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OFFICE OF THE DIRECTOR OF NATIONAL INTELLIGENCE



IARPA Overview

March 2017



IARPA Mission and Method

IARPA's mission is to envision and lead high-risk, high-payoff research that delivers innovative technology for future overwhelming intelligence advantage

- **Bring the best minds to bear on our problems**
 - Full and open competition to the greatest possible extent, funding scientists and engineers in academia and industry, through contracts, grants, OTs, and prize challenges
 - World-class, rotational Program Managers
- **Define and execute research programs that:**
 - Have goals that are clear, measureable, ambitious and credible
 - Employ independent and rigorous Test & Evaluation
 - Involve IC partners from start to finish
 - Run from three to five years
 - Publish peer-reviewed results and data, to the greatest possible extent



IARPA's Customers

Central Intelligence Agency

Defense Intelligence Agency

Department of State

National Security Agency

Department of Energy

National Geospatial-Intelligence Agency

Department of the Treasury

National Reconnaissance Office

Drug Enforcement Administration

Army

Federal Bureau of Investigation

Navy

Department of Homeland Security

Air Force

Coast Guard

Marine Corps





IARPA Highlights

“One of the government’s most creative agencies.”

– David Brooks, NYT

- Best known for quantum computing, superconducting computing, forecasting tournaments; but our portfolio is diverse -- math, CS, physics, chemistry, biology, neuroscience, linguistics, political science, cognitive psychology. “Everything from AI to Zika.”
- Research highlights include:
 - White House BRAIN Initiative, National Strategic Computing Initiative
 - Nobel Prize for Physics
 - Science “Breakthrough of the Year”
 - MacArthur “Genius”
 - 2,000+ journal articles
- >70% of completed research transitioned to USG partners





IARPA Research

Anticipatory Intelligence

- ACE (collective forecasts)
- ForeST (S&T intel)
- OSI (OSINT I&W)
- CAUSE (cyber I&W)
- CREATE (crowdsourcing)
- FUSE (S&T intel)
- Hybrid Forecasting (poli I&W)
- Mercury (SIGINT I&W)
- SCITE (insider threats)
- Seedlings and Studies

Analysis

- BEST (facial recog)
- ICARUS (neuroscience)
- KDD (information discovery)
- METAPHOR (linguistics)
- Reynard (virtual worlds)
- SCIL (socio-linguistics)
- SHO (holography)
- Sirius (training)
- Aladdin (video search)
- Babel (speech recognition)
- CORE3D (3D modeling)
- DIVA (surveillance video)
- Finder (geolocate imagery)
- Janus (facial recog)
- KRNS (neuroimaging)
- MATERIAL (translation)
- SHARP (training)
- Seedlings and Studies

Collection

- ATHENA (classified)
- BIC (biosecurity)
- GHO (quiet UAV)
- TRUST (polygraphy)
- FunGCAT (syn bio)
- HFGeo (HF geolocation)
- MAEGLIN (CBRN)
- MOSAIC (pattern of life)
- Odin (biometrics)
- SILMARILS (chem)
- SLiCE (RF tracking)
- UnderWatch (undersea)
- Seedlings and Studies

Operations

- CAT (circuit analysis)
- CSQ (quantum)
- MQCO (quantum)
- QCS (quantum)
- SPAR (privacy)
- STONESOUP (security)
- C3 (cryogenic computing)
- LogiQ (quantum)
- MICrONS (neuromorphic)
- QEO (quantum)
- RAVEN (chip analysis)
- SuperTools (cryogenic)
- TIC (chip security)
- VirtUE (cloud security)
- Seedlings and Studies

Completed

Ongoing



How to engage with IARPA

- **Website:** www.IARPA.gov
 - Reach out to us, especially the IARPA PMs. Contact information on the website.
 - Schedule a visit if you are in the DC area or invite us to visit you.
- **Opportunities to Engage:**
 - **Research Programs**
 - Multi-year research funding opportunities on specific topics
 - Proposers' Days provide opportunities to learn what is coming, and to influence programs
 - **IARPA-Wide BAA “Seedlings”**
 - Typically a 9-12 month study; you can submit your research proposal at any time
 - Strongly encouraged: informal discussion with a PM before proposal submission
 - **Prize Challenges**
 - No proposals required
 - Submit solutions to our problems; if your solutions are the best, you receive a cash prize and bragging rights
 - **Requests for Information (RFIs) and Workshops**
 - Provide input while IARPA is planning new programs