Proposals Selected for Negotiation of Contracts

- **Arizona State University**
  650 E Tyler Mall Goldwater Center # 208
  Tempe, AZ 85281

  **Alphacore, Inc.**
  398 South Mill Avenue, Suite 304
  Tempe, AZ 85281
  Kimberlee Olson (480) 494-5618
  18-1-T3.02-2213 GRC
  [Intelligent Power Source Reliability Monitoring and Failure Mitigation System](#) [1]

- **Arizona State University-Polytechnic**
  P.O. Box 876011
  Tempe, AZ 85287

  **Phoenix Analysis and Design Technologies**
  7755 South Research Drive, Suite 110
  Tempe, AZ 85284
  Ward Rand (480) 813-4884
  18-1-T3.03-3883 GRC

- **Arizona State University-Tempe**
  551 E. Tyler Mall St ERC RM 159
  Tempe, AZ 85281

  **Structured Materials Industries, Inc.**
  201 Circle Drive North, Suite 102/103
Piscataway, NJ 8854
Gary Tompa (732) 302-9274
18-1-T8.02-2073 GSFC

Si-Based Lab-on-A-Chip Integrated Photonic Spectrometer [3]

• Astrobotic Technology, Inc.
  2515 Liberty Avenue
  Pittsburgh, PA 15222

Astrobotic Technology, Inc.
  2515 Liberty Avenue
  Pittsburgh, PA 15222
Fraser Kitchell (206) 470-9055
18-1-T4.03-1473 JPL

Mission Coordination and Co-Localization for Planetary Rover Teams [4]

• Carnegie Mellon University
  5000 Forbes Ave.
  Pittsburgh, PA 15213

Mesh Robotics, LLC
  100 43rd St, Ste 104
  Pittsburgh, PA 15201
Michael Wagner (412) 606-3842
18-1-T4.01-7433 ARC

Deep Learning Applied to Detecting Salient Features and Building Better 3D Models [5]

• Case Western Reserve University
  10900 Euclid Ave.
  Cleveland, OH 44106

Advanced Cooling Technologies, Inc.
  1046 New Holland Avenue
Lancaster, PA 17601
William Anderson (717) 205-0602
18-1-T9.01-8702 MSFC

Advanced Hot Reservoir Variable Conductance Heat Pipes for Planetary Landers [6]

• COLORADO STATE UNIVERSITY
  Sponsored Programs; 601 S. Howes St.
  Fort Collins, CO 80523

  Opterus Research and Development, Inc.
  4221 Rolling Gate Road
  Fort Collins, CO 80526
  Thomas Murphey (505) 250-3006
  18-1-T12.01-5482 LaRC

  Validated Engineering Tools for Thin-Ply Composites [7]

• Concurrent Technologies Corporation
  100 CTC Drive
  Johnstown, PA 15904

  Physical Sciences, Inc.
  20 New England Business Center
  Andover, MA 1810
  B. David Green (978) 689-0003
  18-1-T9.01-8762 MSFC

  Regeneratively Cooled Ceramic Matrix Composite Nozzle Assembly for Reduced Weight [8]

• Edison Welding Institute
  1250 Arthur E Adams Drive
  Columbus, OH 43221

• Luna Innovations, Inc.
  301 1st Street Southwest, Suite 200
  Roanoke, VA 24011
Michael Pruzan (540) 769-8430
18-1-T13.01-1313 SSC

Multi-Function Fluid Measurement System using High-Definition Fiber Optic Sensing [9]

- Edison Welding Institute
  1250 Arthur E Adams Drive
  Columbus, OH 43221

TGV Rockets, Inc.
2519 Benning Road Northeast
Washington, DC 20002
Pat Bahn (240) 462-8848
18-1-T9.01-3963 GRC

Ultrasonic Additive Manufacturing of a deep throttling methane injector, [10]

- Florida State University
  222 S. Copeland Street
  Tallahassee, FL

Sensatek Propulsion Technology, Inc
1736 W. Paul Dirac Drive, Suite 113
Tallahasee, FL 32310
Azryana Soto (850) 348-0687
18-1-T13.01-1183 SSC


- Georgia Institute of Technology-School of Electrical and Computer Engineering
  505 Tenth Street
  Atlanta, GA 30332

OEwaves, Inc.
465 North Halstead Street, Suite #140
Pasadena, CA 91107
Debra Coler (626) 351-4200
18-1-T8.02-7183 GRC

Integrated Photonic Filters for RF Signal Processing [12]

*Los Alamos National Laboratory*

P.O. Box 1663
Los Alamos, NM

**CFD Research Corporation**

701 McMillian Way Northwest, Suite D
Huntsville, AL 35806

Silvia Harvey (256) 726-4858
18-1-T9.01-6232 MSFC

Prediction of Plume Induced Rock Fracture for Landers [13]

*Massachusetts Institute of Technology*

77 Massachusetts Avenue
Cambridge, MA

**Vecna Technologies, Inc.**

7500 Greenway Center Drive, Suite 1130
Greenbelt, MD 20770

Gentiana Spahiu Pina (617) 864-0636
18-1-T4.03-2132 JPL

Coordination of Heterogeneous Robot Swarms for Planetary Logistics Operations [14]

*Mississippi State University*

Lee Boulevard
Mississippi State, MS

**CFD Research Corporation**

701 McMillian Way Northwest, Suite D
Huntsville, AL 35806

Silvia Harvey (256) 726-4858
18-1-T9.01-6552 LaRC

A Scalable Gas-Particle Flow Simulation Tool for Lander Plume-Surface Interaction and Debris Prediction [15]

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

18-1-T9.01-2162 GRC

Multiscale Eulerian-Lagrangian Spray Methodology Coupled with Flamelet Models for Liquid Rocket Engine Combustion [16]

- Missouri University of Science and Technology
  1201 N. State St.
  Rolla, MO
  Technical Data Analysis, Inc.
  3190 Fairview Park Drive, Suite 650
  Falls Church, VA 22042
  Scott Bradfield (703) 226-4061

18-1-T12.01-7662 LaRC

Multiscale Design Tool and Process Development of Thin-Ply Composites [17]

- Montana State University
  Montana State University
  Bozeman, MT
  Stottler Henke Associates, Inc.
  1650 South Amphlett Boulevard, Suite 300
  San Mateo, CA 94402-2516
Nate Henke (650) 931-2719
18-1-T3.02-1093 GRC

Intelligent, Autonomous, Distributed Vehicle and Electrical Power System Management [18]

- Montana State University-Bozeman, Center for Biofilm Engineering
  Montana State University-Bozeman, Center for Biofilm Engineering
  Bozeman, MT 59717

  Sustainable Bioproducts, LLC
  920 Technology Boulevard
  Bozeman, MT 59718
  Rich Macur (406) 579-1370
  18-1-T7.01-1083 ARC

  A Robust Biofilm-Biomat Reactor for Conversion of Mission-Relevant Feedstocks to Products [19]

- North Carolina State University at Raleigh
  2701 Sullivan Drive
  Raleigh, NC 27695

  Geoplasma, LLC
  6703 Odyssey Drive Northwest, Suite 304
  Huntsville, AL 35806
  Timothy McKechnie (256) 851-7653
  18-1-T9.01-9992 LaRC

  Additive Manufacture of Refractory Metal Propulsion Components [20]

- Northwestern University
  633 Clark St
  Evanston, IL

  NuMat Technologies
  8025 Lamon Avenue
  Skokie, IL 60077
  William Morris (847) 929-4186
18-1-T6.01-1733 ARC

Plug and Play: Utilizing MOFs in Preexisting Carbon Dioxide Removal Assemblies for Enhanced Performance, Smaller Footprint, and Lower Energy Consumption, [21]

- Purdue University-Main Campus
  Hovde Hall of Administration
  West Lafayette, IN

Frontier Aerospace Corporation
4109A Guardian Street
Simi Valley, CA 93063
Kevin Schoonover (805) 577-8771
18-1-T9.01-5313 MSFC

Properties Investigation of High-MON Oxidizers for Use in Deep Space Exploration [22]

- Regents of the University of Colorado
  3100 Marine Street
  Boulder, CO 80303

Space Lab Technologies, LLC
P.O. Box 448
Pinecliffe, CO 80471
Christine Escobar (720) 309-8475
18-1-T7.02-2932 KSC

MarsOasis - An Efficient Autonomously Controlled Martian Crop Production System [23]

- Regents of the University of Colorado
  3100 Marine Street
  Boulder, CO 80303

Reaction Systems, LLC
17301 West Colfax Avenue, #160
Golden, CO 80401
Todd Leeson (303) 881-7992
18-1-T6.01-1259 JSC

A Supported Liquid Membrane System for Steady State CO2 Control in a Spacecraft Cabin [24]

• Rochester Institute of Technology

1 Lomb Memorial Dr

Rochester, NY

Aktiwave

241 Ashley Drive

ROCHESTER, NY 14620

Christophe Dorrer (585) 355-2706

18-1-T8.02-4423 GSFC

Femtosecond-Laser Fabrication of Waveguides in Laser Materials [25]

• The University of Central Florida Board of Trustees

12201 Research Parkway, Suite 501

Orlando, FL 32826

ROCCOR, LLC

2602 Clover Basin Drive, Suite D

Longmont, CO 80503

Stephanie Amend (300) 200-0068

18-1-T12.01-7072 LaRC

Engineering and Qualification of Thin-Ply Composites [26]

• The University of Tennessee-Knoxville

527 Andy Holt Tower

Knoxville, TN

Applied Optimization, Inc.

3040 Presidential Drive, Suite 100

Fairborn, OH 45324

Mark Zimmerman (937) 431-5100
18-1-T12.02-8852 LaRC

*Extensible Modeling to Create Knowledgebase for AM Processing of Alloy GrCop-84* [27]

- **The University of Tennessee-Knoxville**
  527 Andy Holt Tower
  Knoxville, TN

  **VisSidus Technologies, Inc.**
  601 Innovation Way
  Daytona Beach, FL 32114
  Rachel Campbell (206) 617-2445
  18-1-T4.03-6342 JPL

  *Smallsat Swarm Sparse Aperture SAR for Recon and Surveillance (SSSASARaS)* [28]

- **The University of Texas at Austin**
  110 Inner Campus Drive
  Austin, TX

  **Omega Optics, Inc.**
  8500 Shoal Creek Boulevard, Building 4, Suite 200
  Austin, TX 78757
  Gloria Chen (512) 996-8833
  18-1-T8.02-3833 GSFC

  *Flash Drive Integrated Label Free Silicon Nano-Photonic Bio-Assays for Space Station Bio-Diagnostics* [29]

- **The University of Texas at El Paso**
  500 W. University Ave
  El Paso, TX

  **Valley Tech Systems, Inc.**
  160 Blue Ravine Road, Suite B
  Folsom, CA 95630
  Joseph Viola (916) 760-3603
  18-1-T1.01-3842 MSFC
Refractory Additively Manufactured Affordable Launch Vehicle RCS [30]

- **University of Arizona**
  
  1177 E. 4th Street, Shantz Building
  
  Tucson, AZ 85721

  **UbiQD**
  
  134 Eastgate Drive
  
  Los Alamos, NM 87544
  
  Hunter McDaniel (505) 310-6767
  
  18-1-T7.02-8052 KSC

  Tailoring the Solar Spectrum for Enhanced Crop Yield for Space Missions [31]

- **University of California Berkeley**
  
  2150 Shattuck Ave., 10th Floor
  
  Berkeley, CA 94704

  **Mosaic Materials, Inc.**
  
  1811 Francisco Street, #4
  
  Berkeley, CA 94703
  
  Jason Husk (925) 289-9623
  
  18-1-T6.01-1154 MSFC

  Efficient CO2 and H2O Removal with Novel Adsorbents for Life Support Applications on Mars [32]

- **University of California-Santa Barbara**
  
  5221 Cheadle Hall
  
  Santa Barbara, CA

  **Nexus Photonics, LLC**
  
  2320 De La Vina Street, #12
  
  Santa Barbara, CA 93105
  
  Tin Komljenovic (805) 895-4733
  
  18-1-T8.02-3882 GSFC
Chip-scale THz Spectrometer [33]

- University of Central Florida
  4000 Central Florida Blvd
  Orlando, FL

  Pegasense, LLC
  1511 East State Road 434, Suite 2001
  Winter Springs, FL 32708
  Svetlana Malocha (407) 766-5783
  18-1-T13.01-1144 SSC

  Multi-Band Software Defined Radio Sensor System [34]

- University of Delaware
  104 Hullihen Hall
  Newark, DE

  Composites Automation, LLC
  9 Adelaide Court
  Newark, DE 19702
  Dirk Heider (302) 831-8898
  18-1-T12.01-7112 LaRC

  Ultra-Thin Ply Formable Material from Reusable Short Carbon Fiber Composites [35]

- University of Illinois at Urbana-Champaign
  601 E John Street
  Champaign, IL

  CU Aerospace, LLC
  301 North Neil Street, Suite 502
  Champaign, IL 61820
  David Carroll (217) 239-1703
  18-1-T4.01-3162 ARC

  Scalable and Distributed Inertial Navigation Systems [36]
- **University of Maryland-College Park**
  7950 Baltimore Avenue
  College Park, MD

  **Intelligent Automation, Inc.**
  15400 Calhoun Drive, Suite 190
  Rockville, MD 20855
  Mark James (301) 294-5221
  18-1-T15.01-3543 AFRC
  
  *Aeroservoelastic Multifidelity Design of Biomimetic Aircraft (AMuBA)* [37]

- **University of Massachusetts Lowell**
  600 Suffolk Street, Suite 212
  Lowell, MA 1854

  **NextGen Materials & Processing, LLC**
  31 Wells Drive
  Tewksbury, MA 1876
  Konstantine Fetfatsidis (978) 604-1660
  18-1-T12.01-1662 LaRC

  *Automated Fiber Placement of Thin-Ply Composite Materials for Large Aerospace Structures* [38]

- **University of Nebraska - Lincoln**
  2200 Vine Street
  Lincoln, NE 68583

  **Sentient Science**
  672 Delaware
  Buffalo, NY 14209
  Melissa McReynolds (716) 239-8215
  18-1-T12.02-4053 JPL

  *Sentient Science - A Multiscale Modeling Suite for Process and Microstructure Prediction in Metal Additive Manufacturing* [39]
• University of South Carolina-Columbia
  Columbia-Campus
  Columbia, SC

  Sustainable Innovations, LLC
  111 Roberts Street, Suite J
  East Hartford, CT 6108
  Trent Molter (860) 652-9690
  18-1-T6.01-1070 JSC

  Bifunctional Regenerative Electrochemical Air Transformation for Human Environments [40]

• University of Southern California
  3720 S. Flower Street
  Los Angeles, CA 90089

  Parabilis Space Technologies, Inc.
  1195 Linda Vista Drive, Suite F
  San Marcos, CA 92078
  David Brynes (619) 750-4484
  18-1-T1.01-8823 MSFC

  Nanosat Maneuvering and Orbital Transfer Stage [41]

• University of Washington-Seattle Campus
  1400 NE Campus Parkway
  Seattle, WA

  M4 Engineering, Inc.
  4020 Long Beach Boulevard
  Long Beach, CA 90807
  Myles Baker (562) 305-3391
  18-1-T15.01-6203 AFRC

  Novel Aeroservoelastic Scaled Model Design, Fabrication, and Testing [42]
- **Virginia Tech**
  Virginia Tech MC 0238
  Blacksburg, VA 24061

  **Nanosonic, Inc.**
  158 Wheatland Drive
  Pembroke, VA 24136
  Melissa Campbell (540) 626-6266
  18-1-T13.01-5942 SSC
  
  [Wireless Networked Cryogenic and Minimum Pressure Sensors](#) [43]

- **Virginia Tech**
  403 Durham Hall
  Blacksburg, VA 24061

  **Nanosonic, Inc.**
  158 Wheatland Drive
  Pembroke, VA 24136
  Melissa Campbell (540) 626-6266
  18-1-T7.02-6802 KSC
  
  [Hydroponic Rego-rock Produced In-Space for Efficient and Healthy Crop Growth](#) [44]