

1. Title	Aeronautical engineering maintenance practices application
2. Code	EMAMCM305A
3. Range	<p>Aeronautical engineering maintenance practices are usually applied in a specialist bay or workshop.</p> <p>Foreign objects (FOD) stand for anything that can find its way into an aircraft engine or flight control mechanisms that could possibly cause damage to aircraft, equipment or people.</p>
4. Level	3
5. Credit	9
6. Competency	<p style="text-align: center;"><u>Performance Requirement</u></p> <p>6.1 Apply aeronautical occupational health and safety practices</p> <ul style="list-style-type: none"> ◆ Able to identify the workplace hazards and comply with the safety procedures when working on and around aircraft, e.g. workplace hazards may include noise, propellers and/or rotors, rotating components, heights, weights, engine intakes and exhausts, hazardous materials, high-energy ignition systems, forms of radiation (VDUs, radio frequencies, radio active materials, microwaves, X-Rays), high-pressure hydraulic and pneumatic systems, electrical systems. ◆ Able to report the workplace hazards in accordance with the procedures.

		<ul style="list-style-type: none"> ◆ Able to interpret and comply with the aeronautical safety signs, symbols and instructions in accordance with the procedures,e.g. radiation (radio, microwave and X-ray), servicing, isolated systems, painting, chemical use. ◆ Able to isolate and/or deactivate the systems to be worked on in accordance with the procedures.
	<p>6.2 Apply aeronautical engineering maintenance practices</p>	<ul style="list-style-type: none"> ◆ Able to convert the imperial and metric measurements, weights and quantities in accordance with the procedures. ◆ Able to interpret the aeronautical engineering drawings in accordance with the procedures. ◆ Able to apply the tool control procedures applicable to aircraft maintenance tasks in accordance with aviation industry standards and procedures. ◆ Able to request the inspections in accordance with the procedures. ◆ Able to control the quality of work in accordance with the procedures,e.g. quality standards accessed, applied.
	<p>6.3 Perform mechanical aeronautical engineering tasks</p>	<ul style="list-style-type: none"> ◆ Able to connect and disconnect the aeronautical plumbing in accordance with the procedures,e.g. quick disconnect couplings, unions, flexible and rigid tubes, hoses and pipes.

		<ul style="list-style-type: none"> ◆ Able to maintain the bearings in accordance with the procedures,e.g. remove, clean, inspect, lubricate, protect, and fit. ◆ Able to maintain the threads in accordance with the procedures,e.g. clean, inspect, identify, dress. ◆ Able to select and use the attachment and locking hardware in accordance with the procedures,e.g. fasteners (nuts, bolts, washers, screws), locking devices (lock washers, split pins, lock wire, lock tabs).
	6.4 Perform aeronautical electrical engineering tasks	<ul style="list-style-type: none"> ◆ Able to bond and/or earth the aeronautical components or parts in accordance with the procedures. ◆ Able to connect and disconnect the aeronautical electrical connectors in accordance with the procedures.
	6.5 Perform aeronautical preventative maintenance	<ul style="list-style-type: none"> ◆ Able to identify and remove the foreign objects to prevent damage to personnel, aircraft, and equipment in accordance with the procedures,e.g. FOD - loose hardware, tools, parts, pavement fragments, pens, coins, badges, hats, rags, wildlife. locations - in/on aircraft, in/on components, on flight lines, in work areas. ◆ Able to fit and remove the isolation tags, blanks, covers, and locks in accordance with the procedures. ◆ Able to identify, remove and prevent corrosion in accordance with the procedures.

	<p>6.6 Use troubleshooting techniques to locate mechanical and electrical defects</p> <ul style="list-style-type: none"> ◆ Able to locate and report the defects using knowledge of mechanical equipment, system and component operation in accordance with the procedures, e.g. leaks, chafing, dents, gouges, binding, restrictions, obstructions. ◆ Able to locate the defects using troubleshooting techniques in accordance with the procedures, e.g. troubleshooting techniques - visual inspections, half-split rule, troubleshooting charts, interpretation of component and/or system circuit diagrams. ◆ Able to locate and report the defects, using knowledge of electrical equipment, circuit, and system and component operation in accordance with the procedures, e.g. short-circuits, open circuits, no lights, no indications, burning smells and/or smoke.
<p>7. Assessment Criteria</p>	<p>The integral outcome requirement of this UoC are:</p> <ul style="list-style-type: none"> (i) Able to apply the aeronautical occupational health and safety practices. (ii) Able to apply the aeronautical engineering maintenance practices. (iii) Able to perform the mechanical aeronautical engineering tasks. (iv) Able to perform the electrical aeronautical engineering tasks. (v) Able to perform the aeronautical preventative maintenance. (vi) Able to use troubleshooting techniques to locate the mechanical and electrical defects.
<p>8. Remarks</p>	<p>Ref: NZQA - 3895</p>