

Intern Studentship Project / Task

Supervisor: Dr S Dowling

Title:

Assessing methodology known as Target Task Performance (TTP) for use in the UK MoD procurement and Assessment of electro-optic equipment.

Currently the UK doctrinal and procurement policy on setting the required level of ISTAR performance for a given task is still based around Detect, Recognise and Identify (DIR) and associate spatial frequency requirements for this task derived from Johnson's criteria. Published work 'The Targeting Task Performance (TTP) Metric A New Model for Predicting Target Acquisition Performance', Vollmerhausen, Richard H. ; Jacobs, Eddie, 20 APR 2004, 126 pages, DTIC, shows that considerable potential exists for using a new methodology to determine and assess required ISTAR performance in a way which encompasses electro-optic sensor architecture and displays as used in new designs.

The methodology is complex and there are several identifiable steps to reaching a firm conclusion about its use in MoD procurements.

1. A review of the actual process and a check of its applicability to the required task
2. A full analysis of all mathematical processes used and variables used as inputs.
3. A check of an existing ISTAR equipment with known performance by this method to give confidence in any results
4. A report outlining what MoD would need to know about any ISTAR equipment to validate it's performance by this method and a simplified methodology for incorporating TTP into UK ISTAR procurement.

The process requires a good background in night vision and thermal imagery equipment as well as a good grounding in military procurement and assessment processes. These qualities seem to be present in the CV supplied by the student.

As this is a largely theoretical project the risk to completion from lack of physical resources is small. The links to UK MoD ISTAR capability groups at the Defence academy are well founded to obtain the required input and stakeholdership that would be essential.

The recent FDCC sighting requirements work has shown that many defence equipment suppliers already use TTP in spite of UK Mod being devoid of any real understanding of the technique.

Potential to produce unclassified work is high and the project will not need any protectively marked documents or access.