

## ABSTRACT SUBMISSION FORM

Abstract submission closes on **DATE**. Late submission of an abstract may only be accepted subject to the discretion of the HUMS2017 Committee.

**Title:**

HUMS for AGT1500 Gas Turbine Engine of the M1A1 Abrams Tank

**Authors:**

Tim Conroy and Greg Mason, TAE Australia

**Abstract (200 words max):**

The AGT1500 turboshaft engine that drives the Abrams Main Battle Tank (MBT) is one of the few gas turbine engines to be utilized on a tracked, land platform, and subsequently it experiences use cases and operating conditions unlike any other. As a result, sustaining the AGT1500 is challenging from a mission reliability, asset availability and cost of ownership perspective.

To proactively manage these challenges, TAE in conjunction with the Australian Army and the Capability Acquisition and Sustainment Groups' (CASG) Land Engineering Agency (LEA) and Land System Division have trialled an AGT1500 specific Health and Usage Monitoring System (HUMS) fitted to four MBTs over the past 15 months.

The trial has successfully demonstrated that the AGT1500 HUMS is capable of monitoring and trending engine operating parameters that provide unprecedented insights into AGT1500 usage and health. CASG and Army are now contemplating fleet wide fitment so that these improved fleet outcomes can be realised.

This presentation by TAE's Tim Conroy - HUMS project officer and Greg Mason - Manager Strategic Projects & Innovation, provides an overview of this innovative initiative.