Night-Vision Goggles Heads-Up Display
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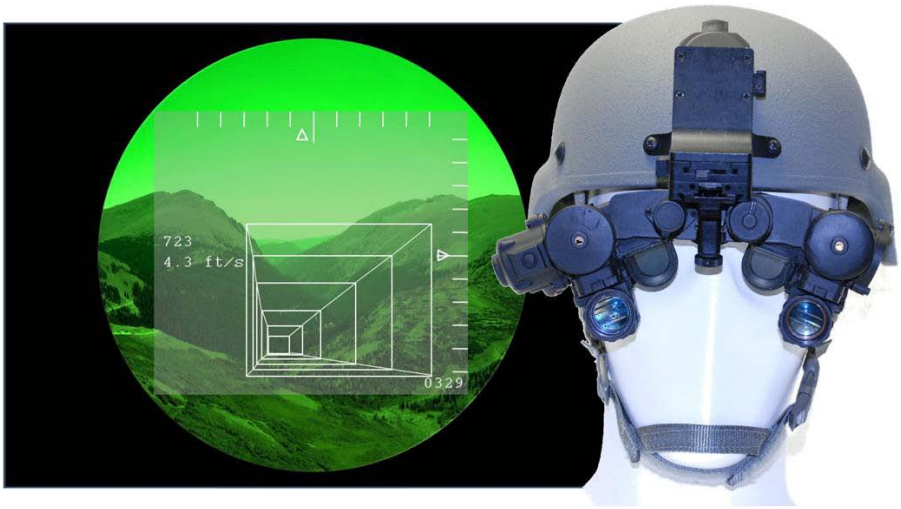
Sponsor: Sensor Technology Systems Inc.



In order to provide steering guidance for paratroopers navigating through cloud conditions, the Advanced Navigation Technology (ANT) Center at the Air Force Institute of Technology (AFIT) is working together with Sensor Technology Systems Inc to develop a night-vision goggle heads-up display. Use of such a system will expand the operational envelope for soldiers in these kinds of missions. The system uses navigation data from a small GPS receiver and a commercial-grade inertial navigation system to generate a virtual "tunnel in the sky" (as shown above), guiding the paratrooper toward the jump target. This image is presented on a heads-up display which already exists for night-vision goggles, so users can see both the steering guidance and the surrounding environment. The display is continuously adjusted to take into account the paratroopers head orientation, so that the guidance tunnel always appears in the correct location. Once on the ground, the unit can function as a lightweight navigation device suitable for battlefield conditions.