

The Synthetic Training Environment (STE). The STE is a Soldier-centric training environment that optimizes human performance. It converges the Virtual, Constructive, and Gaming environments into a single-synthetic environment. The STE provides a common training simulation for the Operational, Institutional, and Self-Development domains across all echelons. Leveraging current technologies, the STE blends virtual, augmented, and physical realities, providing commanders with multiple options to train operational complexities. Transported via operational networks, the STE delivers training as a service on-demand, from the cloud to the point-of-need. It is capable of operating in a disconnected mode for training under limited or degraded network conditions. The STE supports train as you fight, commander-driven, unit mission-oriented Decisive Action training in support of Unified Land Operations. The STE provides intuitive, composable applications and services that enable embedded training with mission command workstations and select platforms.

Specific questions:

1) How can the Army achieve “one world” environment on common terrain to reduce the complexity associated with “fair fight” and reduce the challenges associated with integrating one world terrain with mission command information systems? By “fair fight”, we mean that the simulation environment provides a common visual representation of an entity at a specific location at the same time and that realistic battlefield effects such as ballistics, probabilities of hit, probabilities of kill, cover, concealment, etc. are accurately portrayed.

2) How can the Army achieve a single, non-federated synthetic training environment that supports constructive and virtual views, and augmented reality enabled live training?

3) How can the Army better integrate large quantities of structured and unstructured data (big data) to improve the quality and reduce the overhead associated with training management and complex synthetic training environments?

4) How can the Army improve support to deployed Soldiers and units, while reducing the overhead required to deliver training? The Army needs a synthetic training environment available 24/7 that can be delivered at the point of need.

5) How can the Army improve leader development and training management through the use of intelligent tutors?

6) How can improvements in artificial intelligence be used to improve the Army’s ability to replicate the complexity of the operational environment?