

SKILLS FRAMEWORK FOR AEROSPACE			
SKILLS MAP - Quality Manager (Aircraft Maintenance)			
Sector	Aerospace		
Track	Aircraft Maintenance		
Occupation	Quality Assurance Manager		
Job Role	Quality Manager (Aircraft Maintenance)		
Job Role Description	<p>The Quality Manager (Aircraft Maintenance) approves the organisation's quality management system (QMS) including quality assurance, quality control and inspection standards for aircraft maintenance. He/She is accountable for internal and external quality audits, impact analyses and failure investigations to drive conformance of aircraft maintenance tasks to procedures and standards prescribed by original equipment manufacturers (OEM), regulatory authorities and own organisation. He provides technical expertise for corrective and preventive actions for quality issues in aircraft parts and components. He endorses the certificate of conformance (CoC) for first article inspection (FAI) of aircraft parts and components. He approves updates to the technical library and Maintenance Organisation Exposition and sanctions alternative processes, tools and inspection technologies.</p> <p>He manages compliance with airworthiness and legislative requirements, and contributes to development of the organisation's standard operating procedures (SOPs), management systems, lean and sustainability practices, and data analytics plans for strategic decision-making. He drives team performance to achieve business key performance indicators (KPIs) and leads talent recruitment and development plans.</p> <p>He possesses a quality, safety and risk compliance mindset, and is able to consider issues from multiple perspectives to make well-informed and effective decisions for the function. He demonstrates strong leadership, strategic thinking and organisational management skills to pre-empt quality risks in aircraft maintenance activities.</p>		
Critical Work Functions and Key Tasks / Performance Expectations	Critical Work Functions	Key Tasks	Performance Expectations (For legislated / regulated occupations)*
	Contribute to aircraft maintenance, repair and overhaul (MRO)	Provide subject matter expertise in implementing corrective and preventive actions for quality issues in aircraft parts and components	In accordance with: <ul style="list-style-type: none"> International Civil Aviation Organisation (ICAO) legislation Air Navigation Order (ANO) Singapore Airworthiness Requirements (SAR) 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
		Authorise certification of aircraft for release to service	
		Approve updates to technical library and Maintenance Organisation Exposition	
	Administer quality control	Approve quality assurance, quality control and inspection standards for aircraft maintenance	
		Endorse certificate of conformance (CoC) for first article inspection (FAI) of aircraft parts and components	
		Manage internal, external and vendor audits to ensure compliance with original equipment manufacturer (OEM) and organisation procedures	
	Conform to management system requirements	Sanction alternative processes, tools and new inspection technologies	
		Establish new and revised standard operating procedures (SOPs) for quality operations	
		Manage compliance with legislative requirements and airworthiness standards	
		Enhance environment, safety and health systems, policies and procedures	
		Review organisational quality and risk management systems for improvements	
	Contribute to continuous improvement	Develop sustainability practices for aircraft maintenance	
		Lead cross-functional teams in continuous improvement projects	
		Develop lean practices for aircraft maintenance	
Lead research on market trends and technology applications to drive innovation			
Manage people and organisational development	Develop data analytics plans for strategic decision-making		
	Implement functional plans to achieve business goals		
	Manage adherence to operating budgets for aircraft maintenance		
	Collaborate with internal and external stakeholders to ensure smooth business operations		
	Manage staff performance to achieve business key performance indicators (KPIs)		
Lead implementation of talent recruitment and development plans			
Technical Skills and Competencies		Generic Skills and Competencies	
Aerodynamics Principles Application	Level 4	Service Orientation	Advanced
Aerospace Materials and Hardware Selection	Level 4	Leadership	Advanced
Applied Research and Development Management	Level 4	Problem Solving	Advanced
Artificial Intelligence Application	Level 4	Decision Making	Advanced
Audit and Review Management	Level 4	Communication	Advanced
Aviation Legislation Compliance	Level 4		
Big Data Analytics	Level 4		
Budgeting	Level 4		
Business Continuity Planning	Level 4		

Skills & Competencies	Business Negotiation	Level 5		
	Business Performance Management	Level 4		
	Carbon Footprint Management	Level 5		
	Change Management	Level 4		
	Condition-based Assets Monitoring Management	Level 5		
	Continuous Process Improvement	Level 4		
	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 5		
	Gas Turbine Engine Principles Application	Level 4		
	Geometric Dimensioning and Tolerancing	Level 4		
	Green Manufacturing Design and Implementation	Level 4		
	Helicopter Aerodynamics, Structures and Systems Principles Application	Level 4		
	Human Factors Application and Error Management	Level 3		
	Image Processing and Industrial Vision Inspection	Level 4		
	Innovation Management	Level 4		
	Internet of Things Implementation	Level 4		
	Knowledge Management	Level 4		
	Lean Manufacturing	Level 4		
	Piston Aeroplane Aerodynamics, Structures and Systems Principles Application	Level 4		
	Piston Engine Principles Application	Level 4		
	Precision Measurement	Level 5		
	Project Management	Level 4		
	Propeller Principles Application	Level 4		
	Propulsion Principles Application	Level 4		
	Quality System Management	Level 4		
	Risk Compliance and Governance	Level 4		
	Robotics and Automation Application	Level 4		
	Stakeholder Management	Level 4		
	Strategy Planning	Level 4		
Turbine Aeroplane Aerodynamics, Structures and Systems Principles Application	Level 4			
Workplace Safety and Health Framework Development and Implementation	Level 4			
Programme Listing	For a list of training programmes available for the Aerospace sector, please visit < https://www.skillsfuture.sg/skills-framework/aero >			

The information contained in this document serves as a guide.