

1. Title	Aircraft mechanical flight control systems maintenance
2. Code	EMAMBG402A
3. Range	Repair of flight control system is usually carried out on the aircraft in a hangar or workshop during the aircraft non-flight time, e.g. from the cockpit control to the control surfaces may include but is not limited to - leading edge devices, flaps, ailerons, elevators or rudder, fixed and adjustable trimming devices cables, pulleys, fairleads, bellcranks, push-pull rods.
4. Level	4
5. Credit	9
6. Competency	<p style="text-align: center;"><u>Performance Requirement</u></p> <p>6.1 Knowledge</p> <ul style="list-style-type: none"> <li>◆ Understand the construction and working principles for the flight control systems in aircraft, including : <ul style="list-style-type: none"> <li>• knowledge of basic aerodynamics and theory of flight</li> <li>• different system operation : manual, hydraulic, pneumatic, electrical and fly-by-wire</li> <li>• balancing and rigging</li> </ul> </li> </ul> <p>6.2 Method and procedures</p> <ul style="list-style-type: none"> <li>◆ Able to obtain resources and check for serviceability or status in accordance with the procedures, e.g. publications, tools, equipment, safety equipment, materials.</li> <li>◆ Able to review the maintenance documents and procedures to decide on maintenance task.</li> <li>◆ Able to confirm the system to be maintained is matched with the aircraft registration and documentation.</li> </ul>

	<ul style="list-style-type: none"> <li>◆ Able to prepare the aircraft and systems for the application of power and for system operation in accordance with the procedures, e.g. cockpit controls match component positions, clearances obtained, isolation tags, warning signs.</li> <li>◆ Able to prepare the ground and/or support equipment for system operation in accordance with the procedures.</li> <li>◆ Able to determine the serviceability in accordance with the procedures, e.g. inspect, troubleshoot, assess, test.</li> <li>◆ Able to report and record defects in accordance with the procedures.</li> <li>◆ Able to rectify the defects by the approved method in accordance with the procedures, e.g. repair, replace, modify, adjust, rig, lubricate.</li> <li>◆ Able to test the system to verify their serviceability in accordance with the procedures.</li> <li>◆ Able to procure the replacement parts and verify their authenticity and serviceability in accordance with the procedures, e.g. identify, inspect.</li> <li>◆ Able to perform inspections in accordance with the procedures.</li> <li>◆ Able to understand the legislative requirements, aviation authority requirements, manufacturers' publications and the maintenance organizations' approved maintenance practices and requirements in carrying out the task.</li> </ul>
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6.3 Professional approach

	<ul style="list-style-type: none"> <li>◆ Able to complete the task within the stipulated duration.</li> <li>◆ Able to follow instruction manuals to repair and maintain the system.</li> <li>◆ Able to complete the task in the work area in accordance with the procedures,e.g. tool control, cleanliness, tidiness, return of publications, return of system/aircraft to normal, preparation for next activity.</li> <li>◆ Able to complete the documentation in accordance with the procedures.</li> <li>◆ Able to check the resources for serviceability and returned to service or storage in accordance with the procedures,e.g. equipment, safety equipment.</li> <li>◆ Able to handle unused parts and materials in accordance with the procedures,e.g. serviceable, unserviceable, surplus, waste, scrap, hazardous.</li> </ul>
<p>7. Assessment Criteria</p>	<p>The integral outcome requirement of this UoC are:</p> <ul style="list-style-type: none"> <li>(i) Able to make preparation for the maintenance of aircraft mechanical flight control system components.</li> <li>(ii) Able to locate the defects in mechanical flight control systems.</li> <li>(iii) Able to restore the system airworthiness.</li> <li>(iv) Able to complete all the requirements associated with the maintenance tasks.</li> </ul>
<p>8. Remarks</p>	<p>(Ref: HKAR-66 Module 8, 10, 11.1, 11.9, 13.1 &amp; 13.7)</p> <p>The Credit in this UoC is on the assumption of the person already possessed basic knowledge in computer technology, electrical theories and mechanics.</p> <p>Ref: NZQA - 3919</p>