Proposals Selected for Negotiation of Contracts

- **Caltech**
  1200 East California Boulevard
  Pasadena, CA 91125
  
  ChromoLogic, LLC
  1225 South Shamrock Avenue
  Monrovia, CA 91016
  Naresh Menon (626) 381-9974
  15-1-T8.01-9968 JPL

  Multifunctional Environmental Digital Scanning Electron Microprobe (MEDSEM) [1]

- **Carnegie Mellon University**
  5000 Forbes Ave
  Pittsburgh, PA 15213
  
  Astrobotic Technology, Inc.
  2515 Liberty Avenue
  Pittsburgh, PA 15222
  Steven Huber (281) 389-8171
  15-1-T11.01-9889 ARC

  Perception and Navigation for Exploration of Shadowed Domains [2]

- **Carnegie Mellon University**
  5000 Forbes Ave
  Pittsburgh, PA 15213
  
  Astrobotic Technology, Inc.
  2515 Liberty Avenue
Subsurface Prospecting by Planetary Drones [3]

Carnegie Mellon University
5000 Forbes Ave
Pittsburgh, PA 15213

Astrobotic Technology, Inc.
2515 Liberty Avenue
Pittsburgh, PA 15222
Steven Huber (281) 389-8171
15-1-T4.02-9887 KSC

Long-Range Terrain Characterization for Productive Regolith Excavation [4]

Carnegie Mellon University - Silicon Valley
NASA Research Park, Bldg 23
Moffett Field, CA 94305

TRACLabs, Inc.
100 North East Loop 410, Suite 520
San Antonio, TX 78216
David Kortenkamp (281) 461-7886
15-1-T11.01-9943 ARC

Adaptive Resource Estimation and Visualization for Planning Robotic Missions [5]

Colorado State University
601 South Howes Street
Fort Collins, CO 80523

Nanosonic, Inc.
158 Wheatland Drive
Pembroke, VA 24136
Melissa Campbell (540) 626-6266
15-1-T12.03-9881 JSC

Ultra Low Air and H2 Permeability Cryogenic Bladder Materials for Inflatable Habitats [6]

- **Fisk University**
  1000 Seventeenth Avenue N
  Nashville, TN 37208

Brimrose Technology Corporation
P.O. Box 616, 19 Loveton Circle
Sparks, MD 21152
Diane Murray (936) 588-6901
15-1-T8.01-9959 JPL

Instrumentation For Multiple Radiation Detection Based On Novel Mercurous Halides For Nuclear Planetology [7]

- **George Mason University**
  4400 University Drive
  Fairfax, VA 22030

N5 Sensors, Inc.
9610 Medical Center Drive, #200
Germantown, MD 20874
Nichole Sullivan (618) 751-9782
15-1-T6.01-9894 JSC

Nanoengineered Hybrid Gas Sensors for Spacesuit Monitoring [8]

- **Lawrence Livermore National Laboratory**
  PO Box 808
  Livermore, CA 94551

Polaronyx, Inc.
2526 Qume Drive, Suites 17 and 18
San Jose, CA 95131
Jian Liu (408) 573-0930
15-1-T9.01-9933 LaRC

Ultra Large Core High Energy Fiber Amplifier [9]

• Louisiana Tech University
  P.O. Box 3168
  Ruston, LA 71272

American GNC Corporation
  888 Easy Street
  Simi Valley, CA 93065
  Emily Melgarejo (805) 582-0582
  15-1-T13.01-9874 SSC

Integrated Monitoring AWAReness Environment (IM-AWARE) [10]

• Mississippi State University
  Mississippi State
  Mississippi State, MS 39762

Keystone Synergistic Enterprises, Inc.
  664 Northwest Enterprise Drive, Suite 118
  Port Saint Lucie, FL 34953
  Bryant Walker (772) 343-7544
  15-1-T12.04-9941 MSFC


• Missouri University of Science and Technology
  202 Centennial Hall, 300 West 12th St
  Rolla, MO 65409

M4 Engineering, Inc.
  4020 Long Beach Boulevard
  Long Beach, CA 90807
Kevin Roughen (562) 981-7797
15-1-T11.02-9858 JPL

**Multi-Disciplinary Analysis and Optimization of Integrated Spacecraft System Models** [12]

- **Northwestern University**
  2220 CAMPUS DR RM 4051
  Evanston, IL 60208

  **NOUR, LLC**
  1500 Sheridan Road, Unit 8A
  Wilmette, IL 60091

  Manijeh Razeghi (847) 491-7251
  15-1-T8.01-9970 JPL

  **Tunable THz Source for Environmental Monitoring of Planetary Bodies** [13]

- **Northwestern University**
  2220 CAMPUS DR RM 4051
  Evanston, IL 60208

  **NOUR, LLC**
  1500 Sheridan Road, Unit 8A
  Wilmette, IL 60091

  Manijeh Razeghi (847) 491-7251
  15-1-T8.01-9967 JPL

  **Design and Fabrication of Strain-Balanced nBn Dual-Band LWIR/LWIR Focal Plane Arrays Based on InAsSb/InAsType-II Superlattices** [14]

- **Oregon State University**
  116 Covell Hall, Office of Research and Economic Development
  Corvallis, IL 97331

  **Aries Design Automation, LLC**
  2705 West Byron Street
  Chicago, IL 60618
Miroslav Velev (773) 856-6633
15-1-T11.01-9878 ARC

Advanced Tools for Effective Automated Test Generation [15]

- Oregon State University
  153 Gilbert Hall
  Corvallis, OR 97331

Voxtel, Inc.
15985 Northwest Schendel Avenue, Suite 200
Beaverton, OR 97006
Debra Ozuna (971) 223-5646
15-1-T9.01-9896 LaRC

Ultra-Miniature High-power Pulsed Microchip Lasers [16]

- Pennsylvania State University
  University Park
  State College, PA 16108

Terves, Inc.
24112 Rockwell Drive, Suite C
Euclid, OH 44117
Brian Doud (216) 870-0990
15-1-T1.01-9879 MSFC

Green, Compact Hybrids for Nanosatellite Launchers [17]

- Pennsylvania State University
  124 Land and Water Building
  University Park, PA 16802

Solid State Ceramics, Inc.
136 Catawissa Avenue, Suite 30
Williamsport, PA 17701
Cathy Brooke (570) 320-1777
15-1-T3.01-9926 SSC

Extreme Environment Ceramic Energy Harvesting/Sensors [18]

- Sandia National Laboratories
  PO Box 5800, MS-1322
  Albuquerque, NM 87185

  CFD Research Corporation
  701 McMillian Way Northwest, Suite D
  Huntsville, AL 35806
  Silvia Harvey (256) 726-4858
  15-1-T12.02-9985 GRC


- Southwest Research Institute
  1050 Walnut Street, Suite 300
  Boulder, CO 80302

  Southwest Sciences, Inc.
  1570 Pacheco Street, Suite E-11
  Santa Fe, NM 87505
  Alan Stanton (505) 984-1322
  15-1-T6.01-9940 JSC

  Spacesuit Multigas Monitor [20]

- The Rector and Visitors of the University of Virginia
  1001 North Emmet St., PO Box 400195
  Charlottesville, VA 22904

  Materials Research and Design, Inc.
  300 East Swedesford Road
  Wayne, PA 19087
Brian Sullivan (610) 964-6131
15-1-T12.02-9935 GRC

Ceramic Matrix Composite Environmental Barrier Coating Durability Model [21]

- The Regents of the University of Colorado
  3100 Marine Street Rm 479
  Boulder, CO 80303

Advanced Space, LLC
2100 Central Ave Suite 102
Boulder, CO 80301
Bradley Cheetham (607) 316-1273
15-1-T4.02-9966 KSC

A Robust Architecture for Sampling Small Bodies [22]

- The Regents of the University of Michigan
  2455 Hayward St.
  Ann Arbor, MI 48109

Michigan Aerospace Corporation
1777 Highland Drive, Suite B
Ann Arbor, MI 48108
John Dodds (734) 975-8777
15-1-T6.02-9946 GSFC

Improved Forecasts of Solar Particle Events using Eruptive Event Generators based on Gibson-Low and Titov-Demoulin Magnetic Configurations [23]

- The Regents of the University of New Mexico
  1700 Lomas Blvd NE Ste 2200, MSC-01 1247
  Albuquerque, NM 87131

Bluecom Systems And Consulting, LLC
801 University Southeast, Suite 100
Albuquerque, NM 87106
Sudharman Jayaweera Kankanamge (505) 615-1807
15-1-T5.01-9993 GRC

Wideband Autonomous Cognitive Radios for Networked Satellites Communications [24]

• The University of Alabama in Huntsville
  301 Sparkman Drive NW
  Huntsville, AL 35899

  CFD Research Corporation
  701 McMillian Way Northwest, Suite D
  Huntsville, AL 35806
  Silvia Harvey (256) 726-4858
  15-1-T6.02-9986 GSFC

  Improved Forecasting of Solar Particle Events and their Effects on Space Electronics [25]

• Univ of Arizona
  1209 E. 2nd Street, Room 303
  Tucson, AZ 85721

  Space Micro, Inc.
  10237 Flanders Court
  San Diego, CA 92121
  David Strobel (858) 332-0700
  15-1-T5.01-9982 GRC

  Sensing Aware Autonomous Communications System [26]

• University New Hampshire
  8 College Road
  Durham, NH 3824

  Predictive Science, Inc.
  9990 Mesa Rim Road, Suite 170
  San Diego, CA 92121
  Lierin Schmidt (858) 450-6494
15-1-T6.02-9936 GSFC

A Coupled System for Predicting SPE Fluxes [27]

- University of Alabama
  Box 870104
  Tuscaloosa, AL 35487

  Busek Company, Inc.
  11 Tech Circle
  Natick, MA 1760
  Judy Budny (508) 655-5565
  15-1-T4.02-9916 KSC

  Unmanned Solar Electric Resource Prospector [28]

- University of Alabama in Huntsville
  301 Sparkman Drive
  Huntsville, AL 35899

  Gloyer-Taylor Laboratories, LLC
  112 Mitchell Boulevard
  Tullahoma, TN 37388
  Paul Gloyer (931) 455-7330
  15-1-T1.01-9957 MSFC

  Advanced Hybrid Stage [29]

- University of Alaska Fairbanks
  903 Koyukuk Drive
  Fairbanks, AK 99775

  Garvey Spacecraft Corporation
  389 Haines Avenue
  Long Beach, CA 90814
  John Garvey (562) 498-2984
15-1-T1.01-9963 MSFC

**NLV Upper Stage Development and Flight Testing** [30]

- University of California, Santa Cruz
  1156 High St.
  Santa Cruz, CA 95064

  **Aurora Flight Sciences Corporation**
  90 Broadway, 11th Floor
  Cambridge, MA 2142
  Scott Hart (617) 500-4892
  15-1-T4.01-9989 AFRC
  
  **Active Twist Control for a Compliant Wing Structure** [31]

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

  **Honeybee Robotics, Ltd.**
  Building 128, Suite 121 63 Flushing Avenue Unit 150
  Brooklyn, NY 11205
  Kris Zacny (510) 207-4555
  15-1-T4.02-9942 KSC
  
  **The World is Not Enough (WINE): Harvesting Local Resources for Eternal Exploration of Space** [32]

- University of Central Florida
  12201 Research Parkway, Suite 501
  Orlando, FL 32826

  **Mesa Photonics, LLC**
  1550 Pacheco Street
  Santa Fe, NM 87505
  David Bomse (505) 216-5015
  15-1-T6.01-9981 JSC
Compact Raman Air Sensor [33]

- **University of Dayton**
  
  300 College Park
  
  Dayton, OH 45469

  **Voxtel, Inc.**
  
  15985 Northwest Schendel Avenue, Suite 200
  
  Beaverton, OR 97006

  Debra Ozuna (971) 223-5646
  
  15-1-T9.01-9898 LaRC

  Highly Sensitive Flash LADAR Camera [34]

- **University of Hawaii**
  
  2440 Campus Road, Box 368
  
  Honolulu, HI 96822

  **Q-Peak, Inc.**
  
  135 South Road
  
  Bedford, MA 1730

  B. David Green (978) 689-0003
  
  15-1-T8.01-9947 JPL

  Compact Laser for In-Situ Compositional Analysis [35]

- **University of Houston-Clear Lake**
  
  2700 Bay Area Blvd.
  
  Houston, TX 77058

  **Tietronix Software, Inc.**
  
  1331 Gemini Avenue, Suite 300
  
  Houston, TX 77058

  Victor Tang (281) 404-7222
  
  15-1-T11.02-9988 JPL
• University of Miami
1251 Memorial Drive, McArthur Engineering Building, Rm. 325
Coral Gables, FL 33146

Veraphotonics, Inc.
40898 Abuelo Way
fremont, CA 94539
An-Dien nguyen (408) 802-7489
15-1-T12.01-9877 LaRC

**Fiber Optic Acoustic Emission System for Structural Health Monitoring of Composite Pressure Vessels** [37]

• University of Michigan
3003 S. State Street, 1061 Wolverine Tower
Ann Arbor, MI 48109

Systems Technology, Inc.
13766 Hawthorne Boulevard
Hawthorne, CA 90250
Suzie Fosmore (310) 679-2281
15-1-T4.01-9934 AFRC

**Gust Load Estimation and Rejection With Application to Robust Flight Control Design for HALE Aircraft** [38]

• University of Michigan
3003 S. State Street
Ann Arbor, MI 48109

Michigan Engineering Services, LLC
2890 Carpenter Road, Suite 1900
Ann Arbor, MI 48108
Christina Vlahopoulos (734) 358-0792
15-1-T11.02-9925 JPL

**Fusion of Modeling and Simulation Credibility in Multidisciplinary Design** [39]
• **University of North Texas**
  
  1155 Union Circle #305250
  
  Denton, TX 76203

  **Intelligent Optical Systems, Inc.**

  2520 West 237th Street
  
  Torrance, CA 90505
  
  Reuben Sandler (424) 263-6305
  
  15-1-T6.01-9992 JSC

  [Advanced Gas Sensing Technology for Space Suits](#) [40]

• **University of Washington**

  433 Brooklyn Avenue NE
  
  Seattle, WA 98195

  **M4 Engineering, Inc.**

  4020 Long Beach Boulevard
  
  Long Beach, CA 90807
  
  Myles Baker (562) 305-3391
  
  15-1-T4.01-9910 AFRC

  [Innovative Aerodynamic Modeling for Aeroservoelastic Analysis and Design](#) [41]

• **Utah State University**

  4100 Old Main Hill
  
  Logan, UT 84322

  **Parabilis Space Technologies, Inc.**

  1145 Linda Vista Drive
  
  San Marcos, CA 92078
  
  Richard Slansky (855) 727-2245
  
  15-1-T1.01-9931 MSFC

  [High Performance Hybrid Upper Stage for NanoLaunch Vehicles](#) [42]
- **Utah State University**
  Utah State University, Logan, Utah 84322-1415
  Logan, UT 84322

- **Wavefront, LLC**
  7 Johnston Circle
  Basking Ridge, NJ 7920
  Jie Yao (609) 558-4806
  15-1-T8.01-9857 JPL
  
  **ShortWave Infrared Focal plane Technology for Close-range Active Mineralogy Mapping (SWIFT-CAMM)** [43]

- **Utah State University**
  1415 Old Main Hill - Room 64
  Logan, UT 84322

- **Fibertek, Inc.**
  13605 Dulles Technology Drive
  Herndon, VA 20171
  Tracy Perinis (703) 471-7671
  15-1-T9.01-9983 LaRC
  
  **Configurable, Multi-Beam, Doppler Ladar Based Precision Landing Sensor** [44]

- **Vanderbilt University**
  2301 Vanderbilt Place
  Nashville, TN 37240

- **MetaMorph, Inc.**
  49 Music Square West Suite 210
  Nashville, TN 37203
  Justin Knight (615) 585-2967
  15-1-T11.02-9998 JPL
  
  **Multi Domain Modeling for Space Systems** [45]
- **Virginia Polytechnic Institute and State University**
  North End Center, Suite 4200, Virginia Tech 300 Turner Street
  Blacksburg, VA 24061

  **MicroXact, Inc.**
  1750 Kraft Drive, Suite 1007
  Blacksburg, VA 24060
  Elena Kochergina (540) 394-4040
  15-1-T3.01-9890 SSC
  [High Figure-of-Merit Macro-Structured Thermoelectric Materials](#) [46]

- **Virginia Tech**
  635 Prices Fork Road - MC 0238
  Blacksburg, VA 24061

  **Prime Photonics, LC**
  1116 South Main Street
  Blacksburg, VA 24060
  Steve Poland (540) 315-3649
  15-1-T3.01-9930 SSC
  [High Temperature Multimode Harvester for Wireless Strain Applications](#) [47]

- **Virginia Tech**
  Burruss Hall
  Blacksburg, VA 24061

  **Prime Photonics, LC**
  1116 South Main Street
  Blacksburg, VA 24060
  Steve Poland (540) 315-3649
  15-1-T12.01-9908 LaRC
  [Modified Acoustic Emission for Prognostic Health Monitoring](#) [48]
• Wright State University
  3640 Colonel Glenn Highway
  Dayton, OH 45435

  Advratech LLC
  714 East Monument Avenue
  Dayton, OH 45402
  Kevin Hartke (937) 865-3730
  15-1-T12.04-9977 MSFC

  Integration of Fast Predictive Model and SLM Process Development Chamber [49]

• Wright State University
  3640 Colonel Glenn Hwy
  Dayton, OH 45435

  Advratech LLC
  714 East Monument Avenue
  Dayton, OH 45402
  Kevin Hartke (937) 865-3730
  15-1-T12.04-9979 MSFC

  Real-Time Geometric Analysis of Additive Manufacturing [50]