Appropriate emergency response actions for accident – ground or air	2	1
Appropriate emergency response plan for fatality –ground or air	2	1
Appropriate SAR processes	2	1
1.6 Fuel management - aeroplane		
Calculation of required fuel (holding and alternate – as appropriate)	2	1
Fuel reserves determined.	2	1
Total fuel requirement determined	2	1
Aeroplane is refuelled in accordance with Flight Manual and health and safety requirements.	2	1
1.7 Taxiing aeroplane		
Lookout and situational awareness	2	1
Directional control and turning, including manoeuvring in confined spaces	2	1
Effect of wind with regard to positioning of controls	2	1
Propeller care and consideration of prop wash and slipstream	2	1
Ground surface and slope considerations – assessment of unprepared areas	2	1
Appropriate taxiing speed	2	1
Emergency situations; loss of steering, brakes or other emergencies are managed in accordance with Flight Manual.	2	1

ELEMENT: 2. RADIO EQUIPMENT AND PROCEDURES

Flying Standards	Pilot Certificate	Inst Rating
2.1 Radio equipment		
Familiarisation with UHF and VHF radio equipment	2	1
Equipment checked and working correctly	2	1
Confirmed communication protocols with ground personnel	2	1
2.2 Procedures		
Radio use and procedures	2	1
Ensure all personnel involved know the intended frequencies for the operation	2	1

ELEMENT: 3. AEROPLANE HANDLING

Flying Standards	Pilot Certificate	Inst Rating
3.1 General aeroplane handling at altitude		
Level turns up to 60° AoB	2	1
Climbing turns beyond 15° AoB for terrain obstacle clearance	2	1
Descending turns up to and including 60° AoB	2	1
Use of top rudder in turns	2	1
Ensuring minimal G force during manoeuvres	2	1
Procedural turns	2	1
3.2 Advanced stall symptoms and recovery at altitude		
Stall symptom recognition and recovery straight and level	2	1
Stall symptom recognition and recovery up to 60° AoB	2	1
Stall symptom recognition and recovery from slipped or skidding turns	2	1
Stall stick position	2	1
3.3 Advanced manoeuvres at altitude		
Slow flight	2	1
Use of flaps (if fitted) for improved visibility and effects of changing flap setting in flight	2	1
Methods of losing height	2	1
Manoeuvring at varying airspeeds and angle of bank	2	1
Visual lookout and scan technique – no fixation on target objects	2	1

ELEMENT: 4. SAFETY FACTORS DURING LOW LEVEL FLIGHT

Flying Standards	Pilot Certificate	Inst Rating
4.1 The effects of wind		
Turning downwind into wind – apparent slip and skid	2	1
Maintaining balance	2	1
Power control	2	1
Effect of drift	2	1
Wind gradient	2	1
Micrometeorology considerations	2	1
Effects of dust devils or raised dust	2	1
Additional caution required when adverse weather approaching	2	1

4.2 The effects of turbulence		
Mechanical turbulence	2	1
Convection Turbulence	2	1
Frontal turbulence	2	1
4.3 Effect of light on hazard sighting		
Poor light – no shadows – easier to hit obstacles	2	1
Flying into sun – vision affected	2	1
4.4 Lookout		
Scan technique used	2	1
Lookout conducted before turns with regard to obstacles	2	1
4.5 Obstacles		
Power lines, visual identification from the air, confirm with property owner	2	1
Trees, windmills and other obstacles	2	1
Dangers of new wires and obstacles	2	1
Types of power lines	2	1
Assessment of height and distance abeam of fences	2	1
Use of sun/light in relation to fences to confirm wire integrity	2	1
Overlapping fence corners, appropriate safe procedures	2	1
4.6 Fatigue Management		
Effective fatigue management practices	2	1
Ancillary personnel briefed regarding fatigue management practices	2	1

ELEMENT: 5. LOW FLYING

Flying Standards	Pilot Certificate	Inst Rating
5.1 Low level flight over flat terrain		
Use of power	2	1
Use of airspeed – considerations when flying downwind	2	1
Use of trim	2	1
Lookout and scan techniques – avoiding target fixation	2	1
Recognition of height at low level – safer operations at slightly higher altitudes	2	1
False horizons	2	1
5.2 Low level flight over undulating terrain		
Anticipating the change in airspeed and power required	2	1
Effects of high density altitudes	2	1
Assessment of the wind	2	1
Planning for alternate options	2	1

5.3 Low level medium turns <45° AoB		
Lookout with reference to changing contours, obstructions and bird hazards	2	1
Use of power	2	1
Aeroplane balance	2	1
Wind drift	2	1
Consistent height	2	1
5.4 Low level steep turns 45°-60° AoB		
Lookout	2	1
Use of power	2	1
Aeroplane balance	2	1
Wind drift	2	1
Consistent height	2	1
5.5 Max rate / min radius turns at MTOW		
Effects of density altitude on performance	2	1
Pre-stall recognition and recovery	2	1
Use of power	2	1
Stall stick position	2	1
5.6 Slow flight		
Use of flaps (if fitted) and effects of changing flap setting in flight	2	1
Adequate airspeed above the stall during manoeuvres	2	1
Use of trim	2	1
5.7 Methods of losing height		
Use of flap (if fitted) and power	2	1
Use of sideslip	2	1
5.8 Emergency procedures		
Engine failure at low level	2	1
Bird strike / obstacle strike - immediate actions	2	1
Loss of visual reference	2	2

-END OF UTILITY SYLLABUS-