

Combat Hunter Computer-Based Trainer



EXHIBIT FACT SHEET

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Enhanced Perceptual Training

The modern military operational environment is complex, and filled with subtle psychological, social, and sociocultural cues. In this operational context, personnel must not only possess typical warfighting abilities, but they must also be able to rapidly perceive, understand, and respond to a wide range of stimuli. These stimuli may include immediate threats, such as Improvised Explosive Devices (IEDs), snipers, or suicide bombers. They may also include more nuanced indicators. For instance, Warfighters may need to interpret cues that indicate a foreign national is lying, signs that point to an insurgent network, or the behavioral signals of a disgruntled (but nonviolent) citizen.

To support development of those skills, the Perceptual Training Systems and Tools (PercepTS) research team is identifying opportunities to enhance the range of perceptual training available to Marines. PercepTS is a five-year Science and Technology

(S&T) project, currently in its third year. In its first year, the PercepTS team completed an extensive empirical and theoretical baselining effort, which included research on the Marine Corps' state-of-the-art in perceptual training—the Combat Hunter curriculum.

USMC Combat Hunter Course

Combat Hunter serves as the primary Marine Corps program of instruction for learning sustained observation of social patterns of life and for enhancing personnel's

Unit 1: Camp Inchon **Unit 2: Camp Tarawa** **Unit 3: Camp Iwo Jima**

Module 1: Course Introduction

BE THE HUNTER NOT THE HUNTED!

Left-of-bang

4 Main Steps

- ✓ Establish what is normal
- ✓ Search for anything out of place
- ✓ Suspicious behaviors and environmental signs
- ✓ Potential ambush points



social, cultural, and behavioral sensemaking skills. Through the Combat Hunter course, personnel learn how to evaluate people's biometric signs, read human behavior, identify geographic indicators (like footprints), and objectively analyze the "atmosphere" of a locale. Broadly speaking, Combat Hunter trains situational awareness, sensemaking, mental simulation, and dynamic decision-making for urban operational environments

Previous research on Combat Hunter identified the need to deliver pre-training content and establish course prerequisites, and our own baselining investigations confirmed these recommendations. The Combat Hunter course includes specialized language and a substantial amount of declarative and procedural knowledge that students must memorize before they can develop more meaningful, higher-level Combat Hunter skills. This means that Marine Corps instructors spend considerable time on this low-level instruction; however, the lower-level content could be more efficiently taught using instructional technology.

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Consequently, in the second year of the project, the team developed and tested a Combat Hunter Computer-Based Trainer (CBT). This introductory course provides instruction on relevant declarative and procedural Combat Hunter materials, which better prepares trainees to attend the existing face-to-face Combat Hunter courses. With the CBT pre-trainer, instructors in the face-to-face course can now use their valuable class time to focus on the "hard" skills, as well as demonstrations, hands-on exercises, and practical applications.

The Combat Hunter CBT was developed using a range of evidence-based best practices for instructional technology. The CBT includes both a comprehensive instructional strategy that provides an environment where learners can be active in their own learning, and a variety of media to increase learner engagement.

The system was developed using an iterative development approach, with interim formative testing (e.g., with Marine Reservists at Camp Upshur in June 2010) and empirical outcome testing (i.e., with control and experimental groups of Marines at the School of Infantry East in September and October 2010). The results of these studies not only provided valuable insights to the ongoing development process, but they also validated the utility, engagement, and instructional efficacy of the software.