



POSITION DESCRIPTION

Position Title:	Engineer in Rotary Wing Control Systems Modelling
Position Reference Number:	ECRAD009b
Division	Aerospace
Position Classification:	S&T3-4 below
Position Location:	Fishermans Bend, Vic
Security Level:	Neg Vet 2
Enquiries:	Robert Toffoletto (Robert.toffoletto@dst.defence.gov.au)

Academic Disciplines

<input type="checkbox"/> Aerospace/ Aeronautical Engineering, Naval Architecture	<input type="checkbox"/> Chemical, Radiological, Biological, Food sciences	<input type="checkbox"/> Materials Science
<input type="checkbox"/> Computer Sciences, IT, Software Engineering, Telecommunications	<input checked="" type="checkbox"/> Mathematics and physics	<input type="checkbox"/> Psychology and Social Sciences
<input checked="" type="checkbox"/> Mechanical and Mechatronic Engineering (including robotics)	<input type="checkbox"/> Electronic/ Electrical Engineering	<input type="checkbox"/> Other

Position Overview

Under limited direction and often as part of a team, the successful applicant will be required to model the complex control systems of rotary wing aircraft (including UAS) as well as integrating them into existing rotary wing flight models. The successful applicant will use their knowledge of rotary wing control systems to support simulation experiments as well as incident and accident investigations. There may also be a requirement to develop control systems for UAS aircraft.

Position Duties

As part of a multidisciplinary team:

- Work collaboratively and operate as an effective team member undertaking research and development in areas appropriate to meet Defence stakeholder requirements;
- Develop and apply mathematical models of rotary wing control systems using modern engineering techniques (such as system identification techniques) for ADF rotary wing aircraft (including UAS);
- Plan and participate in flight trials and/or human-in-the-loop simulation experiments involving rotary wing aircraft;
- Provide advice on aircraft control system aspects of air vehicle flight incidents and accidents (Rotary Wing).

Other Requirements

Demonstrated knowledge and appropriate experience in some or all of the following areas:

- development of aircraft flight control models of varying fidelity (preferably rotary wing);
- development of computer programs using conventional programming languages or high level environments such as MATLAB.

Appointees will be initially be engaged on a Baseline security clearance with an upgrade to a Top Secret Negative Vetting (NV2) Security Clearance required upon commencement.