

SBIR 06.2 PHASE I - AWARD DETAILS	
ORGANIZATION	ARL
TOPIC NUMBER	A06-071
CONTRACT NUMBER	
YEAR OF AWARD	
AWARD START DATE	
AWARD COMPLETION DATE	
PROPOSAL NUMBER	A062-071-1068
TITLE	Awareness and Recognition of Behavioral Threat within Complex Environments: Detection of Intent from Biomotion Signatures
PROJECT MANAGER	Charles J. Cohen (734) 668-2567 ccohen@cybernet.com
COMPANY	Cybernet Systems Corporation 727 Airport Boulevard Ann Arbor MI 48108-1639 Minority Owned: Yes Veteran Owned: No Number of Employees: 38
KEYWORDS	Biomotion, Biometrics, optical sensors, tracking, analysis, gesture, behavior, rugged
ABSTRACT	Cybernet will develop Behavior Detection Modules for the purpose of detecting, detecting, tracking, analyzing, and interpreting biomotion behaviors, including the prediction of hostile actions and alerting the Army to suspicious events. The final unit will be a portable, battery powered, ruggedized, and designed to function optically in extreme light and environmental conditions. Crowd recognition is built off of dynamic based gesture and behavior recognition techniques that enable the system to gather information in an unstructured. A natural language representation of overall behaviors, based on the physics based interpretation of individual behavior characteristics, will be developed. A demonstration system will be created for the Phase I effort, and a full pre-production prototype will be developed for the Phase II effort. During the option period the hardware will be designed. Additional Phase II functionality includes network communication and hardware development.
BENEFITS	The proposed technology will be leveraged into our Gesture Recognition business. Cybernet Systems Corporation has formed Cybernet Interactive to market, license, and sell its patented gesture recognition technology. This new Cybernet technology observes human hand and body motions and interprets gestural signals in order to control electronic devices. Cybernet owns or controls key patents required to implement functional low-cost gesture decoding systems applicable to consumer electronics and industrial products. Cybernet Interactive will use this initial asset base to license the flow of key gesture intellectual property to major consumer electronics manufacturing concerns. Cybernet's comprehensive gesture recognition system enables humans to control a variety of electronic devices by using easy-to-make hand

	<p>motions. The system tracks a person's movements, identifies specific gestures, and initiates commands associated with those gestures. The hardware can be embedded directly into consumer products, and does not require additional modules or maintenance for users to worry about.</p>
--	---