

**SKILLS FRAMEWORK FOR AEROSPACE  
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

<b>TSC Category</b>	Aerospace and Engineering Fundamentals					
<b>TSC</b>	Propeller Principles Application					
<b>TSC Description</b>	Apply and use principles of propeller theory for maintenance, repair, overhaul or manufacturing in accordance with the original equipment manufacturer (OEM) manuals and organisational procedures					
<b>TSC Proficiency Description</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
			<b>AER-ACO-3022-1.1</b>	<b>AER-ACO-4022-1.1</b>		
			Apply principles of propeller theory and construction and auxiliary propeller systems towards maintenance, repair, overhaul or manufacturing of aircraft propellers	Apply principles of propeller theory and construction and engine support systems towards maintenance, repair, overhaul or manufacturing of aircraft propellers and auxiliary propeller systems		
<b>Knowledge</b>			<ul style="list-style-type: none"> <li>• Fundamentals of propeller operation</li> <li>• Construction of propeller</li> <li>• Methods for pitch control and protection</li> <li>• Prevention and removal of ice on propeller</li> <li>• Propeller maintenance</li> <li>• Methods for propeller storage and preservation</li> </ul>	<ul style="list-style-type: none"> <li>• Propeller theory</li> <li>• Propeller construction</li> <li>• Propeller pitch control</li> <li>• Propeller synchronisation</li> <li>• Propeller ice protection system</li> <li>• Propeller maintenance</li> <li>• Propeller preservation and storage</li> </ul>		
<b>Abilities</b>			<ul style="list-style-type: none"> <li>• Outline the operating principles and construction of propellers</li> <li>• Explain the operation of pitch control</li> <li>• Identify types of ice protection systems</li> <li>• Define propeller maintenance requirements</li> <li>• Specify propeller storage and preservation requirements in accordance with prescribed procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Validate the operation of aircraft propeller operating systems, including counterweight, feathering and reversible pitch propellers</li> <li>• Analyse the factors affecting propeller performance</li> <li>• Validate correct functioning of pitch control</li> <li>• Review ice protection and synchronisation system application</li> <li>• Evaluate the requirements for aircraft propeller maintenance</li> <li>• Ensure proper propeller storage and preservation</li> </ul>		

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