



Proposals Selected for Negotiation of Contracts

Expand All

- **Alabama (10)**

- Archangel Systems**

- 1635 Pumphrey Avenue

- Auburn, AL 36832

- Kitty Greene (334) 826-8008

- 09-1-S4.02-8166 ARC

- [Rad-hard Location and Attitude Module \(R-LAM\)](#) [1]

- CFD Research Corporation**

- 215 Wynn Drive, 5th Floor

- Huntsville, AL 35805

- Silvia Harvey (256) 726-4800

- 09-1-S3.02-9436 GSFC

- [Software for Automated Generation of Reduced Thermal Models for Spacecraft Thermal Control](#) [2]

- CFD Research Corporation**

- 215 Wynn Drive, 5th Floor

- Huntsville, AL 35805

- Silvia Harvey (256) 726-4858

- 09-1-X2.03-9435 JPL

- [A Miniaturized Sensor for Microbial Monitoring of Spacecraft Water Environment](#) [3]

- CFD Research Corporation**

- 215 Wynn Drive, 5th Floor

- Huntsville, AL 35805

- Silvia Harvey (256) 726-4858

09-1-X9.02-9443 ARC

[Integrated Inflatable Ballute for Planetary Entry](#) [4]

CFD Research Corporation

215 Wynn Drive, 5th Floor

Huntsville, AL 35805

Silvia Harvey (256) 726-4858

09-1-X9.01-9440 ARC

[Computational Tool for Coupled Simulation of Nonequilibrium Hypersonic Flows with Ablation](#) [5]

CFD Research Corporation

215 Wynn Drive, 5th Floor

Huntsville, AL 35805

Silvia Harvey (256) 726-4858

09-1-X1.03-9438 LaRC

[Improved Design of Radiation Hardened, Wide-Temperature Analog and Mixed-Signal Electronics](#) [6]

Plasma Processes, Inc.

4914 Moores Mill Road

Huntsville, AL 35811

Timothy McKechnie (256) 851-7653

09-1-S3.08-9174 MSFC

[High Chamber Pressure, Light Weight Thrusters](#) [7]

Plasma Processes, Inc.

4914 Moores Mill Road

Huntsville, AL 35811

Timothy McKechnie (256) 851-7653

09-1-X6.02-8920 MSFC

[Mass Production of Mature Lunar Regolith Simulant](#) [8]

Streamline Automation, LLC

3100 Fresh Way SW

Huntsville, AL 35805

Alton Reich (256) 713-1220

09-1-S3.08-9507 JPL

[Constant Volume Combustion Engine for Planetary Ascent Vehicles](#) [9]

Tec-Masters, Inc.

1500 Perimeter Pkwy Suite 320

Huntsville, AL 35806

Mala Thompson (256) 721-6672

09-1-X4.01-8801 LaRC

[Application of Advanced Radiation Shielding Materials to Inflatable Structures](#) [10]

• **Arizona (17)**

AdValue Photonics, Inc.

4585 S. Palo Verde Road, Suite 405

Tucson, AZ 85714

Shibin Jiang (520) 790-5468

09-1-S1.04-9311 GSFC

[Polarization Maintaining Coherent Fiber Bundle Array](#) [11]

Desert Beam Technologies, LLC

3542 N. Geronimo Avenue

Tucson, AZ 85705

Wayne Symington (520) 888-5900

09-1-S1.04-8479 JPL

[High Power Room Temperature Terahertz Local Oscillator](#) [12]

Jansen's Aircraft Systems Controls, Inc.

2303 W. Alameda Drive

Tempe, AZ 85282

Emerson Turner (602) 889-4156

09-1-A2.02-9291 GRC

[Novel Active Combustion Control Concept for High-Frequency Modulation of Atomized Fuel Flow](#) [13]

NP Photonics, Inc.

9030 S. Rita Road

Tucson, AZ 85747

James Fountain (520) 799-7424

09-1-S1.01-8433 LaRC

[Tunable Narrow Linewidth, Low Noise 2.05 Micron Single Frequency Seeder Laser](#) [14]

NP Photonics, Inc.

9030 S. Rita Road

Tucson, AZ 85747

Hans-Jurg Jost (520) 799-7424

09-1-S1.01-8403 LaRC

[High Power Narrow Linewidth 1.26 Micron Ho-Doped Fiber Amplifier](#) [15]

Paragon Space Development Corporation

3481 E. Michigan Street

Tucson, AZ 85714

Carole Hammond (520) 382-4814

09-1-X4.02-9770 LaRC

[Verification and Validation of an Innovative Inflatable Structure Design](#) [16]

Paragon Space Development Corporation

3481 E. Michigan Street

Tucson, AZ 85714

Carole Hammond (520) 382-4814

09-1-X2.05-9667 JSC

[Integrated Sublimator Driven Coldplate for use in Active Thermal Control System](#) [17]

Paragon Space Development Corporation

3481 E. Michigan Street

Tucson, AZ 85714

Carole Hammond (520) 382-4814

09-1-X3.01-8530 JSC

[Contaminant Robust System for Oxygen Production from Lunar Regolith](#) [18]

Ridgetop Group, Inc.

6595 North Oracle Road

Tucson, AZ 85704

Milena Thompson (520) 742-3300

09-1-X1.03-9937 LaRC

[Extreme Temperature, Rad-Hard Power Management ASIC](#) [19]

Ridgetop Group, Inc.

6595 North Oracle Road

Tucson, AZ 85704

Milena Thompson (520) 742-3300

09-1-S1.02-9911 JPL

[High-Speed, Low-Power ADC for Digital Beam Forming \(DBF\) Systems](#) [20]

Ridgetop Group, Inc.

6595 North Oracle Road

Tucson, AZ 85704

Milena Thompson (520) 742-3300

09-1-A1.12-9941 ARC

[Aircraft Anomaly Prognostics](#) [21]

Ridgetop Group, Inc.

6595 North Oracle Road

Tucson, AZ 85704

Milena Thompson (520) 742-3300

09-1-A2.09-9940 GRC

[Rotorcraft Diagnostics](#) [22]

Ridgetop Group, Inc.

6595 North Oracle Road

Tucson, AZ 85704

Milena Thompson (520) 742-3300

09-1-X1.04-9938 ARC

[Prognostic Fault Detection and Isolation for EMA and EPS Systems](#) [23]

SJT Micropower

16411 N. Skyridge Lane

Fountain Hills, AZ 85268

Trevor Thornton (480) 510-0229

09-1-X1.03-9811 GSFC

[Unconditionally Stable Low Dropout Regulators for Extreme Environments](#) [24]

ZONA Technology, Inc.

9489 East Ironwood Square Drive

Scottsdale, AZ 85258

Jennifer Scherr (480) 945-9988

09-1-A2.07-9816 LaRC

[Flight Dynamic Simulation with Nonlinear Aeroelastic Interaction using the ROM-ROM Procedure](#) [25]

ZONA Technology, Inc.

9489 East Ironwood Square Drive

Scottsdale, AZ 85258

Jennifer Scherr (480) 945-9988

09-1-A2.04-9806 AFRC

[On-Line Flutter Prediction Tool for Wind Tunnel Flutter Testing using Parameter Varying Estimation Methodology](#) [26]

ZONA Technology, Inc.

9489 East Ironwood Square Drive

Scottsdale, AZ 85258

Jennifer Scherr (480) 945-9988

09-1-A2.08-9796 AFRC

[Multi-Fidelity Multi-Strategy and Multi-Disciplinary Design Optimization Environment](#) [27]

• **Arkansas (2)**

Arkansas Power Electronics International, Inc.

535 W. Research Center Blvd., Suite 209

Fayetteville, AR 72701

Sharmila Mounce (479) 443-5759

09-1-S3.04-8940 GRC

[Silicon Carbide \(SiC\) Power Processing Unit \(PPU\) for Hall Effect Thrusters](#) [28]

Space Photonics, Inc.

700 West Research Center Blvd.

Fayetteville, AR 72701

Matthew Leftwich (479) 856-6367

09-1-S3.01-8326 GSFC

[Development of a Lower-SWaP, RAD-Tolerant, Thermally Stable High Speed Fiber Optics Network for Harsh Environment Applications](#) [29]

• **California (76)**

Advanced Scientific Concepts, Inc.

135 E. Ortega Street

Santa Barbara, CA 93101

JoAnn Stettner (805) 966-3331

09-1-S5.01-8656 JPL

[Robust Flash 3D-FPA Sensor](#) [30]

Applied Poleramic, Inc.

6166 Egret Court

Benicia, CA 94510

Doyle Dixon (707) 747-6738

09-1-X5.03-9388 GRC

[Long Out-time, Out-of-Autoclave Cure Composites](#) [31]

Atlas Scientific

1367 Camino Robles Way

San Jose, CA 95120

Ali Kashani (408) 507-0906

09-1-X8.01-9535 KSC

[A Heat Switch for Space Applications](#) [32]

CASCADE Technologies, Inc.

1330 Charleston Road

Mountain View, CA 94043

Shoreh Hajiloo (650) 691-6067

09-1-A2.03-9286 LaRC

[Effect of Engine Installation on Jet Noise using a Hybrid LES/RANS Approach](#) [33]

CASCADE Technologies, Inc.

1330 Charleston Road

Mountain View, CA 94043

Shoreh Hajiloo (650) 691-6067

09-1-A2.09-9045 LaRC

[Towards More Efficient Comprehensive Rotor Noise Simulation](#) [34]

ChromoLogic, LLC

133 N. Altadena Drive, Suite 307

Pasadena, CA 91107

Naresh Menon (626) 381-9974

09-1-X15.01-9505 JSC

[Novel Fluid Preservation System](#) [35]

Chronos Technology (Div. of FMI, Inc.)

15302 Bolsa Chica Street

Huntington Beach, CA 92649

Kouros Sariri (714) 373-8100

09-1-S5.05-9495 JPL

[A Compact, Radiation Hardened, Stable, Low Power, Programmable Crystal Oscillator for Extreme Temperature and High Reliability Space Application](#) [36]

Crystal Research, Inc.

48501 Warm Springs Blvd., Suite 103

Fremont, CA 94539

Suning Tang (510) 445-0833

09-1-O1.02-9839 GRC

[A Multi-band Photonic Phased Array Antenna for High-Data Rate Communication](#) [37]

Crystal Research, Inc.

48501 Warm Springs Blvd., Suite 103

Fremont, CA 94539

Suning Tang (510) 445-0833

09-1-S1.09-9778 ARC

[An Infrared Fiber-Optic Raman Sensor for Field Detecting of Organic Biomarkers](#) [38]

David Nixon

1644 Clay Drive

Los Altos, CA 94024

David Nixon (650) 964-9956

09-1-A2.05-9847 LaRC

[Use of Leading Edge Waves to Increase Lift/Drag Ratio](#) [39]

Deployable Space Systems

955 Nysted Drive

Solvang, CA 93463

Brian Spence (805) 693-1319

09-1-S3.03-9404 GRC

[Mass-Optimized UltraFlex Solar Array with Integrated IMM Cell Flexible Blanket](#) [40]

Deployable Space Systems

955 Nysted Drive

Solvang, CA 93463

Brian Spence (805) 693-1319

09-1-S3.03-8863 GRC

[Lightweight IMM Multi-Junction Photovoltaic Flexible Blanket Assembly](#) [41]

Deployable Space Systems

955 Nysted Drive

Solvang, CA 93463

Brian Spence (805) 693-1319

09-1-S1.06-8554 GSFC

[Elastic Deployable Composite Tubular Roll-Out Boom](#) [42]

Deployable Space Systems

955 Nysted Drive

Solvang, CA 93463

Brian Spence (805) 693-1319

09-1-O1.02-8308 GRC

[Affordable Unfurlable Fan-Fold Wrapable Reflector for Small and Large Apertures](#) [43]

ELORET Corp.

465 S Mathilda Avenue, Suite 103

Sunnyvale, CA 94086

Jan Heinemann (650) 604-6615

09-1-X9.01-8100 ARC

[Recovery of In-Space Cubesat Experiments \(RICE\)](#) [44]

Empirical Systems Aerospace, LLC

561 Airpark Drive, Hanger D

Oceano, CA 93445

Andrew Gibson (805) 275-1053

09-1-A2.10-8976 GRC

[The Design and Integration of a Distributed Fan Propulsion System within a Split-Wing](#) [45]

Farasis Energy, Inc.

23575 Cabot Blvd., Suite 205

Hayward, CA 94545

Keith Kepler (510) 732-6600

09-1-X7.01-9228 GRC

[Novel Lithium Ion High Energy Battery](#) [46]

Firestar Engineering, LLC

1122 Flightline Street, #76

Mojave, CA 93501

David Fisher (303) 946-0079

09-1-S3.08-8305 AFRC

[NOFB-Aerospike](#) [47]

Grainflow Dynamics, Inc.

1141 Catalina Drive, PMB 270

Livermore, CA 94550

Otis Walton (925) 447-4293

09-1-X3.02-9586 GRC

[Low-Gravity Mimicking Simulants and Evaluation of Simulant Flow](#) [48]

Grainflow Dynamics, Inc.

1141 Catalina Drive, PMB 270

Livermore, CA 94550

Otis Walton (925) 447-4293

09-1-X3.01-9079 KSC

[Centrifuging Step-Screw Conveyor for Regolith](#) [49]

Hyper-Therm High-Temperature Composites

18411 Gothard Street, Units B&C

Huntington Beach, CA 92648

Wayne Steffier (714) 375-4085

09-1-A2.01-8057 AFRC

[High Efficiency SiC/SiC Composite Heat Exchanger Structures](#) [50]

Hyper-Therm High-Temperature Composites

18411 Gothard Street, Units B&C

Huntington Beach, CA 92648

Wayne Steffier (714) 375-4085

09-1-A2.01-9131 LaRC

[SiC Matrix Composites for High Temperature Hypersonic Vehicle Applications](#) [51]

Innosense, LLC

2531 West 237th Street, Suite 127

Torrance, CA 90505

Kisholoy Goswami (310) 530-2011

09-1-O3.02-9623 KSC

[Polymer Reinforced, Non-Brittle, Light-Weight Cryogenic Insulation for Reduced Life Cycle Costs](#) [52]

Innosense, LLC

2531 West 237th Street, Suite 127

Torrance, CA 90505

Kisholoy Goswami (310) 530-2011

09-1-X2.04-9618 GRC

[Non-Flammable Crew Clothing Utilizing Phosphorus-Based Fire Retardant Polymers](#) [53]

Innovative Engineering Solutions

26200 Adams Avenue

Murrieta, CA 92562

David Kerner (951) 304-7600

09-1-X10.01-9134 GRC

[Propellant Flow Actuated Piezoelectric Rocket Engine Igniter](#) [54]

Intelligent Fiber Optic Systems Corporation

2363 Calle Del Mundo

Santa Clara, CA 95054

Behzad Moslehi (408) 565-9004

09-1-A4.02-8652 AFRC

[Advanced Modular, Multi-Channel, High Speed Fiber Optic Sensing System for Acoustic Emissions Monitoring](#) [55]

Intelligent Optical Systems, Inc.

2520 W. 237th Street

Torrance, CA 90505

Lothar Kempen (424) 263-6362

09-1-X5.03-9269 LaRC

[Fast Cure Repair Kit for Composites](#) [56]

LaunchPoint Technologies, Inc.

5735 Hollister Avenue, Suite B

Goleta, CA 93117

Brad Paden (805) 683-9659

09-1-S2.01-9130 JPL

[Distributed Control Architectures for Precision Spacecraft Formations](#) [57]

LaunchPoint Technologies, Inc.

5735 Hollister Avenue, Suite B

Goleta, CA 93117

Brad Paden (805) 683-9659

09-1-X4.03-8325 GSFC

[A Halbach Array Motor for Use Over a Wide Temperature Range](#) [58]

LEEOAT Company

2631 Colibri Lane

Carlsbad, CA 92009

Eli Wiener-Avnear (760) 438-1439

09-1-X5.01-8657 JSC

[Handheld Nonlinear Detection of Delamination and Intrusion Faults in Composites](#) [59]

LEEOAT Company

2631 Colibri Lane

Carlsbad, CA 92009

Eli Wiener-Avnear (760) 438-1439

09-1-S5.05-8366 JPL

[Micromachined High-Temperature Sensors for Planet Exploration](#) [60]

Los Gatos Research

67 East Evelyn Avenue, Suite 3

Mountain View, CA 94041

Douglas Baer (650) 965-7772

09-1-X3.01-9113 JSC

[Novel Instrumentation for Lunar Regolith Oxygen Production Facilities](#) [61]

LW Microsystem, Inc.

801 Mahler Road, Suite 208

Burlingame, CA 94536

Yin Liu (510) 209-7469

09-1-S1.02-9822 JPL

[High Performance Miniature Bandpass Filters](#) [62]

Makel Engineering, Inc.

1585 Marauder Street

Chico, CA 95973

Susana Carranza (512) 589-0718

09-1-X13.03-9519 JSC

[Advanced Cookware and Techniques for Food Preparation at Reduced Pressure and Gravity](#) [63]

Makel Engineering, Inc.

1585 Marauder Street

Chico, CA 95973

Susana Carranza (512) 589-0718

09-1-X3.01-9324 KSC

[Production of Electrolysis-Purity Water](#) [64]

Makel Engineering, Inc.

1585 Marauder Street

Chico, CA 95973

Benjamin Ward (216) 587-4750

09-1-X2.04-9771 GRC

[Multifunctional Glow Discharge Analyzer for Spacecraft Monitoring](#) [65]

MATECH Advanced Materials

31304 Via Colinas, Suite 102

Westlake Village, CA 91362

Edward Pope (818) 991-8500

09-1-X5.03-8068 MSFC

[Ultra-Low-Density \(ULD\) Polymer Matrix Composites \(PMCs\)](#) [66]

MetroLaser, Inc.

8 Chrysler

Irvine, CA 92618

Christina Arnold (949) 553-0688

09-1-A4.01-8856 GRC

[A Novel, Portable, Projection, Focusing Schlieren System](#) [67]

Micro Cooling Concepts, Inc.

7522 Slater Avenue, #122

Huntington Beach, CA 92647

Jack Fryer (714) 847-9945

09-1-X8.01-8314 KSC

[Microplate Heat Exchanger](#) [68]

Microcosm, Inc.

4940 W. 147th Street

Hawthorne, CA 90250

Lynn Shimohara (310) 219-2700

09-1-S3.04-9659 GRC

[Unibody Composite Pressurized Structure \(UCPS\) for In-Space Propulsion](#) [69]

Microcosm, Inc.

4940 W. 147th Street

Hawthorne, CA 90250

Lynn Shimohara (310) 219-2700

09-1-O4.02-9182 GSFC

[X-ray Detection and Processing Models for Spacecraft Navigation and Timing](#) [70]

Microcosm, Inc.

4940 W. 147th Street

Hawthorne, CA 90250

Lynn Shimohara (310) 219-2700

09-1-O4.04-9179 GSFC

[Deep Space Navigation and Timing Architecture and Simulation](#) [71]

Monterey Technologies, Inc.

24600 Silver Cloud Court, Suite 103

Monterey, CA 93940

Robert Hennessy (831) 648-0194

09-1-X13.01-8879 JSC

[Human Factors Evaluation Mentor](#) [72]

NextGen Aeronautics, Inc.

2780 Skypark Drive, Suite 400

Torrance, CA 90505

Zoltan Feher (310) 626-8384

09-1-X4.02-8295 LaRC

[Innovative Ground Habitats for Lunar Operational Outpost \(IGLOO\)](#) [73]

Novawave Technologies

900 Island Drive, Suite 101

Redwood City, CA 94065

Hans-Jurg Jost (650) 610-0956

09-1-S1.08-8691 ARC

[Compact, Airborne Multispecies Sensor](#) [74]

Novawave Technologies

900 Island Drive, Suite 101

Redwood City, CA 94065

James Scherer (650) 610-0956

09-1-S1.08-8286 JPL

[A UAV-Based Volcanic Aerosol Size and Charge Analyzer](#) [75]

Novawave Technologies

900 Island Drive, Suite 101

Redwood City, CA 94065

Hans-Jurg Jost (650) 610-0956

09-1-S1.08-8096 MSFC

[Fieldable, Real-Time NO2 Sensor](#) [76]

Novawave Technologies

900 Island Drive, Suite 101

Redwood City, CA 94065

Hans-Jurg Jost (650) 610-0956

09-1-S1.09-8095 GSFC

[Frequency Agile Mid-IR Source for Planetary Exploration](#) [77]

Optimal Synthesis, Inc.

95 First Street, Suite 240

Los Altos, CA 94022

Victor Cheng (650) 559-8585

09-1-A3.01-8549 ARC

[Stochastic Queuing Model Analysis to Support Airspace Super Density Operations \(ASDO\)](#) [78]

Optimal Synthesis, Inc.

95 First Street, Suite 240

Los Altos, CA 94022

P. Menon (650) 559-8585

09-1-A3.01-8137 LaRC

[A Queuing Model-Based System for Triggering Traffic Flow Management Algorithms](#) [79]

Pacific Microchip Corp.

3916 Sepulveda Blvd. #108

Culver City, CA 90230

Dalius Baranauskas (310) 940-3083

09-1-S1.03-9002 JPL

[Low Power 1-Bit ADC Array with Serial Output](#) [80]

Polaronyx, Inc.

2526 Qume Drive, Suites 17&18

San Jose, CA 95131

Jian Liu (408) 245-9588

09-1-S1.09-9885 JPL

[Compact Ultra-Wideband Optical Frequency Comb Fiber Laser](#) [81]

Quallion, LLC

12744 San Fernando Road

Sylmar, CA 91342

Mayra Sheikh (818) 833-2029

09-1-X7.01-9416 GRC

[Safety via Thermal Shutdown for Space Rated Batteries](#) [82]

Redondo Optics, Inc.

811 N. Catalina Avenue, Suite 1100

Redondo Beach, CA 90277

Edgar Mendoza (310) 292-7673

09-1-S1.11-8154 MSFC

[Remote UV Fluorescence Lifetime Spectrometer](#) [83]

Rolling Hills Research Corporation

420 N. Nash Street

El Segundo, CA 90245

Brian Kramer (310) 640-8781

09-1-A4.02-8759 AFRC

[Advanced Propeller Flow Control for Increased Propulsive Efficiency](#) [84]

Seacoast Science, Inc.

2151 Las Palmas Drive, Suite C

Carlsbad, CA 92011

Louis Haerle (760) 268-0083

09-1-S1.08-9140 ARC

[Atmospheric Aerosol Analysis using Lightweight Mini GC](#) [85]

Space Micro, Inc.

10401 Roselle Street, Suite 400

San Diego, CA 92121

David Strobel (858) 332-0702

09-1-S3.01-9888 GSFC

[Space Qualified, Radiation Hardened, Dense Monolithic Flash Memory](#) [86]

Stottler Henke Associates, Inc.

951 Mariner's Island Blvd., Suite 360

San Mateo, CA 94404

Nathaniel Henke (650) 931-2719

09-1-X1.01-8666 ARC

[PM/IDE - An Integrated Development Environment for Planning Models](#) [87]

Surface Optics Corporation

11555 Rancho Bernardo Road

San Diego, CA 92127

Julie Anderson (858) 675-7404

09-1-O1.02-8188 JPL

[Stress-Matched RF and Thermal Control Coatings for Membrane Antennas](#) [88]

Systems Technology, Inc.

13766 Hawthorne Blvd.

Hawthorne, CA 90250

Thi Hagenbuechle (310) 679-2281

09-1-A2.07-9642 ARC

[Flying Qualities Metrics and Design Guidelines for Modern Transport Aircraft](#) [89]

Systems Technology, Inc.

13766 Hawthorne Blvd.

Hawthorne, CA 90250

Thi Hagenbuechle (310) 679-2281

09-1-A1.07-9237 AFRC

[Real-Time Methods for Adaptive Suppression of Adverse Aeroservoelastic Dynamics](#) [90]

Systems Technology, Inc.

13766 Hawthorne Blvd.

Hawthorne, CA 90250

Thi Hagenbuechle (310) 679-2281

09-1-A1.09-9235 AFRC

[Smart Adaptive Flight Effective Cue \(SAFE-Cue\)](#) [91]

Techno Planet Incorporated

17340 Rayen Street

Northridge, CA 91325

Scott Stanley (818) 709-7815

09-1-S5.02-8626 JPL

[Sealed Planetary Return Canister \(SPRC\)](#) [92]

TechnoScience Corporation

P.O. Box 60658

Palo Alto, CA 94306

Jam Farhoomand (650) 838-9833

09-1-S1.04-9317 JPL

[An Implant-Passivated Blocked Impurity Band Germanium Detector for the Far Infrared](#) [93]

Thorleaf Research, Inc.

5552 Cathedral Oaks Road

Santa Barbara, CA 93111

Paul Holland (805) 692-4978

09-1-S1.09-9369 JPL

[Miniature, Low Power Gas Chromatograph with Sample Pre-Processing Capability and Enhanced G-Force Survivability for Planetary Missions](#) [94]

Toyon Research Corporation

6800 Cortona Drive

Goleta, CA 93117

Marcella Lindbery (805) 968-6787

09-1-O4.01-8393 KSC

[Metric Tracking of Launch Vehicles](#) [95]

Transition45 Technologies, Inc.

1963 North Main Street

Orange, CA 92865

Edward Chen (714) 283-2118

09-1-A2.01-8248 GRC

[Shape Memory Alloy-Based Periodic Cellular Structures](#) [96]

Trex Enterprises Corporation

10455 Pacific Center Court

San Diego, CA 92121

Erin McManus (858) 646-5710

09-1-S2.04-9341 MSFC

[Minimally Machined HoneySiC Mirrors for Low Areal Cost and Density](#) [97]

Ultracor

136 Wright Brothers Avenue

Livermore, CA 94551

Stanley Wright (925) 454-3010

09-1-A2.01-9895 AFRC

[C-SiC Honeycomb for Advanced Flight Structures](#) [98]

Ultramet

12173 Montague Street

Pacoima, CA 91331

Craig Ward (818) 899-0236

09-1-X10.01-8636 GRC

[Low-Cost, High-Performance Combustion Chamber for LOX/CH4 Propulsion](#) [99]

Ultramet

12173 Montague Street

Pacoima, CA 91331

Craig Ward (818) 899-0236

09-1-A2.09-8630 GRC

[Alumina Fiber-Reinforced 9310 Steel Metal Matrix Composite for Rotorcraft Drive System Components](#) [100]

Ultramet

12173 Montague Street

Pacoima, CA 91331

Craig Ward (818) 899-0236

09-1-X8.01-8628 KSC

[Aerogel-Filled Foam Core Insulation for Cryogenic Propellant Storage](#) [101]

UtopiaCompression Corporation

11150 Olympic Boulevard, Suite 820

Los Angeles, CA 90064

Joseph Yadegar (310) 473-1500

09-1-O4.03-9624 JSC

[Lunar Localization System \(LLS\)](#) [102]

Vanguard Composites Group, Inc.

9431 Dowdy Drive

San Diego, CA 92126

Steven Sherman (858) 444-1826

09-1-S2.05-8418 JPL

[Springback-Compensated, Submillimeter Reflectors](#) [103]

Ventions, LLC

1142 Howard Street

San Francisco, CA 94103

Amit Mehra (202) 213-2846

09-1-X10.01-9015 GRC

[Regeneratively-Cooled, Turbopump-Fed, LOX/Methane Lunar Ascent Engines](#) [104]

VIP Sensors

32242 Paseo Adelanto, Suite C

San Juan Capistrano, CA 92675

Alex Karolys (949) 429-3558

09-1-A4.02-9523 AFRC

[Fiber Optic Pressure Sensor Array](#) [105]

• **Colorado (25)**

Atmospheric Observing Systems, Inc.

1930 Central Avenue, Suite A

Boulder, CO 80301

James Smith (303) 817-6854

09-1-S1.08-9355 JPL

[Calibration/Validation Technology for the CO2 Satellite](#) [106]

Black Forest Engineering, LLC

P.O. Box 8059

Colorado Springs, CO 80933

Vivian McDonald (719) 593-9501

09-1-S1.09-8528 JPL

[Thermopile Detector Radiation Hardened Readout](#) [107]

Blue Sun Enterprise, Inc.

1942 Broadway Street, Suite 314

Boulder, CO 80302

Christopher Grasso (720) 394-8897

09-1-S5.04-8643 JPL

[Reactive Rendezvous and Docking Sequencer](#) [108]

Boulder Environmental Sciences and Technology

4425 Hastings Drive

Boulder, CO 80305

Marian Klein (303) 827-6420

09-1-A1.04-8979 GRC

[Microwave Radiometer for Aviation Safety](#) [109]

Boulder Nonlinear Systems, Inc.

450 Courtney Way, Unit 107

Lafayette, CO 80026

Mark Tanner (303) 604-0077

09-1-S1.08-8772 GSFC

[Hyperspectral Image Projector with Polarization Capability](#) [110]

Boulder Nonlinear Systems, Inc.

450 Courtney Way, Unit 107

Lafayette, CO 80026

Mark Tanner (303) 604-0077

09-1-O1.05-8452 GRC

[Coherent Optical Transceiver using Circular Polarization-Based Balanced Mixing](#) [111]

Colorado Power Electronics, Inc.

120 Commerce Drive, Unit 3

Fort Collins, CO 80524

Geoffrey Drummond (970) 482-0191

09-1-S3.04-8077 GRC

[Low-Cost High-Performance Hall Thruster Support System](#) [112]

Extreme Diagnostics, Inc.

2525 Arapahoe Avenue, Building E4 #262

Boulder, CO 80302

Robert Owen (303) 523-8924

09-1-X5.01-9932 LaRC

[Adverse event detection, monitoring, and evaluation](#) [113]

International Photonics Consultants

38 Knife Edge Place

Pagosa Springs , CO 81147

Linda Taylor (970) 731-0619

09-1-X6.02-9720 GSFC

[Radiation Resistant Hybrid Lotus Effect Photoelectrocatalytic Self-Cleaning Anti-Contamination Coatings](#) [114]

Micro-Space, Inc.

800 West Ninth Avenue

Denver, CO 80204

Richard Speck (303) 595-9696

09-1-O4.03-9288 GSFC

[Automatic Solar and Celestial Navigation on the Moon and Mars](#) [115]

Neva Ridge Technologies, Inc.

6685 Gunpark Drive, Suite 230

Boulder, CO 80301

Richard Carande (303) 531-2800

09-1-S6.03-9208 GSFC

[Accelerated Scientific InSAR Processing](#) [116]

Numerica Corporation

4850 Hahns Peak Drive, Suite 200

Loveland, CO 80538

Benjamin Slocumb (970) 612-2312

09-1-A3.01-8419 AFRC

[Estimation and Prediction of Unmanned Aerial Vehicle Trajectories](#) [117]

Numerica Corporation

4850 Hahns Peak Drive, Suite 200

Loveland, CO 80538

Benjamin Slocumb (970) 612-2312

09-1-O4.04-8416 GSFC

[Continuation Methods and Non-Linear/Non-Gaussian Estimation for Flight Dynamics](#) [118]

Pioneer Astronautics

11111 W. 8th Avenue, Unit A

Lakewood, CO 80215

Robert Zubrin (303) 980-0890

09-1-X3.02-9169 GRC

[Lunar Organic Waste Reformer](#) [119]

Quest Product Development Corporation

6833 Joyce Street

Arvada, CO 80007

Alan Kopelove (303) 250-7777

09-1-X8.01-8258 GRC

[Wrapped-IMLI: Thermal Insulation for Cryogenic Feed Lines](#) [120]

SEAKR Engineering, Inc.

6221 S. Racine Circle

Centennial, CO 80111

Scott Anderson (303) 784-8499

09-1-S4.01-9047 ARC

[Very Dense High Speed 3u VPX Memory and Processing Space Systems](#) [121]

Sporian Microsystems, Inc.

515 Courtney Way, Suite B

Lafayette, CO 80026

Brian Schaible (303) 516-9075

09-1-A2.02-9410 GRC

[Ultra High Temperature Capacitive Pressure Sensor](#) [122]

Synkera Technologies, Inc.

2021 Miller Drive, Suite B

Longmont, CO 80501

Stephen Williams (720) 494-8401

09-1-X14.01-9315 ARC

[Nanorod Array Solid State Neutron Detectors](#) [123]

TDA Research, Inc.

12345 W. 52nd Avenue

Wheat Ridge, CO 80033

John Wright (303) 940-2300

09-1-X2.01-8518 MSFC

[CO2 Removal from Mars EMU](#) [124]

Tech-X Corporation

5621 Arapahoe Avenue, Suite A

Boulder, CO 80303

Leslie Rosczyk (720) 974-1855

09-1-A2.05-9058 GRC

[Simulation Tool for Dielectric Barrier Discharge Plasma Actuators at Atmospheric and Sub-Atmospheric Pressures](#) [125]

Tech-X Corporation

5621 Arapahoe Avenue, Suite A

Boulder, CO 80303

Leslie Rosczyk (720) 974-1855

09-1-S6.05-8885 GSFC

[Fortran Testing and Refactoring Infrastructure](#) [126]

Tech-X Corporation

5621 Arapahoe Avenue, Suite A

Boulder, CO 80303

Leslie Rosczyk (720) 974-1855

09-1-S3.07-8762 GSFC

[Software Tools for Rapid Algorithm Development on HPC, Data-Processing Hardware](#) [127]

Vescent Photonics, Inc.

4865 E. 41st Avenue

Denver, CO 80216

Scott Rommel (303) 296-6766

09-1-S1.01-8410 GSFC

[Electro-Optic Laser Scanners for Space-Based Lidar](#) [128]

Vescent Photonics, Inc.

4865 E. 41st Avenue

Denver, CO 80216

Scott Rommel (303) 296-6766

09-1-S1.01-8088 LaRC

[Precision Locking and Control of CW Lasers in Support of ASCENDS](#) [129]

Zybek Advanced Products, Inc.

2845 29th Street

Boulder, CO 80301

Michael Weinstein (303) 530-2727

09-1-X6.02-8148 MSFC

[High Fidelity, High Volume Agglutinate Manufacturing Process](#) [130]

• **Connecticut (7)**

Materials Technologies Corporation

57 Maryanne Drive

Monroe, CT 06468

Yogesh Mehrotra (203) 874-3100

09-1-O3.02-8215 KSC

[Portable IR-Based Inspection System, PIRIS](#) [131]

Materials Technologies Corporation

57 Maryanne Drive

Monroe, CT 06468

Yogesh Mehrotra (203) 874-3100

09-1-X10.01-8165 GRC

[DURACON - Variable Emissivity Broadband Coatings for Liquid Propellant Rocket Nozzles](#) [132]

Precision Combustion, Inc.

410 Sackett Point Road

North Haven, CT 06473

John Scanlon (203) 287-3700

09-1-X2.01-8688 MSFC

[Novel Catalytic Reactor for CO2 Reduction via Sabatier Process](#) [133]

Qualtech Systems, Inc.

99 East River Drive

East Hartford, CT 06108

Sudipto Ghoshal (860) 761-9341

09-1-A2.09-8083 GRC

[Rotorcraft Diagnostics](#) [134]

Qualtech Systems, Inc.

99 East River Drive

East Hartford, CT 06108

Sudipto Ghoshal (860) 761-9341

09-1-X1.01-8239 ARC

[Automation of Health Management, Troubleshooting and Recovery in Lunar Outpost](#) [135]

Thoughtventions Unlimited

40 Nutmeg Lane

Glastonbury, CT 06033

Stephen Bates (860) 657-9014

09-1-S5.05-9528 GSFC

[Sapphire Viewports for a Venus Probe](#) [136]

Wolf Engineering, LLC

24 Gulf Road

Somers, CT 06071

Karen Murdoch (413) 896-3288

09-1-X2.01-8301 JSC

[Membrane Water Recuperator](#) [137]

- **Delaware (3)**

- **AlphaSense, Inc.**

- 28 Hillstream Road

- Newark, DE 19711

- Xin Zhang (302) 294-0116

- 09-1-O1.04-9344 JSC

- [RF Front End Based on MEMS Components for Miniaturized Digital EVA Radio](#) [138]

- **EM Photonics**

- 51 East Main Street, Suite 203

- Newark, DE 19711

- Eric Kelmelis (302) 456-9003

- 09-1-S6.01-9378 ARC

- [GPU-Accelerated Sparse Matrix Solvers for Large-Scale Simulations](#) [139]

- **Princeton Optronics, Inc.**

- 1 Electronics Drive

- Mercerville, DE 08619

- Narayan Bhatta (609) 584-9696

- 09-1-S1.01-9431 LaRC

- [Narrow Wavelength, Frequency Modulated Source at 1.5](#) [140]

- **Florida (6)**

- **Advanced Materials Technology, Inc.**

- 9324 Mandrake Court

- Tampa, FL 33647

- Akbar Ghaneh-Fard (813) 994-6360

- 09-1-X8.01-9482 KSC

- [Manufacture of Novel Cryogenic Thermal Protection Materials](#) [141]

- **Aligned Concepts, LLC**

2103 Alaqua Lakes Blvd.

Longwood, FL 32779

Don Asumu (407) 733-4929

09-1-O1.09-9023 GRC

[Oversubscribed Mission Scheduler Conflict Resolution System](#) [142]

APECOR

3259 Progress Drive, Suite A

Orlando, FL 32826

John Elmes (407) 275-1174

09-1-S3.05-8550 GRC

[High-Temperature, Wirebondless, Ultra-Compact Wide Bandgap Power Semiconductor Modules for Space Power Systems](#) [143]

Florida Turbine Technologies, Inc.

1701 Military Trail, Suite 110

Jupiter, FL 33458

Lloyd Mazer (561) 427-6337

09-1-X10.01-9575 GRC

[Magnetically Actuated Seal](#) [144]

Fractal Systems, Inc.

108 4th Street

Belleair Beach, FL 33786

Matt Aldissi (727) 595-6175

09-1-X2.02-9024 KSC

[Multi-Component Remediation System for Generating Potable Water Onboard Spacecrafts](#) [145]

OptiGrate Corporation

3267 Progress Drive

Orlando, FL 32826

Igor Ciapurin (407) 381-4115

09-1-S1.01-8384 GSFC

[Monolithic Rare Earth Doped PTR Glass Laser](#) [146]

- **Georgia (2)**

- **Genziko, Inc.**

- 3070 Windward Plaza, Suite F-275

- Alpharetta, GA 30005

- Craig Near (678) 983-3548

- 09-1-X5.01-8105 JSC

- [Frequency Steered Acoustic Transducer](#) [147]

- **SA Technologies, Inc.**

- 3750 Palladian Village Drive, Building 600

- Marietta, GA 30066

- Ronda Lawson (770) 565-9859

- 09-1-X12.01-8577 JSC

- [Crew Autonomy Measures and Models \(CMM\)](#) [148]

- **Idaho (1)**

- **Sentient Corporation**

- 850 Energy Drive

- Idaho Falls, ID 83401

- Kris D'Antoni (208) 522-8560

- 09-1-A2.09-9343 GRC

- [Enhanced Prediction of Gear Tooth Surface Fatigue Life](#) [149]

- **Illinois (8)**

- **Aries Design Automation, LLC**

- 2705 W Byron St

- Chicago, IL 60618

- Miroslav Velez (773) 856-6633

- 09-1-O1.03-8382 AFRC

[Reconfigurable VLIW Processor for Software Defined Radio](#) [150]

Cbana Laboratories

2021 South First Street, Suite 206

Champaign, IL 61820

Richard Masel (217) 333-6841

09-1-X2.03-8721 JPL

[Micro GC's for Contaminant Monitoring in Spacecraft Air](#) [151]

Cbana Laboratories

2021 South First Street, Suite 206

Champaign, IL 61820

Richard Masel (217) 333-6841

09-1-S1.11-8200 MSFC

[In Situ Lunar Surface Measurements Via Miniature Gas Chromatography](#) [152]

CU Aerospace, LLC

2100 South Oak Street, Suite 206

Champaign, IL 61820

David Carroll (217) 333-8274

09-1-X9.01-9875 ARC

[Aromatic Thermosetting Copolyesters for Ablative TPS](#) [153]

EPIR Technologies, Inc.

590 Territorial Drive, Suite B

Bolingbrook, IL 60440

Sivalingam Sivananthan (630) 771-0201

09-1-S1.04-9357 JPL

[Passively-Cooled Hyperspectral Infrared Detectors and Arrays](#) [154]

MicroLink Devices

6457 Howard Street

Niles, IL 60714

Noren Pan (847) 588-3001

09-1-S3.03-8143 GRC

[High Radiation Resistance Inverted Metamorphic Solar Cell](#) [155]

Optical Engines, Inc.

5412 S IL Route 31, Suite 5

Crystal Lake, IL 60012

Donald Sipes (815) 383-8303

09-1-O1.06-8122 JPL

[High Power Uplink Amplifier for Deep Space Communications](#) [156]

ThinkRuntime, Inc.

2506 Lakewood Drive

Champaign, IL 61822

Patrick Meredith (217) 418-0418

09-1-X1.02-8746 ARC

[A Runtime Verification System for Developing, Analyzing and Controlling Complex Safety-Critical Software](#) [157]

• **Indiana (4)**

Jabiru Software and Services

3819 Sunnycroft Place

West Lafayette, IN 47906

Sanjay Mathur (765) 413-9203

09-1-A2.05-9731 LaRC

[Uncertainty Quantification in Aerodynamics Simulations](#) [158]

Jabiru Software and Services

3819 Sunnycroft Place

West Lafayette, IN 47906

Sanjay Mathur (765) 413-9203

09-1-A2.05-9018 LaRC

[Analysis and Design Tools for Fluid-Structure Interaction with Multi-Body Flexible Structures](#) [159]

Techshot, Inc.

7200 Highway 150

Greenville, IN 47124

Mark Deuser (812) 923-9591

09-1-O3.03-9290 GRC

[Observation Platform for Dynamic Biomedical and Biotechnology Experiments using the ISS Light Microscopy Module](#) [160]

Zeeko Technologies, LLC

3495 Kent Avenue, K100

West Lafayette, IN 47906

John Kelchner (765) 775-1010

09-1-S2.05-9304 GSFC

[In Situ Metrology for the Corrective Polishing of Replicating Mandrels](#) [161]

• **Kansas (1)**

Nanoscale Materials, Inc.

1310 Research Park Drive

Manhattan, KS 66502

Aaron Madison (785) 537-0179

09-1-X2.02-9318 ARC

[Odor Control in Spacecraft Waste Management](#) [162]

• **Kentucky (2)**

Advanced Dynamics, Inc.

1500 Bull Lea Road, Suite 203

Lexington, KY 40511

Patrick Hu (859) 699-0441

09-1-A2.04-8558 LaRC

[Novel Reduced Order in Time Models for Problems in Nonlinear Aeroelasticity](#) [163]

TiER1 Performance Solutions

6 E. 5th Street, Suite 400

Covington, KY 41011

Greg Harmeyer (859) 663-2114

09-1-X13.01-9342 JSC

[Human Factors Evaluation Automated Tool \(HFE-AT\)](#) [164]

- **Louisiana (1)**

- **Geocent, LLC**

- 111 Veterans Blvd., Suite 1600

- Metairie, LA 70005

- David Robeson (504) 909-7222

- 09-1-S6.02-8459 SSC

- [COAST Map Sharing Plugin](#) [165]

- **Maine (2)**

- **Fiber Materials, Inc.**

- 5 Morin St

- Biddeford, ME 04005

- David Audie (207) 282-5911

- 09-1-X9.01-8952 ARC

- [Phenolic Impregnated Carbon Ablator \(PICA\) Gap Filler for Heat Shield Assemblies](#) [166]

- **Fiber Materials, Inc.**

- 5 Morin St

- Biddeford, ME 04005

- David Audie (207) 282-5911

- 09-1-X9.02-8827 ARC

- [Multi-Layered Integrated Airframe System](#) [167]

- **Maryland (21)**

Applied Sensor Research & Development Corporation

1195 Baltimore-Annapolis Blvd., Unit #2

Arnold, MD 21012

Jacqueline Hines (410) 544-4664

09-1-X8.02-8598 GRC

[Rapid Hydrogen and Methane Sensors for Wireless Leak Detection](#) [168]

Applied Sensor Research & Development Corporation

1195 Baltimore-Annapolis Blvd., Unit #2

Arnold, MD 21012

Jacqueline Hines (410) 544-4664

09-1-X5.01-8081 JSC

[Passive Wireless Temperature Sensors with Enhanced Sensitivity and Range](#) [169]

BreakAway, Ltd.

10150 York Road, Suite 250

Hunt Valley, MD 21030

Jennifer McNamara (610) 420-8812

09-1-X6.01-8839 ARC

[GameSAT: Game-Based Situational Awareness and Telepresence](#) [170]

Brimrose Corporation of America

19 Loveton Circle, Hunt Valley Loveton Center

Sparks, MD 21152

Diane Murray (936) 588-6901

09-1-S1.01-8159 LaRC

[Self-Calibrating High Resolution Tunable Filter for Remote Gas Sensing Applications](#) [171]

Emergent Space Technologies, Inc.

6301 Ivy Lane, Suite 720

Greenbelt, MD 20770

Kenn Gold (720) 841-6331

09-1-O4.02-8458 GSFC

[Multi-Purpose Radio Signal Generation System](#) [172]

Global Science & Technology, Inc.

7855 Walker Drive, Suite 200

Greenbelt, MD 20770

Jack Kelly (240) 542-1104

09-1-S6.03-8400 MSFC

[Systems and Services for Real-Time Web Access to NPP Data](#) [173]

Intelligent Automation, Inc.

15400 Calhoun Drive, Suite 400

Rockville, MD 20855

Mark James (301) 294-5221

09-1-S1.02-8751 GSFC

[Reconfigurable, Wideband Radar Transceiver and Antenna for P-band Stretch Processing](#) [174]

Intelligent Automation, Inc.

15400 Calhoun Drive, Suite 400

Rockville, MD 20855

Mark James (301) 294-5221

09-1-S6.02-8720 ARC

[A Sensor Management Tool for Use with NASA World Wind](#) [175]

Intelligent Automation, Inc.

15400 Calhoun Drive, Suite 400

Rockville, MD 20855

Mark James (301) 294-5221

09-1-A3.02-8211 LaRC

[Integrated Testbed for Environmental Analysis of NextGen Concepts using ACES](#) [176]

Masstech, Inc.

6992 Columbia Gateway Drive, Suite 200

Columbia, MD 21046

Richard Lee (443) 539-1742

09-1-A3.02-8812 LaRC

[Lidar Wind Profiler for the NextGen Airportal](#) [177]

Masstech, Inc.

6992 Columbia Gateway Drive, Suite 200

Columbia, MD 21046

Richard Lee (443) 539-1742

09-1-S1.08-8793 ARC

[Photoacoustic Multicomponent Analyzer for Atmospheric Compounds](#) [178]

Maxion Technologies, Inc.

5000 College Avenue, Ste 3121

College Park, MD 20740

John Bruno (301) 405-6447

09-1-X2.04-8356 GRC

[A Quantum Cascade Laser-Based CO Sensor for Fire Warning](#) [179]

NVI, Inc.

7257D Hanover Parkway

Greenbelt, MD 20770

John Gipson (301) 614-6876

09-1-S1.10-9149 GSFC

[VLBI Antenna Calibration via GPS](#) [180]

Open Research, Inc.

104 Fountain Green Lane

Gaithersburg, MD 20878

Qiming He (301) 525-6612

09-1-S6.04-9644 GSFC

[Towards Efficient Scientific Data Management using Cloud Storage](#) [181]

Research Support Instruments, Inc.

4325-B Forbes Blvd.

Lanham, MD 20706

Christopher Rollins (301) 306-0010

09-1-S3.06-8123 GSFC

[Gyroscopic Inertial Micro-Balance Azimuth Locator \(GIMBAL\)](#) [182]

Signal Processing, Inc.

13619 Valley Oak Circle

Rockville, MD 20850

Chiman Kwan (240) 505-2641

09-1-O3.01-9187 GRC

[A High Performance Approach to Minimizing Interactions between Inbound and Outbound Signals in Helmet](#) [183]

Starodub, Inc.

3504 Litledale Road

Kensington, MD 20895

Nicolas Gagarin (301) 929-0964

09-1-S6.03-8921 GSFC

[Non-Linear Non Stationary Analysis of Two-Dimensional Time-Series Applied to GRACE Data](#) [184]

Technology Assessment & Transfer, Inc.

133 Defense Highway, Suite 212

Annapolis, MD 21401

Sharon Fehrenbacher (410) 224-4678

09-1-X10.01-8884 MSFC

[Ultra-Refractory Composites for Propulsion Applications](#) [185]

WW Technology Group

4519 Mustering Drum

Ellicott City, MD 21042

Chris Walter (410) 418-4353

09-1-A1.11-8183 LaRC

[In-Flight Diagnosis and Anomaly Detection](#) [186]

WW Technology Group

4519 Mustering Drum

Ellicott City, MD 21042

Chris Walter (410) 418-4353

09-1-A1.14-8045 ARC

[Verification and Validation of Flight Critical Systems](#) [187]

Xigen, LLC

11001 Sugarbush Terrace

Rockville, MD 20852

Jason Geng (301) 637-6828

09-1-O2.01-9812 KSC

[Novel Ultra-Miniature LIDAR Scanner for Launch Range Data Collection](#) [188]

• **Massachusetts (36)**

Aerodyne Research, Inc.

45 Manning Road

Billerica, MA 01821

Charles Kolb (978) 663-9500

09-1-A2.02-8907 GRC

[Ultrasensitive, Fast-Response Size-Dependent Soot Spectrometer](#) [189]

Aerospace & Bonded Structures

4 Green Street

Billerica, MA 01821

Rhonda Winter (978) 670-7391

09-1-S2.03-8800 JPL

[Hierarchical Orbital Observatory Deployable Shroud \(HOODS\)](#) [190]

Arradiance, Inc.

142 North Road

Sudbury, MA 01776

Kenneth Stenton (978) 369-8291

09-1-S1.05-9730 GSFC

[Functionalized Nano-Film Microchannel Plate: A Single High Aspect Ratio Device for High Resolution, Low Noise Astronomical Imaging](#) [191]

Aspen Aerogels, Inc.

30 Forbes Road, Bldg. B

Northborough, MA 01532

Kevin Schmidt (508) 691-1161

09-1-X8.01-8579 KSC

[Hybrid Aerogel-MLI Insulation System for Cryogenic Storage in Space Applications](#) [192]

Autonomous Exploration, Inc.

385 High Plain Road

Andover, MA 01810

Julian Center (978) 269-4120

09-1-O4.03-9337 GRC

[Advanced Bayesian Methods for Lunar Surface Navigation](#) [193]

Boston Applied Technologies, Inc.

6F Gill Street

Woburn, MA 01801

Yingyin Zou (781) 935-2800

09-1-S1.01-8049 LaRC

[A Compact Self-Switching/Modulation 2 micron Ceramic Laser](#) [194]

Boston Micromachines Corporation

30 Spinelli Place

Cambridge, MA 02138

Paul Bierden (617) 868-4178

09-1-S2.02-9229 JPL

[Compact Low-Power Driver for Deformable Mirror Systems](#) [195]

Boston Micromachines Corporation

30 Spinelli Place

Cambridge, MA 02138

Paul Bierden (617) 868-4178

09-1-S2.02-9231 JPL

[Enhanced Fabrication Processes Development for High Actuator Count Deformable Mirrors](#) [196]

Busek Co., Inc.

11 Tech Circle

Natick, MA 01760

Judy Budny (508) 655-5565

09-1-S2.01-9277 JPL

[Miniaturized Low-Power Piezo Microvalve for NanoSat and CubeSat Propulsion](#) [197]

Busek Co., Inc.

11 Tech Circle

Natick, MA 01760

Judy Budny (508) 655-5565

09-1-S3.04-8809 GRC

[High Efficiency Hall Thruster Discharge Power Converter](#) [198]

Busek Co., Inc.

11 Tech Circle

Natick, MA 01760

Judy Budny (508) 655-5565

09-1-S3.08-8312 AFRC

[Magnesium Based Rockets for Martian Exploration](#) [199]

Busek Co., Inc.

11 Tech Circle

Natick, MA 01760

Judy Budny (508) 655-5565

09-1-S3.04-8131 GRC

[Low Mass Low Power Hall Thruster System](#) [200]

EIC Laboratories, Inc.

111 Downey Street

Norwood, MA 02062

David Rauh (781) 769-9450

09-1-X7.01-8568 GRC

[Mesoporous Silicon-Based Anodes for High Capacity, High Performance Li-ion Batteries](#) [201]

EIC Laboratories, Inc.

111 Downey Street

Norwood, MA 02062

David Rauh (781) 769-9450

09-1-S1.11-8566 MSFC

[A Compact, Dual Excitation Raman Probe and Instrument for the Identification of Lunar Samples](#) [202]

Eikos, Inc.

2 Master Drive

Franklin, MA 02038

Paul Glatkowski (508) 528-0300

09-1-X6.02-8804 KSC

[Nanotube Electrodes for Dust Mitigation](#) [203]

ElectroChem, Inc.

400 West Cummings Park

Woburn, MA 01801

Radha Jalan (781) 938-5300

09-1-X7.03-8742 GRC

[Novel Conductive Water Removal Membrane \(CWRM\) for PEM Passive Fuel Cell Operation](#) [204]

EM4, Inc.

7 Oak Park Drive

Bedford, MA 01730

Alex Rosiewicz (781) 275-7501

09-1-S1.01-8601 LaRC

[Compact 2050 nm Semiconductor Diode Laser Master Oscillator](#) [205]

Energid Technologies

One Mifflin Place, Suite 400

Cambridge, MA 02138

Neil Tardella (888) 547-4100

09-1-X1.01-9674 ARC

[Robotic Vehicle Proxy Simulation](#) [206]

Giner Electrochemical Systems, LLC

89 Rumford Avenue

Newton, MA 02466

Anthony Vaccaro (781) 529-0504

09-1-X7.03-9874 GRC

[Water Management Membrane for Fuel Cells and Electrolyzers](#) [207]

Giner Electrochemical Systems, LLC

89 Rumford Avenue

Newton, MA 02466

Anthony Vaccaro (781) 529-0504

09-1-X2.01-9873 MSFC

[Development of a Cathode Liquid Feed Electrolyzer to Generate 3,600 psi Oxygen for Both Lunar and Space Microgravity Environments](#) [208]

Hardric Laboratories, Inc.

70 Princeton Street

North Chelmsford, MA 01863

Richard Charbonnier (978) 251-1702

09-1-S2.05-9809 GSFC

[Advanced Lightweight Metal Matrix Composite Segmented Optic Manufacture](#) [209]

Kaitech, Inc.

22 Mariners Drive

Marshfield, MA 02050

Richard Cox (781) 837-8465

09-1-S1.08-9836 SSC

[Water Properties Sensor](#) [210]

Kernco, Inc.

28 Harbor Street

Danvers, MA 01923

Michael Delaney (978) 777-1956

09-1-S4.04-9935 ARC

[Radiation Tolerant Low Power Precision Time Source](#) [211]

Metis Design Corporation

10 Canal Park

Cambridge, MA 02141

Seth Kessler (617) 661-5616

09-1-X5.01-9215 ARC

[Structural Abort Trigger for Ares Composites](#) [212]

Milli Sensor Systems and Actuators, Inc.

93 Border Street

West Newton, MA 02465

Nunzi Sapuppo (617) 965-4872

09-1-S4.05-8441 ARC

[Reaction Wheel with Embedded MEMS IMU](#) [213]

Nanotrons

12A Cabot Road

Woburn, MA 01801

Geoffrey Burnham (781) 935-1200

09-1-X5.02-8504 LaRC

[Functionalized Graphene Sheets-Polymer Based Nanocomposite for Cryotanks](#) [214]

ORB Analytics, LLC

5 Hillside Road

Carlisle, MA 01741

Samuel MacMullan (978) 371-0484

09-1-O1.01-9742 JPL

[Minimizing Implementation Loss in Soft-Decision GMSK Demodulators](#) [215]

Physical Sciences, Inc.

20 New England Business Center

Andover, MA 01810

B. David Green (978) 689-0003

09-1-X7.01-8775 GRC

[Safer Battery with Switchable Polymer Coating](#) [216]

Pulse Systems, Inc.

222 Bolivar Street

Canton, MA 02021

John Lagadinos (781) 828-1142

09-1-S1.02-9859 GSFC

[Solid State KA-Band, Solid State W-Band and TWT Amplifiers](#) [217]

Q-Peak, Inc.

135 South Road

Bedford, MA 01730

Peter Moulton (781) 275-9535

09-1-S1.01-9210 LaRC

[Pulsed, Single-Frequency, 2-um Seed Source for Coherent LIDAR Applications](#) [218]

QM Power, Inc.

441 Marlborough Street, #2

Boston, MA 02115

Patrick Piper (857) 350-3100

09-1-X4.03-8928 LaRC

[Lightweight High Efficiency Electric Motors and Actuators for Low Temperature Mobility and Robotics Applications](#) [219]

Radiation Monitoring Devices, Inc.

44 Hunt Street

Watertown, MA 02472

Nancy Marshall (617) 668-6810

09-1-X14.01-9159 ARC

[Fast Neutron Dosimeter for the Space Environment](#) [220]

Scientific Solutions, Inc.

55 Middlesex Street #210

North Chelmsford, MA 01863

Cheryl Perkins (978) 251-4554

09-1-S1.04-9163 GSFC

[SHIMS -- A Spatial Heterodyne Interferometer for Methane Sounding](#) [221]

Scientific Systems Company, Inc.

500 West Cummings Park, Suite 3000

Woburn, MA 01801

Jay Miselis (781) 933-5355

09-1-A3.02-8507 LaRC

[Metroplex-Wide Runway Configuration Management using COBRA \(Configuration Optimization for Balanced Runway/Route Assignments\) Tool](#) [222]

Scientific Systems Company, Inc.

500 West Cummings Park, Suite 3000

Woburn, MA 01801

Jay Miselis (781) 933-5355

09-1-O1.08-8493 GRC

[SCONES: Secure Content-Oriented Networking for Exploring Space](#) [223]

Superconducting Systems, Inc.

5 Fortune Drive

Billerica, MA 01821

Shahin Pourrahimi (978) 330-3021

09-1-S1.07-8699 GSFC

[Application of Reinforced HTS 2212 Wires in ADR Magnets Operating at 30K-40K](#) [224]

• **Michigan (8)**

Baker-Calling, Inc.

836 Brookside Drive

Ann Arbor, MI 48105

Karl Grosh (734) 645-0571

09-1-A4.01-8257 LaRC

[Piezoelectric MEMS Microphones for Ground Testing of Aeronautical Systems](#) [225]

Cybernet Systems Corporation

727 Airport Boulevard

Ann Arbor, MI 48108

Daniel Jarrell (734) 668-2567

09-1-A1.02-8576 LaRC

[Automated NDE Flaw Mapping System](#) [226]

Cybernet Systems Corporation

727 Airport Boulevard

Ann Arbor, MI 48108

Daniel Jarrell (734) 668-2567

09-1-X12.01-9064 JSC

[Automated Autonomy Assessment System](#) [227]

ElectroDynamic Applications, Inc.

P.O. Box 131460

Ann Arbor, MI 48113

Jonathan Zagel (734) 786-1434

09-1-A2.06-8042 LaRC

[Fiber-Coupled Spectrometer for TPS Materials](#) [228]

Michigan Aerospace Corporation

1777 Highland Drive, Suite B

Ann Arbor, MI 48108

John Dodds (734) 975-8777

09-1-A1.04-9447 LaRC

[Molecular Air Data Clear Air Turbulence Sensor: MADCAT](#) [229]

Michigan Engineering Services, LLC

2890 Carpenter Road, Suite 1900

Ann Arbor, MI 48108

Nick Vlahopoulos (734) 358-0792

09-1-A2.08-9364 GRC

[Integrated Network of Optimizations for Aircraft Systems](#) [230]

Translume, Inc.

655 Phoenix Drive

Ann Arbor, MI 48108

Eric Jacobson (734) 528-6371

09-1-S1.08-9774 GSFC

[Small Submersible Robust Microflow Cytometer for Quantitative Detection of Phytoplankton](#) [231]

Virtual EM, Inc.

2019 Georgetown Blvd.

Ann Arbor, MI 48105

Tayfun Ozdemir (734) 222-4558

09-1-O1.05-8533 JSC

[RFID-Enabled Navigation and Communication Networks for Long-Duration Space Missions](#) [232]

• **Minnesota (4)**

Aero Systems Engineering, Inc.

358 East Fillmore Avenue

St. Paul, MN 55107

Peter Maye (651) 220-1339

09-1-A2.10-9689 GRC

[Fan Noise Screening Rig for New Open Rotor and Propeller Concepts](#) [233]

SVT Associates

7620 Executive Drive

Eden Prairie, MN 55344

Leslie Price (952) 934-2100

09-1-S3.03-8858 GRC

[Highly Efficient InGaN-Based Solar Cells for High Intensity and High Temperature Operation](#) [234]

The IIAN Company, LLC

2700 East 28th Street, Suite 120

Minneapolis, MN 55406

Jody Klaassen (612) 226-1249

09-1-O1.07-9857 JPL

[GaN Bulk Growth and Epitaxy from Ca-Ga-N Solutions](#) [235]

TLC Precision Wafer Technology, Inc.

1411 West River Road, North

Minneapolis, MN 55411

Timothy Childs (612) 341-2795

09-1-O1.07-8064 JPL

[High Power Wide Bandgap Engineered MMW MMIC Transceiver](#) [236]

• **Mississippi (1)**

Optimal, LLC

181 Summertree Road

Starkville, MS 39759

Greg Burgreen (662) 325-2286

09-1-A2.08-8824 LaRC

[Discrete Geometry Toolkit for Shape Optimization](#) [237]

• **Missouri (2)**

Innovative Technology Applications Co.

P.O. Box 6971

Chesterfield, MO 63006

Alan Cain (314) 373-3311

09-1-A2.03-8365 LaRC

[A Software Tool for Improved Noise Source Identification and Understanding](#) [238]

IST-Rolla

11560 Forest Lake Drive

Rolla, MO 65401

Sivasubramanya Balakrishnan (573) 201-1068

09-1-O4.04-8246 JSC

[Advanced Filtering Techniques Applied to Spaceflight](#) [239]

• **Montana (5)**

ADVR, Inc.

2310 University Way, Building 1-1

Bozeman, MT 59715

Betsy Heckel (406) 522-0388

09-1-S1.01-9529 LaRC

[Integrated Planar Lightwave Circuits for UV Generation and Phase Modulation](#) [240]

ADVR, Inc.

2310 University Way, Building 1-1

Bozeman, MT 59715

Betsy Heckel (406) 522-0388

09-1-S1.01-9175 GSFC

[Fiber Coupled Pulse Shaper for Sub-Nanosecond Pulse Lidar](#) [241]

ADVR, Inc.

2310 University Way, Building 1-1

Bozeman, MT 59715

Betsy Heckel (406) 522-0388

09-1-O1.05-8381 GRC

[High Fidelity Down-Conversion Source for Secure Communications using On-Demand Single Photons](#) [242]

Anasphere, Inc.

106 Pronghorn Trail

Bozeman, MT 59718

John Bognar (406) 994-9354

09-1-S3.10-8254 GSFC

[Sensor System for Super-Pressure Balloon Performance Modeling](#) [243]

Anasphere, Inc.

106 Pronghorn Trail

Bozeman, MT 59718

John Bognar (406) 994-9354

09-1-S3.09-8252 ARC

[Dropsonde System for Unmanned Aerial Vehicles](#) [244]

• **New Hampshire (5)**

Creare, Inc.

P.O. Box 71

Hanover, NH 03755

James Barry (603) 643-3800

09-1-S1.07-9643 GSFC

[Micromachined Active Magnetic Regenerator for Low Temperature Magnetic Coolers](#) [245]

Creare, Inc.

P.O. Box 71

Hanover, NH 03755

James Barry (603) 643-3800

09-1-S1.09-9459 MSFC

[Compact Vacuum Pump for Titan Lander Missions](#) [246]

Creare, Inc.

P.O. Box 71

Hanover, NH 03755

James Barry (603) 643-3800

09-1-X7.02-9282 GRC

[A Two-Phase Cooling Loop for Fission Surface Power Waste Heat Transport](#) [247]

Creare, Inc.

P.O. Box 71

Hanover, NH 03755

James Barry (603) 643-3800

09-1-S4.05-9224 ARC

[Miniature Reaction Wheel for Small Satellite Control](#) [248]

Creare, Inc.

P.O. Box 71

Hanover, NH 03755

James Barry (603) 643-3800

09-1-X2.05-9202 JSC

[Nonventing Thermal and Humidity Control for EVA Suits](#) [249]

• **New Jersey (10)**

Continuum Dynamics, Inc.

34 Lexington Avenue

Ewing, NJ 08618

Barbara Agans (609) 538-0444

09-1-A2.09-8823 ARC

[Flight Adaptive Blade for Optimum Rotor Response \(FABFORR\)](#) [250]

Discovery Semiconductors, Inc.

119 Silvia Street

Ewing, NJ 08628

Abhay Joshi (609) 434-1311

09-1-S1.05-9827 GSFC

[Low-Noise, UV-to-SWIR Broadband Photodiodes for Large-Format Focal Plane Array Sensors](#) [251]

Folded Structures Company, LLC

1142a Old York Road

Ringoes, NJ 08551

Daniel Kling (908) 237-1955

09-1-X4.02-8435 LaRC

[Expandable/Foldable Structures for Habitat](#) [252]

JMSI, Inc. dba Intelligent Light

301 Rt. 17N, 7th Floor

Rutherford, NJ 07070

Steve Legensky (201) 460-4700

09-1-S6.01-9220 ARC

[NUE - Novel Universal Ensemble Capability for Overset Grids](#) [253]

MaXentric Technologies

2071 Lemoine Avenue, Suite 302

Fort Lee, NJ 07024

Houman Ghajari (858) 272-8800

09-1-O1.03-8119 GRC

[Fault Tolerant Software-Defined Radio on Manycore](#) [254]

Mechanical Solutions, Inc.

11 Apollo Drive

Whippany, NJ 07981

Michael Platt (973) 326-9920

09-1-A2.08-8224 GRC

[Design Environment for Multi-Fidelity and Multi-Disciplinary Components](#) [255]

Mechanical Solutions, Inc.

11 Apollo Drive

Whippany, NJ 07981

Michael Platt (973) 326-9920

09-1-A4.01-8214 GRC

[Blade Vibration Measurement System for Unducted Fans](#) [256]

NEI Corporation

201 Circle Drive N., Suite 102/103

Piscataway, NJ 08854

Ganesh Skandan (732) 868-3141

09-1-X7.01-8216 JPL

[High Energy Density Li-ion Batteries Designed for Low Temperature Applications](#) [257]

Princeton Lightwave, Inc.

2555 Route 130 South, Suite 1

Cranbury, NJ 08512

Mark Itzler (609) 495-2551

09-1-O1.06-9687 JPL

[NFAD Arrays for Single Photon Optical Communications at 1.5 um](#) [258]

Princeton Satellite Systems

6 Market Street, Suite 926

Plainsboro, NJ 08536

Michael Paluszek (609) 275-9606

09-1-O4.04-8581 GRC

[Low Energy Mission Planning Toolbox](#) [259]

• **New Mexico (6)**

Mesa Photonics

1550 Pacheco St.

Santa Fe, NM 87505

Daniel Kane (505) 216-5015

09-1-X2.03-9510 JPL

[Trace Contaminant Monitor for Air in Spacecraft](#) [260]

Southwest Sciences, Inc.

1570 Pacheco Street, Suite E-11

Santa Fe, NM 87505

Alan Stanton (505) 984-1322

09-1-S1.08-9682 GSFC

[Compact Instrument for Measurement of Atmospheric Carbon Monoxide](#) [261]

Southwest Sciences, Inc.

1570 Pacheco Street, Suite E-11

Santa Fe, NM 87505

Alan Stanton (505) 984-1322

09-1-S1.04-9508 JPL

[Improved Trace Gas Spectrometer](#) [262]

STAR Cryoelectronics, LLC

25-A Bisbee Court

Santa Fe, NM 87508

Robin Cantor (505) 424-6454

09-1-S1.07-8870 GSFC

[A Magnetic Thermometer for High-Resolution 10 mK Scale Thermometry](#) [263]

TH Chem, Inc.

8415 Manuel Cia Place NE

Albuquerque, NM 87122

Tuqiang Chen (505) 610-6027

09-1-X7.01-9403 GRC

[A New Li Anode Technology for Improved Performance](#) [264]

Vista Photonics, Inc.

67 Condesa Road

Santa Fe, NM 87508

Jeffrey Pilgrim (505) 466-3830

09-1-S1.08-9043 ARC

[High Performance Nitrous Oxide Analyzer for Atmospheric Research](#) [265]

• **New York (15)**

ACENT Laboratories, LLC

3 Scott Lane

Manorville, NY 11949

Anthony Castrogiovanni (631) 801-2616

09-1-A2.02-8867 LaRC

[A Compact Safe Cold-Start \(CS2\) System for Scramjets using Dilute Triethylaluminum Fuel Mixtures](#) [266]

Amplification Technologies, Inc.

1400 Coney Island Avenue

Brooklyn, NY 11230

Avery Kornbluth (718) 951-8021

09-1-S1.01-9201 GSFC

[Very High Gain and Low Noise Near Infrared Single Photon Counting Detectors and Arrays](#) [267]

Amplification Technologies, Inc.

1400 Coney Island Avenue

Brooklyn, NY 11230

Avery Kornbluth (718) 951-8021

09-1-O1.06-8219 JPL

[High Performance Negative Feedback Near Infrared Single Photon Counting Detectors & Arrays](#) [268]

Ceralink, Inc.

105 Jordan Road

Troy, NY 12180

Patricia Strickland (518) 283-7733

09-1-X6.01-9649 KSC

[Automated Hybrid Microwave Heating for Lunar Surface Solidification](#) [269]

Honeybee Robotics Ltd.

460 W. 34th Street

New York, NY 10001

Chris Chapman (646) 459-7802

09-1-X6.01-9794 KSC

[Parametric Optimization and Prediction Tool for Lunar Surface Systems Excavation Tasks](#) [270]

Honeybee Robotics Ltd.

460 W. 34th Street

New York, NY 10001

Chris Chapman (646) 459-7802

09-1-S4.05-9322 ARC

[TORC-SP: High Torque, Low Jitter Scissored-Pair CMG Technology](#) [271]

Honeybee Robotics Ltd.

460 W. 34th Street

New York, NY 10001

Chris Chapman (646) 459-7802

09-1-S5.02-9092 JPL

[Extreme Temperature Gearhead](#) [272]

Honeybee Robotics Ltd.

460 W. 34th Street

New York, NY 10001

Chris Chapman (646) 459-7802

09-1-S5.03-9090 JPL

[Arm-Deployed Rotary-Percussive Coring Drill](#) [273]

Honeybee Robotics Ltd.

460 W. 34th Street

New York, NY 10001

Chris Chapman (646) 459-7802

09-1-S1.11-9088 MSFC

[DIHeDRAL: Downhole Regolith Interrogation with Helium-Assisted DRill And LIBS](#) [274]

HYPRES, Inc.

175 Clearbrook Road

Elmsford, NY 10523

Oleg Mukhanov (914) 592-1190

09-1-S1.04-9040 JPL

[Low-Power Wideband Digital Spectrometer for Planetary Science](#) [275]

Impact Technologies, LLC

200 Canal View Boulevard

Rochester, NY 14623

Carol Marquardt (585) 627-1923

09-1-O4.05-9401 GSFC

[A Light Weight, Mini Inertial Measurement System for Position and Attitude Estimation on Dynamic Platforms](#) [276]

Impact Technologies, LLC

200 Canal View Boulevard

Rochester, NY 14623

Carol Marquardt (585) 627-1923

09-1-X1.04-9306 ARC

[Fusion of Built in Test \(BIT\) Technologies with Embeddable Fault Tolerant Techniques for Power System and Drives in Space Exploration](#) [277]

MesoScribe Technologies, Inc.

7 Flowerfield, Suite 28

St. James, NY 11780

Jeffrey Brogan (631) 686-5710

09-1-X5.01-8826 JSC

[Composite Structure Monitoring using Direct Write Sensors](#) [278]

MTECH Laboratories, LLC

P.O. Box 227

Ballston Spa, NY 12020

Eduard Mueller (518) 885-6436

09-1-A2.01-9471 GRC

[Lightweight, Efficient Power Converters for Advanced Turboelectric Aircraft Propulsion Systems](#) [279]

Optimax Systems, Inc.

6367 Dean Parkway

Ontario, NY 14519

Tom Kelly (585) 217-0729

09-1-S2.05-9386 MSFC

[Removing Mid-Spatial Frequency Errors with VIBE](#) [280]

- **North Carolina (2)**

- **Bennett Aerospace, LLC**

- 2054 Kildaire Farm Road, #181

- Cary, NC 27518

- Douglas Bennett (919) 859-5454

- 09-1-O1.04-9063 JSC

- [Miniaturized Digital EVA Radio](#) [281]

- **Blue Ridge Research and Consulting**

- 13 1/2 W. Walnut Street

- Asheville, NC 28801

- Bruce Ikelheimer (828) 252-2209

- 09-1-O2.02-8697 SSC

- [System for Acquisition and Analysis of Energy-Based Acoustic Data for Rocket Noise](#) [282]

- **Ohio (11)**

- **Cornerstone Research Group, Inc.**

- 2750 Indian Ripple Road

- Dayton, OH 45440

- Stephen Vining (937) 320-1877

- 09-1-A2.03-9603 LaRC

- [Adaptive Drainage Slots for Acoustic Noise Attenuation](#) [283]

- **Cornerstone Research Group, Inc.**

- 2750 Indian Ripple Road

- Dayton, OH 45440

- Stephen Vining (937) 320-1877

- 09-1-X5.03-9295 MSFC

[SMP Bladder Tooling for Manufacturing Composites](#) [284]

Cornerstone Research Group, Inc.

2750 Indian Ripple Road

Dayton, OH 45440

Stephen Vining (937) 320-1877

09-1-X4.02-9611 LaRC

[Self-Deploying Composite Habitats](#) [285]

Lake Shore Cryotronics, Inc.

575 McCorkle Blvd.

Westerville, OH 43082

Mahavir Sanghavi (614) 891-2243

09-1-S1.04-8553 JPL

[Metal-Mesh Optical Filter Technology for Mid IR, Far IR, and Submillimeter](#) [286]

N&R Engineering

6659 Pearl Road, #201

Parma Heights, OH 44130

Vinod Nagpal (440) 845-7020

09-1-A2.10-9062 GRC

[Cooled Ceramic Turbine Vane](#) [287]

Nastec, Inc.

5310 West 161 Street, Suite G

Brook Park, OH 44142

Richard Klein (216) 464-8388

09-1-A1.08-9406 GRC

[Aircraft Engine Life-Consumption Monitoring for Real-Time Reliability Determination](#) [288]

Powdermet, Inc.

24112 Rockwell Drive

Euclid, OH 44117

Andrew Sherman (216) 404-0053

09-1-X4.01-8079 LaRC

[Improved Metal-Polymeric Laminate Radiation Shielding](#) [289]

RNET Technologies, Inc.

240 W. Elmwood Drive, Suite 2010

Dayton, OH 45459

V. Nagarajan (937) 433-2886

09-1-S1.09-8140 GSFC

[Radiation Mitigation Methods for Advanced Readout Array](#) [290]

Spectral Energies, LLC

5100 Springfield Street, Suite 301

Dayton, OH 45431

Sivaram Gogineni (937) 266-9570

09-1-A4.01-9486 LaRC

[Quantitative kHz to MHz Frame Rate Flow Diagnostics for Aerodynamic Ground Test Facilities](#) [291]

Sun Valley Technology

26700 Renaissance Parkway, Unit 4

Warrensville Heights, OH 44128

Frank Sun (216) 464-1322

09-1-A2.02-8182 GRC

[Multi-Element Lean Direct Injection Combustor Single Element Demonstration](#) [292]

Wright Materials Research Co.

1187 Richfield Center

Beavercreek, OH 45430

Seng Tan (937) 431-8811

09-1-X5.03-9347 MSFC

[Manufacturing of Nanocomposite Carbon Fibers and Composite Cylinders](#) [293]

• **Oregon (3)**

E-Beam, Inc.

21070 SW Tile Flat Road

Beaverton, OR 97007

Bernard Vancil (503) 628-0703

09-1-O1.07-9345 JPL

[Nano-Particle Scandate Cathode for Space Communications](#) [294]

Lynguent, Inc.

P.O. Box 19325

Portland, OR 97280

Martin Vlach (503) 241-7195

09-1-X1.03-8468 LaRC

[Radiation Induced Fault Analysis for Wide Temperature BiCMOS Circuits](#) [295]

UMPQUA Research Company

P.O. Box 609

Myrtle Creek, OR 97457

John Aker (541) 863-2655

09-1-X2.02-9562 ARC

[Advanced Aqueous Phase Catalyst Development using Combinatorial Methods](#) [296]

• **Pennsylvania (10)**

Advanced Cooling Technologies, Inc.

1046 New Holland Avenue

Lancaster, PA 17601

Jon Zuo (717) 295-6058

09-1-A2.01-8833 ARC

[Interfacial Design of Composite Ablative Materials](#) [297]

Advanced Cooling Technologies, Inc.

1046 New Holland Avenue

Lancaster, PA 17601

Jon Zuo (717) 295-6058

09-1-S3.02-8213 MSFC

[Loop Heat Pipe with Thermal Control Valve for Passive Variable Thermal Link](#) [298]

Advanced Cooling Technologies, Inc.

1046 New Holland Avenue

Lancaster, PA 17601

Jon Zuo (717) 295-6058

09-1-S3.03-8061 GRC

[Thermal Management System for Long-Lived Venus Landers](#) [299]

ArkLight

3210 N. Bay Hill Drive

Center Valley, PA 18034

Yuliya Zotova (484) 547-5375

09-1-S1.01-9879 LaRC

[Frequency Up-Conversion Detection System with Single Photon Sensitivity within 1-1.8](#) [300]

Astrobotic Technology, Inc.

4551 Forbes Avenue

Pittsburgh, PA 15213

David Gump (412) 682-3282

09-1-X6.01-9100 KSC

[Lightweight Robotic Excavation](#) [301]

Combustion Research and Flow Technology

6210 Keller's Church Road

Pipersville, PA 18947

Paula Schachter (215) 766-1520

09-1-A2.05-9389 LaRC

[Uncertainty Quantification for Production Navier-Stokes Solvers](#) [302]

Materials Research and Design

300 E. Swedesford Road

Wayne, PA 19087

Brian Sullivan (610) 964-6131

09-1-A2.01-8401 GRC

[Multi-Directional Composite Cylinders Assemblage Module for Physics-Based CMC Durability Modeling](#) [303]

Materials Research and Design

300 E. Swedesford Road

Wayne, PA 19087

Joseph Pluscauskis (610) 964-9000

09-1-S3.08-8144 MSFC

[Refractory Coated/Lined Low Density Structures](#) [304]

Pulsar Informatics, Inc.

3624 Market Street, Suite 5E

Philadelphia, PA 19104

Daniel Mollicone (215) 520-2630

09-1-X12.02-9125 JSC

[Individualized Behavioral Health Monitoring Tool](#) [305]

TRS Ceramics, Inc.

2820 East College Avenue

State College, PA 16801

Wesley Hackenberger (814) 238-7485

09-1-X8.02-9544 SSC

[Cryogenic Clamp-on Ultrasonic Flowmeters using Single Crystal Piezoelectric Transducers](#) [306]

• **Tennessee (4)**

Analysis and Measurement Services Corporation

9111 Cross Park Drive, Building A-100

Knoxville, TN 37923

Darrell Mitchell (865) 691-1756

09-1-A1.10-8957 GRC

[In-Flight and Pre-Flight Detection of Pitot Tube Anomalies](#) [307]

Analysis and Measurement Services Corporation

9111 Cross Park Drive, Building A-100

Knoxville, TN 37923

Darrell Mitchell (865) 691-1756

09-1-X7.02-8908 GRC

[Autonomus I&C Maintenance and Health Monitoring System for Fission Surface Power](#) [308]

Dynamic Structures and Materials, LLC

205 Williamson Square

Franklin, TN 37064

Jennifer Sturgis (615) 595-6665

09-1-X8.01-8727 KSC

[High Reliability Cryogenic Piezoelectric Valve Actuator](#) [309]

Gloyer-Taylor Laboratories, LLC

2212 Harton Blvd.

Tullahoma, TN 37388

Paul Gloyer (931) 393-5108

09-1-X10.01-9928 GRC

[UCDS Based Stable Injector Design](#) [310]

• **Texas (17)**

Advanced Powder Solutions

14102 Halprin Creek Drive

Cypress, TX 77429

Dean Baker (661) 373-1729

09-1-X4.01-8615 LaRC

[Low Cost, Lightweight, Multifunctional Structural Shielding Materials](#) [311]

Carbon-Carbon Advanced Technologies, Inc.

4704 Eden Road

Kennedale, TX 76060

James Thompson (817) 985-2500

09-1-X10.01-8831 GRC

[Carbon-Carbon High Melt Coating for Nozzle and Nozzle Extensions](#) [312]

Dallas Optical Systems, Inc.

1790 Connie Lane

Rockwall, TX 75032

John Casstevens (972) 564-1156

09-1-S2.04-8107 MSFC

[Very High Load Capacity Air Bearing Spindle for Large Diamond Turning Machines](#) [313]

Integrated Micro Sensors, Inc.

10814 Atwell Drive

Houston, TX 77096

David Starikov (713) 748-7926

09-1-X5.03-9578 MSFC

[Drastic Improvements in Bonding of Fiber Reinforced Multifunctional Composites](#) [314]

Invocon, Inc.

19221 IH 45 South, Suite 530

Conroe, TX 77385

Aaron Trott (281) 292-9903

09-1-A1.10-8501 LaRC

[Surface-Borne Time-of-Reception Measurements \(STORM\)](#) [315]

Lynntech, Inc.

2501 Earl Rudder Freeway South

College Station, TX 77845

G. Hisaw (979) 693-0017

09-1-X2.01-9602 MSFC

[Non-Thermal Plasma Recovery of Hydrogen from Sabatier Waste Methane](#) [316]

Lynntech, Inc.

2501 Earl Rudder Freeway South

College Station, TX 77845

G. Hisaw (979) 693-0017

09-1-X2.02-9599 ARC

[Novel Self-Cleaning Surfaces for Biofouling Prevention](#) [317]

Lynntech, Inc.

2501 Earl Rudder Freeway South

College Station, TX 77845

G. Hisaw (979) 693-0017

09-1-X7.03-9598 JPL

[Advanced Oxygen Evolution Catalyst for Electrolyzer Energy Storage for Lunar Surface Systems](#) [318]

Lynntech, Inc.

2501 Earl Rudder Freeway South

College Station, TX 77845

G. Hisaw (979) 693-0017

09-1-X2.03-9601 JPL

[Miniature, Low Power Vacuum Pump for Trace Contaminant Monitors](#) [319]

Nanohmics, Inc.

6201 East Oltorf Street, Suite 400

Austin, TX 78741

Lea Lundin (512) 389-9990

09-1-S3.03-8130 GRC

[Perfectly Impedance-Matched Negative Index High Temperature Selective Emission Films for Thermophotovoltaics](#) [320]

Operational Technologies Corporation

4100 N.W. Loop 410

San Antonio, TX 78229

Judson Miner (210) 731-0015

09-1-X2.03-9855 MSFC

[Handheld FRET-Aptamer Sensor for Water Safety](#) [321]

Polatomic, Inc.

1810 N. Glenville Drive, #116

Richardson, TX 75081

Robert Slocum (972) 690-0099

09-1-S1.06-8420 GSFC

[Miniature Laser Magnetometer \(MLM\)](#) [322]

Tietronix Software, Inc.

1331 Gemini Avenue, Suite 300

Houston, TX 77058

Victor Tang (281) 404-7222

09-1-X1.01-8474 JSC

[Executable SysML Model Development Accelerator for the Constellation Program](#) [323]

TRAC Labs, Inc.

100 N.E. Loop 410, Suite 520

San Antonio, TX 78216

David Kortenkamp (281) 461-7884

09-1-X13.02-9273 ARC

[Software Agents for Group Awareness and Inter-agent Conflict Management](#) [324]

TRAC Labs, Inc.

100 N.E. Loop 410, Suite 520

San Antonio, TX 78216

David Kortenkamp (281) 461-7884

09-1-X6.01-8031 JSC

[Advanced Modeling Tools for Controlling Complex Assets Across Time Delay](#) [325]

Vcrsoft, LLC

2310 Bamboo Drive, Suite J303

Arlington, TX 76006

VC Ramesh (817) 213-6184

09-1-A3.01-9485 ARC

[Agent-Based Collaborative Traffic Flow Management](#) [326]

Vcrsoft, LLC

2310 Bamboo Drive, Suite J303

Arlington, TX 76006

VC Ramesh (817) 213-6184

09-1-S6.02-9014 SSC

[Semantic Sensor Web Enablement for COAST](#) [327]

• **Utah (1)**

Materials and Systems Research, Inc.

5395 West 700 South

Salt Lake City, UT 84104

Anthony Decheek (801) 530-4987

09-1-S3.05-8787 GRC

[High Temperature Rechargeable Battery Development](#) [328]

• **Virginia (30)**

Air Traffic Analysis, Inc.

3802 Ridgelea Drive

Fairfax, VA 22031

Alexander Klein (703) 801-8381

09-1-A3.01-9634 ARC

[Automatic Generation of Least-Possible-Impact Traffic Management Initiatives](#) [329]

Analytical Mechanics Associates, Inc.

303 Butler Farm Road, Suite 104A

Hampton, VA 23666

Anu Bedi (757) 865-0000

09-1-O4.04-9465 GRC

[Desensitized Optimal Filtering and Sensor Fusion Tool Kit](#) [330]

Analytical Services & Materials, Inc.

107 Research Drive

Hampton, VA 23666

Venkat Iyer (757) 865-7093

09-1-A1.13-8707 LaRC

[Crack Closure Based Self Healing Process for Metallic Structures](#) [331]

Aurora Flight Sciences Corporation

9950 Wakeman Drive

Manassas, VA 20110

Scott Hart (617) 500-0536

09-1-A2.10-9759 GRC

[Aspirated Compressors for High Altitude Engines](#) [332]

Aurora Flight Sciences Corporation

9950 Wakeman Drive

Manassas, VA 20110

Scott Hart (617) 500-0536

09-1-S5.04-9755 JPL

[SPHERES MOSR Rendezvous and Docking with the OS \(RDOS\)](#) [333]

Aurora Flight Sciences Corporation

9950 Wakeman Drive

Manassas, VA 20110

Scott Hart (617) 500-0536

09-1-S5.06-9754 JPL

[Titan Montgolfiere Buoyancy Modulation System](#) [334]

Aurora Flight Sciences Corporation

9950 Wakeman Drive

Manassas, VA 20110

Scott Hart (617) 500-0536

09-1-X11.02-9753 JSC

[Suit Simulator \(S3\) for Partial Gravity EVA Experimentation and Training](#) [335]

Barron Associates, Inc.

1410 Sachem Place, Suite 202

Charlottesville, VA 22901

Connie Hoover (434) 973-1215

09-1-O3.01-8967 GRC

[Tactile Data Entry System](#) [336]

Barron Associates, Inc.

1410 Sachem Place, Suite 202

Charlottesville, VA 22901

Connie Hoover (434) 973-1215

09-1-A1.03-8806 GRC

[DARWIN-HC:](#) [337]

Barron Associates, Inc.

1410 Sachem Place, Suite 202

Charlottesville, VA 22901

Connie Hoover (434) 973-1215

09-1-A1.14-8756 LaRC

[A Software-Assurance Design Approach for NextGen Enabling Technologies](#) [338]

Barron Associates, Inc.

1410 Sachem Place, Suite 202

Charlottesville, VA 22901

Connie Hoover (434) 973-1215

09-1-A1.05-8718 LaRC

[Hardware Demonstration of a Joint Human/Automated Upset Recovery System](#) [339]

Barron Associates, Inc.

1410 Sachem Place, Suite 202

Charlottesville, VA 22901

Connie Hoover (434) 973-1215

09-1-A1.06-8711 ARC

[Integrated Design and Analysis Environment for Safety Critical Human-Automation Systems](#) [340]

Bear Engineering

2415 Two Turtles Road

Maidens, VA 23102

Tom Myrick (804) 240-0814

09-1-S5.03-9737 JPL

[High Torque, Direct Drive Electric Motor](#) [341]

Bear Engineering

2415 Two Turtles Road

Maidens, VA 23102

Tom Myrick (804) 240-0814

09-1-S5.02-8998 JPL

[Robust Load Cell Cell for Discrete Contact Force Measurements of Sampling Systems and/or Instruments](#) [342]

Fibertek, Inc.

510 Herndon Parkway

Herndon, VA 20170

Tracy Perinis (703) 471-7671

09-1-S1.01-8552 LaRC

[High Efficiency Laser for Aircraft/UAV and Space Lidar Missions](#) [343]

International Scientific Technologies, Inc.

P.O. Box 757

Dublin, VA 24084

Wanda Gibson (540) 633-1424

09-1-X4.01-8309 LaRC

[Multilayer Polymeric Shielding to Protect Humans from Galactic Cosmic Radiation](#) [344]

Luna Innovations Incorporated

1 Riverside Circle, Suite 400

Roanoke, VA 24016

Michael Pruzan (540) 769-8430

09-1-X7.02-9116 GRC

[High-Speed Neutron and Gamma Flux Sensor for Monitoring Surface Nuclear Reactors](#) [345]

Materials Modification, Inc.

2809-K Merrilee Drive

Fairfax, VA 22031

Tirumalai Sudarshan (703) 560-1371

09-1-S3.05-8139 GRC

[Asymmetric Supercapacitor for Long Duration Power Storage](#) [346]

Metron Aviation, Inc.

45300 Catalina Court, Suite 101

Dulles, VA 20166

Bruno Salamon (703) 234-0819

09-1-A3.01-8821 ARC

[Unmanned Aerial Vehicle Integration into the NAS](#) [347]

Metron Aviation, Inc.

45300 Catalina Court, Suite 101

Dulles, VA 20166

Bruno Salamon (703) 234-0819

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Metron Aviation, Inc.

45300 Catalina Court, Suite 101

Dulles, VA 20166

Bruno Salamon (703) 234-0819

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[Software Tool for Significantly Increasing Airport Throughput](#) [349]

MicroXact, Inc.

2000 Kraft Drive, Suite 1207

Blacksburg, VA 24060

Paul Hines (540) 392-6917

09-1-X8.02-8865 GRC

[Temperature Sensing Solution for Cryogenic Space Engines](#) [350]

Mosaic ATM, Inc.

801 Sycolin Road, Suite 212

Leesburg, VA 20175

Chris Stevenson (540) 454-7458

09-1-A3.02-9691 ARC

[ATC Operations Analysis via Automatic Recognition of Clearances](#) [351]

Mosaic ATM, Inc.

801 Sycolin Road, Suite 212

Leesburg, VA 20175

Chris Stevenson (540) 454-7458

09-1-A3.02-9692 ARC

[Research of Off-Nominal Airport Traffic Management using a Surface Management System-Based Simulation](#) [352]

Nuvotronics, LLC

7586 Old Peppers Ferry Road

Radford, VA 24141

Ken Vanhille (540) 341-2333

09-1-S1.02-8761 JPL

[Efficient Space Borne MMIC Interface](#) [353]

Nuvotronics, LLC

7586 Old Peppers Ferry Road

Radford, VA 24141

Ken Vanhille (800) 341-2333

09-1-S1.03-8926 GSFC

[Microfabricated Low-Loss Microwave Switch Integration Technology](#) [354]

Nuvotronics, LLC

7586 Old Peppers Ferry Road

Radford, VA 24141

Ken Vanhille (800) 341-2333

09-1-S1.02-8927 JPL

[3D High Density mmWave Interconnects](#) [355]

Prime Research LC

1116 South Main Street, Suite 200

Blacksburg, VA 24060

Steve Poland (540) 961-2200

09-1-O1.05-8175 JSC

[Low-Power Ultra-Wideband Radio and Radar Chip](#) [356]

Pyxisvision Incorporated

9801 Nugget Court

Bristow, VA 20136

Anthony Slotwinski (703) 864-5901

09-1-S2.05-8780 GSFC

[Coherent Laser Radar Metrology System for Large Scale Optical Systems](#) [357]

Vanilla Aircraft, LLC

2822 Mary Street

Falls Church, VA 22042

Jeremy Novara (703) 849-9070

09-1-S3.09-8087 GSFC

[Cold Weather Technology Development for Low Altitude Ultra-Long Endurance Applications](#) [358]

• **Washington (3)**

MSNW, LLC

8551 154th Avenue NE

Redmond, WA 98052

John Slough (425) 867-8900

09-1-S3.04-9095 JPL

[Low Mass Electromagnetic Plasmoid Thruster with Integrated PPU](#) [359]

Sienna Technologies, Inc.

19501 144th Avenue NE, Suite F-500

Woodinville, WA 98072

Karen Valdastris (425) 485-7272

09-1-S5.05-9060 JPL

[Reliable Direct Bond Copper Ceramic Packages for High Temperature Power Electronics](#) [360]

TLG Aerospace, LLC

1700 Westlake Avenue N, Suite 430

Seattle, WA 98109

Steve Muenzberg (206) 859-5061

09-1-A2.04-8692 LaRC

[Variable Fidelity Aeroelastic Toolkit - Structural Model](#) [361]

• **West Virginia (1)**

Touchstone Research Laboratory, Ltd.

The Millennium Centre, 1142 Middle Creek Road

Triadelphia, WV 26059

Brian Joseph (304) 547-5800

09-1-X5.03-8372 MSFC

[Multifunctional Metal Matrix Composite Filament Wound Tank Liners](#) [362]

• **Wisconsin (3)**

Orbital Technologies Corporation

Space Center, 1212 Fourier Drive

Madison, WI 53717

Eric Rice (608) 827-5000

09-1-X10.01-9473 GRC

[Non-Toxic Ionic Liquid Fuels for Exploration Applications](#) [363]

Orbital Technologies Corporation

Space Center, 1212 Fourier Drive

Madison, WI 53717

Thomas Crabb (608) 827-5000

09-1-X2.02-9461 ARC

[High Efficiency, High Output Plastic Melt Waste Compactor \(HEHO-PMWC\)](#) [364]

Orbital Technologies Corporation

Space Center, 1212 Fourier Drive

Madison, WI 53717

Eric Rice (608) 827-5000

09-1-X3.01-9415 KSC

[Advanced Carbothermal Electric Reactor](#) [365]

• **Wyoming (1)**

Wickman Spacecraft & Propulsion Co.

3745A Studer

Casper, WY 82604

John Wickman (307) 265-5895

09-1-S3.08-9779 GRC

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