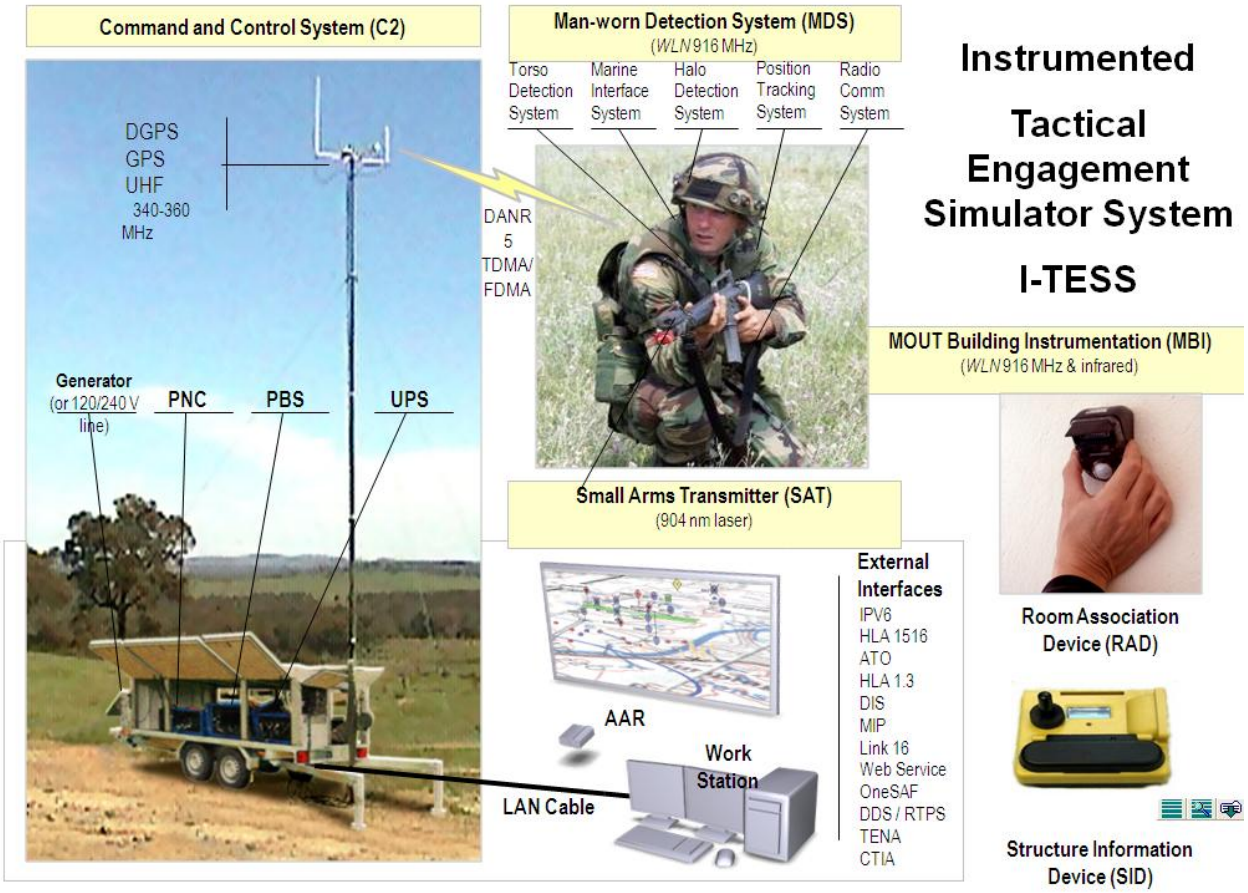
Form 442 Question 7: Experimentation Description

This application is for an Experimental RNSS Test Equipment for the purpose of testing GPS receivers on manworn training devices and developing software to display their position. The information sheet below shows a Marine wearing the training equipment with the position location capability which is a GPS. Without the repeater the training equipment must be moved outside the facility to test or use the position location capability.



1.2.1 Man-Worn Detection System

The Marine is equipped with a lightweight personnel Man-Worn Detection System (MDS) (Part Number 8858 002-936). The MDS, with batteries and all simulation components including laser detectors, GPS receiver (Position Tracking System), speakers (Marine Interface System (MIS)) and Radio Communication System equipment, weighs 6.5 pounds. The antennas are the UHF C2 antenna and the 915 MHz WLN antenna. Both antennas are built/sewn into the MDS ensuring that there are no protruding parts that may hinder or hamper the Marine during training regardless of outer garment worn. The UHF C2 antenna is used to receive messages from the C2 system and to transmit event data back to the C2 system. The 915 MHz WLN antenna is used for the local Player Area Network (PAN). This network is used by the MDS for SAT association and for MOUT Instrumentation. A Marine can be fully instrumented in less than five minutes which is the objective. Figure 1 "Man-Worn Detection System" shows the detectors on the harness and halo, the MIS loudspeakers at shoulder level and the battery compartment and Personnel Computer Unit (PCU) and radio module on the lower edges of the harness. The MDS has a built-in, short range radio (WireLess Network or WLN)

Figure 1. Man-Worn Detection System