



Funding Alert from the Michigan SBIR/STTR Assistance Program

[Program link](#)

DoD 2018.1 SBIR Topics DoD 2018.A STTR Topics

Pre-release opens November 29, 2017

Open discussion with TPOCs through January 8, 2018

SITIS Q&A Closes January 31, 2018

Solicitation opens January 8 and proposals due February 7, 2018 at 8:00 p.m. ET

For assistance in searching for appropriate topics and preparing competitive proposals, contact BBCetc at info@bbcetc.com or 734-930-9741. And be sure to check out our [recorded DoD webinars](#).

DOD SBIR 2018.1 and STTR 2018.A Topics

[Solicitation link](#)

Army SBIR

A18-001	Air Platform Passive Occupant Protection
A18-002	Rate Sampling High-Speed Video Sensors for Advanced Image processing and Super Resolution
A18-003	Optical Backbone Networks for Army Aviation
A18-004	Data Refinement and Reduction for Aviation Sustainment
A18-005	Dynamic Near-Field Radar Target Modeling in Scene Generator Systems
A18-006	Automatic Target Recognition of Personnel and Vehicles from an Unmanned Aerial System Using Learning Algorithms
A18-007	Novel Gun Hardened Energy Management System
A18-008	Development of Methods and concepts for Reducing Munitions Vulnerability to EMI and EMP Batteries for Munitions and Weapon Platform
A18-009	Data Converter Systems on Chip
A18-010	Neutralize Enemy Drones
A18-011	Covalent organic frameworks based nanoporous structures for explosive remediation
A18-012	Bioinspired hierarchical design of multifunctional, adaptive materials for hardened munitions
A18-013	Novel Combustible Cartridge Cases for Next Generation Small Arms Ammunition
A18-014	Non-GPS Local Position and Orientation Coordinate Referencing System
A18-015	Transforming 3D Reconnaissance Data into Geospatial Intelligence

<u>A18-016</u>	<u>Production of energy dense synthetic chemicals from biomass upgrade</u>
<u>A18-017</u>	<u>Same Frequency Simultaneous Transmit and Receive Radio for Military and Commercial Applications</u>
<u>A18-018</u>	<u>Scalable, Power Efficient, Programmable, Wide Dynamic Range, Multi-Field - Programmable-Array Compatible Readout Integrated Circuit for Infrared Range Applications</u>
<u>A18-019</u>	<u>Development of a Turbocharger for Small Aviation Diesel Engines</u>
<u>A18-020</u>	<u>Additive Manufacturing for RF Materials and Antennas</u>
<u>A18-021</u>	<u>Electric machines and hybrid drives for vertical takeoff and landing (VTOL) tactical air vehicles</u>
<u>A18-022</u>	<u>Small form-factor, Relocatable, Unattended Ground Sensor</u>
<u>A18-023</u>	<u>Controlled Plasma Reactor for Bulk Production of Extended Solid Materials</u>
<u>A18-024</u>	<u>Simulated Cyber Opposing Force (OPFOR) for Live Virtual Constructive & Gaming (LVC&G) Training Simulations</u>
<u>A18-025</u>	<u>An Adaptively Covert, High Capacity RF Communications / Control Link</u>
<u>A18-026</u>	<u>Development of a Robust and Reliable Turbocharger Speed Sensor</u>
<u>A18-027</u>	<u>Liquid Ammonia Reserve Batteries for Electronic Fuzing</u>
<u>A18-028</u>	<u>Munition Maneuver Technologies</u>
<u>A18-029</u>	<u>Advanced Direct Wideband Analog to Digital Conversion for Radar</u>
<u>A18-030</u>	<u>Data tools for the Army Basic Training Environment</u>
<u>A18-031</u>	<u>Improved method for High Strength Magnesium Alloys in the as-cast Condition</u>
<u>A18-032</u>	<u>Dynamic Collaborative Visualization Ecosystem (DynaCoVE)</u>
<u>A18-033</u>	<u>Multi-Component, Co-Deposition of Patterned Films and Nanoparticles via Atmospheric Pressure Plasma CVD</u>
<u>A18-034</u>	<u>Machine Learning Enabled Near-Real-Time Situational Response for Mechanical Systems</u>
<u>A18-035</u>	<u>Detection and localization of GPS spoofing signal emitters</u>
<u>A18-036</u>	<u>Increased Capacity Retention of Silicon Anodes for Lithium Batteries</u>
<u>A18-037</u>	<u>Machine Learning Techniques for Tactical Mission Command</u>
<u>A18-038</u>	<u>Emulated Long Term Evolution (LTE) Analysis Environment</u>

<u>A18-039</u>	<u>High Aspect Ratio Mesa Delineation of Antimonide Based Infrared Focal Plane Arrays for Improved Quantum Efficiency and Modulation Transfer Function (MTF)</u>
<u>A18-040</u>	<u>Low-cost Imager for Heavily Degraded Visual Environments</u>
<u>A18-041</u>	<u>On-the-Move Spatio-Temporal Processing and Exploitation for Full Motion EO/IR Sensor</u>
<u>A18-042</u>	<u>Helmet-Mounted Microbolometer Hostile Fire Sensor</u>
<u>A18-043</u>	<u>Real-time Scene Labeling and Passive Obstacle Avoidance in Infrared Video</u>
<u>A18-044</u>	<u>A Resource-aware metadata-based Information Sharing: Achieving Scalability and Vol in future autonomous networks</u>
<u>A18-045</u>	<u>Improved Communications Scheduling in Contested Environments</u>
<u>A18-046</u>	<u>Radar Image-Based Navigation</u>
<u>A18-047</u>	<u>Development of Tools to Derive High Level Language Code Associated with Executable Software</u>
<u>A18-048</u>	<u>Alternate GPS Anti-Jam Technology</u>
<u>A18-049</u>	<u>Predictive Visualizations to Aid Rapid Decision Making</u>
<u>A18-050</u>	<u>Approaches to Counter Machine Learning</u>
<u>A18-051</u>	<u>Coordination and Cooperation in Ad-Hoc Networks in Congested and Contested Environments</u>
<u>A18-052</u>	<u>High Accuracy Laser Beam Rider Detection</u>
<u>A18-053</u>	<u>Protocols for a Tactical Full-Duplex Radio in Support of EW/Communications</u>
<u>A18-054</u>	<u>Data-Driven Authorship Feature Extraction and Comparative Analysis using Machine Learning</u>
<u>A18-055</u>	<u>Novel Flame Inhibiting Materials to Increase Red Phosphorus Obscurant Safety</u>
<u>A18-056</u>	<u>Metal Composite Flakes Containing Novel 2D Materials for Advanced Obscuration</u>
<u>A18-057</u>	<u>Solid State UV Raman Trace Explosive Detector</u>
<u>A18-058</u>	<u>New Instrumentation for the Characterization of Emerging Photocatalytic Materials</u>
<u>A18-059</u>	<u>Value of Information Tool to Support Military Data Acquisition</u>
<u>A18-060</u>	<u>Patient Transportable Tactical Combat Casualty Care Documentation Capability</u>
<u>A18-061</u>	<u>Medical Sensors Powered by Human Generated Energy</u>
<u>A18-062</u>	<u>Intravenous Technologies for Pre-hospital Hemorrhage Control and Resuscitation</u>

<u>A18-063</u>	<u>Intelligent Diagnostic Trauma Algorithms for a Ruggedized Autonomous Combat Casualty Care Capability</u>
<u>A18-064</u>	<u>Intelligent Trauma Intervention Algorithms for a Ruggedized Autonomous Combat Casualty Care Capability</u>
<u>A18-065</u>	<u>Smart Patient Monitoring Algorithms for Ruggedized Autonomous Combat Casualty Care Capability</u>
<u>A18-067</u>	<u>Ultra-flexible high efficiency photovoltaics</u>
<u>A18-072</u>	<u>Li-Fi Network for Tactical Shelters</u>
<u>A18-075</u>	<u>Rapidly Deployable Protection of Small Unmanned Aerial Systems (SUAS)</u>
<u>A18-076</u>	<u>Launch, Charge, and Recovery of Small Unmanned Aerial Systems (SUAS)</u>
<u>A18-077</u>	<u>Innovative Marking Technology for Hand Grenades</u>
<u>A18-078</u>	<u>Advanced Artillery & Mortar personnel Blast Gauge System</u>
<u>A18-079</u>	<u>Novel Reserve Power System with High-Power On-Demand Capability</u>
<u>A18-080</u>	<u>Common Engine Software Interface (FADEC) Component</u>
<u>A18-081</u>	<u>Alternative Manufacturing Technologies for Bridging and Structural Applications</u>
<u>A18-082</u>	<u>Development of Non-Decade Inductive Voltage Divider Automatic Test Equipment</u>
<u>A18-083</u>	<u>Low-cost lightweight track pins for tracked vehicles</u>
<u>A18-084</u>	<u>Spall Liner Energy Attenuating (EA) Material Development</u>
<u>A18-085</u>	<u>Affordable Electric Unmanned Ground Vehicle Force Protection Sensor System</u>
<u>A18-086</u>	<u>Substrate materials to grow single crystal quality Magnetic films by Liquid Phase Epitaxy (LPE)</u>
<u>A18-087</u>	<u>Ultra-Wideband Ultra-Low Loss Radome for Very Large Antenna Applications</u>
<u>A18-088</u>	<u>Navigation-Grade Micro-Electro-Mechanical-System (MEMS) Accelerometer Technologies</u>
<u>A18-089</u>	<u>Next Generation Aviation Helmet Mounted Display</u>
<u>A18-090</u>	<u>Powder Metal Gun Barrel</u>
<u>A18-091</u>	<u>Non Pyro Battlefield Effects Replication</u>
<u>A18-092</u>	<u>Scenario-based Training Content Discovery, and Adaptive Recommendation</u>
<u>A18-093</u>	<u>Reusable Alternatives for Small Arms Signature Simulation for Live Training</u>
<u>A18-094</u>	<u>Compact High Efficiency High Energy Laser</u>
<u>A18-095</u>	<u>Real Time Automated Multi-Sensor Target Classification Algorithm</u>

A18-096	Dual-Voltage Lithium-Ion 6T Batteries for Low-voltage and High-voltage Applications
A18-097	Rapid Test Method to Quantify Corrosion Inhibitor Lubricity Improver Fuel Additive
A18-098	Preview Sensing Suspension
A18-099	High Temperature Wear Coatings for Improving High Output Military Diesel Engine Performance and Durability
A18-100	High Voltage Wide-Bandgap Motor Controller
A18-101	Non-Pneumatic Tire for On-Highway and Off-Road Mobility
A18-102	Rapid, Transient, CFD-Based Solver for Human and Vehicle Thermal Signature Prediction
A18-103	Wide bandgap, bi-directional, high voltage DC-DC converter
A18-104	Scalable, Non-Traditional Additive Manufacturing printing of inexpensive metallic structures
A18-105	Development of a Modular, Open-Architecture, Open Source, Integrated, and Validated Mobility Prediction Capability
A18-108	Bridge Launch Linkage Assembly

Air Force SBIR

AF181-001	Integration of Optical and Radio Frequency (RF) Softwares into End-to-End Analysis Framework
AF181-002	Nanosecond Electrical Pulser
AF181-003	Biodynamic Acceleration and Angular Response During Fixed Wing Aircraft Ejection
AF181-004	Superconducting THz sources and receivers
AF181-005	Effects of sustained vibration and high temperature environments on polymer bonded composite materials
AF181-006	Chip-scale Inertial Measurement System
AF181-007	Missile Motor Cutting Technology
AF181-008	Externally Mounted Wide-range Saturated Steam Flow Meter
AF181-009	Automated ICBM wall thickness measurements
AF181-010	Quick and reliable hydrogen embrittlement testing
AF181-011	Chilled Brine Separation
AF181-012	Free Flight Hypersonic Erosion and Ablation Measurement System
AF181-013	Extremely Small Balance Technology

<u>AF181-014</u>	<u>Wave Isolation</u>
<u>AF181-015</u>	<u>Computational Geometry Kernel Support</u>
<u>AF181-016</u>	<u>Virtual Reality for Test Cell Presence</u>
<u>AF181-017</u>	<u>DE Optical Turbulence Collection Sensor</u>
<u>AF181-018</u>	<u>Rechargeable Thermal Batteries for Airborne Systems</u>
<u>AF181-019</u>	<u>Novel Battle Damage Assessment Using Sensor Networks</u>
<u>AF181-020</u>	<u>Rapid construction of 3-D Satellite models from limited amounts of 2-D imagery</u>
<u>AF181-021</u>	<u>Algorithms & networking protocols for secure, wireless high-frequency communications systems</u>
<u>AF181-022</u>	<u>High-Frequency Ionospheric Visualization Environment (High-FIVE)</u>
<u>AF181-023</u>	<u>Optimized Personal Area Network (PAN) for Battlefield Airmen</u>
<u>AF181-024</u>	<u>Robust, Adaptive Machine Learning (RAM)</u>
<u>AF181-025</u>	<u>Evidence-based Certification Analysis and Planning in Acquisition</u>
<u>AF181-026</u>	<u>Novel Concepts for Combustion Instability Reduction</u>
<u>AF181-027</u>	<u>Real Time Thermal Imaging Capability for Propulsion Systems</u>
<u>AF181-028</u>	<u>Improved Turbochargers for Small IC Engines</u>
<u>AF181-029</u>	<u>Intelligent Robust Controller for Hybrid Electric UAVs</u>
<u>AF181-030</u>	<u>Novel Engine Cycles for Booster Stage Liquid Rocket Engines</u>
<u>AF181-031</u>	<u>Interpropellant Shaft Seal Solutions for Advanced Upper Stage Propulsion Systems</u>
<u>AF181-032</u>	<u>Direct Injection Systems for Small UAV Engines</u>
<u>AF181-033</u>	<u>Innovative Turbine Engine Propulsion Solutions for Class 3 Unmanned Aerial Vehicles</u>
<u>AF181-034</u>	<u>Advanced Material/Sealing Concepts for Small Heavy-Fuel, Remotely Piloted Aircraft (RPA's) Propulsion Systems</u>
<u>AF181-035</u>	<u>High Durability, Light Weight Bearings for Small Turbine Engines</u>
<u>AF181-036</u>	<u>Propellant Management Device for Monopropellant</u>
<u>AF181-037</u>	<u>Innovative Interconnectivity and Scheduling of Smart Sensors and Actuators for Reliable Propulsion Systems Controls</u>
<u>AF181-038</u>	<u>Predictive Missile Sustainment and Reliability Capability</u>
<u>AF181-039</u>	<u>EGS Architecture Support and Data Integration for Enhanced SSA</u>

<u>AF181-040</u>	<u>High Performance Radiation Hardened Solar Power</u>
<u>AF181-041</u>	<u>Next Generation Satellite Transponder using Low-Cost Adaptive HPA Linearization Technologies</u>
<u>AF181-042</u>	<u>Microstructural Treatment of Munitions Cases to Improve Performance</u>
<u>AF181-043</u>	<u>Innovative Solutions for Multi-Rotor Flight Endurance</u>
<u>AF181-044</u>	<u>Fluid Resistant, Electrically Resistive Foam</u>
<u>AF181-045</u>	<u>Corrosion Nondestructive Evaluation (NDE) in Confined Access Areas</u>
<u>AF181-046</u>	<u>Safe, Large-Format Lithium-ion (Li-ion) Batteries for ICBMs</u>
<u>AF181-047</u>	<u>Nondestructive Evaluation (NDE)-based Condition Assessment of Sub-surface Concrete with Limited Access</u>
<u>AF181-048</u>	<u>Structural Nuclear Effect Mitigation of Composite Aeroshells for Munitions for Air Platforms and Cruise Missile Systems</u>
<u>AF181-049</u>	<u>Interface Inspection Method for Thermal Spray Coatings</u>
<u>AF181-050</u>	<u>Assisted Data Analysis for Portable Nondestructive Inspection</u>
<u>AF181-051</u>	<u>Efficient 3-D Finite Element Process Modeling to Enable Linear Friction Welding of Aerospace Components</u>
<u>AF181-052</u>	<u>Efficient Evaluation of Fiber Coatings</u>
<u>AF181-053</u>	<u>Compact UHF/VHF Antenna</u>
<u>AF181-054</u>	<u>Advanced Machining of Aerospace Materials</u>
<u>AF181-055</u>	<u>Broadband Fibers Optic Components for DoD Applications</u>
<u>AF181-056</u>	<u>Flight line Portable Fuel Purifier</u>
<u>AF181-057</u>	<u>Rapid Manufacturing of Tooling for On-Aircraft Composite Scarf Repairs</u>
<u>AF181-058</u>	<u>Rapid, Low-cost Material Qualification for High-Cycle Durability of Blades in Short-Life Turbine Engines</u>
<u>AF181-059</u>	<u>Low temperature copper inks for low-cost flexible hybrid electronics manufacturing</u>
<u>AF181-060</u>	<u>Analytical Tool for Assessing Short Fiber Composite Structural Behavior</u>
<u>AF181-061</u>	<u>Robust, Light-Weight Bistatic Weather Radar</u>
<u>AF181-062</u>	<u>Building Die Extracted/Repackaged (DER)-Optical Hybrid Integrated Circuits (ICs) to Replace Passive Devices and Obsolete Packaged ICs in a Line Replaceable Unit (LRU) to Enhance Performance, Reliability, and Service Life</u>
<u>AF181-063</u>	<u>Adaptable Interfaces for M&S Tools</u>
<u>AF181-064</u>	<u>SINGULAR OPTICS COMMUNICATIONS METHOD FOR DISADVANTAGED USERS</u>

Air Force STTR

<u>AF18A-T001</u>	<u>Detection of Radio Frequency and Magnetic Field Bioeffects in Living Cells</u>
<u>AF18A-T002</u>	<u>Autonomous Self-Calibration of Sensing Systems and Instrumentation</u>
<u>AF18A-T003</u>	<u>Integrated ultra-high performance electro-optic modulators</u>
<u>AF18A-T004</u>	<u>Multi-Physics Models for Parachute Deployment and Braking</u>
<u>AF18A-T005</u>	<u>Metasurface Photonics</u>
<u>AF18A-T006</u>	<u>Volumetric Wavefront Sensing for the Characterization of Distributed-Volume Aberrations</u>
<u>AF18A-T007</u>	<u>Full Mueller Matrix Characterization of Imaged Samples using Digital Holography</u>
<u>AF18A-T008</u>	<u>Stable High Bandwidth AO Control with physical DM constraints</u>
<u>AF18A-T009</u>	<u>Modern Manufacturing for Liquid Rocket Engine Components</u>
<u>AF18A-T010</u>	<u>Reconfigurable / cognitive optical communications</u>
<u>AF18A-T011</u>	<u>Passive Cathode Device for Space Plasma Applications</u>
<u>AF18A-T012</u>	<u>Damage Morphology for Advanced Concretes</u>
<u>AF18A-T013</u>	<u>High Temperature Materials for Hypersonic Radomes and Antennas</u>
<u>AF18A-T014</u>	<u>Application of Hierarchical Memory Models to Automatic Target Recognition Modeling and Simulation</u>
<u>AF18A-T015</u>	<u>Radio Frequency (RF) Filter Tuning Element</u>
<u>AF18A-T016</u>	<u>High damage threshold antireflective treatment for infrared nonlinear materials</u>
<u>AF18A-T017</u>	<u>Next Generation Infrared Scene Projector for Testing MWIR Systems</u>

CBD (Chemical and Biological Defense Program) SBIR

<u>CBD181-001</u>	<u>3D Printed Manufacturing of Respiratory Protection</u>
<u>CBD181-002</u>	<u>Innovative Respiratory Protection for Low Threat Environments</u>
<u>CBD181-003</u>	<u>Durable Stretch Barrier Materials</u>
<u>CBD181-004</u>	<u>Extended Release Formulations for Fielded Nerve Agent Pretreatment</u>
<u>CBD181-005</u>	<u>Dual Formulation of Atropine/Scopolamine with Enhanced Stability</u>
<u>CBD181-006</u>	<u>Field Portable Mass Spectrometry for Small Molecule Drugs in Clinical Samples</u>
<u>CBD181-007</u>	<u>Bi-specific Antibodies Targeting Disease Caused by Encephalitic Alphaviruses</u>

CBD (Chemical and Biological Defense Program) STTR

<u>CBD18A-001</u>	<u>Circulating Diagnostic Markers of Infectious Disease</u>
<u>CBD18A-002</u>	<u>Marburg Virus Prophylactic Medical Countermeasure</u>

DHA (Defense Health Agency) SBIR

<u>DHA18-001</u>	<u>In-Ear Monitoring for Hearing Protection Compliance and Noise Hazard Exposure</u>
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DHA18-002	Broad Spectrum Envenomation Treatment
DHA18-003	Chronological Sweat Sensor Patch for Real-Time Human Molecular Biomarker Monitoring
DHA18-004	Neural Stem Cell Therapy for Severe Traumatic Brain Injury
DHA18-005	Nanosecond Electrical Pulse (nsEP) Pain Inhibition Device
DHA18-006	In-line, Non-invasive, Non-destructive Cell Monitoring in Dynamically Growing Cultures
DHA18-007	Compact Speaker Array for Clinical Testing of Ear-level Devices

DHA (Defense Health Agency) STTR

DHA18A-001	Brain Targeting Nanoparticle for Drug Delivery in Traumatic Brain Injury
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DLA (Defense Logistics Agency) - SBIR

DLA181-001	Augmented Reality (AR) within the Defense Logistics Agency (DLA)
DLA181-002	Additive Manufacturing Process Monitoring and Control Technologies
DLA181-003	Reverse Engineering Technical Data Packages for Development of Alternate Sources of Supply for DLA Nuclear Enterprise Support Office (NESO) NSN: 3950-00-869-7362
DLA181-004	Increase Competition through Small Business Source Approval Request (SAR) for DLA Nuclear Enterprise Support Office (NESO) NSN: 6620-01-297-5576
DLA181-005	Increase Competition through Small Business Source Approval Request (SAR) for DLA Nuclear Enterprise Support Office (NESO) NSN: 8010-01-266-6576
DLA181-006	Increase Competition through Small Business Source Approval Request (SAR) for DLA Nuclear Enterprise Support Office (NESO) NSN: 1095-00-488-0829
DLA181-007	Increase Competition through Small Business Source Approval Request (SAR) for DLA Nuclear Enterprise Support Office (NESO) NSN: 5330-01-128-7088
DLA181-008	Increase Competition through Small Business Source Approval Request (SAR) for DLA Nuclear Enterprise Support Office (NESO) NSNs: 4720-01-440-7526 and 5915-00-205-8087
DLA181-009	Increase Competition through Small Business Source Approval Request (SAR) for DLA Nuclear Enterprise Support Office (NESO) NSNs: 5330-01-239-8862, 5330-01-239-8863, 5330-01-239-8864, and 5330-01-239-8865

DLA (Defense Logistics Agency) - STTR

DLA18A-001	Additive Manufacturing Sensor Fusion Technologies for Process Monitoring and Control.
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Navy SBIR

<u>N181-001</u>	<u>Extended Service Life of Transparent Armor</u>
<u>N181-002</u>	<u>Flexible LED Lighting</u>
<u>N181-003</u>	<u>USMC Ground Radio LPI/LPD Interference Mitigation Active Communication Antenna</u>
<u>N181-004</u>	<u>Application of a Low-Cost, Flame-Resistant Treatment to the Marine Corps Combat Utility Uniform that Provides Durable, Flame-Resistant Properties</u>
<u>N181-005</u>	<u>Power Factor Correction</u>
<u>N181-006</u>	<u>S-Band Transmit/Receive Module for Airborne Navy Radars</u>
<u>N181-007</u>	<u>Robust Communications Relay with Distributed Airborne Reliable Wide-Area Interoperable Network (DARWIN) for Manned-Unmanned Teaming in a Spectrum Denied Environment</u>
<u>N181-008</u>	<u>Maritime Lethality Analysis Toolset</u>
<u>N181-009</u>	<u>Open Architecture Tools to Describe Automatic Test Equipment (ATE) Capabilities</u>
<u>N181-010</u>	<u>Rotorcraft Integrated Electro-Optic/Infrared (EO/IR) Plumes and Effects Signature Modeling</u>
<u>N181-011</u>	<u>Fiber-optic Beam Homogenizer</u>
<u>N181-012</u>	<u>Low Cost Persistent Environmental Measurement System</u>
<u>N181-013</u>	<u>Compact, Lightweight, Power-Dense, Integrated Fuel Cell System</u>
<u>N181-014</u>	<u>Controlled Payload Release Mechanism for Pyrophoric Air Expendable Decoy</u>
<u>N181-015</u>	<u>Interactive 4D Overlay Tool for Joint Mission Planning System</u>
<u>N181-016</u>	<u>Two-Dimensional Surface Emitting Mid-Wave Infrared (MWIR) Quantum Cascade Laser Arrays for High-Power Applications</u>
<u>N181-017</u>	<u>Real-time Turbulence Recognition and Reporting System for Unmanned Systems</u>
<u>N181-018</u>	<u>Develop and Apply Artificial Intelligence and Machine Learning Techniques for Next-Generation Mission Planning</u>
<u>N181-019</u>	<u>Innovative Material (and Application Method) for a Hydrophobic/Oleophobic Coating to an Aluminum-Bodied Heat Exchanger</u>
<u>N181-020</u>	<u>High-Power, Low-Frequency, Textured PMN-PT Underwater Projector</u>
<u>N181-021</u>	<u>Innovative Ultra Violet and Ozone Resistant Material for Hydraulic Clamp Cushions</u>
<u>N181-022</u>	<u>Laser Periscope Detection</u>

<u>N181-023</u>	<u>Multispectral/Hyperspectral Imaging System for Small Boat Detection under Wake Clusters</u>
<u>N181-024</u>	<u>Future Airborne Capability Environment (FACE) Compliant ALE-47 Operational Flight Program Software Application</u>
<u>N181-025</u>	<u>AN/ALE-47(V) Software Test Environment Automated Scenario and Mission Data File Test Generator Software</u>
<u>N181-026</u>	<u>Data Science Driven Aircrew Performance Measurement and Proficiency System</u>
<u>N181-027</u>	<u>Free Space Optical (FSO) Communications in a Radio Frequency (RF) Denied Environment</u>
<u>N181-028</u>	<u>Precision Machining of Composite Structures</u>
<u>N181-029</u>	<u>Maritime Target Automatic Target Recognition from Inverse Synthetic Aperture Radar (ISAR) Utilizing Machine Learning</u>
<u>N181-030</u>	<u>Compiler Monitor System (CMS-2Y) Software Language Operation in X86 Linux Computing Environments</u>
<u>N181-031</u>	<u>AEGIS Combat System Optimization through Advanced Modeling of Software-Only Changes</u>
<u>N181-032</u>	<u>Electroactive Polymer Actuators for Unmanned Undersea and Surface Vehicles</u>
<u>N181-033</u>	<u>Virtual Assistant for Combat System Console Operators Utilizing Artificial Intelligence Algorithms</u>
<u>N181-034</u>	<u>Surface Ship Fat Line Towed Array Cut-Resistant Vibration Isolation Module (VIM) Hose</u>
<u>N181-035</u>	<u>Network Traffic Analysis for Cybersecurity for Navy Industrial Control Systems</u>
<u>N181-036</u>	<u>Hydrodynamic Control of a Towed Vertical Array</u>
<u>N181-037</u>	<u>High Performance, Small Size, Weight, and Power (SWaP) Clock for Unmanned Aerial Vehicles (UAVs)</u>
<u>N181-038</u>	<u>Gaming for Conceptual Network Learning for Naval Air Defense</u>
<u>N181-039</u>	<u>Common Unmanned Underwater Vehicle (UUV) Stern Launch and Recovery System</u>
<u>N181-040</u>	<u>Submarine Shallow Water Rescue Capability</u>
<u>N181-041</u>	<u>Improved Capacity, High Efficiency Cryogenic Cooling System</u>
<u>N181-042</u>	<u>Ruggedized High Speed Optical Fiber Network Connector for Next Generation Submarine Electronic Warfare (EW) Systems</u>
<u>N181-043</u>	<u>Quantitative Cybersecurity Risk Assessment (QCRA)</u>
<u>N181-044</u>	<u>Near the Ocean Surface Imaging through Atmospheric Turbulence</u>

<u>N181-045</u>	<u>High Bandwidth Towed Array Modem</u>
<u>N181-046</u>	<u>Tracking Algorithm(s) for Determining Highest Probability Predicted Intercept Points(s) in the AEGIS Combat System</u>
<u>N181-047</u>	<u>Decompression of Atmosphere Onboard Distressed Submarine</u>
<u>N181-048</u>	<u>Ultra-Low Ripple 1000 Volt Direct Current Battery Charger</u>
<u>N181-049</u>	<u>Advanced Analyzers for Monitoring Submarine Atmosphere</u>
<u>N181-050</u>	<u>Tunable Optical Filters for Radio Frequency (RF) Photonic Signal Distribution Systems</u>
<u>N181-051</u>	<u>Unified Cybersecurity System Modeling of Naval Control Systems</u>
<u>N181-052</u>	<u>Sea Wave Clutter Modeling for Enhanced AEGIS Combat System (ACS) Simulation</u>
<u>N181-053</u>	<u>Leveraging a Robust Data Architecture for Rapid Combat System Integration, Testing, and Certification</u>
<u>N181-054</u>	<u>High Performance Compact Medium-Power Long-Wave Infrared (LWIR) Laser System for Shipboard Deployment</u>
<u>N181-055</u>	<u>Scheduling Algorithm for Efficient and Effective Predicted Intercept Points (PIPs) for Multiple Targets</u>
<u>N181-056</u>	<u>Adaptable Boat Launch and Recovery System</u>
<u>N181-057</u>	<u>Physics-Based Improvements for Continuous Active Sonar (CAS)</u>
<u>N181-058</u>	<u>Next Generation Buoyancy Material</u>
<u>N181-059</u>	<u>Surface to Air Missile Interceptor Debris Model for Anti-Ship Cruise Missile (ASCM) Defense</u>
<u>N181-060</u>	<u>Ablative Material for Missile Launchers</u>
<u>N181-061</u>	<u>Integration of Autonomous Unmanned Systems in Theater Undersea Warfare Mission Planning</u>
<u>N181-062</u>	<u>Efficient Compact Diode-Pumped High-Power Fiber Coupled Laser Modules</u>
<u>N181-063</u>	<u>Mast Antenna Coupler</u>
<u>N181-064</u>	<u>Scalable Directional Antenna for Unmanned Aerial Vehicles (UAVs)</u>
<u>N181-065</u>	<u>Compact, Lightweight, and Affordable Mid-Wave Infrared (MWIR) Camera for Shipboard Deployment</u>
<u>N181-066</u>	<u>Cognitive Maritime Imaging</u>
<u>N181-067</u>	<u>Real-time Compression for Acoustic Array Time-Domain Data</u>

<u>N181-068</u>	<u>Pattern Recognition Algorithms for Detection of Latent Errors in Combat System Software</u>
<u>N181-069</u>	<u>Compact, Flexible Integrated Power Node Center for Direct Current Distribution</u>
<u>N181-070</u>	<u>Data Transmission using Visible Light Communication (VLC) for Undersea Platforms</u>
<u>N181-071</u>	<u>Eliminating Adverse Impact of Copper Contamination in Jet Propellant 5 (JP-5) Fuel</u>
<u>N181-072</u>	<u>Lightweight Gearbox for Air Cushion Vehicles</u>
<u>N181-073</u>	<u>Passive Surf Zone Minefield Detection (PSZMD) on the Coastal Battlefield Reconnaissance and Analysis (COBRA) system</u>
<u>N181-074</u>	<u>Field Programmability System (FPS) Modernization for Mark 39 Expendable Mobile Anti-Submarine Warfare (ASW) Training Target (EMATT)</u>
<u>N181-075</u>	<u>Navy-Electronic Battle Damage Indicator (eBDI) Tool for Non-Kinetic High-Power Radio-Frequency (RF) Engagements</u>
<u>N181-076</u>	<u>Multi-media Knowledge Capture (MKC) Engine</u>
<u>N181-077</u>	<u>Surf Zone Simulation for Autonomous Amphibious Vehicles</u>
<u>N181-078</u>	<u>Novel Thermal Management Materials Technologies for High Power Naval Systems</u>
<u>N181-079</u>	<u>Learning Performance Models and Tactical Knowledge for Continuous Mission Planning</u>
<u>N181-080</u>	<u>High Energy Fiber Laser Components</u>
<u>N181-081</u>	<u>Photolithographically Defined Optical Cooling Devices for Electronic Cooling Plane Applications</u>
<u>N181-082</u>	<u>Multi-Dimensional Ambient Noise Model</u>
<u>N181-083</u>	<u>Warfighting Chess Games and Pieces</u>
<u>N181-084</u>	<u>Auditory Situation Awareness Training Tool</u>
<u>N181-085</u>	<u>Feed-Forward Controls for Laser Powder Bed Fusion Based Metal Additive Manufacturing</u>
<u>N181-086</u>	<u>Cross-Domain Goggles with an Integrated, Illuminated Display</u>
<u>N181-087</u>	<u>Tunable Radio Frequency Absorptive Coating/Material</u>
<u>N181-088</u>	<u>High Dynamic Range Multi-Carrier Amplifier (HDR MCA)</u>
<u>N181-089</u>	<u>Multi-Domain Data Management (MDDM)</u>
<u>N181-090</u>	<u>Rapidly Integrated Tactical Communications Payload</u>

<u>N181-091</u>	<u>Long-Duration Proportional Thruster for Navy Hot-Gas Control System</u>
<u>N181-092</u>	<u>Shipboard Cross Domain Secure Solutions</u>
<u>N181-093</u>	<u>Wireless Sensor Technology for Use in Missile System Applications</u>
<u>N181-094</u>	<u>Scalable Design for Manufacturing, Modeling Optimization for Additive Manufacturing</u>

Navy STTR

<u>N18A-T001</u>	<u>Cooling System for Laser Enclosure</u>
<u>N18A-T002</u>	<u>Detection Rate Improvements Through Understanding and Modeling Ocean Variability</u>
<u>N18A-T003</u>	<u>Repurposing Computational Analyses of Tactics for Training Assessments</u>
<u>N18A-T004</u>	<u>Next-Generation, Power-Electronics Materials for Naval Aviation Applications</u>
<u>N18A-T005</u>	<u>Innovative Processing Techniques for Additive Manufacture of 7000 Series Aluminum Alloy Components</u>
<u>N18A-T006</u>	<u>Non-Destructive Concrete Interrogator and Strength of Materials Correlator</u>
<u>N18A-T007</u>	<u>Detect and Avoid Certification Environment for Unmanned Air Vehicles (UAVs)</u>
<u>N18A-T008</u>	<u>Additive Manufacturing for Naval Aviation Battery Applications</u>
<u>N18A-T009</u>	<u>Situational Awareness for Mission Critical Ship Systems</u>
<u>N18A-T010</u>	<u>In Situ Marine-Grade Aluminum Alloy Characterization for Sensitization Resistance and Stress Corrosion Cracking Prediction</u>
<u>N18A-T011</u>	<u>Non-Destructive Evaluation (NDE) of Missile Launcher Ablatives</u>
<u>N18A-T012</u>	<u>New Integrated Total Design of Unmanned Underwater Vehicles (UUVs) Propulsion System Architecture for Higher Efficiency and Low Noise</u>
<u>N18A-T013</u>	<u>Effects of Defects within Metal Additive Manufacturing Systems</u>
<u>N18A-T014</u>	<u>Advanced Ship-handling Simulators</u>
<u>N18A-T015</u>	<u>Combatant Craft Health Monitoring System</u>
<u>N18A-T016</u>	<u>Analysis and Application of Treatments to Mitigate Exfoliation Corrosion (Delamination) of 5XXX Series Aluminum</u>
<u>N18A-T017</u>	<u>Temperature Sensing Submarine ISR Buoy / Surface Ship Sensor Tow Cable</u>
<u>N18A-T018</u>	<u>Protocol Feature Identification and Removal</u>
<u>N18A-T019</u>	<u>Multi-Layer Mapping of Cyberspace</u>
<u>N18A-T020</u>	<u>Autonomous Hull Grooming Vehicle</u>
<u>N18A-T021</u>	<u>Active Imaging through Fog</u>
<u>N18A-T022</u>	<u>Accurate Flow-Through Conductivity Sensor for Autonomous Systems</u>
<u>N18A-T023</u>	<u>Operational Sand and Particulate Sensor System for Aircraft Gas Turbine Engines</u>
<u>N18A-T024</u>	<u>Hybrid Ceramic Matrix Composite/Polymer Matrix Composite (CMC-PMC) Skin Materials</u>
<u>N18A-T025</u>	<u>Jellyfish-Inspired Profiling Floats</u>

<u>N18A-T026</u>	<u>Enhanced Lower Cost Tooling for Friction Stir Technologies</u>
<u>N18A-T027</u>	<u>Naval Internet of Things (IoT) Effectiveness and Efficiency</u>
<u>N18A-T028</u>	<u>High Throughput Testing of Additive Manufacturing</u>

MDA (Missile Defense Agency) SBIR

<u>MDA18-001</u>	<u>Artificial Intelligence to Simulate Cybersecurity Red Team</u>
<u>MDA18-002</u>	<u>Techniques for Real-time Hypervelocity Projectile fly-out Generation and Optimization</u>
<u>MDA18-003</u>	<u>Hyper-Velocity Projectile (HVP) Warhead Optimization for Lethality</u>
<u>MDA18-004</u>	<u>Advanced Exo-atmospheric Propulsion and Control Systems</u>
<u>MDA18-005</u>	<u>Advanced High End Gyroscopes for Small Form Factor Inertial Measurement Unit Applications</u>
<u>MDA18-006</u>	<u>Lightweight Structures for Future Interceptors</u>
<u>MDA18-007</u>	<u>Radiation Hardened Electronics and Techniques</u>
<u>MDA18-008</u>	<u>Methodologies for the Manufacture of Non-Traditional Kill Vehicle Primary Structures</u>

NGA (National Geospatial-Intelligence Agency) SBIR

<u>NGA181-001</u>	<u>Topographic Feature Extraction from ground-based still and video imagery</u>
<u>NGA181-002</u>	<u>Cloud computing architecture for next generation video</u>
<u>NGA181-003</u>	<u>Suppression of false alarms in Automated Target Recognizers that use Machine Learning</u>
<u>NGA181-004</u>	<u>Automated Assessment of Urban Environment Degradation for disaster relief and reconstruction</u>
<u>NGA181-005</u>	<u>Deriving Uncertainty Estimates for Automated Observations</u>
<u>NGA181-006</u>	<u>Generalized Change Detection to Cue Regions of Interest</u>
<u>NGA181-007</u>	<u>Video to Feature Data Association and Geolocation</u>
<u>NGA181-008</u>	<u>Blending Ground View and Overhead Models</u>
<u>NGA181-009</u>	<u>Miniaturization of Neural Networks for Geospatial Data</u>
<u>NGA181-010</u>	<u>Low-Shot Detection in Remote Sensing Imagery</u>

NGA (National Geospatial-Intelligence Agency) STTR

<u>NGA18A-001</u>	<u>Algorithms for Look-down Infrared Target Exploitation</u>
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OSD (Office of the Under Secretary of Defense) SBIR

<u>OSD181-001</u>	<u>High Acceleration and Hypervelocity Inertial Measurement Unit</u>
<u>OSD181-002</u>	<u>Electro-optical Seeker</u>

USSOCOM (U.S. Special Operations Command) SBIR

<u>SOCOM18-001</u>	<u>Automated Processing, Exploitation and Dissemination</u>
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SOCOM18-002	Situational Awareness Prediction Tool
SOCOM18-003	Tactical Active Anti-Fogging Goggle or Spectacle
SOCOM18-004	Rapid Acquisition Demonstrator

USSOCOM (U.S. Special Operations Command) STTR

SOCOM18A-001	System for Nighttime and Low-Light Face Recognition
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Do you know about Michigan's SBIR/STTR Assistance Program? [The Michigan SBIR/STTR Assistance Program](#) provides SBIR/STTR training and proposal development services to technology companies with most costs covered by a state grant. The program is managed by BBCetc.



About BBCetc BBC Entrepreneurial Training & Consulting (BBCetc) is a results- driven entrepreneurial consulting group specializing in helping emerging companies to win SBIR/STTR funding and use it strategically to propel growth. Its Michigan clients have been awarded over \$213 million in funding since 2002. Services include training courses and one-on-one consulting in the areas of technology assessment, SBIR/STTR proposal development, commercialization planning, and grants and contracts management. www.bbcetc.com/ 734.930.9741.

Funds for this initiative were provided by the 21st Century Jobs Fund, a MSF program designed to accelerate the growth and diversification of Michigan's economy.

