



EDUCATION PROGRAM

Snapshot



MR BRODIE MCDONALD

Mr Brodie McDonald is a PhD candidate at RMIT's School of Engineering, where he also completed his undergraduate degree in aerospace engineering in 2014. The focus of his PhD project, titled 'Characterising Material Effects in Blast Protection' was to develop a theory of how the different properties of an armour material such as strength or toughness translate to its performance under blast loading. Ultimately, a key outcome of the project will be a predictive framework to identify the optimal materials for use in the armour system of ADF land vehicle platforms.

In partnership with DMTC and DST, Brodie travelled to South Africa to collaborate with the University of Cape Town and conducted more than 80 blast experiments as part of his PhD research. Brodie has travelled to conferences in Norway, France and The Netherlands to present his research, as well as presenting at universities within Australia and the United Kingdom.

Brodie has worked with DST conducting blast tests in Australia as well as collaborating with the Land Engineering Agency in Defence to provide research in material characterisation and computational modelling in support of their land platform development program. With submission of his PhD, Brodie accepted a position in the Land Vehicle Survivability group at DST where he will continue his research into the response of armour materials to blast loading and ballistic impact.