

Academia FY2020

The University of California (Berkeley, CA)

- Learning-Driven Oracle-Guided Compositional Symbiotic Design of Cyber-Physical Systems software prototype: aims to augment human designers with an artificial intelligence (AI) co-designer (composed of design space construction, design composition, and design space exploration) that will interoperate to enable a tightly integrated design process to improve design productivity and “design surprises”
 - o contracting activity = AFRL, Rome, NY (FA8750-20-C-0156)

The University of California (Davis, CA)

- develop revolutionary new treatment approaches for spinal cord injuries that integrate injury stabilization, regenerative therapy and functional restoration → work at contractor’s facilities in Lausanne, Switzerland (28%); Vancouver, BC, Canada (23%); Davis, CA (14%); Richardson, TX (14%); Geneva, Switzerland (9%); Columbus, OH (6%); San Francisco, CA (3%); San Diego CA (3%); 30 Sep 2020
 - o Naval Information Warfare Center, Pacific, San Diego, CA (N66001-20-2-4046)

The University of California (San Diego, CA)

- improve unmanned systems and in situ ocean sampling → work at the Scripps Institution of Oceanography, University of California San Diego, CA; experimentation “will enable data collections to support the next generation of federated oceanographic data tasking, processing and dissemination for future warfighting and oceanographic applications”; N00014-20-S-B001; 15 June 2020
 - o Office of Naval Research, Arlington, VA (N00014-20-C-2039)

Carnegie Mellon University (Pittsburgh, PA)

- R&D of an artificial intelligence innovation framework; 7 Apr 2020
 - o Army Contracting Command, Aberdeen Proving Ground, MD (W911NF-20-D-0002)
- R&D of a new translational research methodology that leverages autonomy and AI to minimize time spent on low-impact, high-time activities; 4 Sep 2020
 - o Army Contracting Command, Aberdeen Proving Ground, MD (W911QX-20-D-0008)

Carnegie Mellon University Software Engineering Institute (CMU-SEI), Pittsburgh, PA

- operate the CMU-SEI Federally Funded Research & Development Center: advanced technology R&D activities focusing on computer software technology development and cyber security; FA8702-15-D-0002; \$2.7B issued 1 July 2020
 - o AFLCMC Hanscom AFB, MA

The Charles Stark Draper Lab Inc. (Cambridge, MA)

- the Quantum Gravimeter Navigation System (Q-Grav) → Draper Lab (94.4%); Lightmachinery Inc. (5.6%); 8 Oct 2019
 - o Office of Naval Research, Arlington, VA (N00014-20-C-1015)
- Trident II (D5) MK6 Guidance Equivalent Units → Cambridge, MA (30.5%); Clearwater, FL (20.6%); Pittsfield, MA (43.2%); McKinney, TX (5.7%); some United Kingdom funds (\$2,985,999) obligated; N00030-19-C-0008 P00002; 21 Feb 2020
 - o Strategic Systems Programs, D.C.
- support Unmanned Surface Vehicles; N00024-20-D-6330; 5 Feb 2020
 - o NAVSEA Washington Navy Yard, D.C.
- the Quicksilver Device prototype: design, build, and test → work in Cambridge, MA; Reston, VA; 17 Mar 2020
 - o AFLCMC, Wright-Patterson AFB, OH (FA8684-20-D-4000)

University of Connecticut (Storrs, CT)

- R&D capabilities to predict performance of aerospace materials in manufacturing and when under extreme thermomechanical influences; 26 Aug 2020
 - o AFRL, Wright-Patterson AFB, OH (FA8650-20-C-5206)

University of Dayton Research Institute (Dayton, OH)

- R&D on advanced behavior and life prediction of aerospace materials: seeks to develop and transition aerospace structural material discovery, processing, performance assessment, and prediction tools in order to shorten the material, component, and system design cycle; rapid qualification and insertion of improved materials and components; rapid certification of aerospace structures; increases in efficiency and readiness of turbine engine

components; structural protection against high-energy events; decreases in system sustainment costs → work at Wright Patterson AFB, OH; 15 Oct 2019

- AFRL, Wright Patterson AFB (FA8650-20-D-5211)
- R&D of emerging fuze technologies and Energetic Materials for Munitions effort at Eglin AFB, FL: develop, demonstrate, and transition technologies with applications in fuzes for air-delivered weapons; first task order was for Terminal Burst Point Control Sciences; 6 Apr 2020
 - AFRL, Eglin AFB, FL (FA8651-20-D-0003)
- continued work supporting landing gear engineering services, for mission safety and improving system life cycle costs, operational capability & performance, sustainment, and environmental safety & friendliness; FA8203-18-D-0004; P00004; 3 Sep 2020 (w Engineering and Software System Solutions, San Diego, CA)
 - Air Force Sustainment Center, Hill AFB, UT
- Air-Launched Small Unmanned Air Systems services development, including pre-launch, launch, and post-launch command & control, system integration, capability development and flight testing at Wright-Patterson AFB, OH; FA8650-18-C-2808; 18 Sep 2020
 - AFRL, Wright-Patterson AFB, OH

Florida Atlantic University (Boca Raton, FL)

- develop a high-intake, compact, defined excitation bathyphotometer sensor for oceanic bioluminescence assessments; 23 July 2020
 - Office of Naval Research, Arlington, VA (N00014-20-C-2035)

George Mason University (Fairfax, VA)

- Mobile Unmanned/Manned Distributed Lethality Airborne Network (MUDLAN) accelerated development and demonstrations software and hardware: enhance technologies to be developed under MUDLAN Joint Capabilities Technology Demonstration program, including digital beam forming multi-beam Common Data Link apertures; directional K/Ku/eKu and W-band systems; MUDLAN multi-functional network controller (MFNC) for connecting multiple platforms while maneuvering; and using MFNC to recognize jamming and autonomously move to other bands; 6 Mar 2020
 - AFRL, Rome, NY (FA8750-20-C-0555)

Georgia Tech Applied Research Corp. (Atlanta, GA)

- the Golden Horde Science and Technology demonstration effort: support R&D of emerging munition technologies, as well as integrated weapon demonstrations; effort is conceptualized as a fast-paced AFRL-led demonstration project under the auspices of the Team Eglin Weapon Consortium; FA8651-20-F-1070; 19 Dec 2019
 - AFRL, Eglin AFB, FL (FA8651-20-D-0070)
- engineering sustainment in support of the AAR-44, AAR-47 and Georgia Tech Synthetic Imaging Missile Simulation systems: supports analysis & evaluation of electronic optical/infrared and radio frequency threats and responses to improve survivability, reliability, and mission success for U.S. airborne elements; FA8523-19-D-0006; 8 May 2020
 - AFLCMC Robins AFB, GA
- reactivation of the Band 8 transmitter associated with the AN/ALQ-161A defensive avionics system supporting the Boeing B-1B bomber; FA8523-18-C-0002; 29 June 2020
 - Electronic Warfare Contracting Branch, Robins Air Force Base, GA
- a research project under the Open, Programmable, Secure 5G (OPS-5G) program → Atlanta, GA; Chania, Crete, Greece; McLean, VA; 30 Sep 2020
 - *see DARPA FY2020 doc for more information*
 - DARPA, Arlington, VA (HR0011-20-C-0155)

The Applied Research Laboratory at University of Hawaii (Honolulu, HI)

- establish or maintain an essential engineering, research, or development capability to be provided by an educational or other nonprofit institution or a federally funded research and development center (FFRDC) under the authority 10 U.S. Code 2304(c)(3)(B) → work in Maui; 1 May 2020
 - purpose of the Vanguard Center's Unified University Affiliated Research Center (UARC) for Maui High Performance Computing Center (MHPCC) Support (VaCUUMS) is to leverage the UARC's core competencies for research, development, test, and evaluation (RDT&E);
 - AFRL UARC is "necessary" to maintain essential engineering, R&D capabilities at the MHPCC Vanguard Center by conducting scientific and technology investigations and by providing scientific expertise, capabilities and interdisciplinary facilities required for progression from basic theories of knowledge to

practical and realistic fielded application in the areas of: sensor development; image processing; command and control integration; advanced data visualization and analytics; machine learning; and autonomy

- AFRL Kirtland AFB, NM (FA9451-20-D-0004)

Johns Hopkins University, Applied Physics Laboratory (Laurel, MD)

- additional engineering support services, systems engineering for complex systems, specialized R&D and other support functions at Los Angeles AFB, CA; FA8819-18-D-0009; 26 Nov 2019
 - Space & Missile Systems Center, Los Angeles AFB, CA
- complete delivery of the deep space advanced radar concept technology demonstration project → Laurel, MD; White Sands Missile Range, NM; FA8819-19-F-1003; 6 Mar 2020
 - Space & Missile System Center Directorate, Peterson AFB, CO Springs, CO
- technical and programmatic support of Tactical Space and Small Satellite Portfolio's core competencies and mission lifecycle; includes support of mission phases from concept through design, implementation, operations, and transition of space assets; FA9453-18-D-0018; 10 July 2020
 - AFRL Kirtland AFB, NM
- air warfare systems; services for advanced development, acquisition and test and evaluation of aerospace systems, to include munitions, cyber warfare and electronic warfare elements; 20 Aug 2020
 - AFLCMC, Eglin AFB, FL (FA8656-20-D-0005)
- obtain essential analysis documentation, **to include work closely related to inherently governmental functions**, in the domains of engineering, research, development, modeling & simulation, and test & evaluation in the area of electromagnetic spectrum superiority in a capabilities-based system of systems context; 10 Sep 2020
 - AFLCMC Wright-Patterson AFB, OH (FA8684-20-D-7000)

Johns Hopkins University (Baltimore, MD)

- develop revolutionary new treatment approaches for spinal cord injuries that integrate injury stabilization, regenerative therapy and functional restoration → work at contractor's facilities in Baltimore, MD (63%); Laurel, MD (17%); NY, NY (10%); Bothell, WA (10%); 30 Sep 2020
 - for DARPA via Naval Information Warfare Center, Pacific, San Diego, CA (N66001-20-2-4075)

Kitware Inc. (Clifton, NY)

- a research project under the Semantic Forensics (SemaFor) program; → work in Clifton Park, NY; Corvallis, OR; and at university labs in New York, NY; Albany, NY; Tempe, AZ; Urbana, IL; Ann Arbor, MI; 29 July 2020
 - see DARPA FY2020 doc for more information
 - DARPA Arlington, VA (HR0011-20-C-0123)

The University of Maine System (Orono, ME)

- expeditionary maneuver support materials and structures; 22 June 2020
 - Army Contracting Command, Aberdeen Proving Ground, MD (W911QY-20-C-0053)

Massachusetts Institute of Technology Lincoln Laboratory (Lexington, MA)

- operation of Lincoln Laboratory FFRDC: advanced technology R&D focusing on long-term technology development, as well as rapid system prototyping and demonstration; FA8702-15-D-0001; 31 Mar 2020
 - AFLCMC Hanscom AFB

The Corporation of Mercer University (Warner Robins, GA)

- provide Laboratory Intelligence Validated Emulators-Virtual-Constructive (LVC) closed-loop engineering test and evaluation of newly developed electronic warfare (EW) systems; provides "integration of gold-standard Intelligence Community threat definitions" into the Electronic Warfare and Avionics Integrated Support Facility, where LVC simulations and testing will be conducted to inform the baseline capability "and to identify growth areas for improving operational survivability, reliability and mission success" of fielded EW systems in support of airborne U.S. warfighting elements; FA8523-20-D-0001; 14 May 2020, 18 May 2020
 - AFLCMC Robins AFB, GA

University of Missouri at Kansas City (Kansas City, MO)

- Short Pulse Research, Evaluation and non-Space, Weight and Power (SWAP) demonstration for Counter-Small Unmanned Aerial Systems (C-sUAS); 26 Nov 2019
 - Office of Naval Research, Arlington, VA (N00014-18-C-1017-P00006)
- short pulse research, evaluation and non-SWAP demonstration for C-sUAS; N00014-18-C-1017; 26 Nov 2019

- Office of Naval Research, Arlington, VA

University of Montana (Missoula, MT)

- monitor snowpack and soil moisture throughout the plains of the upper Missouri River basin; 29 Sep 2020
 - South Dakota State University got a similar contract on the same day (see correction issued 2 Oct 2020)
 - USACE Omaha, NE (W9128F-20-D-0068)

Montana State University (Bozeman, MT)

- to understand and overcome challenges to production of primary aircraft structure using stretch-broken carbon fiber; W911W6-18-C-0050; 1 Nov 2019
 - Army Contracting Command, Redstone Arsenal, AL

University of Nebraska, National Strategic Research Institute (Lincoln, NE)

- R&D services supporting U.S. Strategic Command (STRATCOM) and other government agencies → work primarily at University of Nebraska-Lincoln and University of Nebraska Medical Center (Omaha); 28 Aug 2020
 - obtains engineering, R&D capabilities, including test, evaluation, and systems analysis of related topics for STRATCOM in core competencies (nuclear detection and forensics, detection of chemical and biological weapons, active & passive defense against WMD and consequence management)
 - 55th Contracting Squadron, Offutt AFB, NE (FA4600-20-D-0003)

New Mexico State University (Las Cruces, NM)

- support the information operations, vulnerability/survivability assessment and analysis; 18 Sep 2020
 - Army Contracting Command, Aberdeen Proving Ground, MD (W911QX-20-D-0001)

University of Notre Dame (Notre Dame, IN)

- develop a Mach 10 Quiet Wind Tunnel; aims for advancements in hypersonics fluid mechanics technologies, in support of Naval Surface Warfare Center Crane's Hypersonics Program; 20 Dec 2019
 - Naval Surface Warfare Center, Crane Division, IN (N00164-20-C-GT10)

Penn State University Applied Research Lab (University Park, PA)

- the Advanced Broadband Navigation Sonar System Future Naval Capabilities Program: develop and demonstrate technologies associated with continuous subsea autonomous navigation by developing and demonstrating improvements to navigational sonar systems; 13 Mar 2020
 - Office of Naval Research, Arlington, VA (N00014-20-C-1061)
- Navy Manufacturing Technology (ManTech) Electro Optics Center of Excellence: operate & manage the Center to develop naval platform-related manufacturing technologies, and transition the technology for implementation in U.S. electro-optics and other industrial facilities; 22 Apr 2020
 - Penn State shall also manage, operate, sustain and enhance the center's ability to function as a Navy ManTech Center of Excellence.
 - Office of Naval Research, Arlington, VA (N00014-20-D-7001)

The University of Pittsburgh (Pittsburgh, PA)

- develop new treatment approaches for spinal cord injuries that integrate injury stabilization, regenerative therapy and functional restoration → work at contractor's facilities in Pittsburgh, PA (37%); Goose Creek, SC (35%); Philadelphia, PA (28%); 30 Sep 2020
 - for DARPA via Naval Information Warfare Center, Pacific, San Diego, CA (N66001-20-C-4050)

South Dakota State University (Brookings, SD)

- monitor snowpack and soil moisture throughout the plains of the upper Missouri River basin; 29 Sep 2020
 - University of Montana got a similar contract on the same day
 - This contract was initially credited as University of South Dakota (Vermillion, SD); corrected on 2 Oct 2020
 - USACE Omaha, NE (W9128F-20-D-0059)

University of South Florida (USF), Institute of Applied Engineering Inc. (Tampa, FL)

- access to applied research and advanced technology development; SOCOM will collaborate with USF IAE to conduct research, hardware & software development, test & evaluation, demonstration, prototyping, and limited system production; IAE will also facilitate access to USF education and training resources; H92405-20-D-0001; 11 Feb 2020
 - SOCOM headquarters, Tampa, FL

The University of Southern California (Marina del Rey, CA)

- a research project under the Open Programmable Secure 5G (OPS-5G) program → work in Marina del Rey, CA; Monroe, LA; and Newark, NJ; 15 Sep 2020
 - o DARPA, Arlington, VA (HR0011-20-C-0157)

Southern Methodist University (Dallas, TX)

- Seismic-Acoustic Monitoring Program IV: support the Air Force Technical Applications Center mission by operating, maintaining, and sustaining geophysical equipment in S. Korea; 28 Feb 2020
 - o Acquisition Management Integration Center, Patrick AFB, FL (FA7022-20-C-0003)

Southwest Research Institute (San Antonio, TX)

- the Multiple Threat Emitter System (MUTES) and Mini-MUTES program: repair of circuit cards and circuit card assemblies for multiple threat emitters; 31 Aug 2020
 - o Air Force Sustainment Center, Hill AFB, UT (FA8250-20-D-0003)

Leland Stanford Junior University (Stanford, CA)

- a research project to study “the securing of our national internet infrastructure” using measurement, control, and verification for closed-loop control of networks, also known as the Pronto project → work in Stanford, CA (17%); Menlo Park, CA (68%); Ithaca, NY (8%); Princeton, NJ (7%); 22 May 2020
 - o Pronto will research the creation and deployment of a network, to include 5G, under verifiable closed-loop control as an exemplar for others in government, industry, and education to replicate.
 - o DARPA Arlington, VA (HR001120C0107)

The Research Foundation for the State University of New York (SUNY), on behalf of SUNY Polytechnic Institute (Albany, NY)

- a research project under the Lasers for Universal Microscale Optical Systems (LUMOS) program → Albany, NY (48%); Santa Barbara, CA (21%); Boston, MA (26%); Greensboro, NC (5%); 14 Sep 2020
 - o LUMOS “will enable efficient on-chip optical gain to highly capable integrated photonics platforms and enable complete photonics functionality on a single substrate for disruptive optical microsystems.”
 - o DARPA, Arlington, VA (HR0011-20-C-0142)

Translang Ltd. (Waynesboro, VA)

- FMS (UAE): training and support for continued sustainment & development of UAE National Defense College; 1 July 2020
 - o Army Contracting Command, Orlando, FL (W900KK-20-C-0009)

Utah State University Space Dynamics Laboratory (North Logan, UT)

- engineering, science and technology, analysis, test and fundamental technology research for systems, operations, hardware and software; 30 Sep 2020
 - o Army Contracting Command, Redstone Arsenal, AL (W9113M-20-D-0060)

Vanderbilt University (Nashville, TN)

- model-based intent-driven adaptive software (MIDAS): aims to develop a new approach to evolutionary software development and deployment that extends the results of model-based software engineering and provides an integrated, end-to-end framework for building software that is focused on growth and adaptation;
 - o scope includes research, design, development, demonstration, testing, integration and delivery of MIDAS software system that enables rapid adaptation of software to changes in requirements, platforms and computational resources at a scale and speed appropriate for the complex software ecosystem “upon which the U.S. government, military and economy depend”; 26 May 2020
 - o AFRL Rome, NY (FA8750-20-C-0215)
- Design.R – artificial intelligence (AI)-assisted cyber physical systems design software prototype: develop an AI co-designer composed of design space construction, design composition, and design space exploration that will interoperate to enable a tightly integrated design process → Nashville, TN; Edmonton, Alberta, Canada; Szeged, Hungary; 24 Sep 2020
 - o AFRL, Rome, NY (FA8750-20-C-0537)

Washington State Community College District #3 (Bremerton, WA)

- educational services in support of the apprenticeship, helper and after-hours program, which pays for tuition, lab fees, math fees, tutoring services and assessment fees in an effort to provide customers with quality, timely and cost efficient maintenance, modernization, and technical and logistics support by maintaining a highly trained and skilled workforce; services support Puget Sound Naval Shipyard and Intermediate Facility in Bremerton, WA; 29 Nov 2019
 - o Puget Sound Naval Shipyard, Bremerton, WA (N4523A20D1300)

Wichita State University (Wichita, KS)

- Skyborg prototyping, experimentation and autonomy development, used to deliver missionized prototypes in support of operational experimentation → work in various locations around the U.S.; 6-year IDIQ contract w/ 9 other corporations; FA8694-20-D-1000; 29 Sep 2020
 - o AFLCMC Wright Patterson AFB, OH

University of Wyoming (Laramie, WY)

- establish a network of stations to monitor snowpack and soil moisture throughout the plains of the Upper Missouri River Basin; 28 Sep 2020
 - o USACE Omaha, NE (W9128F-20-D-0058).

educational services to the enlisted workforce and to establish the U.S. Naval Community College in support of the Office of the Chief Learning Officer → work at various locations across 37 states and D.C.; 119 contracts to various technical colleges, community colleges, and universities; \$147,050,000 contract issued 23 July 2020

<https://www.defense.gov/Newsroom/Contracts/Contract/Article/2286392/>

NAVSUP Fleet Logistics Center, Norfolk, Contracting Department, Philadelphia, PA