



## Proposals Selected for Negotiation of Contracts

Expand All

- **Alabama (7)**

**CFD Research Corporation**

701 McMillian Way Northwest, Suite D

Huntsville, AL 35806

Silvia Harvey (256) 726-4858

17-1-A1.02-9739 LaRC

[High Fidelity Tool for Noise Source Identification](#) [1]

**CFD Research Corporation**

701 McMillian Way Northwest, Suite D

Huntsville, AL 35806

Silvia Harvey (256) 726-4858

17-1-A1.05-9738 LaRC

[A Software Tool for High-Order Element Mesh Generation](#) [2]

**CFD Research Corporation**

701 McMillian Way Northwest, Suite D

Huntsville, AL 35806

Silvia Harvey (256) 726-4858

17-1-A1.07-9737 GRC

[Integrated Fluid and Materials Modeling of Environmental Barrier Coatings](#) [3]

**CFD Research Corporation**

701 McMillian Way Northwest, Suite D

Huntsville, AL 35806

Silvia Harvey (256) 726-4858

17-1-A1.10-9734 LaRC

[Non-Intrusive Computational Method and Uncertainty Quantification Tool for Isolator Operability Calculations](#) [4]

**CFD Research Corporation**

701 McMillian Way Northwest, Suite D

Huntsville, AL 35806

Silvia Harvey (256) 726-4858

17-1-Z1.01-9731 GSFC

[Radiation and High Temperature Tolerant GaN Power Electronics](#) [5]

**Geoplasma, LLC**

6703 Odyssey Drive, Northwest Suite 304

Huntsville, AL 35806

Timothy McKechnie (256) 851-7653

17-1-H8.01-8465 JSC

[Evaluation of Multifunctional Radiation Shielding Material Against Long Duration Space Environment - Utilization of MISSE-FF](#) [6]

**Streamline Automation, LLC**

3100 Fresh Way Southwest

Huntsville, AL 35805

Aijalon Putzier (256) 713-1220

17-1-S3.02-9166 GRC

[Hybrid Propulsion Technology for Robotic Science Missions](#) [7]

• **Arizona (15)**

**AdValue Photonics, Inc.**

3440 East Britannia Drive, Suite 190

Tucson, AZ 85706

Shibin Jiang (520) 790-5468

17-1-S1.01-8484 GSFC

[1.57 Micron High Pulse Energy Single Frequency Fiber Laser](#) [8]

**Alphacore, Inc.**

398 South Mill Avenue, Suite 304

Tucson, AZ 85281

Milena Thompson (520) 887-7755

17-1-S4.04-8643 JPL

[Rad-Hard LDO](#) [9]

**Alphacore, Inc.**

398 South Mill Avenue, Suite 304

Tucson, AZ 85281

Esko Mikkola (520) 647-4445

17-1-S3.03-8929 GRC

[Single-Chip DC-DC Converter for Harsh Environments](#) [10]

**ATS-MER, LLC**

7960 South Kolb Road

Tucson, AZ 85756

Thomas Smith (520) 574-1980

17-1-Z3.02-8958 MSFC

[Solid State Non-powder Process for Boron Nitride Nanotube Metal Matrix Composite](#) [11]

**D&P, LLC**

3409 North 42nd Place

Phoenix, AZ 85018

Lei Tang (602) 957-2868

17-1-A1.05-9645 LaRC

[A Fully Automated Mesh Generation Tool](#) [12]

**DeepAnalytX**

7057 East Townsend Place

Tucson, AZ 85750

Brian Gaudet (520) 870-5567

17-1-H9.03-8573 GSFC

[Spacecraft Rendezvous Guidance in Cluttered Dynamical Environments via Extreme Learning Machines](#)

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[13]

**Electric Power Systems**

4233 S Bedford Drive

Chandler, AZ 85249

Nathan Millecam (480) 416-2624

17-1-A2.01-9699 AFRC

[Active Battery Management System with Physics Based Life Modeling Topology](#) [14]

**Howe Industries, LLC**

140 East Rio Salado Parkway, #902

Tempe, AZ 85281

Troy Howe (480) 250-6820

17-1-Z10.03-8482 MSFC

[Fuel Element for an Affordable NTR](#) [15]

**Lenzner Research, LLC**

125 East Canyon View Drive

Tucson, AZ 85704

Matthias Lenzner (347) 301-5402

17-1-S3.07-9949 MSFC

[Sensitivity Enhanced Fiber Laser Gyr](#) [16]

**Paragon Space Development Corporation**

3481 East Michigan Street

Tucson, AZ 85714

Tracey Jaloma (520) 382-4814

17-1-H3.01-9384 JSC

[Expandable Habitat Outfit Structures](#) [17]

**Paragon Space Development Corporation**

3481 East Michigan Street

Tucson, AZ 85714

Tracey Jaloma (520) 382-4814

17-1-Z2.01-8839 JSC

[Controlled Stagnation Radiator](#) [18]

**S. D. Miller and Associates, PLLC**

216 West Cherry Avenue, Building 2

Flagstaff, AZ 86001

Stephen Miller (928) 779-5000

17-1-Z7.03-8642 LaRC

[Flexible, Phase Change Fabric for Deployable Decelerators](#) [19]

**Sigma Technologies International, Inc.**

10960 North Stallard Place

Tucson, AZ 85737

Christopher Hohmann (520) 575-8013

17-1-S3.03-9009 GRC

[Lightweight High Energy Density Capacitors for NASA AMPS and PPU's](#) [20]

**TIPD, LLC**

1430 North 6th Avenue

Tucson, AZ 85705

James Fountain (520) 250-4405

17-1-S1.01-9266 GSFC

[All Fiber Gas Reference Cell](#) [21]

**Vector Launch Inc.**

824 East 16th Street

Tucson, AZ 85719

Carole Leon (888) 346-7778

17-1-Z9.01-9204 MSFC

[Flight Demonstration of a Micropump-based Stage Pressurization System](#) [22]

• **California (65)**

**Adv Materials Innovations**

10743 Matinal Circle

San Diego , CA 92127

Carl Edwards (858) 437-1276

17-1-H4.03-8974 JSC

[Sensor to Measure Space Suit Interactions with the Human Body](#) [23]

**Advanced Scientific Concepts, LLC**

135 East Ortega Street

Santa Barbara, CA 93101

JoAnn Stettner (805) 966-3331

17-1-A3.02-8875 ARC

[3D Flash LIDAR All Weather Safety](#) [24]

**Allcomp, Inc.**

209 Puente Avenue

City of Industry, CA 91746

Wei Shih (626) 369-1273

17-1-H5.02-9590 LaRC

[Novel, Functionally Graded PIP Coating System for Hot Structures](#) [25]

**Alpha STAR Corp**

5150 East Pacific Coast Highway, Suite 650

Long Beach, CA 90804

Kay Matin (562) 961-7827

17-1-Z3.01-8440 MSFC

[In-Situ Sensing of Additive Manufacturing Process for safety-Critical Aerospace Applications](#) [26]

**An Uncommon Lab**

2301 Nelson Avenue

Redondo Beach, CA 90278

Tucker McClure (424) 257-0303

17-1-S5.04-9682 JPL

[An Open-Source Simulation Environment for Model-Based Engineering](#) [27]

**Angstrom Designs, Inc.**

P.O. Box 2032

Santa Barbara, CA 93120

Tim Halsey (805) 284-4535

17-1-H5.01-9246 LaRC

[OmniFlex - Modular Power for Mars Surface Missions](#) [28]

**Antara Teknik, LLC**

5233 Castlereigh Court

Granite Bay, CA 96746

Mehmet Adalier (916) 834-4729

17-1-Z8.02-9571 GRC

[Efficient and Secure Network and Application Communications for Small Spacecraft](#) [29]

**AOSense, Inc.**

929 East Arques Avenue

Sunnyvale, CA 94085

Jason Burke (408) 636-2643

17-1-S1.10-8423 GSFC

[Cold Atom Laser Module \(CALM\)](#) [30]

**ATAC**

2770 De La Cruz Boulevard

Santa Clara, CA 95050

Charles Winkleman (408) 736-2822

17-1-A3.01-8685 ARC

[Collective Inference based Data Analytics System for Post Operations Analysis](#) [31]

**ATAC**

2770 De La Cruz Boulevard

Santa Clara, CA 95050

Charles Winkleman (408) 736-2822

17-1-A3.02-8684 ARC

[Airport Movement Area Closure Planner](#) [32]

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**Atlas Scientific**

1367 Camino Robles Way

San Jose, CA 95120

Ali Kashani (408) 507-0906

17-1-S1.09-9887 GSFC

[Regenerators for 10 Kelvin Cryocoolers](#) [33]

**AYMACS, Inc.**

3550 Lebon Drive Unit 6415

San Diego, CA 92122

Ayden Maralani (408) 410-9636

17-1-S4.04-9095 JPL

[Essential Silicon Carbide Based Integrated Circuits for Extreme Environments](#) [34]

**Bubbleology Research International**

1642 Elm Avenue

Solvang, CA 93463

Ira Leifer (805) 683-3333

17-1-S1.08-9622 ARC

[A total Ammonium Reactor \(NHxR\) for In-Situ Mobile Measurements: A Critical Tool to Understand Aerosol Formation](#) [35]

**CASCADE Technologies, Inc.**

2445 Faber Place, Suite 100

Palo Alto, CA 94303

Donna Carrig (408) 482-3749

17-1-A1.10-9277 LaRC

[Machine-Learning & QMU for Multi-Fidelity Analysis of Scramjet Operability](#) [36]

**CFE Services**

5147 Pacifica Drive

San Diego, CA 92109

Brian Catanzaro (858) 204-6299



17-1-S2.03-8837 MSFC

[Lightweight, Stable Optical Benches in Silicon Carbide and Beryllium](#) [37]

**Chronos Technology (Div. of FMI, Inc.)**

15302 Bolsa Chica Street

Huntington Beach, CA 92649

Kouros Sariri (714) 373-8100

17-1-S4.04-8391 JPL

[+500C Hi-Rel Rad Hard, Rugged Modulator](#) [38]

**Deployable Space Systems, Inc.**

460 Ward Drive, Suite F

Santa Barbara, CA 93111

Brian Spence (805) 722-8090

17-1-S3.01-8886 GRC

[Mission-Enabling Photovoltaic Flexible Blanket Solar Array with SNC/SJ Surface Mount Technology](#) [39]

**Deployable Space Systems, Inc.**

460 Ward Drive, Suite F

Santa Barbara, CA 93111

Brian Spence (805) 722-8090

17-1-S3.01-9023 GRC

[Game-Changing Photovoltaic Flexible Blanket Solar Array Technology with Spectrolab Flexsheets](#) [40]

**Empirical Systems Aerospace, Inc.**

P.O. Box 595

Pismo Beach, CA 93448

Andrew Gibson (805) 275-1053

17-1-A1.06-9070 GRC

[Onboard Generic Fault Detection Algorithm Development and Demonstration for VTOL sUAS](#) [41]

**Freedom Photonics, LLC**

41 Aero Camino

Santa Barbara, CA 93117

Milan Mashanovitch (805) 967-4900

17-1-A2.01-9301 AFRC

[Integrated Photonic Engine for Miniaturized Fiber Optics Sensor Interrogators](#) [42]

**Freedom Photonics, LLC**

41 Aero Camino

Santa Barbara, CA 93117

Milan Mashanovitch (805) 967-4900

17-1-H9.01-8838 JPL

[Geiger-Mode SiGe Receiver for Long-Range Optical Communications](#) [43]

**Gener8, Inc.**

500 Mercury Drive

Sunnyvale, CA 94085

William Bischel (650) 940-9898

17-1-S1.10-8457 GSFC

[Long Term Ultrastable Laser System at 780 nm for Atomic Clocks](#) [44]

**Gener8, Inc.**

500 Mercury Drive

Sunnyvale, CA 94085

William Bischel (650) 940-9898

17-1-Z8.05-9148 GSFC

[Integrated Waveguide Optical Gyroscope](#) [45]

**Human Automation Teaming Solutions, Inc.**

20944 Sherman Way, Suite 211

Canoga Park, CA 91303

Vicky Ho (818) 912-6166

17-1-A3.03-8665 ARC

[HATIS: Human Autonomy Teaming Interface System for UTM Risks Management](#) [46]

**Innoflight, Inc.**

9985 Pacific Heights Boulevard, Suite 250

San Diego, CA 92121

David Andaleon (858) 638-1580

17-1-Z8.02-9171 GRC

[Compact Multi-Protocol Modem](#) [47]

**Innosense, LLC**

2531 West 237th Street, Suite 127

Torrance, CA 90505

Kisholoy Goswami (310) 530-2011

17-1-H3.02-9612 JPL

[Micro-Electro-Analytical Sensor for Sensitive, Selective and Rapid Monitoring of Hydrazine in the Presence of Ammonia](#) [48]

**Integra Technologies, Inc.**

321 Coral Circle

El Segundo, CA 90245

Gerry O' Brien (310) 606-0855

17-1-S1.02-8426 JPL

[A High Efficiency 400W GaN Amplifier for X-Band Radar Remote Sensing Using >50 VDC FETs](#) [49]

**Intelligent Fiber Optic Systems Corporation**

2363 Calle Del Mundo

Santa Clara, CA 95054

Behzad Moslehi (408) 565-9004

17-1-H10.01-9576 SSC

[Advanced Propulsion Systems Ground Test Technology](#) [50]

**Intelligent Optical Systems, Inc.**

2520 West 237th Street

Torrance, CA 90505

Reuben Sandler (424) 263-6305

17-1-H3.02-9639 JPL

[Compact Chemical Monitor for Silver Ions in Spacecraft Water Systems](#) [51]

**Intelligent Optical Systems, Inc.**

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2520 West 237th Street

Torrance, CA 90505

Reuben Sandler (424) 263-6305

17-1-Z3.01-8823 MSFC

[In-Line Inspection of Additive Manufactured Parts Using Laser Ultrasonics](#) [52]

**Intelligent Optical Systems, Inc.**

2520 West 237th Street

Torrance, CA 90505

Reuben Sandler (424) 263-6305

17-1-S1.08-8821 ARC

[Luminescent Sensors for Ocean Water Monitoring](#) [53]

**Irvine Sensors Corporation**

3001 Red Hill Avenue, B3-108

Costa Mesa, CA 92626

Daryl Smetana (714) 444-8760

17-1-Z6.01-8732 JPL

[FLASHRAD: A 3D Rad Hard Memory Module For High Performance Space Computers](#) [54]

**LaunchPoint Technologies, Inc.**

5735 Hollister Avenue, Suite B

Goleta, CA 93117

Vicki Young (805) 683-9659

17-1-A1.03-9051 GRC

[Wide Bandgap Semiconductor Based Solid State Smart Circuit Protection](#) [55]

**LaunchPoint Technologies, Inc.**

5735 Hollister Avenue, Suite B

Goleta, CA 93117

Vicki Young (805) 683-9659

17-1-A1.06-8999 GRC

[Light-Weight, Non-Contact Magnetic Transmission for UAV and Rotorcraft Applications](#) [56]

**Leiden Measurement Technology, LLC**

1230 Mountain View Alviso Road, Suite A

Sunnyvale, CA 94089

Nathan Bramall (510) 301-8980

17-1-S1.11-8595 JPL

[WOLFEChip: Wholly-Integrated Optofluidic Laser-Induced Fluorescence Electrophoresis Chip](#) [57]

**LongWave Photonics, LLC**

958 San Leandro Avenue

Mountain View, CA 94043

Alan Lee (617) 399-6405

17-1-S1.04-9669 JPL

[Tunable, High-Power Terahertz Quantum Cascade Laser Local Oscillator](#) [58]

**Makel Engineering, Inc.**

1585 Marauder Street

Chico, CA 95973

Darby Makel (530) 895-2771

17-1-Z11.01-9067 LaRC

[Microwave-Interrogated Embedded Sensor System for Nondestructive Evaluation \(NDE\) of Complex Structures](#) [59]

**Mentium Technologies Inc.**

2208 Pacific Coast Drive

Goleta, CA 93117

Mirko Prezioso (805) 617-6245

17-1-A2.02-9133 AFRC

[Low-power, ultra-fast deep learning neuromorphic chip for unmanned aircraft systems](#) [60]

**Mindrum Precision, Inc.**

10000 4th Street

Rancho Cucamonga, CA 91730

Kurt Ponsor (909) 989-1728

17-1-S2.04-9989 GSFC

[Pre-Collimator Chemical Milling for X-ray Telescopes](#) [61]

**Nirvana Energy Systems, Inc.**

3130 Alpine Road, Suite 288 Box 6

Portola Valley, CA 94028

Lambertus Hesselink (415) 269-7102

17-1-Z1.03-9659 GRC

[Linear Acoustic Nuclear Conversion Engine \(LANCE\)](#) [62]

**OEwaves, Inc.**

465 North Halstead Street, Suite #140

Pasadena, CA 91107

Debra Coler (626) 351-4200

17-1-S1.10-8993 GSFC

[Optical Flywheel for Yb+ Ion Clock](#) [63]

**Onu Technology, Inc.**

7280 Blue Hill Drive, Suite 2

San Jose, CA 95129

Guha Jayachandran (408) 714-9253

17-1-H6.03-8666 ARC

[A Cognitive Architecture Using Reinforcement Learning to Enable Autonomous Spacecraft Operations](#) [64]

**Optimal Synthesis, Inc.**

95 First Street, Suite 240

Los Altos, CA 94022

Victor Cheng (650) 559-8585

17-1-A3.03-8644 ARC

[Vision-Based Automation System for Safe and Efficient Taxi Operations](#) [65]

**Pacific Microchip Corporation**

3916 Sepulveda Boulevard, #108

Culver City, CA 90230

Ieva Ivanauskas (310) 683-2628

17-1-S1.03-8764 GSFC

[Low-Power Radiation Tolerant 4GHz Bandwidth 16k Channel Spectrometer ASIC](#) [66]

**Pacific Microchip Corporation**

3916 Sepulveda Boulevard, #108

Culver City, CA 90230

Ieva Ivanauskas (310) 683-2628

17-1-S1.03-9385 GSFC

[Correlation Radiometer ASIC](#) [67]

**Pacific Microchip Corporation**

3916 Sepulveda Boulevard, #108

Culver City, CA 90230

Ieva Ivanauskas (310) 683-2628

17-1-S1.04-8763 JPL

[A Low Power Rad-Hard ADC for the KID Readout Electronics](#) [68]

**Parabilis Space Technologies, Inc.**

1195 Linda Vista Drive, Suite F

San Marcos, CA 92078

David Streich (855) 727-2245

17-1-Z3.02-9914 MSFC

[Additively Manufactured Multi-Material Insert](#) [69]

**Physical Optics Corporation**

1845 West 205th Street

Torrance, CA 90501

Gordon Drew (310) 320-3088

17-1-Z3.01-9533 MSFC

[Penetrating High-Resolution Inspection Tool for In-Process Control of Additive Manufacturing](#) [70]

**Physical Optics Corporation**

1845 West 205th Street

Torrance, CA 90501

Gordon Drew (310) 320-3088

17-1-S1.08-9678 ARC

[Portable Atmosphere Scanning LIDAR](#) [71]

**Physical Optics Corporation**

1845 West 205th Street

Torrance, CA 90501

Gordon Drew (310) 320-3088

17-1-Z8.01-9664 GRC

[Balanced Electric Spacecraft Thruster System](#) [72]

**Polaronyx, Inc.**

2526 Qume Drive, Suites 17 and 18

San Jose, CA 95131

Jian Liu (408) 573-0930

17-1-S3.06-9615 GSFC

[3D Manufacturing of Integrated Heat Exchangers](#) [73]

**Redondo Optics, Inc.**

811 North Catalina Avenue, Suite 1100

Redondo Beach, CA 90277

Edgar Mendoza (310) 292-7673

17-1-Z7.01-8404 JPL

[Weaved Distributed Plastic Optical Fiber Sensor \(DIFOS\) SHM system](#) [74]

**San Diego Composites, Inc.**

9220 Activity Road

San Diego, CA 92126

Christine Benzie (858) 751-0450

17-1-H5.01-9421 LaRC

[Solar Transportable Array Rover for Conformable Deployment Retraction on Mars](#) [75]

**Somatis Sensor Solutions**

525 South Hewitt Street



Los Angeles, CA 90013

Brian Norton (888) 414-1940

17-1-H4.03-8726 JSC

[Flexible Polymer Sensor for Space Suits](#) [76]

**South 8 Technologies, Inc.**

3030 Bunker Hill St., Suite 319

San Diego, CA 92109

Cyrus Rustomji (858) 304-0231

17-1-S3.03-9828 GRC

[Liquefied Gas Catholytes for Ultra-Low Temperature Lithium Primary Batteries](#) [77]

**Stottler Henke Associates, Inc.**

1650 South Amphlett Boulevard, Suite 300

San Mateo, CA 94402

Nate Henke (650) 931-2700

17-1-H6.03-9503 ARC

[Integration Framework for Building Autonomous Intelligent Systems](#) [78]

**Systems Technology, Inc.**

13766 Hawthorne Boulevard

Hawthorne, CA 90250

Suzie Fosmore (310) 679-2281

17-1-A2.02-8755 AFRC

[Developing a Certifiable UAS reliability Assessment Approach Through Algorithmic Redundancy](#) [79]

**The Peregrine Falcon Corporation**

1051 Serpentine Lane, Suite 100

Pleasanton, CA 94566

Robert Hardesty (925) 461-6800

17-1-S2.03-8723 MSFC

[Advanced Athermal Telescopes](#) [80]

**Transition45 Technologies, Inc.**

1739 North Case Street

Orange, CA 92865

Edward Chen (714) 283-2118

17-1-A1.01-8463 LaRC

[Manufacturing For Design of Titanium Alloys](#) [81]

**Transition45 Technologies, Inc.**

1739 North Case Street

Orange, CA 92865

Edward Chen (714) 283-2118

17-1-Z3.02-8480 MSFC

[Engineered Alloy Structures by Friction Stir Reaction Processing](#) [82]

**Ultramet**

12173 Montague Street

Pacoima, CA 91331

Craig Ward (818) 899-0236

17-1-S4.03-8399 JPL

[Advanced Ignition System for Hybrid Rockets for Sample Return Missions](#) [83]

**Valley Tech Systems, Inc.**

160 Blue Ravine Road, Suite B

Folsom, CA 95630

Joseph Viola (916) 760-3603

17-1-Z9.01-9883 MSFC

[Affordable Small Satellite Launch Vehicle Reaction Control System](#) [84]

**WASK Engineering, Inc.**

3905 Dividend Drive

Cameron Park, CA 95682

Wendel Burkhardt (530) 672-2795

17-1-Z10.02-8691 GRC

[High Response Control Valve](#) [85]

**Wecoso, LLC**

6741 Brentwood Drive

Huntington Beach, CA 92648

Carl Kirkconnell (714) 222-0424

17-1-S1.09-9809 GSFC

[SmallSat Stirling Cryocooler for Earth Science and Interplanetary Exploration](#) [86]

**ZeCoat Corporation**

23510 Telo Avenue, Suite 3

Torrance, CA 90505

David Sheikh (424) 254-6002

17-1-S2.04-9520 GSFC

[Battery-Powered Process for Coating Telescope Mirrors in Space](#) [87]

• **Colorado (38)**

**Advanced Space, LLC**

2100 Central Avenue Suite 102

Boulder, CO 80301

Bradley Cheetham (720) 545-9191

17-1-S3.04-9783 GSFC

[Cislunar Autonomous Positioning System \(CAPS\)](#) [88]

**Agile RF Systems, LLC**

4316 Beverly Drive

Berthoud, CO 80513

Kimberly Kelly (303) 520-6964

17-1-H9.04-9007 JPL

[Row Column Phased Array Architecture for Low Cost, Low Profile Millimeter Wave Phased Array Antennas](#) [89]

**Air Squared, Inc.**

510 Burbank Street

Broomfield, CO 80020

Bryce Shaffer (513) 238-9778

17-1-H1.01-9317 JSC

[High Capacity Multi-Stage Scroll Compressor for Mars Atmosphere Acquisition](#) [90]

**Air Squared, Inc.**

510 Burbank Street

Broomfield, CO 80020

Robert Shaffer (513) 200-3787

17-1-Z10.02-9316 GRC

[Spinning-Scroll Pump for Cryogenic Feed System](#) [91]

**Air Squared, Inc.**

510 Burbank Street

Broomfield, CO 80020

Bryce Shaffer (513) 238-9778

17-1-H3.04-9315 JSC

[Vapor Compression Refrigeration System for Cold Storage on Spacecrafts](#) [92]

**Altius Space Machines, Inc.**

3001 Industrial Lane, Unit #5

Broomfield, CO 80020

Jonathan Goff (801) 362-2310

17-1-H3.01-9493 JSC

[Robotic Interface DogTags for Autonomous Habitat Outfitting and Logistics](#) [93]

**Beyond Photonics, LLC**

6205 Lookout Road, Suite B

Boulder, CO 80301

Charley Hale (303) 475-2088

17-1-S1.01-8897 GSFC

[Autonomous Alignment Advancements for Eye-Safe Coherent Lidar](#) [94]

**Black Swift Technologies LLC**

2100 Central Avenue, Suite 102

Boulder, CO 80301

Jack Elston (720) 933-4503

17-1-A1.09-8639 GRC

[Improved UAS Robustness through Augmented Onboard Intelligence](#) [95]

**Blue Sun Enterprise, Inc.**

1942 Broadway Street, Suite 314

Boulder, CO 80302

Christopher Grasso (720) 394-8897

17-1-S3.04-8513 GSFC

[AutoNav Mark 4: Autonomous Navigation Software](#) [96]

**Boulder Environmental Sciences and Technology**

5171 Eldorado Springs Drive, Suite A

Boulder, CO 80303

Marian Klein (303) 532-1198

17-1-S1.02-9097 JPL

[Deployable Microwave Antennas for CubeSats, NanoSats, and SmallSats](#) [97]

**Boulder Nonlinear Systems, Inc.**

450 Courtney Way, Unit 107

Lafayette, CO 80026

Mark Tanner (303) 604-0077

17-1-S1.01-8884 GSFC

[High Speed Beam Steering Components for Lidar](#) [98]

**Boulder Nonlinear Systems, Inc.**

450 Courtney Way, Unit 107

Lafayette, CO 80026

Mark Tanner (303) 604-0077

17-1-S4.01-9312 JPL

[Non-mechanical High-Resolution Low-SWaP Lidar](#) [99]

**ExoTerra Resource, LLC**

10579 Bradford Road, Suite 103

Littleton, CO 80127

Michael VanWoerkom (303) 565-6898

17-1-Z8.03-8424 GRC

[High Power Radiation Tolerant CubeSat Power System](#) [100]

**Microelectronics Research Development Corporation**

4775 Centennial Boulevard, Suite 130

Colorado Springs, CO 80919

Karen Van Cura (719) 531-0805

17-1-Z6.01-9874 JPL

[Radiation Hardened High Speed Integrated Circuits Double Data Rate I/O for Extreme Operating Environments](#) [101]

**Microelectronics Research Development Corporation**

4775 Centennial Boulevard, Suite 130

Colorado Springs, CO 80919

Karen Van Cura (719) 531-0805

17-1-S3.08-9859 GSFC

[Miniaturized Spacecraft Platform for Command, Data Handling and Electronics](#) [102]

**microVection, Inc.**

245 West Midway Boulevard

Broomfield, CO 80020

Geoffrey Campbell (303) 941-8091

17-1-S3.06-8747 GSFC

[Asymmetric Conductance Thermoelectric Cooling Modules for Cryogenic Applications](#) [103]

**microVection, Inc.**

245 West Midway Boulevard

Broomfield, CO 80020

Geoffrey Campbell (303) 941-8091

17-1-Z2.01-8746 JSC

[Ultra-Lightweight Compact Heat Exchangers for Aerospace Applications](#) [104]

**MMA Design, LLC**

P.O. Box 7804

Loveland, CO 80537

Mitchell Wiens (720) 728-8487

17-1-Z8.03-9393 GRC

[High Watts Per Kilogram - Advanced Integration and Heat Management Solar Array Technology \(HaWK-AIHM\)](#) [105]

**MMA Design, LLC**

P.O. Box 7804

Loveland, CO 80537

Mitchell Wiens (720) 728-8487

17-1-S1.02-9973 JPL

[Deployable Ka/W Dual Band Cylindrical Parabolic Antenna Including Feed Support Structure](#) [106]

**Optical Engines, Inc.**

842 South Sierra Madre Street, Suite D

Colorado Springs, CO 80903

Donald Sipes (815) 383-8303

17-1-H9.01-8808 JPL

[Kilowatt Level Uplinks for Deep Space Optical Communications](#) [107]

**Pioneer Astronautics**

11111 West 8th Avenue, Unit A

Lakewood, CO 80215

Robert Zubrin (303) 980-0890

17-1-H1.02-9600 JSC

[Advanced Mars Water Acquisition System](#) [108]

**Plasma Controls, LLC**

1180 La Eda Lane

Fort Collins, CO 80526

Casey Farnell (970) 581-2239

17-1-S3.02-9837 GRC

[Iodine Hollow Cathode](#) [109]

**Quest Thermal Group**

6452 Fig Street Unit A

Arvada, CO 80004

Alan Kopelove (303) 395-3100

17-1-Z2.01-9331 JSC

[Variable Gas-Conductance Radiator: Lightweight, High Turndown Spacecraft Radiator](#) [110]

**Quest Thermal Group**

6452 Fig Street Unit A

Arvada, CO 80004

Alan Kopelove (303) 395-3100

17-1-Z10.01-9245 GRC

[Multi-Environment MLI: Novel Multi-Functional Insulation for Mars Missions](#) [111]

**Quest Thermal Group**

6452 Fig Street Unit A

Arvada, CO 80004

Alan Kopelove (303) 395-3100

17-1-S3.06-9496 GSFC

[Variable Conductance Radiator: A Novel Lightweight, High Turndown Spacecraft Radiator Using Variable Heat Conductors](#) [112]

**ROCCOR, LLC**

2602 Clover Basin Drive, Suite D

Louisville, CO 80027

Stephanie Amend (801) 710-1252

17-1-S1.06-9292 GSFC

[Simplified High-Performance Roll Out Composite Magnetometer Boom](#) [113]

**ROCCOR, LLC**

2602 Clover Basin Drive, Suite D

Louisville, CO 80027



Stephanie Amend (801) 710-1252

17-1-S3.02-9418 GRC

[Trussed TRAC Boom for Solar Sails](#) [114]

**ROCCOR, LLC**

2602 Clover Basin Drive, Suite D

Louisville, CO 80027

Stephanie Amend (801) 710-1252

17-1-Z8.03-9293 GRC

[High-Strain Composite Deployable Radiators for CubeSats](#) [115]

**ROCCOR, LLC**

2602 Clover Basin Drive, Suite D

Louisville, CO 80027

Stephanie Amend (801) 710-1252

17-1-Z4.01-9290 LaRC

[Fully Adaptive Slit-tube Structures with Electrically Integrated Smart Joints](#) [116]

**TDA Research, Inc.**

12345 West 52nd Avenue

Wheat Ridge, CO 80033

John Wright (303) 940-2300

17-1-Z10.03-9105 MSFC

[Novel Sorbent to Remove Radioactive Halogens and Noble Gases from NTP Engine Exhaust](#) [117]

**TDA Research, Inc.**

12345 West 52nd Avenue

Wheat Ridge, CO 80033

John Wright (303) 940-2300

17-1-H1.01-9111 JSC

[ISRU CO2 Recovery](#) [118]

**TDA Research, Inc.**

12345 West 52nd Avenue

Wheat Ridge, CO 80033

John Wright (303) 940-2300

17-1-H3.03-9108 JSC

[Spacecraft Cabin Air CO2 Recovery](#) [119]

**TDA Research, Inc.**

12345 West 52nd Avenue

Wheat Ridge, CO 80033

John Wright (303) 940-2300

17-1-H10.03-9107 SSC

[H2/He Separation System](#) [120]

**TDA Research, Inc.**

12345 West 52nd Avenue

Wheat Ridge, CO 80033

John Wright (303) 940-2300

17-1-Z2.01-9104 JSC

[Thermal Insulator for a Venus Lander](#) [121]

**Tech-X Corporation**

5621 Arapahoe Avenue, Suite A

Boulder, CO 80303

John Cary (720) 974-1855

17-1-H11.01-9532 LaRC

[RSim: A Simulation Tool Integrating Radiation Codes and CAD.](#) [122]

**Tendeg, LLC**

686 South Taylor Avenue, Suite 108

Louisville, CO 80027

Gregg Freebury (303) 929-4466

17-1-S2.02-8520 JPL

[Redundant StarShade Truss Deployment Motor/Cable Assembly](#) [123]

**Tendeg, LLC**

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686 South Taylor Avenue, Suite 108

Louisville, CO 80027

Gregg Freebury (303) 929-4466

17-1-S1.02-9250 JPL

[Enabling Larger Deployable Ka-Band Antenna Apertures with Novel Rib](#) [124]

**TentGuild Engineering Company**

4740 Table Mesa Drive

Boulder, CO 80305

Gyula Greschik (866) 666-7761

17-1-H5.01-9714 LaRC

[Concentrically Mounted Wrapped Array with Cable Support](#) [125]

• **Connecticut (7)**

**Connecticut Analytical Corporation**

696 Amity Road

Bethany, CT 06524

Joseph Bango (203) 393-9666

17-1-S1.11-9802 JPL

[Ocean Life Detection on Alien Worlds](#) [126]

**Connecticut Analytical Corporation**

696 Amity Road

Bethany, CT 06524

Joseph Bango (203) 393-9666

17-1-S1.11-9800 JPL

[Electro-Kinetic Ice Gun for Frozen Ice Plume Simulations](#) [127]

**Flightware, Inc.**

829 Podunk Road

Guilford, CT 06437

David Maass (203) 458-0722

17-1-Z3.01-8785 MSFC

[Layer Topographic Mapping \(LTM\) for L-PBF Process](#) [128]

**Precision Combustion, Inc.**

410 Sackett Point Road

North Haven, CT 06473

Spencer Roux (203) 287-3700

17-1-Z1.02-8904 GRC

[Highly Efficient, Durable Regenerative Solid Oxide Stack](#) [129]

**Qualtech Systems, Inc.**

100 Corporate Place Suite 220

Rocky Hill, CT 06067

Sudipto Ghoshal (860) 761-9341

17-1-H6.01-9516 ARC

[Flexible Integrated System Health Management for Sustainable Habitats using TEAMS](#) [130]

**Supercool Metals, LLC**

5 Science Park, 2nd Floor

New Haven, CT 06511

Evgenia Pekarskaya (646) 244-0247

17-1-Z3.02-8909 MSFC

[Thermoplastic Forming of Bulk Metallic Glasses for Precision Robotics Components](#) [131]

**Sustainable Innovations, LLC**

111 Roberts Street, Suite J

East Hartford, CT 06108

Trent Molter (860) 652-9690

17-1-H3.03-9217 JSC

[Solid State Oxygen Concentrator and Compressor](#) [132]

• **Delaware (6)**

**Composites Automation, LLC**

9 Adelaide Court

Newark, DE 19702

Dirk Heider (302) 584-4184

17-1-H4.01-9146 JSC

[Impact Resistant Composite Structures for Space Suit Applications](#) [133]

**EM Photonics, Inc.**

51 East Main Street, Suite 203

Newark, DE 19711

Renee Willis-Williams (302) 456-9003

17-1-S5.01-9825 ARC

[A New Architecture for FUN3D on Modern HPC Systems](#) [134]

**Made in Space, Inc.**

427 North Tatnall Street, #56666

Wilmington, DE 19801

Michael Snyder (419) 271-0602

17-1-H8.01-8809 JSC

[Industrial Crystallization Facility for Nonlinear Optical Materials](#) [135]

**Made in Space, Inc.**

427 North Tatnall Street, #56666

Wilmington, DE 19801

Michael Snyder (419) 271-0602

17-1-H7.02-8696 MSFC

[The Vulcan Advanced Hybrid Manufacturing System](#) [136]

**Phase Sensitive Innovations Inc.**

51 East Main Street, Suite 201

Newark, DE 19711

Renee Willis-Williams (302) 456-9003

17-1-S1.03-9822 GSFC

[Microwave Photonic Imaging Radiometer](#) [137]

**STF Technologies, LLC**

58 Darien Road

Newark, DE 19711

Richard Dombrowski (716) 799-5935

17-1-H4.01-8870 JSC

[Impact-Resistant, Damage-Tolerant Composites with STF Energy Absorbing Layers](#) [138]

• **District of Columbia (1)**

**TGV Rockets, Inc.**

2519 Benning Road Northeast

Washington, DC 20002

Pat Pat Bahn (240) 462-8848

17-1-Z10.02-9079 GRC

[Integrated Powerhead for Methane Propulsion Systems](#) [139]

• **Florida (8)**

**Innovative Space Technologies, LLC**

424 East Central Boulevard, #647

Orlando, FL 32819

James Stanley (321) 591-9638

17-1-H11.01-8533 LaRC

[Ultra-Lightweight Multifunctional Magnesium Alloy Shielding Structures](#) [140]

**Interdisciplinary Consulting Corporation**

5745 Southwest 75th Street, #364

Gainesville, FL 32608

Leonard Kubik (256) 960-9520

17-1-A1.02-9654 LaRC

[High Channel Count, High Density Microphone Arrays for Wind Tunnel Environments](#) [141]

**Interdisciplinary Consulting Corporation**

5745 Southwest 75th Street, #364

Gainesville, FL 32608

Leonard Kubik (256) 960-9520

17-1-A1.08-9629 LaRC

[Fast Response, Fiber-Optic Micromachined Five-Hole Probe for Three-Dimensional Flow Measurements in Harsh Environments](#) [142]

**Mainstream Engineering Corporation**

200 Yellow Place

Rockledge, FL 32955

Michael Rizzo (321) 631-3550

17-1-Z2.01-8791 JSC

[High Lift Heat Pump](#) [143]

**Micro Aerospace Solutions, Inc.**

907 East Strawbridge Avenue

Melbourne, FL 32901

Cyndi Penteadó (321) 210-1315

17-1-Z9.01-9158 MSFC

[Affordable Integrated GPS-Actuator GN&C System for Small Launch Vehicles](#) [144]

**R Cubed Engineering, LLC**

4103 11th Street Court West, Unit #203

Palmetto, FL 34221

RaNae Contarino (202) 271-9686

17-1-A3.02-8346 ARC

[High Integrity GPS Solution for Trusted Automatic Dependent Surveillance - Broadcast \(ADS-B\)](#) [145]

**Troxel Aerospace Industries, Inc.**

2023 Northeast 55th Boulevard

Gainesville, FL 32641

Ian Troxel (720) 626-0454

17-1-Z6.01-8473 JPL

[Robust Multicore Middleware](#) [146]

**VINMA Systems, LLC**

647 Greenwood Manor Circle

West Melbourne, FL 32904

Vincent Kovarik (321) 749-5726

17-1-H6.02-8880 ARC

[Resiliency Evaluation, Assessment and Contingency Tools](#) [147]

• **Georgia (6)**

**Global Technology Connection, Inc**

2839 Paces Ferry Road, Suite 1160

Atlanta, GA 30339

Ash Thakker (770) 803-3001

17-1-H6.02-9054 ARC

[Resilient Autonomous Systems: Life-Cycle Design, Metrics and Simulation-Based Assessment](#) [148]

**Global Technology Connection, Inc**

2839 Paces Ferry Road, Suite 1160

Atlanta, GA 30339

Ash Thakker (770) 803-3001

17-1-H6.01-9055 ARC

[Operation-Aware ISHM for Environmental Control and Life Support in Deep Space Habitants](#) [149]

**Helden Aerospace Corporation**

2463 Saluda Drive

Acworth, GA 30101

John Hooker (678) 849-8420

17-1-A1.05-8647 LaRC

[HeldenSurface: A CAD Tool to Generate High-Quality Surfaces](#) [150]

**nGimat Co.**

1824 Willow Trail Parkway

Norcross, GA 30093



Andrew Hunt (404) 734-3050

17-1-H9.04-8331 JPL

[Electronically Steered Antenna for Advanced RF Communications](#) [151]

**Virtual AeroSurface Technologies**

2101 Jarrod Place

Smyrna, GA 30080

Tom Crittenden (678) 360-5218

17-1-A1.04-9154 LaRC

[Advanced Chemically-Based Actuation for Active Flow Control](#) [152]

**Zono Services, LLC**

401 Industrial Park Drive

Lawrenceville, GA 30046

Walter Mann (404) 394-2232

17-1-H3.04-8930 JSC

[Innovative Laundering and Sanitization System to Extend Duration of Crew Clothing Wear](#) [153]

• **Illinois (11)**

**ATSP Innovations**

60 Hazelwood Drive

Champaign, IL 61820

Jacob Meyer (217) 778-4400

17-1-Z4.01-8593 LaRC

[Reversible Adhesion Concept for In-Space Assembly](#) [154]

**ATSP Innovations**

60 Hazelwood Drive

Champaign, IL 61820

Jacob Meyer (217) 778-4400

17-1-A1.01-8592 LaRC

[Interchain Transesterification as a Solid-State Composite Welding Mechanism](#) [155]

**CU Aerospace, LLC**

301 North Neil Street, Suite 502

Champaign, IL 61820

David Carroll (217) 239-1703

17-1-Z8.01-9758 GRC

[Fiber Fed Advanced Pulsed Plasma Thruster \(APPT\)](#) [156]

**CU Aerospace, LLC**

301 North Neil Street, Suite 502

Champaign, IL 61820

David Carroll (217) 239-1703

17-1-H9.03-8954 GSFC

[CUA OpenMP Nonlinear Optimization Tool](#) [157]

**CU Aerospace, LLC**

301 North Neil Street, Suite 502

Champaign, IL 61820

David Carroll (217) 239-1703

17-1-S3.04-8406 GSFC

[Strain Actuated Solar Arrays \(SASA\)](#) [158]

**CU Aerospace, LLC**

301 North Neil Street, Suite 502

Champaign, IL 61820

Andrew Palla (217) 239-0629

17-1-S3.02-9845 GRC

[I-Sail: 2500-Square-Meter Solar Sail Prototype Demonstrator](#) [159]

**MicroLink Devices, Inc.**

6457 Howard Street

Niles, IL 60714

Noren Pan (847) 588-3001

17-1-S3.01-9222 GRC

[3D Nano-Epitaxial Lateral Overgrowth \(nano-ELOG\) of Large Area, Highly Efficient, and Flexible Multijunction Solar Cells for Space Applications](#) [160]

**MicroLink Devices, Inc.**

6457 Howard Street

Niles, IL 60714

Noren Pan (847) 588-3001

17-1-Z8.03-9220 GRC

[Flexible High-Efficiency Solar Panels for SmallSats and CubeSats](#) [161]

**MicroLink Devices, Inc.**

6457 Howard Street

Niles, IL 60714

Noren Pan (847) 588-3001

17-1-S3.01-9061 GRC

[Radiation Tolerant 35% Efficient Phosphide-Based 4-Junction Solar Cell with Epitaxial Lift-Off](#) [162]

**NOUR, LLC**

1500 Sheridan Road, Unit 8A

Wilmette, IL 60091

Manijeh Razeghi (847) 491-7251

17-1-S1.04-9289 JPL

[Type-II Superlattice Based Low Dark Current Short-Wavelength Infrared Photodetectors With Optical Response From 0.4 to 2.5um](#) [163]

**NuCrypt, LLC**

7727 Kildare Ave

Skokie, IL 60076

Susan Kumar (847) 733-8750

17-1-S1.02-9156 JPL

[Improved Microwave Photonic Links via Receive-Side Nonlinear Signal Processing](#) [164]

• **Indiana (4)**

**Indiana Microelectronics, LLC**

1281 Win Hentschel Boulevard

West Lafayette, IN 47906

Mike McPheters (630) 868-8381

17-1-A2.01-8297 AFRC

[A Reconfigurable Transmitter and Receiver for Aeronautical Telemetry Applications](#) [165]

**Techshot, Inc.**

7200 Highway 150

Greenville, IN 47124

John Vellinger (812) 923-9591

17-1-H7.01-9552 MSFC

[Software and Tools for Electronics Printing in Space\(STEPS\)](#) [166]

**Techshot, Inc.**

7200 Highway 150

Greenville, IN 47124

John Vellinger (812) 923-9591

17-1-H8.01-9770 JSC

[Rodent Centrifuge](#) [167]

**Victor Technologies, LLC**

P.O. Box 7706

Bloomington, IN 47407

Harold Sabbagh (812) 360-3645

17-1-Z11.02-9901 LaRC

[Electromagnetic Characterization of Advanced Composites by Voxel-Based Inverse Methods](#) [168]

• **Louisiana (1)**

**Inventerm**

8000 Innovation Park Drive

Baton Rouge, LA 70820

Jason Hugenroth (225) 247-3555

17-1-S3.01-9909 GRC

[Meso-Scale Ericsson Power Generation System](#) [169]

- **Maryland (13)**

- **Alpha Omega Electromagnetics, LLC**

- 706 Eachann Lane

- Millersville, MD 21108

- Robert Schmier (410) 626-7682

- 17-1-Z8.02-8945 GRC

- [A Novel High Gain Active Reflect Array Antenna Architecture for Small Spacecraft](#) [170]

- **Arctic Slope Technical Services**

- 289 Dunlop Boulevard, Building 300

- Beltsville, MD 20705

- Joseph Sims (256) 562-2191

- 17-1-S2.03-9958 MSFC

- [Additively Manufactured, Thermally Stable Telescope Mirror Substrates](#) [171]

- **Arctic Slope Technical Services**

- 289 Dunlop Boulevard, Building 300

- Beltsville, MD 20705

- Vivian Jacobs (301) 837-3956

- 17-1-Z9.01-9957 MSFC

- [Additively Manufactured Bimetallic Combustion Chambers for Small Launch Vehicles](#) [172]

- **ASRC Federal System Solutions, LLC (AFSS)**

- 7000 Muirkirk Meadows Drive, Suite100

- Beltsville, MD 20705

- Lawrence Lavallo (301) 837-3978

- 17-1-H10.02-8588 KSC

- [Inflatable Capsule Recovery Raft using OTS Pontoons and Other Components](#) [173]

- **Brimrose Technology Corporation**

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P.O. Box 616, 19 Loveton Circle

Sparks, MD 21152

Diane Murray (936) 588-6901

17-1-H11.01-9190 LaRC

[Novel Radiation Shielding Composite Structural Materials for Deep Space Human Protection](#) [174]

**CoolCAD Electronics, LLC**

7101 Poplar Avenue

Takoma Park, MD 20912

Lisa Sachar (301) 529-9517

17-1-S1.05-9394 GSFC

[SiC 10um-Pitch UV Imaging Array and APD with Active Pixel Readout](#) [175]

**CoolCAD Electronics, LLC**

7101 Poplar Avenue

Takoma Park, MD 20912

Lisa Sachar (301) 405-3363

17-1-S4.04-8775 JPL

[Silicon Carbide Integrated Circuits for Extreme Environment Operation: High Radiation and High Temperature](#) [176]

**Intelligent Automation, Inc.**

15400 Calhoun Drive, Suite 190

Rockville, MD 20855

Mark James (301) 294-5221

17-1-Z11.02-9203 LaRC

[GPU Accelerated Ultrasonic Guided Wave Simulation Toolbox \(UGW-Sim\) for Virtual Inspection of Complex Aerospace Structures](#) [177]

**Lambda Consulting/Advanced Nanophotonics**

4437 Windsor Farm Road

Harwood, MD 20776

John Hagopian (240) 678-9475

17-1-S2.01-8266 JPL

[Proximity Glare Suppression using Carbon Nanotubes](#) [178]

**Maher & Associates, LLC**

2908 Sylvan Avenue

Baltimore, MD 21214

Michael Maher (410) 591-0162

17-1-H4.01-8991 JSC

[Damage Tolerant Composite Systems for Spacesuits](#) [179]

**Robust Analytics**

2053 Liza Way

Gambrills, MD 21054

Peter Kostiuk (410) 980-3667

17-1-A3.03-8309 ARC

[Detecting Anomalies by Fusing Voice and Operations Data](#) [180]

**X-wave Innovations, Inc.**

407 Upshire Circle

Gaithersburg, MD 20878

Jennifer Duan (301) 200-8368

17-1-A2.01-8831 AFRC

[A Combined Health Estimation and Active Balancing Electronic System for the Life Enhancement of Batteries in Hybrid and/or All-Electric Propulsion Systems](#) [181]

**X-wave Innovations, Inc.**

407 Upshire Circle

Gaithersburg, MD 20878

Jennifer Duan (301) 200-8368

17-1-S3.07-8507 MSFC

[Trap-Door-Buffer Enhanced Fourier Spectrum Interferometer](#) [182]

• **Massachusetts (24)**

**Aerodyne Research, Inc.**

45 Manning Road

Billerica, MA 01821

Jiri Cistecki (978) 663-9500

17-1-S1.09-9255 GSFC

[Cryomechanical Preconcentration System for Trace Gas Analysis](#) [183]

**Boston Micromachines Corporation**

30 Spinelli Place

Cambridge, MA 02138

Paul Bierden (617) 868-4178

17-1-S2.01-9865 JPL

[Technology Development for High-Actuator-Count MEMS DM Systems](#) [184]

**Busek Company, Inc.**

11 Tech Circle

Natick, MA 01760

Judy Budny (508) 655-5565

17-1-S3.02-9225 GRC

[Ultra-Compact Center-Mounted Hollow Cathodes for Hall Effect Thrusters](#) [185]

**Busek Company, Inc.**

11 Tech Circle

Natick, MA 01760

Judy Budny (508) 655-5565

17-1-Z8.05-9429 GSFC

[Milliarcsecond Small Spacecraft Attitude Control System](#) [186]

**Busek Company, Inc.**

11 Tech Circle

Natick, MA 01760

Judy Budny (508) 655-5565

17-1-S3.04-9428 GSFC

[Versatile Attitude Control Actuators for Sub-Milliarcsecond Precision Pointing](#) [187]

**Busek Company, Inc.**

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11 Tech Circle

Natick, MA 01760

Judy Budny (508) 655-5565

17-1-S3.03-9426 GRC

[A Universal High Efficiency Modular Discharge Over a Wide Input/Output Voltage Range for Hall Thruster Power Processing Unit](#) [188]

**Custom MMIC Design Services, Inc.**

300 Apollo Drive

Chelmsford, MA 01824

Paul Blount (978) 467-4290

17-1-H9.04-8557 JPL

[GaN MMIC Ka-Band Power Amplifier](#) [189]

**Energid Technologies**

One Mifflin Place, Suite 400

Cambridge, MA 02138

James English (888) 547-4100

17-1-Z5.01-9019 ARC

[Modules and Software for Free-Flying Robots](#) [190]

**Giner, Inc.**

89 Rumford Avenue

Newton, MA 02466

Cortney Mittelsteadt (781) 529-0529

17-1-Z1.02-9465 GRC

[High Energy-Density Lithium-Sulfur Batteries with Extended Cycle Life](#) [191]

**Infibertech, Corp.**

8 Indian Lane

Sharon, MA 02067

Ram Yahalom (781) 806-5625

17-1-S3.04-9777 GSFC

[Ultra Low Noise Compact High Performance IMU](#) [192]

**Magnolia Optical Technologies, Inc.**

52B Cummings Park, Suite 314

Woburn, MA 01801

Ashok Sood (781) 503-1200

17-1-S1.05-8877 GSFC

[Design and Development of High Gain AlGaIn Avalanche Photodiode Arrays](#) [193]

**Microscale, Inc.**

800 West Cummings Park, Suite 3350

Woburn, MA 01801

Xingtao Wu (339) 927-1996

17-1-S2.01-9655 JPL

[Next-Generation Deformable Mirrors for Astronomical Coronagraphy by Utilizing PMN-PT Single Crystal Stack Actuators in integration with Driver ASIC](#) [194]

**Physical Sciences, Inc.**

20 New England Business Center

Andover, MA 01810

David Green (978) 689-0003

17-1-S3.01-9761 GRC

[A Ferroelectric Semiconductor Absorber for Surpassing the Shockley-Queisser Limit](#) [195]

**Physical Sciences, Inc.**

20 New England Business Center

Andover, MA 01810

David Green (978) 689-0003

17-1-S3.02-9632 GRC

[Adaptive Venturi for Monopropellant Feed Systems](#) [196]

**Physical Sciences, Inc.**

20 New England Business Center

Andover, MA 01810

David Green (978) 689-0003

17-1-S4.05-9760 JPL

[Antimicrobial Coating for Metallic Surfaces](#) [197]

**Physical Sciences, Inc.**

20 New England Business Center

Andover, MA 01810

David Green (978) 689-0003

17-1-Z9.01-9627 MSFC

[High Performance Hybrid Propulsion System for a Small Launch Vehicle](#) [198]

**Physical Sciences, Inc.**

20 New England Business Center

Andover, MA 01810

David Green (978) 689-0003

17-1-Z2.01-9765 JSC

[Passive Set-Point Thermal Control Skin for Spacecraft](#) [199]

**Q-Peak, Inc.**

135 South Road

Bedford, MA 01730

David Green (978) 689-0003

17-1-S1.11-8294 JPL

[Compact UV Laser](#) [200]

**Radiation Monitoring Devices, Inc.**

44 Hunt Street

Watertown, MA 02472

Mary Abud (617) 668-6809

17-1-H8.01-9395 JSC

[Crystal Growth of New Radiation Detector Materials in Microgravity](#) [201]

**Reactive Innovations, LLC**

2 Park Drive, Unit 4

Westford, MA 01886

Michael Kimble (978) 692-4664

17-1-H10.03-9438 SSC

[Helium and Hydrogen Mixed Gas Separator](#) [202]

**Remote Sensing Solutions, Inc.**

3179 Main Street, Unit 3, P.O. Box 1092

Barnstable, MA 02630

James Canniff (508) 362-9400

17-1-S5.02-8498 GSFC

[An Interoperable Decision Support System for Flood Disaster Response Assistance](#) [203]

**Remote Sensing Solutions, Inc.**

3179 Main Street, Unit 3, P.O. Box 1092

Barnstable, MA 02630

James Canniff (508) 362-9400

17-1-S4.01-8340 JPL

[An Enhanced Modular Terminal Descent Sensor for Landing on Planetary Bodies](#) [204]

**Scientific Systems Company, Inc.**

500 West Cummings Park, Suite 3000

Woburn, MA 01801

Nicole Withers (781) 933-5355

17-1-A3.02-8935 ARC

[ON-DEMAND: Operations in Dynamic Environments with Manned And Unmanned Aircraft Deconfliction](#) [205]

**Warner Babcock Institute for Green Chemistry**

100 Research Drive

Wilmington, MA 01887

David Wolf (978) 229-5400

17-1-H3.02-9523 JPL

[Wearable Personal Hydrazine Monitoring System](#) [206]

- **Michigan (4)**

- **Cybernet Systems Corporation**

- 3741 Plaza Drive

- Ann Arbor, MI 48108

- Margaret Press (734) 668-2567

- 17-1-H6.03-8918 ARC

- [Holonix Spacecraft Autonomous Agents](#) [207]

- **HARP Engineering, LLC**

- 2055 Kimberwicke Court

- Ann Arbor, MI 48103

- Henry Sodano (480) 205-1202

- 17-1-A1.07-8869 GRC

- [Low Cost Resin for Self-Healing High Temperature Fiber Reinforced Polymer Matrix Composites](#) [208]

- **Michigan Aerospace Corporation**

- 1777 Highland Drive, Suite B

- Ann Arbor, MI 48108

- John Dodds (734) 975-8777

- 17-1-S1.01-9091 GSFC

- [AGILE Etalon Filter for Differential Absorption LIDAR](#) [209]

- **Navitas Advanced Solutions Group, LLC**

- 4880 Venture Drive Suite 100

- Ann Arbor, MI 48108

- Angela Youngblood (734) 205-1434

- 17-1-Z1.02-9685 GRC

- [Bifunctional Membrane for High Energy, Long Shelf Life Li-S Batteries](#) [210]

- **Minnesota (2)**

- **Architecture Technology Corporation**

- 9971 Valley View Road

- Eden Prairie, MN 55344

Lisa Knopik (952) 829-5864

17-1-A3.02-9829 ARC

[Predictor of Airport Runway Capacity \(PARC\)](#) [211]

**Humanetics Corporation**

7650 Edinborough Way, Suite 620

Edina, MN 55435

John Dykstra (952) 400-0404

17-1-H12.01-9189 LaRC

[Protecting Cardiomyocytes from Mixed Fields of Radiation by BIO 300](#) [212]

• **Mississippi (1)**

**Innovative Imaging and Research Corporation**

Building 1103, Suite 140C

Stennis Space Center, MS 39529

Mary Pagnutti (228) 688-2452

17-1-H10.01-9546 SSC

[An Affordable Autonomous Hydrogen Flame Detection System for Rocket Propulsion](#) [213]

• **Missouri (1)**

**Froberg Aerospace, LLC**

1544 Timber Creek Road Unit 4

Rolla, MO 65401

Steven Berg (636) 497-6998

17-1-Z8.01-8547 GRC

[Multi-Mode Micropropulsion](#) [214]

• **Montana (5)**

**ADVR, Inc.**

2310 University Way, Building 1-1

Bozeman, MT 59715

Betsy Heckel (406) 522-0388

17-1-S1.01-9278 GSFC

[Fast Electro-Optic Switch for Pulsed Space-Based Lidar Beam Steering](#) [215]

**ADVR, Inc.**

2310 University Way, Building 1-1

Bozeman, MT 59715

Betsy Heckel (406) 522-0388

17-1-H9.05-8528 GRC

[Polarization Entangled Photon Pair Source for Space-Based Quantum Communication](#) [216]

**ADVR, Inc.**

2310 University Way, Building 1-1

Bozeman, MT 59715

Betsy Heckel (406) 522-0388

17-1-H8.01-9296 JSC

[Utilization of the International Space Station to Verify Photonic Devices for Enhanced Space-Based Atmospheric Profiling](#) [217]

**Anasphere, Inc.**

102 Bartz Lane

Belgrade, MT 59714

John Bognar (406) 595-3286

17-1-Z7.03-8438 LaRC

[High-Capacity, High-Speed, Solid-State Hydrogen Gas Generator](#) [218]

**Glacigen Materials, Inc.**

135 Isaiah Terrace

Belgrade, MT 59714

David Driscoll (406) 570-0686

17-1-A1.07-8502 GRC

[Ceramic-Metal Interfaces by Functional Grading](#) [219]

- **New Hampshire (8)**

- **Applied Geosolutions, LLC**

- 55 Main Street., Suite 125

- Newmarket, NH 03857

- William Salas (603) 292-1192

- 17-1-S5.02-8891 GSFC

- [Operationalizing SAR for Agricultural Decision Support](#) [220]

- **Creare, LLC**

- 16 Great Hollow Road

- Hanover, NH 03755

- Robert Kline-Schoder (603) 643-3800

- 17-1-S1.09-9725 GSFC

- [Low Cost Cryocooler Control Electronics for Small Space Platforms](#) [221]

- **Creare, LLC**

- 16 Great Hollow Road

- Hanover, NH 03755

- Robert Kline-Schoder (603) 643-3800

- 17-1-Z1.03-8766 GRC

- [Ultra-Radiation-Hardened Power Conversion](#) [222]

- **Creare, LLC**

- 16 Great Hollow Road

- Hanover, NH 03755

- Robert Kline-Schoder (603) 643-3800

- 17-1-S5.03-9687 GSFC

- [Open-Source Pipeline for Large-Scale Data Processing, Analysis and Collaboration](#) [223]

- **Creare, LLC**

- 16 Great Hollow Road

- Hanover, NH 03755



Robert Kline-Schoder (603) 643-3800

17-1-H4.02-9635 JSC

[Compact, High-Accuracy Oxygen Flow Meter](#) [224]

**Creare, LLC**

16 Great Hollow Road

Hanover, NH 03755

Robert Kline-Schoder (603) 643-3800

17-1-S3.06-8949 GSFC

[A Two-Phase Pumped Loop Evaporator with Adaptive Flow Distribution for Large Area Cooling](#) [225]

**Mentis Sciences, Inc.**

215 Canal Street

Manchester, NH 03101

John Dignam (603) 624-9197

17-1-S2.03-8716 MSFC

[Silica-Silica Mirror Substrate Fabrication Technology](#) [226]

**QmagiQ**

22 Cotton Road, Unit H, Suite 180

Nashua, NH 03063

Mani Sundaram (603) 821-3092

17-1-S1.04-8477 JPL

[VLWIR Sensors for Detecting and Tracking Near-Earth Asteroids](#) [227]

• **New Jersey (8)**

**Ashwin-Ushas Corp, Inc.**

9 Red Coach Lane

Holmdel, NJ 07733

Prasanna Chandrasekhar (732) 739-1122

17-1-S4.05-8282 JPL

[Unique, Voltammetric Electrochemical Sensors for Organic Contaminants, with Excellent Discrimination, Based on Conducting Polymer-, Aptamer- and Other-Functionalized Sensing Electrodes](#) [228]

**Discovery Semiconductors, Inc.**

119 Silvia Street

Ewing, NJ 08628

Abhay Joshi (609) 434-1311

17-1-H8.01-8903 JSC

[Space Flight of Ultra-Low Noise Quad Photoreceivers for Laser Interferometric Gravity Wave Detection](#) [229]

**Discovery Semiconductors, Inc.**

119 Silvia Street

Ewing, NJ 08628

Abhay Joshi (609) 434-1311

17-1-S1.01-9826 GSFC

[2 Micron Wavelength Coherent Universal LIDAR With Adjustable Resolution and Sensitivity](#) [230]

**MaXentric Technologies, LLC**

2071 Lemoine Avenue, Suite 302

Fort Lee, NJ 07024

Houman Ghajari (858) 272-8800

17-1-H9.04-8956 JPL

[Optically Assisted Analog-to-Digital Converter for Next Generation "Software Defined" Radios](#) [231]

**Nova Photonics, Inc.**

One Oak Place

Princeton, NJ 08540

Fred Levinton (609) 258-5631

17-1-S1.07-8853 JPL

[Coded Aperture Techniques for High-Throughput Imaging Spectroscopy](#) [232]

**Structured Materials Industries, Inc.**

201 Circle Drive North, Suite 102/103

Piscataway, NJ 20878

Gary Tompa (732) 302-9274

17-1-S3.03-8712 GRC

[Lightweight Electrical Power Cable Production](#) [233]

**Structured Materials Industries, Inc.**

201 Circle Drive North, Suite 102/103

Piscataway, NJ 20878

Serdal Okur (732) 302-9274

17-1-Z1.01-8631 GSFC

[High Power Ga2O3-Based Schottky Diode](#) [234]

**UNITED SILICON CARBIDE, INC.**

7 Deer Park Drive, Suite E

Monmouth Junction, NJ 08852

Scott Kelly (732) 355-0550

17-1-S3.03-8745 GRC

[Silicon Carbide Gate Driver](#) [235]

• **New Mexico (11)**

**Goodman Technologies, LLC**

9551 Giddings Avenue Northeast

ALbuquerque, NM 87109

William Goodman (505) 400-8169

17-1-S2.03-9933 MSFC

[3D Printed Silicon Carbide Scalable to Meter-Class Segments for Far-Infrared Surveyor](#) [236]

**Little Prairie Services**

14 Dunkin Road

Edgewood, NM 87015

Roger Lenard (505) 220-8029

17-1-Z10.03-8922 MSFC

[Multi-Physics NTR Safety Analyses](#) [237]

**LoadPath**

2309 Renard Place Southeast, Suite 101

Albuquerque, NM 87108

Adam Biskner (866) 411-3131

17-1-H5.01-8842 LaRC

[Modular Extendable Terrestrial Array](#) [238]

**Mesa Photonics, LLC**

1550 Pacheco Street

Santa Fe, NM 87505

David Bomse (216) 505-5015

17-1-S1.07-9695 JPL

[Rugged Multigas Sensor for Planetary Missions](#) [239]

**Mesa Photonics, LLC**

1550 Pacheco Street

Santa Fe, NM 87505

David Bomse (505) 216-5015

17-1-H3.02-8895 JPL

[Hydrazine Monitoring Technology for Spacecraft Cabin](#) [240]

**Metis Technology Solutions, Inc.**

2309 Renard Place Southeast, Suite 200

Albuquerque, NM 87106

Joy Colucci (650) 207-9378

17-1-Z5.01-8677 ARC

[Small Form Factor RFID Applicator](#) [241]

**Optomec Design Co**

13170B Central Avenue Southeast, Suite 310

Albuquerque, NM 87123

David Ramahi (505) 314-1239

17-1-H7.01-9646 MSFC

[Adaptive Laser Sintering System for In-Space Printed Electronics](#) [242]

**Solstar**

514 Richmond Southeast

Albuquerque, NM 87106

Michael Barnett (505) 934-6528

17-1-H8.01-9852 JSC

[High Speed Data Capability to Increase the Utilization of the Materials International Space Station Experiment \(MISSE-FF\) Flight Facility](#) [243]

**Southwest Sciences, Inc.**

1570 Pacheco Street, Suite E-11

Santa Fe, NM 87505

Alan Stanton (505) 984-1322

17-1-S1.06-8959 GSFC

[CubeSat Magnetometer](#) [244]

**Southwest Sciences, Inc.**

1570 Pacheco Street, Suite E-11

Santa Fe, NM 87505

Alan Stanton (505) 984-1322

17-1-A1.08-9684 LaRC

[Novel Sensor for Wind Tunnel Calibration and Characterization](#) [245]

**Southwest Sciences, Inc.**

1570 Pacheco Street, Suite E-11

Santa Fe, NM 87505

Alan Stanton (505) 984-1322

17-1-S1.08-8940 ARC

[Compact CO2 Instrumentation for Small Aerial Platforms](#) [246]

• **New York (9)**

**Actasys, Inc.**

8 Callaway Circle

Loudonville, NY 12211

Daniele Gallardo (617) 834-0666

17-1-A1.04-8890 LaRC

[Modeling and Controls for Synthetic Jet-Based Active Flow Control](#) [247]

**Clear Science Corporation**

663 Owego Hill Road, PO Box 233

Harford, NY 13784

Henry Carlson (607) 844-9171

17-1-A1.04-9841 LaRC

[Active Flow Control \(AFC\) Design and System Integration Software](#) [248]

**Honeybee Robotics, Ltd.**

Building 128, Suite 121 63 Flushing Avenue Unit 150

Brooklyn, NY 11205

Erik Mumm (720) 340-4491

17-1-S4.04-8372 JPL

[High Temperature Stirling Cooler](#) [249]

**Honeybee Robotics, Ltd.**

Building 128, Suite 121 63 Flushing Avenue Unit 150

Brooklyn, NY 11205

Kristian Mueller (626) 421-7902

17-1-S4.02-8511 JPL

[SLUSH: Europa Hybrid Deep Drill](#) [250]

**Honeybee Robotics, Ltd.**

Building 128, Suite 121 63 Flushing Avenue Unit 150

Brooklyn, NY 11205

Jason Herman (646) 459-7819

17-1-Z5.01-9621 ARC

[Universal Docking Interface for Free-Flying Robots](#) [251]

**Honeybee Robotics, Ltd.**

Building 128, Suite 121 63 Flushing Avenue Unit 150

Brooklyn, NY 11205

Kristian Mueller (626) 421-7902

17-1-S4.02-9693 JPL

[Europa Drum Sampler \(EDuS\)](#) [252]

**Innovative Dynamics, Inc.**

2560 North Triphammer Road

Ithaca, NY 14850

Kumar Seetharam (607) 257-0533

17-1-A3.02-8717 ARC

[Aircraft Icing Hazard Management LIDAR for Take-Off and Landing Safety](#) [253]

**LightSpin Technologies, Inc.**

P.O. Box 7140

Endicott, NY 13761

Jared Bowling (607) 725-5143

17-1-H9.01-8966 JPL

[InGaAs Photomultiplier Chip Photon Counting Array for 1550 nm Operation](#) [254]

**Mohawk Innovative Technology, Inc.**

1037 Watervliet-Shaker Road

Albany, NY 12205

James Walton (518) 862-4290

17-1-Z1.03-9053 GRC

[High Effectiveness and Low Pressure Drop Recuperator for Closed Brayton Cycle Turboalternator](#) [255]

• **Ohio (12)**

**Applied Sciences, Inc.**

141 West Xenia Avenue

Cedarville, OH 45314

Marty Rochon (937) 766-2020

17-1-S2.04-8778 GSFC

[Pyramid Nanostructured Coatings for Stray Light Suppression](#) [256]

**Cornerstone Research Group, Inc.**

2750 Indian Ripple Road

Dayton, OH 45440

Chrysa Theodore (937) 320-1877

17-1-Z2.01-9459 JSC

[Ultra-Lightweight MG Syntactic for Insulation in Extreme Environments](#) [257]

**Cornerstone Research Group, Inc.**

2750 Indian Ripple Road

Dayton, OH 45440

Chrysa Theodore (937) 320-1877

17-1-Z8.04-9455 ARC

[Electrically Activated Shape Memory Polymer for Smallsat Components](#) [258]

**Cornerstone Research Group, Inc.**

2750 Indian Ripple Road

Dayton, OH 45440

Chrysa Theodore (937) 320-1877

17-1-A1.01-9469 LaRC

[Single-Process, Unitized, Composite Fuselage](#) [259]

**Cornerstone Research Group, Inc.**

2750 Indian Ripple Road

Dayton, OH 45440

Chrysa Theodore (937) 320-1877

17-1-Z4.01-9457 LaRC

[Multifunctional Self-Aligning Reversible Joint using Space-Qualifiable Structural Fasteners](#) [260]

**Faraday Technology, Inc.**

315 Huls Drive

Englewood, OH 45315

Jennings Taylor (937) 836-7749



17-1-Z3.02-9720 MSFC

[Manufacturing Decision Tree Model Optimization for Finishing Additive Manufactured Components](#) [261]

**Faraday Technology, Inc.**

315 Huls Drive

Englewood, OH 45315

Jennings Taylor (937) 836-7749

17-1-A1.07-9718 GRC

[Low Cost Corrosion and Oxidation Resistant Coatings for Improved System Reliability](#) [262]

**Hyper Tech Research, Inc.**

539 Industrial Mile Road

Columbus, OH 43228

Sheryl Cantu (740) 517-1938

17-1-A1.03-9411 GRC

[Low AC-Loss Superconducting Cable Technology for Electric Aircraft Propulsion](#) [263]

**Hyper Tech Research, Inc.**

539 Industrial Mile Road

Columbus, OH 43228

Sherrie Cantu (740) 517-1938

17-1-A1.03-9410 GRC

[Advanced Superconducting Rotors Coils for Turboelectric Aircraft Propulsion](#) [264]

**Innovative Scientific Solutions, Inc.**

7610 McEwen Road

Dayton, OH 45459

Larry Goss (937) 620-3012

17-1-A2.01-9077 AFRC

[In-Flight Measurements of Unsteady Pressure using Fast PSP](#) [265]

**Powdermet, Inc.**

24112 Rockwell Drive

Euclid, OH 44117

Andrew Sherman (216) 404-0053

17-1-S3.03-8430 GRC

[Ultra-High Energy Density, High Power and High Efficiency Nanocomposite Capacitor for Aerospace Power System](#) [266]

**Ultratech Machinery**

297 Ascot Parkway

Cuyahoga Falls, OH 44223

Robert Hagarty (330) 929-5544

17-1-H7.02-9767 MSFC

[ISS Multi-Material Fabrication Laboratory using Ultrasonic Additive Manufacturing Technology](#) [267]

• **Oregon (7)**

**e-beam, Inc.**

21070 Southwest Tile Flat Road

Beaverton, OR 97007

Bernard Vancil (503) 628-0703

17-1-S3.02-9525 GRC

[Cathode for Electric Space Propulsion Utilizing Iodine as Propellant](#) [268]

**ParaTools, Inc.**

2836 Kincaid Street

Eugene, OR 97405

Sameer Shende (541) 913-8797

17-1-S5.01-9609 ARC

[Operational High Resolution Chemical Kinetics Simulation](#) [269]

**The Innovation Laboratory, Inc.**

2360 Southwest Chelmsford Avenue

Portland, OR 97201

Michelle Camarda (503) 242-1761

17-1-A3.02-9118 ARC

[Machine Learning of Multi-Modal Influences on Airport Delays](#) [270]

**The Innovation Laboratory, Inc.**

2360 Southwest Chelmsford Avenue

Portland, OR 97201

Michelle Camarda (503) 242-1761

17-1-A3.03-9117 ARC

[Turbulence Awareness via Real-Time Data Mining](#) [271]

**The Innovation Laboratory, Inc.**

2360 Southwest Chelmsford Avenue

Portland, OR 97201

Michelle Camarda (503) 242-1761

17-1-A3.01-9556 ARC

[Turbulence Awareness for Strategic Aircraft Re-Routing \(TASAR-R\)](#) [272]

**UMPQUA Research Company**

P.O. Box 609

Myrtle Creek, OR 97457

Tracy Everett (541) 863-2655

17-1-H3.03-9928 JSC

[Regenerable Carbon Filter](#) [273]

**Voxel, Inc.**

15985 Northwest Schendel Avenue, Suite 200

Beaverton, OR 97006

Debra Ozuna (971) 223-5646

17-1-S2.04-8407 GSFC

[Freeform Optics for Optical Payloads with Reduced Size and Weight](#) [274]

• **Pennsylvania (11)**

**Astrobotic Technology, Inc.**

2515 Liberty Avenue

Pittsburgh, PA 15222

Fraser Kitchell (206) 470-9055

17-1-H2.01-8820 KSC

[Cuberover for Lunar Resource Site Evaluation](#) [275]

**Bally Ribbon Mills**

23 North 7TH Street

Bally, PA 19503

Bert Harries (610) 845-2211

17-1-Z7.02-9990 ARC

[Novel Spider 3D Woven Seamless ADEPT Aero-Shell](#) [276]

**Combustion Research and Flow Technology**

6210 Keller's Church Road

Pipersville, PA 18947

Katherine Young (215) 766-1520

17-1-A1.03-9836 GRC

[A Software Toolkit to Accelerate Emission Predictions for Turboelectric/Hybrid Electric Aircraft Propulsion](#) [277]

**Combustion Research and Flow Technology**

6210 Keller's Church Road

Pipersville, PA 18947

Katherine Young (215) 766-1520

17-1-Z10.01-9866 GRC

[Modeling Turbulence Effects in Cryogenic Propellant Tank Thermal Management](#) [278]

**Diamond Materials, Inc.**

23 Brahms Court

East Stroudsburg, PA 18301

Oleg Voronov (570) 730-4108

17-1-S4.04-9333 JPL

[Large Area Diamond Tribological Surfaces with Negligible Wear in Extreme Environments](#) [279]

**LignaMed, LLC**

3711 Market Street

Philadelphia, PA 19104

James Harris (215) 206-2754

17-1-H12.01-8754 LaRC

[LGM2605 as a Mitigator of Space Radiation-Induced Vascular Damage](#) [280]

**Materials Research and Design, Inc.**

300 East Swedesford Road

Wayne, PA 19087

Brian Sullivan (610) 964-6131

17-1-A1.07-8887 GRC

[A Mathematical Model to Assess CMAS Damage in EBCs](#) [281]

**PolyK Technologies, LLC**

2124 Old Gatesburg Road

State College, PA 16803

Shihai Zhang (518) 605-6897

17-1-H10.01-8389 SSC

[Innovative Ultra-High Efficiency Cryogenic Actuators for Rocket Test Facilities](#) [282]

**Protoinnovations, LLC**

5453 Albemarle Avenue

Pittsburgh, PA 15217

Dimitrios Apostolopoulos (412) 916-8807

17-1-Z5.02-8656 JSC

[Tensegrital Wheel for Enhanced Surface Mobility](#) [283]

**QorTek, Inc.**

1965 Lycoming Creek Road, Suite 205

Williamsport, PA 17701

Cathy Bower (570) 322-2700

17-1-Z8.03-9396 GRC

[Dynamically Reconfigurable Electrical Power System\(EPS\) with Integrated Thermal Management and High Voltage capability for Small Spacecraft](#) [284]

**SET Group, LLC**

46 Overlook Drive

Norristown, PA 19403

Raul Chinga Alvarado (844) 738-9933

17-1-S3.03-8373 GRC

[GaN-Based High Power High Frequency Wide Range LLC Resonant Converter](#) [285]

• **Rhode Island (1)**

**T.E.A.M., Inc.**

841 Park East Drive

Woonsocket, RI 02895

Aaron Tomich (401) 762-1500

17-1-Z7.02-9630 ARC

[3D Polar Woven Deployable Skirt with Integrally Woven Attachment Features](#) [286]

• **Texas (20)**

**AI Biosciences, Inc.**

1902 Pinon Drive, Suite C

College Station, TX 77845

Season Wong (979) 268-1091

17-1-H3.02-9356 JPL

[A 3D Printer Enabled, High Performing, Microgravity Compatible, and Versatile Sample Preparation Platform](#) [287]

**Crossfield Technology, LLC**

3445 Executive Center Drive, Suite 125

Austin, TX 78731

Gary McMillian (512) 795-0220

17-1-Z6.01-8284 JPL

[SpaceVPX Switch-Controller](#) [288]

**Dallas Optical Systems, Inc.**

1790 Connie Lane

Rockwall, TX 75032

John Casstevens (972) 564-1156

17-1-S2.03-9674 MSFC

[Additive Manufactured Very Light Weight Diamond Turned Aspheric Mirror](#) [289]

**Invocon, Inc.**

19221 I-45 South, Suite 530

Conroe, TX 77385

Mary Delahunty (281) 292-9903

17-1-Z11.01-9889 LaRC

[Health Interrogation for Space Structures \(HISS\)](#) [290]

**Lynntech, Inc.**

2501 Earl Rudder Freeway South

College Station, TX 77845

Darla Hisaw (979) 764-2219

17-1-H9.03-9749 GSFC

[Spacecraft Position Estimation in Interplanetary Trajectories Using Star Trackers](#) [291]

**Lynntech, Inc.**

2501 Earl Rudder Freeway South

College Station, TX 77845

Darla Hisaw (979) 764-2219

17-1-S3.05-9786 GSFC

[Advanced Li Batteries for Terrestrial Balloons](#) [292]

**METECS**

1030 Hercules Avenue

Houston, TX 77058

John MacLean (281) 476-8651

17-1-H12.02-9281 JSC

[Augmented Reality](#) [293]

**Nanohmics, Inc.**

6201 East Oltorf Street, Suite 400

Austin, TX 78741

Michael Mayo (512) 389-9990

17-1-S2.01-8536 JPL

[Proximity Glare Suppression for Astronomical Coronagraphy](#) [294]

**Omega Optics, Inc.**

8500 Shoal Creek Boulevard, Building 4, Suite 200

Austin, TX 78757

Gloria Chen (512) 996-8833

17-1-S1.07-9843 JPL

[Monolithic Chip-Integrated Absorption Spectrometer from 3-5 microns](#) [295]

**Omega Optics, Inc.**

8500 Shoal Creek Boulevard, Building 4, Suite 200

Austin, TX 78757

Gloria Chen (512) 996-8833

17-1-S3.07-9364 MSFC

[Slow Light Based On-Chip High Resolution Fourier Transform Spectrometer For Geostationary Imaging of Atmospheric Greenhouse Gases](#) [296]

**Photodigm, Inc.**

1155 East Collins Boulevard, #200

Richardson, TX 75081

Karen Goodwin (972) 235-7584

17-1-S1.01-9205 GSFC

[Compact Integrated DBR Laser Source for Absorption Lidar Instruments](#) [297]

**Pointwise, Inc.**

213 South Jennings Avenue

Fort Worth, TX 76104

Richard Matus (817) 377-2807



17-1-A1.05-8731 LaRC

[High Order Mesh Curving and Geometry Access](#) [298]

**Silicon Space Technology Corporation**

1501 South MoPac Expressway, Suite 350

Austin, TX 78746

Garry Nash (631) 559-1550

17-1-Z8.05-9984 GSFC

[Rad-Hard Smallsat / CubeSat Avionics Board](#) [299]

**Silicon Space Technology Corporation**

1501 South MoPac Expressway, Suite 350

Austin, TX 78746

Garry Nash (651) 559-1550

17-1-S3.08-9948 GSFC

[Rad-Hard Embedded Processing SIP](#) [300]

**Texas Research Institute Austin, Inc.**

9063 Bee Caves Road

Austin, TX 78733

Christina Morton (512) 615-4497

17-1-Z11.01-9048 LaRC

[Millimeter-Wave Camera](#) [301]

**Texas Research Institute Austin, Inc.**

9063 Bee Caves Road

Austin, TX 78733

Christina Morton (512) 615-4497

17-1-Z11.02-8352 LaRC

[Model Inversion](#) [302]

**Tietronix Software, Inc.**

1331 Gemini Avenue, Suite 300

Houston, TX 77058

Victor Tang (281) 404-7222

17-1-H12.02-9628 JSC

[Adaptive Augmented Reality Enabled Electronic Procedure Toolset](#) [303]

**TRAC Labs, Inc.**

100 North East Loop 410, Suite 520

San Antonio, TX 78216

David Kortenkamp (281) 486-7886

17-1-H6.03-9534 ARC

[A Flexible Cognitive Architecture for Space Exploration Agents](#) [304]

**TRAC Labs, Inc.**

100 North East Loop 410, Suite 520

San Antonio, TX 78216

David Kortenkamp (281) 461-7886

17-1-Z5.02-9047 JSC

[Robot Application Development Using a Library of Reactive Control Actions](#) [305]

**Trans Astronautica Corporation**

3106 Beauchamp Street

Houston, TX 77009

Joel Sercel (818) 422-0514

17-1-H8.01-9521 JSC

[Microgravity Granular Material Research \(MGMR\) Facility for ISS](#) [306]

• **Utah (1)**

**Sequent Logic LLC**

3265 North 1950 East

North Logan, UT 84341

Ryan Seeley (435) 915-4425

17-1-A2.01-8971 AFRC

[Tunable Laser for High-Performance, Low-Cost Distributed Sensing Platform](#) [307]

- **Vermont (2)**

- **Creative MicroSystems Corporation**

- 49 Fiddlers Green

- Waitsfield, VT 05673

- Beverly Kehoe (802) 496-6620

- 17-1-H12.02-9775 JSC

- [Advanced Display Interface Technology](#) [308]

- **Omega Optical, Inc.**

- 21 Omega Drive

- Brattleboro, VT 05301

- Kieran Gallagher (802) 251-7328

- 17-1-H9.01-8737 JPL

- [Ultra-Narrow Bandpass Filters for Long Range Optical Telecommunications at 1064nm and 1550nm](#) [309]

- **Virginia (18)**

- **Adaptive Aerospace Group, Inc.**

- 100 Exploration Way, Suite 330

- Hampton, VA 23666

- Melissa Proffitt (757) 377-4201

- 17-1-A3.03-8743 ARC

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- **Adaptive Aerospace Group, Inc.**

- 100 Exploration Way, Suite 330

- Hampton, VA 23666

- Melissa Proffitt (757) 377-4201

- 17-1-A2.02-8360 AFRC

- [High-Integrity SAFIT](#) [311]

- **Analytical Mechanics Associates, Inc.**

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21 Enterprise Parkway, Suite 300

Hampton, VA 23666

Clara Anderson (757) 865-0000

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**Coherent Applications, Inc.**

20 Research Drive, Suite 500

Hampton, VA 23666

Diego Pierrottet (757) 927-5556

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**Crown Consulting, Inc.**

1400 Key Boulevard, Suite 1100

Arlington, VA 22209

Paul Cobb (650) 533-8727

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**Dependable Computing, LLC**

4775 Woodbound Rd

Keswick, VA 22947

Virginia Knight (434) 293-8358

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**Dynamic Systems Integration**

572 Central Drive, Suite 104

Virginia Beach, VA 23454

Edwin Tirona (757) 431-5000

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**Fibertek, Inc.**

13605 Dulles Technology Drive

Herndon, VA 20171

Tracy Perinis (703) 471-7671

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**Fibertek, Inc.**

13605 Dulles Technology Drive

Herndon, VA 20171

Tracy Perinis (703) 471-7671

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**Fibertek, Inc.**

13605 Dulles Technology Drive

Herndon, VA 20171

Tracy Perinis (703) 471-7671

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**Luna Innovations, Inc.**

301 1st Street Southwest, Suite 200

Roanoke, VA 24016

Shirley Evans (540) 961-6724

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**Luna Innovations, Inc.**

301 1st Street Southwest, Suite 200

Roanoke, VA 24016

Shirley Evans (540) 961-6724

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**Mosaic ATM, Inc.**

540 Fort Evans Road, Suite 300

Leesburg, VA 20176

Chris Stevenson (540) 454-7458

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**Mosaic ATM, Inc.**

540 Fort Evans Road, Suite 300

Leesburg, VA 20176

Chris Stevenson (571) 223-7036

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**Nanosonic, Inc.**

158 Wheatland Drive

Pembroke, VA 24136

Melissa Campbell (540) 626-6266

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**Nuvotronics, Inc**

7586 Old Peppers Ferry Loop

Radford, VA 24141

Scott Meller (800) 341-2333

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**Soter Technology, LLC**

907 Octorora Place NE

Leesburg, VA 20176

Diana Strafford (571) 748-4016

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**Tao of Systems Integration, Inc.**

1100 Exploration Way

Hampton, VA 23666

Arun Mangalam (757) 220-5040

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• **Washington (8)**

**BluHaptics, Inc.**

108 Northwest Canal Street

Seattle, WA 98107

Luke Wissmann (303) 630-9153

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**Kymeta Government Solutions**

12277 134th Court Northeast

Redmond, WA 98052

Jess Stefani (425) 658-8705

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**Mochii, Inc., D/B/A Voxa**

1001 26th Avenue East

Seattle, WA 98112

Christopher Own (206) 288-3230

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**Sienna Technologies, Inc.**

19501 144th Avenue Northeast, Suite F-500

Woodinville, WA 98072

Karen Valdastri (425) 485-7272

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**Tethers Unlimited, Inc.**

11711 North Creek Parkway South, Suite D113

Bothell, WA 98011

Robert Hoyt (425) 486-0100

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**Tethers Unlimited, Inc.**

11711 North Creek Parkway South, Suite D113

Bothell, WA 98011

Robert Hoyt (425) 486-0100

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**Tethers Unlimited, Inc.**

11711 North Creek Parkway South, Suite D113

Bothell, WA 98011

Robert Hoyt (425) 486-0100

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**Tethers Unlimited, Inc.**

11711 North Creek Parkway South, Suite D113

Bothell, WA 98011

Robert Hoyt (425) 486-0100

17-1-Z8.04-9706 ARC

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- **West Virginia (2)**

- **4D Tech Solutions, Inc.**

- 1275 Stewartstown Road, Suite 200

- Morgantown, WV 26505

- Bradley DeRoos (443) 604-0256

- 17-1-A1.06-8527 GRC

- [Intelligent Electronic Speed Controller](#) [336]

- **TMC Technologies of WV Corporation**

- 2050 Winners Dr.

- Fairmont, WV 26554

- Eric Mohan (304) 816-3608

- 17-1-A2.02-9572 AFRC

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- **Wisconsin (1)**

- **Photonic Cleaning Technologies, LLC**

- 1895 Short Lane

- Platteville, WI 53818

- James Hamilton (608) 770-0565

- 17-1-S2.01-9936 JPL

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