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| 1. Title | Aircraft gas turbine engine power augmentation or restoration systems maintenance |
| 2. Code | EMAMBG417A |
| 3. Range | Maintenance of engine power augmentation systems in an aircraft hangar or workshop during the aircraft grounded time. This unit of Competency covers water methanol or dematerialized water injection engine power augmentation or restoration systems. |
| 4. Level | 4 |
| 5. Credit | 4 |
| 6. Competency | <p style="text-align: center;"><u>Performance Requirement</u></p> <p>6.1 Working principles</p> <ul style="list-style-type: none"> ◆ Understand the working principles for the power augmentation systems of gas turbine engines, including : <ul style="list-style-type: none"> • water injection • afterburners <p>6.2 Methods and procedures</p> <ul style="list-style-type: none"> ◆ Able to review the maintenance documents and procedures to decide on maintenance task. ◆ Able to obtain and check the resources for serviceability in accordance with the procedures, e.g. publications, tools, equipment, safety equipment, materials. ◆ Able to confirm the system to be maintained is matched with the aircraft registration and documentation. ◆ Able to prepare the systems for the application of power and system operation in accordance with the procedures, e.g. cockpit controls match component positions, clearances, isolation tags, warning signs |

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| | <ul style="list-style-type: none"> ◆ Able to prepare the ground and/or support equipment for aircraft gas turbine engine power augmentation or restoration systems maintenance activities in accordance with the procedures. ◆ Able to determine the serviceability in accordance with the procedures, e.g. inspect, troubleshoot, assess, test. ◆ Able to report and record the defects in accordance with the procedures. ◆ Able to rectify the defects by the approved method in accordance with the procedures, e.g. repair, replace, modify, adjust, calibrate, lubricate. ◆ Able to procure replacement propeller and/or parts and verify their authenticity and serviceability in accordance with the procedures, e.g. identify, inspect. ◆ Able to test the aircraft gas turbine engine power augmentation or restoration systems to verify their serviceability in accordance with the procedures. ◆ Able to perform inspections in accordance with the procedures. |
| 6.3 Professional approach | <ul style="list-style-type: none"> ◆ 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. ◆ Able to complete the task within the stipulated duration. |

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| | <ul style="list-style-type: none"> ◆ Able to follow instruction manuals to repair and maintain the power augmentation systems. ◆ Able to complete the task in the work area in accordance with the procedures, e.g. tool control, cleanliness, tidiness, return of publications, systems and aircraft left for next activity. ◆ Able to complete the documentation in accordance with the procedures. ◆ Able to check the resources for serviceability and returned to service or storage in accordance with the procedures, e.g. tools, equipment, safety equipment. ◆ Able to handle the unused parts and materials in accordance with the procedures, e.g. serviceable, unserviceable, surplus, waste, scrap, hazardous. |
| 7. Assessment Criteria | <p>The integral outcome requirement of this UoC are:</p> <ul style="list-style-type: none"> (i) Able to make preparation for the maintenance of aircraft gas turbine engine power augmentation or restoration systems. (ii) Able locate the defects in engine power augmentation or restoration systems. (iii) Able to restore the airworthiness of engine power augmentation or restoration systems. (iv) Able to complete all the requirements associated with the task. |
| 8. Remarks | <p>(Ref: HKAR-66 Module 15.15)</p> <p>The Credit in this UoC is on the assumption of the person already possessed foundation knowledge in the constructional arrangement and operation of gas turbine engines.</p> <p>Ref: NZQA - 3411</p> |