

SBIR 06.2 PHASE I - AWARD DETAILS	
ORGANIZATION	CERDEC
TOPIC NUMBER	A06-112
CONTRACT NUMBER	
YEAR OF AWARD	
AWARD START DATE	
AWARD COMPLETION DATE	
PROPOSAL NUMBER	A062-112-2140
TITLE	Advanced Algorithms for Distributed Fusion (A2DF)
PROJECT MANAGER	Mike Colony (703) 414-5106 mike.colony@dac.us
COMPANY	DECISIVE ANALYTICS Corporation 1235 South Clark Street Suite 400 Arlington VA 22202 Minority Owned: No Veteran Owned: Yes Number of Employees: 150
KEYWORDS	Information Fusion, Distributed Systems, Dual Node Network, Ad-hoc Information Networks, Consistent Tactical Picture, Adjudication Management
ABSTRACT	Over the last several years, the United States Military has been undergoing a radical transition from a traditional "platform-centric" force to one capable of performing in a state-of-the-art "Network-Centric" environment. With this transformation comes the challenge of creating and maintaining a globally consistent tactical picture across a distributed ad-hoc sensor network. In order to meet this challenge, the Decisive Analytics Corporation (DAC) team brings to bear industry leading capabilities, experience, and technology in the areas of information fusion, tracking, distributed and network programming, and intelligent agents to develop and deploy an interlaced information and adjudication network system for real-time low-level information fusion based on the Dual Node Network (DNN) architecture. Through the study of network topologies, data association schema, and state estimation techniques, this effort will result in a point design for an intelligent agent managed infostructure fusion network to support Army Intelligence Surveillance Reconnaissance (ISR) operations in the future battlefield.
BENEFITS	The culmination of all of the research conducted under this Phase I SBIR will be a distributed fusion and adjudication management network design for Army ISR, demonstrated and validated through a simulation testbed. This system will have broad applications within both the military and civilian markets including applications to Army and Joint C4ISR and national security.