



S&T Campaign: Information Sciences

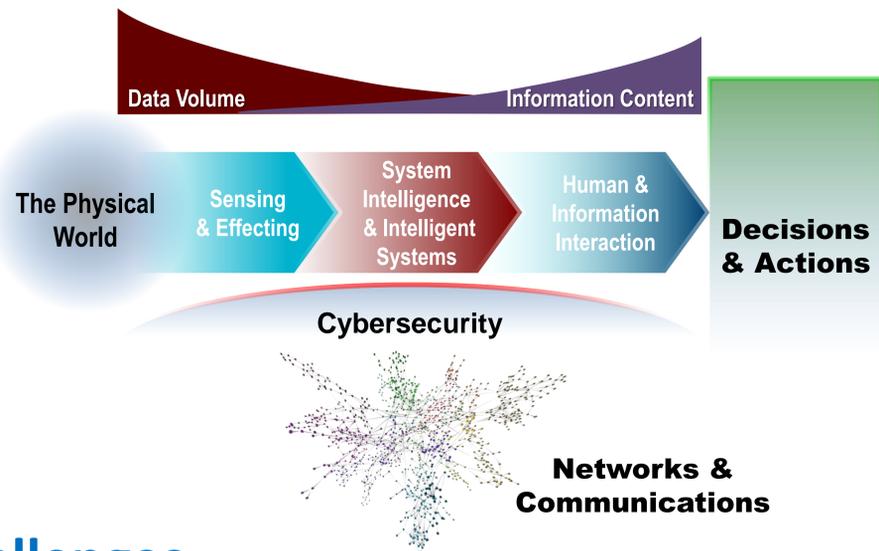
Alexander Kott, (301) 394-1507
alexander.kott1.civ@mail.mil

Research Objective

- Information supremacy to limit tactical surprise and improve situational awareness in complex, contested environments
- Develop the scientific understanding to enable intelligent information systems for the Army
 - Decentralized and distributed information and systems to fully facilitate mission command
 - Greater situational understanding and decision superiority
 - Decisive offensive cyber domain operations at the tactical edge

ARL Facilities & Capabilities Available to Support Collaborative Research

- Network Science Research Lab (NSRL)
- Cognitive Networking, Communications & Protocols Laboratory (CNCPL)
- Quantum Network Protocols and Algorithms Laboratory (QNPAL)
- Cyber Virtual Assured Network (CyberVAN)
- Tactical Information Analytics Facility
- Multilingual Computing Laboratory
- Intelligent Systems Research Center
- Aerosol Research Facility
- Data to Decisions Test Bed
- Mobile Network Modeling Institute
- Sensor Information Test Bed Collaborative Research Environment
- Atmospheric Sciences Center
- Buried Threat Experimentation Facility
- Acoustic Measurement Facility
- E-field Cage



Challenges

- **Understanding and Exploiting Dynamic Phenomenon:**
 - Data generation and use in physical processes
 - Information and intelligent systems
 - Information and humans
 - Information in socio-technical networks
 - Information under cyber attack
- **Communication in Bandwidth Constrained and Denied Environments**
- **Information, Surveillance, Reconnaissance – Decision Making and information Sharing in Hostile Environments:**
 - Tunnels and Subterranean Operations
 - Megacities and Humanitarian Operations
 - Jungles and Triple Canopy
 - Anti-Access and Area Denial (A2AD)

