

# SSEI Research Task Summary – T17

Task Number: SSEI/T17

Lead Delivery Organisation : BAE Systems INSYTE

Project Title : Evolving Trials and Acceptance Strategies for COTS-based Combat Systems

Research Theme : *Integration of Software Systems*

Version : 2



## Objective of Work (why are we doing it ?)

The assurance of combat system integrity is of utmost importance when deploying new technology or capability into an operational environment for Land, Sea, Air and/or Joint operations.

The complexity and safety critical nature of current combat systems means the trials programmes can take many months to complete, add significantly to the cost of support and capability insertion programmes, and delay the introduction of new technologies into service.

The objective of this task is to identify opportunities for reducing trials costs and duration whilst ensuring appropriate levels of system integrity can be demonstrated prior to operational deployment.

## Nature of Work (what is it?)

This task will investigate how confidence in system integrity can be built quickly and effectively through the phases of the development lifecycle.

It will look at the use of incremental development models to improve visibility and customer involvement.

It will identify effective and focussed regression testing strategies where they are appropriate.

It will look into the read-across of testing evidence from trans-class trials programmes, and provide an improved understanding of how confidence levels can be established and interpreted.

## Outcomes (what will it produce/has it produced ?)

The task will produce the following outputs:

- Summary report on the existing state and drivers for change;
- Report on the scope and opportunities for change, based on current approaches and best practice;
- Report on alternative testing strategies, covering industry best practice and alternative approaches;
- Report on development lifecycle and facilities, investigating opportunities for change;
- Final report consolidating the findings and recommendations and assessing the opportunities for change

Timescales 20 month task, February 2010 to October 2011

Partners

Related Work

Task Lead Paul Callaghan  
BAE Systems, New Malden  
paul.callaghan@baesystems.com  
0208 329 5810