

<b>SBIR 06.2 PHASE I - AWARD DETAILS</b>	
<b>ORGANIZATION</b>	STTC
<b>TOPIC NUMBER</b>	A06-212
<b>CONTRACT NUMBER</b>	
<b>YEAR OF AWARD</b>	
<b>AWARD START DATE</b>	
<b>AWARD COMPLETION DATE</b>	
<b>PROPOSAL NUMBER</b>	A062-212-1692
<b>TITLE</b>	Virtual Puckster
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<b>COMPANY</b>	Aptima, Inc. 12 Gill Street, Suite 1400 Woburn MA 01801-6820  Minority Owned: No Veteran Owned: No Number of Employees: 100
<b>KEYWORDS</b>	Operator Control Unit, Computer Generated Forces, Operator Control Unit, Embedded Training, Semi Automated Forces, Puckster, Mission Rehearsal, Soldier-Machine Interface
<b>ABSTRACT</b>	A key challenge for future immersive mission rehearsal and training systems is the control of computer-generated opposing and supporting friendly forces. Currently, large numbers of personnel (or "pucksters") are required to control computer-generated forces (CGFs), especially in simulated urban environments. In deployed settings, particularly for rehearsals at the platoon or company level, pucksters are not generally available in sufficient numbers to provide a useful exercise. Aptima will develop an operator control unit for CGFs that will provide a functionality we call virtual pucksters. Based on the commander's rehearsal or training objectives for his warfighters, the Virtual Puckster system will take orders from a company or platoon commander about what kind of experiences to replicate within a scenario. The system will then apply an appropriate level of intelligent behavior for the CGFs in order to provide this experience. Our approach combines gaming insights for easy-to-control entities with unique technology to embed training objectives in simulation scenarios. The Virtual Puckster system will be developed using a framework and interface based on a domain analysis and will allow a platoon leader or company commander to direct effective mission rehearsal and training exercises with little or no support from additional personnel.
<b>BENEFITS</b>	The Virtual Puckster tool will provide an Operator Control Unit (OCU) for CGFs that a soldier in the field can use with a small hardware footprint. The Virtual Puckster will not require extensive training to use and will be capable of intelligently controlling CGFs, such as the Army's Objective OneSAF (OOS) and/or state-of-the-art game engines supporting Army collective (i.e. team) embedded training.