

**SKILLS FRAMEWORK FOR AIR TRANSPORT
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Business Management					
TSC	Human Factors Management					
TSC Description	Identify and mitigate risks of aviation incidents and/or accidents caused by human factors					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	ATP-LDR-1005-1.1	ATP-LDR-2005-1.1	ATP-LDR-3005-1.1	ATP-LDR-4005-1.1	ATP-LDR-5005-1.1	ATP-LDR-6005-1.1
	Maintain vigilance when performing work duties and recognise fatigue levels and stressors	Apply techniques to identify stressors and factors which contribute to human errors	Administer processes to ensure team safety and adherence to Standard Operating Procedures (SOPs)	Review trends in human errors and propose strategies to reduce the occurrences of aviation incidents and/or accidents	Lead the development of new strategies to mitigate the risks of human errors in the aviation industry	Formulate new strategies for preventive measures in human factors management
Knowledge	<ul style="list-style-type: none"> Human factors in the aviation industry Importance of aviation human factors Fatigue risk management Importance of communication and teamwork Safety Management Systems (SMS) 	<ul style="list-style-type: none"> Human factors in the aviation industry Importance of aviation human factors Fatigue risk management Threat and error management Importance of communication and teamwork Situational awareness Safety Management Systems (SMS) 	<ul style="list-style-type: none"> Human factors in the aviation industry Importance of aviation human factors Analysis and implications of human factors Fatigue risk management Threat and error management Importance of communication and teamwork Situational awareness Resource management tools Safety Management Systems (SMS) 	<ul style="list-style-type: none"> Concepts and principles of human factors in the aviation industry Importance of aviation human factors Relationship between human factors, safety and efficiency Role of human factors in system design, operations, management and safety Fatigue risk management Threat and error management Importance of communication and teamwork Resource management tools Human-centred design philosophy Safety Management Systems (SMS) 	<ul style="list-style-type: none"> Theories about human factors in the aviation industry Importance of aviation human factors Relationship between human factors, safety and efficiency Role of human factors in system design, operations, management and safety Models of human factors analysis Resource management tools Human-centred design philosophy Emerging trends and new technologies in human factors management Safety Management Systems (SMS) 	<ul style="list-style-type: none"> Theories and scientific findings about human factors in the aviation industry Importance of aviation human factors Relationship between human factors, safety and efficiency Role of human factors in system design, operations, management and safety Resource management tools Human-centred design philosophy Emerging trends and new technologies in human factors management Competitors' strategies to mitigate human errors Safety Management Systems (SMS)

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<p>Abilities</p>	<ul style="list-style-type: none"> • Take precautions to ensure one's vigilance and alertness while executing work tasks and activities • Seek clarifications from team members to reduce misunderstandings and omissions of procedures • Identify implications of human errors on organisation's processes and outputs 	<ul style="list-style-type: none"> • Identify team members with compromised vigilance and alertness • Ensure transfer of shifts is in line with stipulated Standard Operating Procedures (SOPs) • Recognise symptoms of fatigue and utilise appropriate countermeasures such as regulating sleep cycles • Identify stressors to determine mitigating measures 	<ul style="list-style-type: none"> • Communicate and ensure staff adherence to appropriate human factors management • Plan roster schedules to rotate shift-work and prevent fatigue • Monitor transfer of shifts is in line with stipulated Standard Operating Procedures (SOPs) • Investigate human errors and threats and collect detailed information for further analysis • Make adjustments to schedules and Standard Operating Procedures (SOPs) based on feedback and investigation of incidents 	<ul style="list-style-type: none"> • Determine timelines for work tasks according to the capabilities of the teams and industry practices • Ensure human factors are accounted for in Standard Operating Procedures (SOPs) • Implement processes to strengthen communication across work teams • Analyse incident reports to examine trends in human errors • Perform statistical analysis and present reports • Propose and develop new systems and procedures to mitigate the risks of human errors and threats 	<ul style="list-style-type: none"> • Review statistical reports to identify causes and trends of human errors • Lead the development of new systems, structures and Standard Operating Procedures (SOPs) to manage the prevention and/or consequences of human errors • Develop systematic and consistent tools for investigating incidents and/or accidents and prevent their occurrences • Gain buy-ins from stakeholders on the adoption of automation systems to mitigate human errors and threats 	<ul style="list-style-type: none"> • Synthesise new systems, structures and Standard Operating Procedures (SOPs) to reduce human factors occurrences • Drive the procurement and adoption of automation systems to mitigate human errors and threats • Lead adaptation of emerging trends and new technologies to the organisation's work environment
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