Proposals Selected for Negotiation of Contracts

- **Applied Optimization, Inc.**
  714 East Monument Avenue, Suite 204
  Dayton, OH 45402
  Catherine Keenan (937) 431-5100

  **University of Tennessee**
  1534 White Avenue
  Knoxville, TN 37996
  14-1-T12.04-9903 MSFC

  Physics-Based Selection of SLM Process Parameters to Mitigate Defects and to Control Deposit Microstructure [1]

- **ATA Engineering, Inc.**
  13290 Evening Creek Drive South, Ste 250
  San Diego, CA 92128
  Joshua Davis (858) 480-2028

  **University of Mississippi**
  P.O. Box 1848
  University, MS 38677
  14-1-T12.01-9989 LaRC

  Improved Models for Prediction of Locally Intense Aeroacoustic Loads and Vibration Environments [2]

- **Aurora Flight Sciences Corporation**
  90 Broadway, 11th Floor
  Cambridge, MA 20110
  Scott Hart (617) 500-4892

  **University of Massachusetts - Lowell**
600 Suffolk Street Room 226
Lowell, MA 01854
14-1-T10.02-9954 JSC

Automated Manufacture of Damage Detecting, Self-Healing Composite Cryogenic Pressure Vessels [3]

- **AxNano, LLC**
  
  527 Bridge Street, Suite 301
  
  Danville, VA 24541
  
  Charles Gause (540) 230-3881

  **North Carolina A&T State University**
  
  1601 East Market Street
  
  Greensboro, NC 27411
  
  14-1-T10.01-9944 LaRC

  Lightweight Structures Utilizing CNFs [4]

- **Brimrose Technology Corporation**
  
  P.O. Box 616, 19 Loveton Circle
  
  Sparks, MD 21152
  
  Diane Murray (936) 588-6901

  **University Of Maryland Baltimore County**
  
  1000 Hilltop Circle
  
  Baltimore, MD 21250
  
  14-1-T8.01-9937 JPL


- **Busek Company, Inc.**
  
  11 Tech Circle
  
  Natick, MA 01760
  
  Judy Budny (508) 655-5565

  **University of Utah**
315 South 1400 East
Salt Lake City, UT 84112
14-1-T6.02-9883 JSC


- **CFD Research Corporation**
  701 McMillian Way Northwest, Suite D
  Huntsville, AL 35806
  Silvia Harvey (256) 726-4858

**University of Alabama - Tuscaloosa**
Box 870104
Tuscaloosa, AL, AL 35787
14-1-T12.04-9977 MSFC

**Multiple High-Fidelity Modeling Tools for Metal Additive Manufacturing Process Development** [7]

- **DigitalFish, Inc.**
  268 Bush Street #3450
  San Francisco, CA 94104
  Jeanne Carlin (415) 634-0848

**Carnegie Mellon University**
5000 Forbes Avenue
Pittsburgh, PA 15213
14-1-T11.01-9971 ARC

**Unified Representation for Collaborative Visualization of Planetary Terrain Data** [8]

- **Elder Research, Inc.**
  300 West Main Street, Suite 301
  CHARLOTTESVILLE, VA 22903
  Jeffrey Deal (434) 973-7673

**Southwest Research Institute**
6220 Culebra Road, P.O. Drawer 28510
San Antonio, TX 78238
14-1-T12.02-9930 GRC

**Physics-Based Modeling Tools for Life Prediction and Durability Assessment of Advanced Materials** [9]

- **EpiSys Science, Inc.**
  12234 Boulder View Drive
  Poway, CA 92064
  Bo Ryu (858) 805-5608

**USC/ISI**
4676 Admiralty Way
Marina Del Ray, CA 90292
14-1-T5.01-9945 GRC

**Bio-Inspired Autonomous Communications Systems with Anomaly Detection Monitoring** [10]

- **Extreme Diagnostics, Inc.**
  6960 Firerock Court
  Boulder, CO 80301
  Robert Owen (303) 523-8924

**The Regents of the University of Michigan**
3003 South State Street
Ann Arbor, MI 48109
14-1-T3.01-9987 SSC

**Compact Energy Conversion Module** [11]

- **Garvey Spacecraft Corporation**
  389 Haines Avenue
  Long Beach, CA 90814
  John Garvey (562) 498-2984

**University of California, San Diego**
9500 Gilman Drive, #0411
La Jolla, CA 92093

14-1-T1.02-9931 MSFC

The Application of 3D Additive Machining to Enhance the Affordability of a Small Launcher Booster Stage [12]

- Gloyer-Taylor Laboratories, LLC
  2212 Harton Boulevard
  Tullahoma, TN 37388
  Paul Gloyer (931) 455-7333

University of Tennessee Space Institute
  411 BH Goethert Parkway
  Tullahoma, TN 37388
  14-1-T1.02-9996 MSFC

ACE Booster [13]

- HJ Science & Technology, Inc.
  2929 Seventh Street, Suite 120
  Berkeley, CA 94710
  Hong Jiao (408) 464-3873

Lawrence Berkeley National Laboratory
  One Cyclotron Road, 971-SP
  Berkeley, CA 94720
  14-1-T6.01-9951 ARC

An End-To-End Microfluidic Platform for Engineering Life Supporting Microbes in Space Exploration Missions [14]

- Honeybee Robotics, Ltd.
  460 West 34th Street
  New York, CA 10001
  Chris Chapman (646) 459-7802

Embry-Riddle Aeronautical University
  600 South Clyde Morris Boulevard
Daytona Beach, FL 32114
14-1-T4.02-9941 KSC


- Intelligent Automation, Inc.
  15400 Calhoun Drive, Suite 400
  Rockville, MD 20855
  Mark James (301) 294-5221

  University of Maryland
  3179F Martin Hall
  College Park, MD 20742
  14-1-T4.01-9934 AFRC

  Inflatable Wing Morphing Aircraft Aeroservoelastic Control and Design Demonstration [16]

- Lynntech, Inc.
  2501 Earl Rudder Freeway South
  College Station, TX 77845
  Lauren Bouse (979) 764-2322

  University of Texas Dallas
  800 West Campbell Road
  Richardson, TX 75080
  14-1-T3.01-9927 SSC

  Heat Harvesting by Artificial Muscles [17]

- M4 Engineering, Inc.
  4020 Long Beach Boulevard
  Long Beach, CA 90807
  Myles Baker (562) 305-3391

  Virginia Polytechnic Institute
  300 Turner Street Northwest
Blacksburg, VA 24061
14-1-T4.01-9879 AFRC

Dynamic ASE Modeling and Optimization of Aircraft with SpaRibs [18]

• Made in Space, Inc.
  427 North Tatnall Street, #56666
  Wilmington, DE 19801
  Jason Dunn (727) 808-9936

University of Central Florida
  4000 Central Florida Boulevard
  Orlando, FL 32816
  14-1-T12.03-9924 GSFC

MicroCast: Additive Manufacturing of Metal Plus Insulator Structures with Sub-mm Features [19]

• Mesh Robotics, LLC
  142 Crescent Drive
  Pittsburgh, PA 15228
  Michael Wagner (412) 606-3842

Carnegie Mellon University
  5000 Forbes Avenue
  Pittsburgh, PA 15213
  14-1-T8.01-9913 JPL

Intelligent Spectrometry for Robotic Explorers [20]

• Mound Laser & Photonics Center, Inc.
  2941 College Drive
  Kettering, OH 45420
  Kevin Hartke (937) 865-3730

Air Force Institute of Technology
  2950 Hobson Way
  Wright-Patterson AFB, OH 45433
14-1-T12.04-9972 MSFC

In-Process Monitoring of Additive Manufacturing [21]

- **Nanasonic, Inc.**
  158 Wheatland Drive
  Pembroke, VA 24136
  Melissa Campbell (540) 626-6266

  **Colorado State University**
  337 Molecular and Radiological Biosciences Building
  Fort Collins, CO 80523
  14-1-T10.02-9884 JSC
  Multifunctional Shielding and Self-Healing HybridSil Smart Composites for Space [22]

- **Omega Optics, Inc.**
  8500 Shoal Creek Boulevard, Building 4, Suite 200
  Austin, TX 78757
  Gloria Chen (512) 996-8833

  **Texas State University**
  601 University Drive
  San Marcos, TX 78666
  14-1-T5.01-9895 GRC
  Low Cost Flexible Graphene-Based Digital Beam Forming Phased-Array Antennas [23]

- **Opto-Knowledge Systems, Inc. (OKSI)**
  19805 Hamilton Avenue
  Torrance, CA 90502
  Nahum Gat (310) 756-0520

  **Pacific Northwest National Laboratory (PNNL)**
  902 Battelle Boulevard, P.O. Box 999
  Richland, WA 99352
Compact Isotope Analysis System for In-Situ Biosignature Investigation [24]

Orbital Technologies Corporation
Space Center, 1212 Fourier Drive
Madison, WI 53717
Eric Rice (608) 229-2804

Pennsylvania State University
110 Technology Center Building
University Park, PA 16802
14-1-T1.01-9949 MSFC
High Performance Nanolauncher [25]

Phoenix Integration
1715 Pratt Drive, Suite 2000
Blacksburg, VA 24060
Peter Menegay (540) 557-7556

Massachusetts Institute of Technology
77 Massachusetts Avenue, E19-750
Cambridge, MA 02139
14-1-T11.02-9978 JPL
Framework for Autonomous Optimization [26]

Physical Sciences, Inc.
20 New England Business Center
Andover, MA 01810
B. David Green (978) 689-0003

University of California, Santa Barbara
342 Lagoon Road
Santa Barbara, CA 93106
14-1-T12.02-9894 GRC
In-Situ EBCs for High Performance Composite Propulsion Components [27]

- ProtoInnovations, LLC
  5453 Albemarle Avenue
  Pittsburgh, PA 15217
  DIMITRIOS APOSTOLOPOULOS (412) 916-8807

  Massachusetts Institute of Technology
  77 Massachusetts Avenue
  Cambridge, MA 02139
  14-1-T11.01-9869 ARC

  Advanced Algorithms and Controls for Superior Robotic All-Terrain Mobility [28]

- QUASAR Federal Systems, Inc.
  5754 Pacific Center Boulevard, Suite 203
  San Diego, CA 92121
  Gayle Guy (858) 412-1839

  University of Arizona
  PO Box 210158 Room 510
  Tucson, AZ 85721
  14-1-T8.02-9980 KSC

  3D Geolocation of Current Pulses in Clouds Using a 6-Axis EB Vector Sensor [29]

- Streamline Numerics, Inc.
  3221 North West 13th Street, Suite A
  Gainesville, FL 32609
  Siddharth Thakur (352) 271-8841

  Stanford University
  3160 Porter Drive, Suite 100
  Palo Alto, CA 94304
  14-1-T1.01-9966 MSFC
High Fidelity Tool for Turbulent Combustion in Liquid Launch Propulsion Systems Based on Spray-Flamelet Methodology [30]

- **Tao of Systems Integration, Inc.**
  
  1100 Exploration Way
  
  Hampton, VA 23666
  
  Arun Mangalam (757) 220-5040

**The Texas A&M Engineering Experiment Station**

400 Harvey Mitchell Parkway South, Suite 300

College Station, TX 77845

14-1-T4.01-9909 AFRC

Distributed, Passivity-Based, Aeroservoelastic Control (DPASC) of Structurally Efficient Aircraft in the Presence of Gusts [31]

- **TIPD, LLC**
  
  1430 North 6th Avenue
  
  Tucson, AZ 85705
  
  James Fountain (520) 250-4405

**University of Arizona**

PO Box 210158 Room 510

Tucson, AZ 85721

14-1-T8.01-9947 JPL

Ultrastable and Compact Deep UV Laser Source for Raman Spectroscopy [32]