

SKILLS FRAMEWORK FOR AEROSPACE				
SKILLS MAP - Lead Maintenance Engineer				
Sector	Aerospace			
Track	Fleet Management			
Occupation	Engineer			
Job Role	Lead Maintenance Engineer			
Job Role Description	<p>The Lead Maintenance Engineer leads reliability centered maintenance programmes to ensure continuous airworthiness of the aircraft fleet. He/She provides leadership to personnel supporting aircraft maintenance activities and leads asset performance monitoring. He manages complex projects and develops maintenance plans in accordance with relevant technical data, original equipment manufacturer (OEM) manuals and regulatory requirements. As a subject matter expert, he is responsible for implementing work instructions, quality control and workflow improvements to enhance the organisation's productivity. He also participates in technical and programme reviews, reviews documentation and ensures compliance with engineering policies and procedures of the organisation, customers as well as the regulatory authorities.</p> <p>He reviews compliance with airworthiness and legislative requirements, while proposing enhancements to the organisation's standard operating procedures (SOPs), and safety, health and quality systems. He proactively contributes to the development of lean and sustainability practices, and conducts research and innovation in targeted areas for continuous process improvements. He appraises staff performance and conducts coaching and mentoring for technical personnel.</p> <p>He should possess strong decision-making, resource management and project management skills. He should be able to exercise problem-solving, communication and stakeholder management skills to proactively address unforeseen delays in fleet management.</p>			
Critical Work Functions and Key Tasks / Performance Expectations	Critical Work Functions	Key Tasks	Performance Expectations (For legislated / regulated occupations)*	
	Manage aircraft fleet services	Support development of aircraft lifecycle management programmes	In accordance with: <ul style="list-style-type: none"> International Civil Aviation Organisation (ICAO) legislation Air Navigation Order (ANO) Singapore Airworthiness Requirements (SAR) Relevant foreign aviation legislations Workplace Safety and Health (WSH) Act Environmental standards Aerospace quality management system standards ISO, AN, MS, NAS and MIL standards Air Transport Association of America (ATA) standards Special process standards *Performance Expectations are non-exhaustive and subject to prevailing regulations	
		Lead aircraft, engine and parts performance monitoring for asset management		
		Lead technical and programme reviews with customers and suppliers		
	Coordinate aircraft, engine and component maintenance	Lead reliability centered maintenance programmes for aircraft fleet		
		Develop maintenance plans to fulfil original equipment manufacturer (OEM) and customer requirements		
		Ensure adherence of maintenance works to project timelines and goals		
		Review conformance of maintenance works to technical specifications and airworthiness directives		
		Review maintenance and repair recommendations		
		Review documentation for compliance with regulatory and organisational requirements		
	Conform to management system requirements	Propose enhancements to standard operating procedures (SOPs) for fleet management operations		
		Review compliance with legislative requirements and airworthiness standards		
		Recommend improvements to environment, safety and health systems, policies and procedures		
		Contribute to the development of organisational quality and risk management systems		
		Contribute to the development of sustainability practices for fleet management		
	Contribute to continuous improvement	Evaluate opportunities for continuous improvement projects		
		Contribute to the development of lean practices for fleet management		
		Conduct research on market trends and technology applications to drive innovation		
		Leverage data analytics to enhance operational and business decision-making		
	Manage people and organisational development	Liaise with other teams and customers to ensure smooth operations		
Appraise staff performance by utilising organisational performance management systems				
Conduct coaching and mentoring for junior team members				
Technical Skills and Competencies	Technical Skills and Competencies		Generic Skills and Competencies	
	Aerodynamics Principles Application	Level 4	Leadership	Intermediate
	Aerospace Materials and Hardware Selection	Level 4	Developing People	Intermediate
	Artificial Intelligence Application	Level 3	Decision Making	Intermediate
	Aviation Legislation Compliance	Level 3	Sense-Making	Advanced
	Big Data Analytics	Level 3	Interpersonal Skills	Intermediate
	Business Continuity Planning	Level 3		
	Business Negotiation	Level 4		
	Business Opportunities Development	Level 3		
	Business Performance Management	Level 3		
	Carbon Footprint Management	Level 4		

Skills & Competencies	Change Management	Level 3		
	Condition-based Assets Monitoring Management	Level 4		
	Continuous Process Improvement	Level 3		
	Digital Techniques Application	Level 4		
	Electrical Fundamentals Application	Level 4		
	Electronic Fundamentals Application	Level 4		
	Engineering Drawing Interpretation and Management	Level 4		
	Engineering Problem Solving	Level 4		
	Gas Turbine Engine Principles Application	Level 4		
	Green Manufacturing Design and Implementation	Level 3		
	Helicopter Aerodynamics, Structures and Systems Principles Application	Level 4		
	Human Factors Application and Error Management	Level 3		
	Innovation Management	Level 3		
	Internet of Things Implementation	Level 3		
	Knowledge Management	Level 3		
	Lean Manufacturing	Level 3		
	Maintenance Coordination	Level 4		
	Mathematical Concepts Application	Level 3		
	Physics Concepts Application	Level 3		
	Piston Aeroplane Aerodynamics, Structures and Systems Principles Application	Level 4		
	Piston Engine Principles Application	Level 4		
	Predictive Maintenance	Level 4		
	Project Management	Level 3		
	Propeller Principles Application	Level 4		
	Propulsion Principles Application	Level 4		
	Quality System Management	Level 3		
	Robotics and Automation Application	Level 3		
	Stakeholder Management	Level 3		
Turbine Aeroplane Aerodynamics, Structures and Systems Principles Application	Level 4			
Workplace Safety and Health Framework Development and Implementation	Level 3			
Programme Listing	<i>For a list of training programmes available for the Aerospace sector, please visit <https://www.skillsfuture.sg/skills-framework/aero></i>			

THE INFORMATION
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