OTAs AND THE NAC - PROVIDING RAPID INNOVATION AND PROTOTYPING
“Armaments” is the ordnance, ammunition, munitions, weapon and sensor systems, and related military materiel, equipment, and components that enable the military to achieve combat and mission effectiveness in all warfare environments: air, land, sea, undersea and space.

...Everything in the “Kill Chain”
**Our Focus:**
- Transition technology to the Warfighter fast
- Promote innovation
- Recruit a community of world-class technologists
- Collaboration between government, industry, and academia
- Remove barriers
- Promote nontraditional defense contractor contributions and participation
- Promote and enable the MIB
- Support the Nation’s equities in RD&A, OTA, and future capabilities

**We value:**
- Collaboration and teamwork
- Innovation, creativity, agility
- Transparency and accountability
- Stewardship of precious resources
- Responsiveness, relevance, and timeliness
- Excellence in leadership and management
- Courage to act boldly, responsibly, and with vision
- Duty and service to the Nation and our Warfighter.
What We Do: Form industry partnerships to collaborate with Government customers to innovate technology/ engineering solutions and rapidly deliver combat capabilities for the Nation’s Warriors.

Network:
887 (T-160, NT-727)
- Large - 196
- Small – 642
- Academic - 31
- Not for Profit - 18
~3,500 active NAC participants

Since 2009:
- Completed 557 Prototype Projects
- 631 Active Prototype Projects
NAC Governance and Management

- NAC is governed by an 11-member board of trustees (Executive Committee)
  - 5 large companies, 5 small companies, 1 University
  - Executive Director and Director of Customer Affairs are ex officio members
  - Seats on board are elected every 3 years
  - No compensation for board members
  - Meets in person four times a year and monthly telecoms
  - Governs to Strategic Plan, SOPs, and CMA

- ExCom Subcommittees ensure compliance
  - Governance and nominating committee (includes ethics)
  - Finance committee
  - Strategic Communications committee

- ED and DCA lead execution
  - Statement of Objectives, labor, and travel agreed to annually

- Retains CMF (ATI) to manage day-to-day execution of OTAs

Chair of the NAC Executive Committee serves as Co-Chair of DOTC Executive Committee
Partnerships with government customers foster innovation and technology/engineering solutions

• “Gold Standard” of Collaboration/Power of the Network to Innovate
  • Link traditional and nontraditional contractors and government customers
  • Collaborate with DOD and Industrial Base during requirements generation, proposal stage and within joint working groups in specific technology areas

• Streamline Development-to-Acquisition with Speed and Flexibility
  • Process designed to minimize cost-to-compete and speed-to-deliver
  • Encourage cooperative and joint funded requirements, provide visibility across DoD Acquisition community

• Onboard Nontraditionals and Remove Barriers to Innovation
  • Provide training, education and mentoring for doing business with the government
  • Link nontraditionals with traditional defense contractors to develop technology, optimize for production and provide a "bridge" between capital and risk
  • Co-sponsor events to focus on technology/engineering/ programmatic threats, challenges, and opportunities.

Rapidly and Effectively delivers combat capabilities for our nation’s warriors
COLLABORATION IS DISCIPLINED AND INTENTIONAL

We promote collaboration through a broad range of tools and virtual and in-person events and engagements.

- Cyber training
- ITAR/EAR compliance
- How to do business with DOTC
- General Membership Meetings
- Collaboration database with member capabilities, interest and gaps
- Annual technology plan support
- Business development training
- Technology roadmapping
- Periodic project reviews
- Data rights
- Proposer workshops
- Assessment and feedback

Join Consortium | Evaluate Technology Gaps | Create Project Teams | Proposal Development | Project Execution
COLLABORATION PORTAL

DRAWS TO SITE
- Blast emails with links
- Social media notifications with links
- Promotion of site at conferences
- Search for opportunities
- News and Events

ATTRIBUTES OF SITE
- Search Engine Optimization
- Section 508 compliant
- Fully responsive to various devices
- Segmented into private and public sites

Event Announcements
Advertises conferences, General Membership Meetings, Industry Days, and other collaboration events

Collaboration Database
Where members learn about one another to form strong project teams.

Documents Library
Shares membership documents, project concept submission forms, white paper templates, and other documents.

RFP Announcements
Distributes solicitations and calls for project concept White Papers. Describes challenges and requirements.

Sisense Project Dashboard
Informs viewers of project awards and status, promotes transition of technology.

How to Join NAC
Potential members, particularly non-traditions, learn how to participate in NAC.

How to Work with DOTC/NAC
Promotes sustainment, introduces DOTC/NAC to potential new Government sponsors.
Single Point Contracting is the use of a Consortium Management Firm to facilitate high volume transactions in the solicitation, award, and execution of Government contracted efforts

**EFFICIENCY:**
Improved process, better communications, and lower costs

**SPEED:**
Faster transition of acquisition process and closer communication with technical community

**CAPACITY:**
Ability to execute thousands of transactions per year

**FLEXIBILITY and EASE OF USE:**
Ability to tailor resources to meet the requirements and guidance of the Government customer (e.g. surge, schedule adjustments, etc.)
SINGLE POINT CONTRACTING (SPC) MODEL

Government Funded (through Administrative Rate)

Single Point Contracting
- Solicitation Preparation/Webinars
- Submission Portals
- Whitepaper & Proposal – Receipt/Compliance Review
- Award Processing
- Project Administration/Close-out
- Milestone/Deliverable Tracking
- Invoice Receipt/Payment
- Technical and Financial Reporting
- Nontraditional Tracking/Reporting

Consortium Funded (through Member Dues/Assessments)

Consortium Management
- Consortium Leadership Support
- Member Training and Mentoring
- Collaboration Portal and Website
- Collaboration Events/Membership Meeting
- Member Application Processing
- Member Database (DD-2345, “good standing” tracking, etc.)
- Dues/Assessment Invoicing and Collection
- Program Status & Financial Reporting
- Conferences/Booth
- Other Support Services

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- Other Support Services
• Ammunition
• Demilitarization
• Directed Energy Warfare
• Enabling Technologies
• Energetic Materials
• Fuzes
• Hypersonics and Hypervelocity
• Information Operations, Cyber Operations and Electronic Warfare
• ISR, Sensors and Sensor Systems

• Joint Enhanced Munitions
• Manufacturing and Process Technology
• Multi-domain Battlespace Management
• Protection, Survivability, and Defense
• Rockets, Missiles and Bombs
• Warheads/Lethal Mechanisms
• Warrior as a System
• Weapon Systems
Collaboration Drives Innovation

Uniting Academia, the Industrial Base, and DOD Developers can deliver significantly greater value to our Nation’s Security.
DOTC Prototypes Being Delivered

<table>
<thead>
<tr>
<th>DOTC TECH OBJECTIVE</th>
<th># OF INITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warheads/Lethal Mechanisms</td>
<td>44</td>
</tr>
<tr>
<td>Enabling Technology</td>
<td>149</td>
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<tr>
<td>Fuzes &amp; Sensors</td>
<td>72</td>
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<tr>
<td>Energetic Materials</td>
<td>65</td>
</tr>
<tr>
<td>Ammunition</td>
<td>66</td>
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<tr>
<td>Demilitarization</td>
<td>10</td>
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<tr>
<td>Joint Insensitive Munitions</td>
<td>5</td>
</tr>
<tr>
<td>Weapon Systems</td>
<td>95</td>
</tr>
<tr>
<td>Protection &amp; Survivability</td>
<td>61</td>
</tr>
<tr>
<td>Rockets, Missiles &amp; Bombs</td>
<td>59</td>
</tr>
<tr>
<td>Directed Energy Warfare</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Active Initiatives:</strong></td>
<td><strong>631</strong></td>
</tr>
</tbody>
</table>

49% of projects awarded directly to Nontraditionals;
99% of projects by Traditionals have Significant Participation by Nontraditionals
$1,118.90 Million Provided in FY20 by the Services…

As of EOM June 2020

- **U.S. Army**: $842.24 Million (75%)
- **OSD**: $88.28 Million (8%)
- **SOCOM**: $19.12 Million (2%)
- **U.S. Air Force**: $52.06 Million (5%)
- **U.S. Navy**: $75.38 Million (6%)
- **U.S. Marine Corps**: $30.99 Million (3%)
52 Projects award at $651M
35 of those to NDC
## AMTC OTA Scope

### Guided Missile
- Target Detection/ Acquisition/Tracking Sensors
- Missile Electronics
- Seekers to Defeat Moving Targets and Air Defense Threats
- Guidance/Control for Improved Precision and Global Positioning System (GPS)-Denied Precisions
- Lethality Mechanisms
- Warheads
- Fuzes
- Payloads
- Radar
- Datalink and Communication
- Materials and Structures
- Power Systems
- Aerodynamics
- Navigation Systems
- Modeling and Simulation
- Energetics
- Component Cyber Security
- Propulsion Systems for Increased Range and Decisive Effects
- Missile Launchers
- Support Equipment

### Manufacturing & Enabling/Disruptive Technologies
- Innovation Enablers
- Additive Manufacturing
- High Energy Creation and Storage Systems
- Directed Energy
- Advanced Materials/Processes
- Advanced Manufacturing Techniques
- Manufacturing Cyber Security
- Modeling and Simulation
- Virtual Prototyping
- Robotics
- Automation
- High Temperature Materials
- Lightweight & Hybrid Materials
- Flexible Electronics
- Reclamation/Repair Technologies
- Open System Architectures for Enhanced Manufacturing Productivity (Digital Manufacturing and Industrial Internet of Things (IIoT))

### Aviation
- Platforms/Materials/Structures
- Power Systems
- Engines/Propulsion Systems
- Drives/Rotors
- Mission Systems
- Avionics/Navigation
- Sensors Networks Data Link and Communication
- Survivability
- Sustainability
- Autonomy
- Manned/Unmanned Teaming (MUMT)
- Unmanned Aerial Vehicle (UAV)
- Component Cyber Security and Aviation Ground Support Equipment/ Systems (AGSE)
OTA CONSORTIUM OPPORTUNITIES

The number of active OTA collaborations is growing and that growth is accelerating.

In 2000, there was 1 Prototype OTA Consortium
Today there are ~ 33

Naval Surface Technology Innovation Consortium (NSTIC) Dahlgren
NAWCAD Consortium NAWC AD
S2MARTS Consortium NSWC Crane
AF Life Cycle Management Center Consortium Initiative (ACI) AFLCMC
Aviation & Missile Technology Consortium (AMTC) AMRDEC
Information Warfare Research Project (IWRP) SPAWAR
Undersea Technology Innovation Consortium (UTIC) NUWC
Sensors, Communications, and Electronics Consortium CERDEC
Cornerstone OSD MIBP
Space Enterprise Consortium (SpEC) SMC
NGA Enterprise Innovation NGA
Propulsion Consortium Initiative (PCI) AFLCMC
Countering Weapons of Mass Destruction Consortium (CWMD) JPEO-CBD
Training and Readiness Accelerator (TReX) PEO STRI
Medical CBRN Defense Consortium (MCDC) JPEO-CBD
Open Systems Architecture Initiative (OSAI) AFRL
Defense Automotive Technologies Consortium (DATC) TARDEC
National Technology Security Accelerator NSTXL DoD
Medical Technology Enterprise Consortium (MTEC) AMRMC
National Spectrum Consortium (NSC) OSD
Consortium for Command, Control, and Communications in Cyberspace (C5) ARDEC
Consortium for Energy, Environment, and Demilitarization (CEED) ARDEC
Border Security Technology Consortium (BSTC) DHS
Vertical Lift Consortium (VLC) OSD
System of Systems Security Consortium (SOSSEC)
National Advanced Mobility Consortium (NAMC) TARDEC
National Armaments Consortium (NAC)/DoD Ordnance Technology Consortium (DOTC) - OSD
Warheads and Energetics Technology Consortium (WETC) ARDEC/IH/ARL – Later renamed DOTC under OSD
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