Hierarchical Task Analysis Using a Synthetic Environment Based on Close Air Support Missions

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Hierarchical Task Analyses (HTAs) were conducted during a Military Judgement Panel (MJP) to capture the various tasks carried out by Forward Air Controllers (FACs) and Pilots, during Close Air Support operations. The analyses were derived from observations and post-operational interviews carried out during and immediately following simulated operational scenarios completed within a synthetic environment (SE), adapted from a gaming platform. The aim of the MJP was to validate the SE, evaluate the implementation of simulated Situational Awareness tools and Target Identification Devices (TID) to support FACs in the Combat Identification process, and contribute to the de-risking of a full experiment using the SE.

This paper summarises the methods employed to generate detailed task analyses of FACs and Pilots interacting within a novel SE environment, which provide a useful reference tool to aid future experimental design, fault analysis and best practice benchmarking.