Navy Continuous Training Environment on Demand Online (NCTEnDO) provides ships the ability to train on-demand by accessing services through a web browser. The ability to access and train to an online library of scenarios does not currently exist; NCTEnDO was developed to fill this gap and to assist with future training readiness. NCTEnDO at its core is a wargaming web server that utilizes several existing components within the Navy Training Baseline (NTB) to provide services to the fleet -- namely Joint Semi-Automated Forces (JSAF), Joint Simulation Bus (JBUS) which utilizes High Level Architecture (HLA), Distributed Interaction Simulation (DIS), and Link -- to work together to enable this new capability.

As successful training can only occur if a ship is ready and capable, NCTEnDO assists with training systems configuration and readiness using automated connectivity tests and a user validated Ops Check test for evaluation of the ship's sensor configuration. Additionally, sailors can select a scenario from a catalog of scenarios and choose to train either independently or with other ships also “online” without the need for shore-based engineering or wargaming support.

Research Challenges and Opportunities:

§ Why is developing this technology a challenge? Rapid prototyping of Science and Technology (S&T) presents many challenges and risks due to the unprecedented nature of the work.

§ What is challenging about it? Information assurance and cybersecurity controls associated with rapid prototype testing on the Research and Development (R&D) network often require long lead times for approval from external organizations and it may negatively impact the product delivery timeline.

§ What opportunities does this provide? On Demand self-directed training in order for shipboard watch teams to maintain their training proficiency and conduct mission rehearsal, as well as provide an automated systems readiness process resulting in a reduction of manpower to set up their systems training configuration and run a training scenario.