Proposals Selected for Negotiation of Contracts

- **Air Force Institute of Technology**
  2950 Hobson Way
  Wright-Patterson AFB, OH 45433

  **Mound Laser & Photonics Center, Inc.**
  2941 College Drive
  Kettering, OH 45420
  Kevin Hartke (937) 865-3730
  14-1-T12.04-9972 MSFC
  In-Process Monitoring of Additive Manufacturing [1]

- **Carnegie Mellon University**
  5000 Forbes Avenue
  Pittsburgh, PA 15213

  **DigitalFish, Inc.**
  268 Bush Street #3450
  San Francisco, CA 94104
  Jeanne Carlin (415) 634-0848
  14-1-T11.01-9971 ARC
  Unified Representation for Collaborative Visualization of Planetary Terrain Data [2]

- **Carnegie Mellon University**
  5000 Forbes Avenue
  Pittsburgh, PA 15213

**Mesh Robotics, LLC**
142 Crescent Drive
Pittsburgh, PA 15228
Michael Wagner (412) 606-3842
14-1-T8.01-9913 JPL

Intelligent Spectrometry for Robotic Explorers [3]

- **Colorado State University**
  337 Molecular and Radiological Biosciences Building
  Fort Collins, CO 80523

  **Nanosonic, Inc.**
  158 Wheatland Drive
  Pembroke, VA 24136
  Melissa Campbell (540) 626-6266
  14-1-T10.02-9884 JSC

  Multifunctional Shielding and Self-Healing HybridSil Smart Composites for Space [4]

- **Embry-Riddle Aeronautical University**
  600 South Clyde Morris Boulevard
  Daytona Beach, FL 32114

  **Honeybee Robotics, Ltd.**
  460 West 34th Street
  New York, CA 10001
  Chris Chapman (646) 459-7802
  14-1-T4.02-9941 KSC


- **Lawrence Berkeley National Laboratory**
  One Cyclotron Road, 971-SP
  Berkeley, CA 94720

  **HJ Science & Technology, Inc.**
  2929 Seventh Street, Suite 120
  Berkeley, CA 94710
Hong Jiao (408) 464-3873
14-1-T6.01-9951 ARC

*An End-To-End Microfluidic Platform for Engineering Life Supporting Microbes in Space Exploration Missions* [6]

- **Massachusetts Institute of Technology**
  77 Massachusetts Avenue
  Cambridge, MA 02139

- **ProtoInnovations, LLC**
  5453 Albemarle Avenue
  Pittsburgh, PA 15217
  DIMITRIOS APOSTOLOPOULOS (412) 916-8807
  14-1-T11.01-9869 ARC

  *Advanced Algorithms and Controls for Superior Robotic All-Terrain Mobility* [7]

- **Massachusetts Institute of Technology**
  77 Massachusetts Avenue, E19-750
  Cambridge, MA 02139

- **Phoenix Integration**
  1715 Pratt Drive, Suite 2000
  Blacksburg, VA 24060
  Peter Menegay (540) 557-7556
  14-1-T11.02-9978 JPL

  *Framework for Autonomous Optimization* [8]

- **North Carolina A&T State University**
  1601 East Market Street
  Greensboro, NC 27411

  **AxNano, LLC**
  527 Bridge Street, Suite 301
  Danville, VA 24541
Charles Gause (540) 230-3881
14-1-T10.01-9944 LaRC

Lightweight Structures Utilizing CNFs [9]

• Pacific Northwest National Laboratory (PNNL)
  902 Battelle Boulevard, P.O. Box 999
  Richland, WA 99352

Opto-Knowledge Systems, Inc. (OKSI)
19805 Hamilton Avenue
Torrance, CA 90502
Nahum Gat (310) 756-0520
14-1-T8.01-9935 JPL

Compact Isotope Analysis System for In-Situ Biosignature Investigation [10]

• Pennsylvania State University
  110 Technology Center Building
  University Park, PA 16802

Orbital Technologies Corporation
Space Center, 1212 Fourier Drive
Madison, WI 53717
Eric Rice (608) 229-2804
14-1-T1.01-9949 MSFC

High Performance Nanolauncher [11]

• Southwest Research Institute
  6220 Culebra Road, P.O. Drawer 28510
  San Antonio, TX 78238

Elder Research, Inc.
300 West Main Street, Suite 301
CHARLOTTESVILLE, VA 22903
Jeffrey Deal (434) 973-7673
14-1-T12.02-9930 GRC

Physics-Based Modeling Tools for Life Prediction and Durability Assessment of Advanced Materials [12]

Stanford University
3160 Porter Drive, Suite 100
Palo Alto, CA 94304

Streamline Numerics, Inc.
3221 North West 13th Street, Suite A
Gainesville, FL 32609
Siddharth Thakur (352) 271-8841
14-1-T1.01-9966 MSFC

High Fidelity Tool for Turbulent Combustion in Liquid Launch Propulsion Systems Based on Spray-Flamelet Methodology [13]

Texas State University
601 University Drive
San Marcos, TX 78666

Omega Optics, Inc.
8500 Shoal Creek Boulevard, Building 4, Suite 200
Austin, TX 78757
Gloria Chen (512) 996-8833
14-1-T5.01-9895 GRC

Low Cost Flexible Graphene-Based Digital Beam Forming Phased-Array Antennas [14]

The Regents of the University of Michigan
3003 South State Street
Ann Arbor, MI 48109

Extreme Diagnostics, Inc.
6960 Firerock Court
Boulder, CO 80301
Robert Owen (303) 523-8924
14-1-T3.01-9987 SSC

Compact Energy Conversion Module [15]

- The Texas A&M Engineering Experiment Station
  400 Harvey Mitchell Parkway South, Suite 300

College Station, TX 77845

Tao of Systems Integration, Inc.
1100 Exploration Way

Hampton, VA 23666

Arun Mangalam (757) 220-5040
14-1-T4.01-9909 AFRC

Distributed, Passivity-Based, Aeroservoelastic Control (DPASC) of Structurally Efficient Aircraft in the Presence of Gusts [16]

- University of Alabama - Tuscaloosa
  Box 870104

Tuscaloosa, AL, AL 35787

CFD Research Corporation
701 McMillian Way Northwest, Suite D

Huntsville, AL 35806

Silvia Harvey (256) 726-4858
14-1-T12.04-9977 MSFC

Multiple High-Fidelity Modeling Tools for Metal Additive Manufacturing Process Development [17]

- University of Arizona
  PO Box 210158 Room 510

Tucson, AZ 85721

QUASAR Federal Systems, Inc.
5754 Pacific Center Boulevard, Suite 203

San Diego, CA 92121
Gayle Guy (858) 412-1839
14-1-T8.02-9980 KSC

3D Geolocation of Current Pulses in Clouds Using a 6-Axis EB Vector Sensor [18]

- **University of Arizona**
  
  PO Box 210158 Room 510
  
  Tucson, AZ 85721

**TIPD, LLC**

1430 North 6th Avenue

Tucson, AZ 85705

James Fountain (520) 250-4405

14-1-T8.01-9947 JPL

Ultrastable and Compact Deep UV Laser Source for Raman Spectroscopy [19]

- **University of California, San Diego**

  9500 Gilman Drive, #0411

  La Jolla, CA 92093

**Garvey Spacecraft Corporation**

389 Haines Avenue

Long Beach, CA 90814

John Garvey (562) 498-2984

14-1-T1.02-9931 MSFC

The Application of 3D Additive Machining to Enhance the Affordability of a Small Launcher Booster Stage [20]

- **University of California, Santa Barbara**

  342 Lagoon Road

  Santa Barbara, CA 93106

**Physical Sciences, Inc.**

20 New England Business Center

Andover, MA 01810
B. David Green (978) 689-0003
14-1-T12.02-9894 GRC
In-Situ EBCs for High Performance Composite Propulsion Components [21]

- University of Central Florida
  4000 Central Florida Boulevard
  Orlando, FL 32816

  Made in Space, Inc.
  427 North Tatnall Street, #56666
  Wilmington, DE 19801
  Jason Dunn (727) 808-9936
  14-1-T12.03-9924 GSFC
  MicroCast: Additive Manufacturing of Metal Plus Insulator Structures with Sub-mm Features [22]

- University of Maryland
  3179F Martin Hall
  College Park, MD 20742

  Intelligent Automation, Inc.
  15400 Calhoun Drive, Suite 400
  Rockville, MD 20855
  Mark James (301) 294-5221
  14-1-T4.01-9934 AFRC
  Inflatable Wing Morphing Aircraft Aeroservoelastic Control and Design Demonstration [23]

- University Of Maryland Baltimore County
  1000 Hilltop Circle
  Baltimore, MD 21250

  Brimrose Technology Corporation
  P.O. Box 616, 19 Loveton Circle
  Sparks, MD 21152
  Diane Murray (936) 588-6901
14-1-T8.01-9937 JPL

*Acousto-Optic Tunable Filter-Based Polarimetric Spectral Sensor With Progressive Algorithm For Material Analysis and Mapping* [24]

- **University of Massachusetts - Lowell**
  600 Suffolk Street Room 226
  Lowell, MA 01854

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

  14-1-T10.02-9954 JSC
  
  *Automated Manufacture of Damage Detecting, Self-Healing Composite Cryogenic Pressure Vessels* [25]

- **University of Mississippi**
  P.O. Box 1848
  University, MS 38677

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

  14-1-T12.01-9989 LaRC
  
  *Improved Models for Prediction of Locally Intense Aeroacoustic Loads and Vibration Environments* [26]

- **University of Tennessee**
  1534 White Avenue
  Knoxville, TN 37996

  **Applied Optimization, Inc.**
  714 East Monument Avenue, Suite 204
  Dayton, OH 45402
  Catherine Keenan (937) 431-5100
14-1-T12.04-9903 MSFC

Physics-Based Selection of SLM Process Parameters to Mitigate Defects and to Control Deposit Microstructure [27]

- University of Tennessee Space Institute
  411 BH Goethert Parkway
  Tullahoma, TN 37388

Gloyer-Taylor Laboratories, LLC
  2212 Harton Boulevard
  Tullahoma, TN 37388
  Paul Gloyer (931) 455-7333
  14-1-T1.02-9996 MSFC
  ACE Booster [28]

- University of Texas Dallas
  800 West Campbell Road
  Richardson, TX 75080

Lynntech, Inc.
  2501 Earl Rudder Freeway South
  College Station, TX 77845
  Lauren Bouse (979) 764-2322
  14-1-T3.01-9927 SSC
  Heat Harvesting by Artificial Muscles [29]

- University of Utah
  315 South 1400 East
  Salt Lake City, UT 84112

Busek Company, Inc.
  11 Tech Circle
  Natick, MA 01760
  Judy Budny (508) 655-5565
14-1-T6.02-9883 JSC

• USC/ISI
4676 Admiralty Way
Marina Del Ray, CA 90292

EpiSys Science, Inc.
12234 Boulder View Drive
Poway, CA 92064
Bo Ryu (858) 805-5608
14-1-T5.01-9945 GRC
Bio-Inspired Autonomous Communications Systems with Anomaly Detection Monitoring [31]

• Virginia Polytechnic Institute
300 Turner Street Northwest
Blacksburg, VA 24061

M4 Engineering, Inc.
4020 Long Beach Boulevard
Long Beach, CA 90807
Myles Baker (562) 305-3391
14-1-T4.01-9879 AFRC
Dynamic ASE Modeling and Optimization of Aircraft with SpaRibs [32]