



Australian Government

Department of Defence
Defence Science and
Technology Organisation

DSTO

Graduate and Post-Graduate Opportunities

Physical Sciences

DSTO is looking for the best and brightest graduates and postgraduates with excellent academic achievement or experience in the following areas:

- ▶ Physics
- ▶ Chemistry (including energetic materials)
- ▶ Electronic Warfare
- ▶ Materials Science
- ▶ Optoelectronics
- ▶ Radar Technology
- ▶ Sonar Technology
- ▶ Instrumentation and Control
- ▶ Evaluation and Experimentation

Current Research Projects

Disruptive pattern uniforms

Soldiers wearing the original Disruptive Pattern Combat Uniform became vulnerable to users of imaging equipment operating in the visible and near infrared area of the electromagnetic spectrum. In response, DSTO developed a Disruptive Pattern Combat Uniform which used a signature-managed technology that matches combat uniforms to the background terrain, providing increased protection.

Signature management

DSTO's expertise in signature managed materials is an essential ingredient in improving stealth qualities of ADF platforms. Radar absorbing paint DSTO developed for the RAAF fleet has achieved the stealth goal at a tenth of the cost of alternative means of protection.

DSTO also developed a solution to reduce the radar signature of the Collins Class submarine periscope masts, resulting in improved capabilities, increased force protection and enhanced operational effectiveness for Defence.

Over-the-Horizon-Radar

DSTO's Over-The-Horizon-Radar (OTHR) program provides science and technology to enhance existing OTHR capability through increased radar performance. OTHR is based on reflecting high-frequency radar transmissions off the ionosphere enabling targets to be detected at very long distances, well beyond the line of sight.

DSTO has identified a number of promising concepts that could provide the foundation for a next generation OTHR capability, including techniques to enhance target detection in disturbed ionospheric conditions. This will significantly advance the total period of maximum OTHR performance.



DSTO

Science and Technology for a Secure World

www.dsto.defence.gov.au