



Proposals Selected for Negotiation of Contracts

Expand All

- **Alabama (8)**

- **Analytical Services, Inc. (ASI)**

- 350 Voyager Way

- Huntsville, AL 35806

- Jared Austin (256) 562-2134

- 08-1-S5.04-9050 JPL

- [Ultralightweight, Regeneratively Cooled Combustion Chamber for Mars Ascent Vehicles](#) [1]

- **Analytical Services, Inc. (ASI)**

- 350 Voyager Way

- Huntsville, AL 35806

- Jared Austin (256) 562-2134

- 08-1-S5.04-9049 AFRC

- [Advanced Ionic Liquid Monopropellant for Payload Ascent Vehicles](#) [2]

- **CFD Research Corporation**

- 215 Wynn Drive, 5th Floor

- Huntsville, AL 35805

- Silvia Harvey (256) 726-4858

- 08-1-A2.06-9653 LaRC

- [A Comprehensive CFD Tool for Aerothermal Environment Around Space Vehicles](#) [3]

- **Plasma Processes, Inc.**

- 4914 Moores Mill Road

- Huntsville, AL 35811

- Timothy McKechnie (256) 851-7653

08-1-X4.06-9326 MSFC

[Advanced Composite Thrust Chambers for the Altair Lunar Lander](#) [4]

Plasma Processes, Inc.

4914 Moores Mill Road

Huntsville, AL 35811

Timothy McKechnie (256) 851-7653

08-1-X3.02-9756 KSC

[High Surface Iridium Anodes for Molten Oxide Electrolysis](#) [5]

Plasma Processes, Inc.

4914 Moores Mill Road

Huntsville, AL 35811

Timothy McKechnie (256) 851-7653

08-1-X4.02-9673 MSFC

[A Tailorable Structural Composite for GCR and Albedo Neutron Protection on the Lunar Surface](#) [6]

Plasma Processes, Inc.

4914 Moores Mill Road

Huntsville, AL 35811

Timothy McKechnie (256) 851-7653

08-1-X5.02-9672 GRC

[Multi-Use Coating for Abrasion Prevention, Wear Protection, and Lunar Dust Removal](#) [7]

Streamline Automation, LLC

3100 Fresh Way SW

Huntsville, AL 35805

Alton Reich (256) 713-1220

08-1-X9.01-9771 JSC

[Compact, Controlled Force Crew Exercise System](#) [8]

• **Arizona (9)**

AdValue Photonics, Inc.

4585 S. Palo Verde Road, Suite 405

Tucson, AZ 85714

Shibin Jiang (520) 790-5468

08-1-S1.01-9416 LaRC

[Q-Switched High Power Single Frequency 2 Micron Fiber Laser](#) [9]

Amsen Technologies, LLC

1684 S. Research Loop, Suite 518

Tucson, AZ 85710

Hongxing Hu (520) 546-6944

08-1-X6.01-8440 GRC

[A Novel Heat Pipe Plate for Passive Thermal Control of Fuel Cells](#) [10]

NP Photonics, Inc.

9030 S. Rita Road

Tucson, AZ 85747

James Fountain (520) 799-7424

08-1-S1.01-9294 GSFC

[High SBS-Threshold Er/Yb Co-Doped Phosphate Glass Fiber Amplifiers for High Power, Sub-us Pulsed, Narrow Linewidth, All Fiber-Based Laser Transmitter](#) [11]

NP Photonics, Inc.

9030 S. Rita Road

Tucson, AZ 85747

James Fountain (520) 799-7424

08-1-S1.01-9291 LaRC

[1.26 Single Frequency Fiber Laser](#) [12]

Reifer Consultants, Inc.

14820 N. Dragons Breath Lane

Prescott, AZ 86305

Donald Reifer (310) 530-4493

08-1-S4.04-9919 ARC

[Architecture-Based Reuse Innovations](#) [13]

Ridgetop Group, Inc.

6595 North Oracle Road

Tucson, AZ 85704

Milena Thompson (520) 742-3300

08-1-X6.01-9838 GRC

[Innovative Fuel Cell Health Monitoring IC](#) [14]

Ridgetop Group, Inc.

6595 North Oracle Road

Tucson, AZ 85704

Milena Thompson (520) 742-3300

08-1-O2.02-9687 SSC

[Innovative P1451-Enabled Smart Power IVHM Sensor](#) [15]

ZONA Technology, Inc.

9489 E. Ironwood Square Drive

Scottsdale, AZ 85258

Jennifer Scherr (480) 945-9988

08-1-A2.06-9763 LaRC

[A Unified Multi-Dimensional Gaskinetic Hybrid BGK-DSMC Method for Nonequilibrium and Chemically Reacting Flows](#) [16]

ZONA Technology, Inc.

9489 E. Ironwood Square Drive

Scottsdale, AZ 85258

Jennifer Scherr (480) 945-9988

08-1-A2.04-8952 LaRC

[ZEUS-DO: A Design Oriented CFD-Based Unsteady Aerodynamic Capability for Flight Vehicle Multidisciplinary Configuration Shape Optimization](#) [17]

• **Arkansas (1)**

Space Photonics, Inc.

700 West Research Center Blvd

Fayetteville, AR 72701

Matthew Leftwich (479) 856-6367

08-1-X1.03-8730 GSFC

[SEU/SEL Resistant Ultra-Low Power Asynchronous Processor Design for Low-Temperature Applications](#) [18]

- **California (74)**

- **Advanced Scientific Concepts, Inc.**

- 135 Ortega Street

- Santa Barbara, CA 93101

- JoAnn Stettner (805) 966-3331

- 08-1-S5.01-9625 JPL

- [Flash3D EDL Sensor Technology Advancement](#) [19]

- **American GNC Corporation**

- 888 Easy Street

- Simi Valley, CA 93065

- Lina Greenberg (805) 582-0582

- 08-1-O1.08-8665 GRC

- [Reconfigurable Robust Routing for Mobile Outreach Network](#) [20]

- **American GNC Corporation**

- 888 Easy Street

- Simi Valley, CA 93065

- Lina Greenberg (805) 582-0582

- 08-1-O2.02-8624 SSC

- [Distributed Rocket Engine Testing Health Monitoring System](#) [21]

- **Applied Poleramic, Inc.**

- 6166 Egret Court

- Benicia, CA 94510

- Doyle Dixon (707) 747-6738

08-1-A2.01-9683 LaRC

[Multifunctional Composite Materials](#) [22]

Applied Poleramic, Inc.

6166 Egret Court

Benicia, CA 94510

Doyle Dixon (707) 747-6738

08-1-X4.05-9752 LaRC

[Composite Matrix Systems for Cryogenic Applications](#) [23]

Applied Spectra, Inc.

46661 Fremont Blvd.

Fremont, CA 94538

Richard Russo (925) 330-1431

08-1-S1.09-8929 ARC

[Laser Ablation - Optical Cavity Isotopic Spectrometer \(LAOCIS\)](#) [24]

Atlas Scientific

1367 Camino Robles Way

San Jose, CA 95120

Ali Kashani (408) 507-0906

08-1-S1.07-9309 GSFC

[Integrated Circulator for Regenerative Cryocoolers](#) [25]

Atlas Scientific

1367 Camino Robles Way

San Jose, CA 95120

Ali Kashani (408) 507-0906

08-1-X7.01-9295 MSFC

[A Liquid Hydrogen Cooler with a Cooling Capacity of 20 Watts](#) [26]

Atlas Scientific

1367 Camino Robles Way

San Jose, CA 95120

Ali Kashani (408) 507-0906

08-1-X7.01-9289 JSC

[Regenerators for Liquid Hydrogen Cryocoolers](#) [27]

Broadata Communications, Inc.

2545 W. 237th Street, Suite K

Torrance, CA 90505

Debby Roussell (310) 530-1416

08-1-O4.01-9665 KSC

[A Novel Navigation Robustness and Accuracy Improvement System](#) [28]

Broadata Communications, Inc.

2545 W. 237th Street, Suite K

Torrance, CA 90505

Freddie Lin (310) 530-1416

08-1-S4.01-9317 ARC

[Small Space Platform Enhanced Internet Protocol Stack Device](#) [29]

Deployable Space Systems (DSS)

955 Nysted Drive

Solvang, CA 93463

Brian Spence (805) 693-1313

08-1-S3.03-8644 GRC

[High-Performance Elastically Self-Deployed Roll-Out Solar Array \(ROSA\)](#) [30]

Deployable Space Systems (DSS)

955 Nysted Drive

Solvang, CA 93463

Brian Spence (805) 693-1313

08-1-X5.01-9230 JSC

[Lunar Surface Solar Electric Power System](#) [31]

DR Technologies, Inc.

9431 Dowdy Drive

San Diego, CA 92126

Steven Sherman (858) 444-1826

08-1-S2.05-9323 JPL

[Submicron Composite Mirror Replication \(PDRT08-027\)](#) [32]

DR Technologies, Inc.

9431 Dowdy Drive

San Diego, CA 92126

Steven Sherman (858) 444-1826

08-1-S2.03-9065 JPL

[Affordable, Precision Reflector Mold Technology \(PDRT08-029\)](#) [33]

EcoPro Technologies, LLC

P.O. Box 4051

Berkeley, CA 94704

Angela Chen (510) 549-1779

08-1-A2.08-9150 GRC

[A Physics-Based Starting Model for Gas Turbine Engines](#) [34]

Empirical Systems Aerospace, LLC

P.O. Box 595

Pismo Beach, CA 93448

Andrew Gibson (805) 275-1053

08-1-A2.08-8820 GRC

[Integration of an Advanced Cryogenic Electric Propulsion System \(ACEPS\) to Aerodynamically Efficient Subsonic Transport Aircraft](#) [35]

Flometrics, Inc.

5900 Sea Lion Place, Suite 150

Carlsbad, CA 92010

Steve Harrington (760) 476-2770

08-1-S3.04-9239 GRC

[Pistonless Pumps for Nanosat Launch and Sample Return Vehicles](#) [36]

Futek Advanced Sensor Technology, Inc.

10 Thomas

Irvine, CA 92618

John Vargas (949) 465-0900

08-1-S5.03-8527 JPL

[Space/Flight Operable Miniature Six Axis Transducer](#) [37]

Global Aerospace Corporation

711 West Woodbury Road, Suite H

Altadena, CA 91001

Kerry Nock (626) 345-1200

08-1-A2.07-9951 LaRC

[Hypersonic Control Modeling and Simulation Tool for Lifting Towed Ballutes](#) [38]

Grainflow Dynamics, Inc.

1141 Catalina Drive, PMB #270

Livermore, CA 94550

Otis Walton (925) 447-4293

08-1-X3.03-9281 KSC

[Solid-Solid Vacuum Regolith Heat-Exchanger for Oxygen Production](#) [39]

Group4 Labs, LLC

1600 Adams Drive, Suite 112

Menlo Park, CA 94025

Felix Ejeckam (408) 887-6682

08-1-S1.02-9783 GSFC

[A 10kWatt 36GHz Solid-State Power Amplifier using GaN-on-Diamond](#) [40]

Group4 Labs, LLC

1600 Adams Drive, Suite 112

Menlo Park, CA 94025

Felix Ejeckam (408) 887-6682

08-1-O1.07-9782 JPL

[A 60-85% Efficient X- & K-Band 1KWatt Solid-State Power Amplifier using GaN-on-Diamond](#) [41]

Hersh Acoustical Engineering, Inc.

22305 Cairnloch Street

Calabasas, CA 91302

Alan Hersh (818) 224-4699

08-1-A2.03-9848 LaRC

[Numerical and Physical Modeling of the Response of Resonator Liners to Intense Sound and High Speed Grazing Flow](#) [42]

Innosense, LLC

2531 West 237th Street, Suite 127

Torrance, CA 90505

Kisholoy Goswami (310) 530-2011

08-1-X2.04-9678 JPL

[Miniaturized, Multi-Analyte Sensor Array for the Automated Monitoring of Major Atmospheric Constituents in Spacecraft Environment](#) [43]

Innosense, LLC

2531 West 237th Street, Suite 127

Torrance, CA 90505

Kisholoy Goswami (310) 530-2011

08-1-X12.02-9675 JSC

[Non-Foil High Barrier Food Packaging Materials for Human Centered Spacecrafts](#) [44]

Intelligent Optical Systems, Inc.

2520 W. 237th Street

Torrance, CA 90505

Lothar Kempen (424) 263-6362

08-1-S1.09-8964 ARC

[Lab on a Chip LCVR Polarimeter for Exploration of Life Signatures](#) [45]

Intelligent Optical Systems, Inc.

2520 W. 237th Street

Torrance, CA 90505

Lothar Kempen (424) 263-6362

08-1-X7.03-8963 GRC

[Multi-Agent Optical Sensor Chip for Cryogenic Fluids Leak Detection](#) [46]

inXitu, Inc.

2551 Casey Avenue, Suite A

Mountain View, CA 94043

Philippe Sarrazin (650) 799-2118

08-1-S1.11-9560 ARC

[X-Ray Diffraction and Fluorescence Instrument for Mineralogical Analysis at the Lunar Surface](#) [47]

Iris AO, Inc.

2680 Bancroft Way

Berkeley, CA 94704

Michael Helmbrecht (510) 849-2375

08-1-S2.02-9032 JPL

[10³ Segment MEMS Deformable-Mirror Process Development](#) [48]

Los Gatos Research

67 East Evelyn Avenue, Suite 3

Mountain View, CA 94041

Anthony O'Keefe (650) 965-7772

08-1-S1.09-9383 JPL

[Novel Polymer Microfluidics Technology for In Situ Planetary Exploration](#) [49]

Los Gatos Research

67 East Evelyn Avenue, Suite 3

Mountain View, CA 94041

Anthony O'Keefe (650) 965-7772

08-1-A2.02-9195 GRC

[Novel Instrumentation for In Situ Combustion Measurements](#) [50]

Los Gatos Research

67 East Evelyn Avenue, Suite 3

Mountain View, CA 94041

Anthony O'Keefe (650) 965-7772

08-1-O3.03-8945 KSC

[Photonic Sensor for Nondestructive Testing of Composite Overwrapped Pressure Vessels](#) [51]

Los Gatos Research

67 East Evelyn Avenue, Suite 3

Mountain View, CA 94041

Anthony O'Keefe (650) 965-7772

08-1-S1.08-8703 ARC

[Ultrasensitive Atmospheric Analyzer for Miniature UAVs](#) [52]

Luminit, LLC

20600 Gramercy Place, Suite 203

Torrance, CA 90501

Marie Todd (310) 320-1066

08-1-S1.04-8859 GSFC

[Integrated Spatial Filter Array](#) [53]

M4 Engineering, Inc.

4020 Long Beach Blvd

Long Beach, CA 90807

Kevin Roughen (562) 981-7797

08-1-A2.08-8438 GRC

[Integrated Multidisciplinary Optimization Objects](#) [54]

Makel Engineering, Inc.

1585 Marauder Street

Chico, CA 95973

Susana Carranza (512) 589-0718

08-1-X3.02-9483 JSC

[Microchannel Methanation Reactors Using Nanofabricated Catalysts](#) [55]

MARK Resources, Inc.

3878 Carson Street, Suite 210

Torrance, CA 90503

Richard Mitchell (310) 543-4746

08-1-O4.01-9264 KSC

[Tracking Launch Vehicles in Interference and Jamming](#) [56]

MATECH Advanced Materials

31304 Via Colinas, Suite 102

Westlake Village, CA 91362

Heemann Yun (818) 991-8500

08-1-A2.01-9810 GRC

[Low-Cost Innovative Hi-Temp Fiber Coating Process for Advanced Ceramic Matrix Composites](#) [57]

Microcosm, Inc.

4940 W. 147th Street

Hawthorne, CA 90250

Lynn Shimohara (310) 219-2700

08-1-X5.01-9850 ARC

[Lunar Navigator - A Miniature, Fully Autonomous, Lunar Navigation, Surveyor, and Range Finder System](#) [58]

Microcosm, Inc.

4940 W. 147th Street

Hawthorne, CA 90250

Lynn Shimohara (310) 219-2700

08-1-S4.03-8737 ARC

[Bottom Up Project Cost and Risk Modeling](#) [59]

Novawave Technologies

900 Island Drive, Suite 101

Redwood City, CA 94065

Hans-Jurg Jost (650) 610-0956

08-1-S1.08-8497 MSFC

[Compact, Ultrasensitive SO2 Monitor](#) [60]

NxGen Electronics, Inc.

9771 Clairemont Mesa Blvd., Suite A

San Diego, CA 92124

robert czajkowski (858) 309-6610

08-1-S1.03-9640 JPL

[Low Cost Automated Module Assembly for 180 GHz Devices](#) [61]

Optical Physics Company

26610 Agoura Road

Calabasas, CA 91302

Gail Erten (818) 880-2907

08-1-S2.04-9652 MSFC

[Silicon Carbide Lightweight Optics With Hybrid Skins for Large Cryo Telescopes](#) [62]

Optimal Synthesis, Inc.

95 First Street, Suite 240

Los Altos, CA 94022

Victor Cheng (650) 559-8585

08-1-A3.02-8623 ARC

[Trajectory Design to Benefit Trajectory-Based Surface Operations](#) [63]

Optimal Synthesis, Inc.

95 First Street, Suite 240

Los Altos, CA 94022

P. Menon (650) 559-8585

08-1-A1.09-8478 ARC

[Robust 3-D Algorithm for Flare Planning and Guidance for Impaired Aircraft](#) [64]

Patz Materials & Technologies

4968 Industrial Way

Benicia, CA 94510

Nick Patz (707) 748-7577

08-1-A2.01-8427 GRC

[Multifunctional Core Materials for Airframe Primary Structures](#) [65]

Photon Systems

15112 Industrial Park Street

Covina, CA 91722

Ray Reid (626) 967-6431

08-1-S1.09-9227 JPL

[Deep UV Semiconductor Sourcess for Advanced Planetary Science Instruments](#) [66]

Photon Systems

15112 Industrial Park Street

Covina, CA 91722

William Hug (626) 967-6431

08-1-S1.11-9152 ARC

[Deep UV Raman/Fluorescence \(DUV-RF\) Stand-Off Sensor for Lunar Science](#) [67]

Physical Optics Corporation

20600 Gramercy Place, Bldg. 100

Torrance, CA 90501

Gordon Drew (310) 320-3088

08-1-S1.05-9717 GSFC

[Highly Efficient FUV Photodetector with AlGaN Nanowire Photocathode](#) [68]

Physical Optics Corporation

20600 Gramercy Place, Bldg. 100

Torrance, CA 90501

Gordon Drew (310) 320-3088

08-1-O4.03-9713 JSC

[Lunar Autonomous Automatic Surface Navigation System](#) [69]

Physical Optics Corporation

20600 Gramercy Place, Bldg. 100

Torrance, CA 90501

Gordon Drew (310) 320-3088

08-1-X5.03-9689 JSC

[Conformal Light Augmented Single Substrate Head-Mounted Display](#) [70]

RAPT Industries, Inc.

46535 Fremont Blvd.

Fremont, CA 94538

Pradeep Subrahmanyam (510) 933-1001

08-1-S2.05-9938 GSFC

[RAP Figuring Slumped Mirrors to Remove Mid-Spatial Frequency Errors](#) [71]

SciberQuest, Inc.

2130 Via Mar Valle

Del Mar, CA 92014

Homa Karimabadi (858) 793-7063

08-1-S6.03-9154 GSFC

[Physics Mining of Multi-source Data Sets](#) [72]

SciberQuest, Inc.

2130 Via Mar Valle

Del Mar, CA 92014

Homa Karimabadi (858) 793-7063

08-1-S6.04-9153 GSFC

[Sci-Share: Social Networking Adapted for Distributed Scientific Collaboration](#) [73]

Shape Change Technologies

1731 Hendrix Avenue

Thousand Oaks, CA 91360

Peter Jardine (805) 312-5665

08-1-A2.01-8646 GRC

[Development of Fast Response SME TiNi Foam Torque Tubes](#) [74]

SmartWear, LLC

1802 Ocean Park Blvd., Suite E

Santa Monica, CA 90405

Michael Pottenger (310) 383-8524

08-1-X4.04-9795 LaRC

[Flexible High Energy-Conversion Sensing Materials for Structural Health Monitoring](#) [75]

Space Micro, Inc.

10401 Roselle Street, Suite 400

San Diego, CA 92121

David Strobel (858) 332-0702

08-1-S3.01-9743 GSFC

[Multicore Rad Hard Processing in Space](#) [76]

Space Micro, Inc.

10401 Roselle Street, Suite 400

San Diego, CA 92121

David Strobel (858) 332-0702

08-1-O1.03-9487 GRC

[Reconfigurable RF Filters](#) [77]

Space Micro, Inc.

10401 Roselle Street, Suite 400

San Diego, CA 92121

David Strobel (858) 332-0702

08-1-S4.04-8513 ARC

[Intelligent, Reusable Software for Plug and Play Space Avionics](#) [78]

St. Croix Research

5535 Fern Drive

San Jose, CA 95124

Charles Powars (408) 723-1216

08-1-X8.01-9307 ARC

[Heatshield Ablation Pattern Roughness Onset and Effects](#) [79]

Stottler Henke Associates, Inc.

951 Mariner's Island Blvd., Suite 360

San Mateo, CA 94404

Carolyn Maxwell (650) 931-2700

08-1-X1.01-8979 ARC

[Unified Framework for Graphical Authoring and Visual Debugging of PLEXIL, SCL and PRL Programs](#) [80]

Stottler Henke Associates, Inc.

951 Mariner's Island Blvd., Suite 360

San Mateo, CA 94404

Carolyn Maxwell (650) 931-2700

08-1-X1.01-8469 ARC

[Authoring Procedures with Timing and Ordering Constraints](#) [81]

Surface Optics Corporation

11555 Rancho Bernardo Road

San Diego, CA 92127

Jill Trolinger (858) 583-4362

08-1-S2.05-8681 JPL

[High Reflectivity, Broad-Band Silver Coating](#) [82]

SySense, Inc.

300 East Magnolia Suite 300

Burbank, CA 91502

Walton Williamson (818) 238-2330

08-1-S2.01-8602 JPL

[Fault-Tolerant Relative Navigation System \(RNS\) for Docking](#) [83]

Systems Technology, Inc.

13766 South Hawthorne Blvd.

Hawthorne, CA 90250

Suzie Fosmore (310) 679-2281

08-1-A2.04-9493 AFRC

[Novel Tools and Test Techniques for the Evaluation of Aeroservoelastic Free-Play](#) [84]

Systems Technology, Inc.

13766 South Hawthorne Blvd.

Hawthorne, CA 90250

Suzie Fsomore (310) 679-2281

08-1-A4.02-9033 AFRC

[Fused Reality for Enhanced Flight Test Capabilities](#) [85]

TechnoScience Corporation

P.O. Box 60658

Palo Alto, CA 94306

Jam Farhoomand (650) 838-9833

08-1-S1.04-9429 JPL

[A 64x64 Low Noise Cryogenic Readout Multiplexer for Far IR Focal-Plane Arrays](#) [86]

Ultramet

12173 Montague Street

Pacoima, CA 91331

Craig Ward (818) 899-0236

08-1-S5.04-8635 JPL

[Ceramic Matrix Composite Combustion Chamber for HAN-Based Monopropellants](#) [87]

Ultramet

12173 Montague Street

Pacoima, CA 91331

Craig Ward (818) 899-0236

08-1-X8.01-8631 ARC

[Lightweight Hybrid Ablator Incorporating Aerogel-Filled Open-Cell Foam Structural Insulator](#) [88]

UniRF Technologies, Inc.

13899 Malcom Avenue

Saratoga, CA 95070

Sanjiv Rai (203) 604-6333

08-1-O1.04-8613 JSC

[Architectures/Algorithms/Tools for Ultra-Low Power, Compact EVA Digital Radio](#) [89]

Ventions, LLC

818 Duncan Street

San Francisco, CA 94131

Amit Mehra (202) 213-2846

08-1-S5.04-9735 JPL

[Small, Light-Weight Pump Technologies for Mars Ascent Vehicles](#) [90]

VIDA Products

3553 Westwind Blvd.

Santa Rosa, CA 95403

Ronald Parrott (707) 541-7000

08-1-O1.03-9012 GRC

[Low Phase Noise Universal Microwave Oscillator for Analog and Digital Devices](#) [91]

Whittinghill Aerospace, LLC

265 Durley Avenue, Suite 208

Camarillo, CA 93010

George Whittinghill (805) 901-2297

08-1-S4.01-8692 ARC

[Modular NanoSat Launcher Design for Lowest Mission Cost](#) [92]

• **Colorado (26)**

ADA Technologies, Inc.

8100 Shaffer Parkway, Suite 130

Littleton , CO 80127

Sheryl Suhr (303) 874-8262

08-1-X2.05-9375 GRC

[Test of Advanced Fine Water Mist Nozzles in a Representative Spacecraft Atmosphere](#) [93]

Atmospheric Observing Systems, Inc.

1930 Central Avenue, Suite A

Boulder, CO 80301

James Smith (303) 443-3389

08-1-S1.08-9915 MSFC

[The Photo-Pneumatic CO2 Analyzer](#) [94]

Design_Net Engineering LLC

16080 Table Mountain Parkway, Suite 500

Golden, CO 80403

Tom Adams (303) 462-0096

08-1-S4.01-9499 ARC

[Enabling Technology for Small Satellite Launch](#) [95]

Design_Net Engineering LLC

16080 Table Mountain Parkway, Suite 500

Golden, CO 80403

Tom Adams (303) 462-0096

08-1-S4.02-9498 ARC

[MSDT - A Central Executive to Coordinate Rapid Mission and Spacecraft Design](#) [96]

Design_Net Engineering LLC

16080 Table Mountain Parkway, Suite 500

Golden, CO 80403

Tom Adams (303) 462-0096

08-1-S4.04-9497 ARC

[Merging ORS Standards to Facilitate Rapid Development of Reusable Spacecraft Software](#) [97]

DMX Engineering

50 Folsom Place

Durango, CO 81301

Daudi Barnes (970) 375-9179

08-1-S3.04-8407 GRC

[Propulsion Design with Freeform Fabrication](#) [98]

Eltron Research & Development, Inc.

4600 Nautilus Court South

Boulder, CO 80301

James Beck (303) 530-0263

08-1-S1.08-9059 ARC

[Compact Monitor for Airborne Carbon Dioxide Measurements](#) [99]

KromaTiD, Inc.

515 E. Laurel Street

Fort Collins, CO 80524

Susan Bailey (970) 491-2944

08-1-X13.02-9726 JSC

[Chromatid Painting for Chromosomal Inversion Detection](#) [100]

Microelectronics Research Development Corporation

4775 Centennial Blvd, Suite 130

Colorado Springs, CO 80919

Karen VanCura (719) 531-0805

08-1-O1.03-9430 GRC

[Multi-Cluster Network on a Chip Reconfigurable Radiation Hardened Radio](#) [101]

Pioneer Astronautics

11111 W. 8th Avenue, Unit A

Lakewood, CO 80215

Robert Zubrin (303) 980-0890

08-1-X5.02-9839 GRC

[Durable Dust Repellent Coating for Metals](#) [102]

Pioneer Astronautics

11111 W. 8th Avenue, Unit A

Lakewood, CO 80215

Robert Zubrin (303) 980-0890

08-1-X3.03-9828 GRC

[Lunar Soil Particle Separator](#) [103]

Pioneer Astronautics

11111 W. 8th Avenue, Unit A

Lakewood, CO 80215

Robert Zubrin (303) 980-0890

08-1-X3.02-9723 KSC

[Counterflow Regolith Heat Exchanger](#) [104]

Quest Product Development Corporation

4900 Iris Street

Wheat Ridge, CO 80033

Alan Kopelove (303) 670-5088

08-1-X7.01-9013 GSFC

[Load Responsive MLI: Thermal Insulation with High In-Atmosphere and On-Orbit Performance](#) [105]

Reaction Systems, LLC

1814 19th Street

Golden, CO 80401

Todd Leeson (303) 881-7992

08-1-X5.03-9413 JSC

[Novel Liquid Membranes for CO2 and H2O Control in EVA Applications](#) [106]

SpaceDev, Inc.

1722 Boxelder Street, Suite 102

Louisville, CO 80027

Fred Beavers (720) 407-3203

08-1-X5.02-8982 KSC

[Innovative, EVA Compatible Fluid Coupling for Lunar Surface Systems Applications](#) [107]

SpaceDev, Inc.

1722 Boxelder Street, Suite 102

Louisville, CO 80027

Fred Beavers (720) 407-3203

08-1-S2.03-8943 JPL

[Precision Deployable Occulter System](#) [108]

SPEC Incorporated

3022 Sterling Circle, Suite 200

Boulder, CO 80301

Paul Lawson (303) 449-1105

08-1-S1.08-9098 GSFC

[Advanced Technology Cloud Particle Probe for UAS](#) [109]

TDA Research, Inc.

12345 W. 52nd Avenue

Wheat Ridge, CO 80033

John Wright (303) 940-2300

08-1-O3.03-9387 KSC

[Low Toxicity Corrosion Inhibitors for Smart Coatings](#) [110]

TDA Research, Inc.

12345 W. 52nd Avenue

Wheat Ridge, CO 80033

John Wright (303) 940-2300

08-1-X12.02-9382 JSC

[Ultra High Barrier Nanocomposites](#) [111]

TDA Research, Inc.

12345 W. 52nd Avenue

Wheat Ridge, CO 80033

John Wright (303) 940-2300

08-1-X6.02-9358 JSC

[High Capacity Anodes for Advanced Lithium Ion Batteries](#) [112]

TDA Research, Inc.

12345 W. 52nd Avenue

Wheat Ridge, CO 80033

John Wright (303) 940-2300

08-1-X10.01-8856 JSC

[A Compact Medical Oxygen Generator for Spacecraft](#) [113]

Tech-X Corporation

5621 Arapahoe Avenue, Suite A

Boulder, CO 80303

Leslie Rosczyk (720) 974-1855

08-1-S6.03-9671 LaRC

[Data Filtering and Assimilation of Satellite Derived Aerosol Optical Depth](#) [114]

Tech-X Corporation

5621 Arapahoe Avenue, Suite A

Boulder, CO 80303

Leslie Rosczyk (720) 974-1855

08-1-S6.01-8758 ARC

[Visual Interfaces for Parallel Simulations \(VIPS\)](#) [115]

Tech-X Corporation

5621 Arapahoe Avenue, Suite A

Boulder, CO 80303

Leslie Rosczyk (720) 974-1855

08-1-S3.04-8470 GRC

[Kinetic Molecular Dynamic Model of Hall Thruster Channel Wall Erosion](#) [116]

Vescent Photonics, Inc.

4865 E. 41st Avenue

Denver, CO 80216

Scott Rommel (303) 296-6766

08-1-S1.01-8747 LaRC

[Tunable Seed Lasers for Laser Remote Sensing of CO2 and O2](#) [117]

Zybek Advanced Products, Inc.

2845 29th Street

Boulder, CO 80301

Michael Weinstein (303) 530-2727

08-1-X3.03-8561 MSFC

[Production of Synthetic Lunar Simulants](#) [118]

- **Connecticut (7)**

- **Advanced Fuel Research, Inc.**

- 87 Church Street

- East Hartford, CT 06108

- Michael Serio (860) 528-9806

- 08-1-X2.03-9021 ARC

- [A Compact, Efficient Pyrolysis/Oxidation System for Solid Waste Resource Recovery in Space](#) [119]

- **Air-Lock, Inc.**

- Wampus Lane

- Milford, CT 06460

- Michael McCarthy (203) 878-4691

- 08-1-X5.03-9733 JSC

- [Interchangeable Bearings for Profile and Weight Trade Studies](#) [120]

- **Infinity Fuel Cell and Hydrogen, Inc.**

- 431A Hayden Station Road

- Windsor, CT 06095

- William Smith (860) 688-6500

- 08-1-X6.01-9321 GRC

- [Advanced Cathode Electrolyzer \(ACE\)](#) [121]

- **Materials Technologies Corporation**

- 57 Maryanne Drive

- Monroe, CT 06468

- Yogesh Mehrotra (203) 874-3100

- 08-1-A2.09-8904 ARC

- [ROBUST \(Rotorcraft Blade Universal Shape Transformation\) System for Controlled Aerodynamic Warping](#) [122]

- **Qualtech Systems, Inc.**

- 100 Great Meadow Road, Suite 603

- Wethersfield, CT 06109

Sudipto Ghoshal (860) 805-1828

08-1-X1.04-8866 ARC

[Efficient Integration, Validation and Troubleshooting in Multimodal Distributed Diagnostic Schemes](#) [123]

R&D Dynamics Corporation

15 Barber Pond Road

Bloomfield, CT 06002

Dennis Burr (860) 726-1204

08-1-X2.01-9663 JSC

[Foil Gas Bearing Supported Quiet Fan for Spacecraft Ventilation](#) [124]

Yardney Technical Products, Inc.

82 Mechanic Street

Pawcatuck, CT 06379

Vincent Yevoli (860) 599-1100

08-1-X6.02-8463 JPL

[Phase I Advanced Battery Materials for Rechargeable Advanced Space-Rated Li-Ion Batteries](#) [125]

• **Delaware (1)**

Spectrum Magnetics, LLC

1251 Old Cooches Bridge Rd

Newark, DE 19713

Jianrong Lin (302) 379-9808

08-1-S1.04-9525 JPL

[Novel Photonic RF Spectrometer](#) [126]

• **Florida (6)**

Aeronix, Inc.

1775 W. Hibiscus Blvd., Suite 200

Melbourne, FL 32901

Jeff Fisher (321) 984-1671

08-1-X5.01-8585 KSC

[Radiation Tolerant 802.16 Wireless Network](#) [127]

Eclipse Energy Systems, Inc.

2345 Anvil Street North

St. Petersburg, FL 33710

Jay Wolfington (813) 966-3627

08-1-S4.01-9107 ARC

[Thermal Control Nano-Sat](#) [128]

Prioria, Inc.

104 N. Main Street, 2nd Floor

Gainesville, FL 32601

Amir Rubin (352) 505-2188

08-1-O2.01-9046 KSC

[Multi-Platform Sensor Surveillance Network for Range Control](#) [129]

Sol-gel Solutions, LLC

4110 SW 34th Street, Suite 22

Gainesville, FL 32608

J. Robert Rogers (352) 378-4950

08-1-X2.02-8702 MSFC

[Photocatalytic and Adsorptive System for Odor Control in Lunar Surface Systems Using Silica-Titania Composites](#) [130]

United Materials and Systems

13750 Old Dock Road

Orlando, FL 32828

Arnold Hill (407) 267-6391

08-1-S2.04-9748 MSFC

[A Low Cost Light Weight Polymer Derived Ceramic Telescope Mirror](#) [131]

Zyberwear, Inc.

2114 New Victor Road

Ocoee, FL 34761

Oliver Edwards (407) 295-5955

08-1-S1.04-9253 GSFC

[Multi-layer Far-Infrared Component Technology](#) [132]

- **Georgia (1)**

- **InterCAX, LLC**

- 2402 Lively Trail

- Atlanta, GA 30345

- Dirk Zwemer (404) 894-4404

- 08-1-S4.02-9130 ARC

- [Composable Mission Framework for Rapid End-to-End Mission Design and Simulation](#) [133]

- **Idaho (1)**

- **Sentient Corporation**

- 850 Energy Drive

- Idaho Falls, ID 83401

- Paula Lee (802) 861-6300

- 08-1-A1.11-9707 ARC

- [Model Updating and Uncertainty Management for Aircraft Prognostic Systems](#) [134]

- **Illinois (9)**

- **Applied Material Systems Engineering, Inc.(AMSENG)**

- 2309 Pennsbury Court

- Schaumburg, IL 60194

- Mukund (Mike) Deshpande (630) 372-9650

- 08-1-S3.02-8986 GSFC

- [Advanced Durable Flexible Ultra Low Outgassing Thermal Control Coatings for NASA Science Missions](#) [135]

- **Aries Design Automation, LLC**

6157 N Sheridan Road, Suite 16M

Chicago, IL 60660

Miroslav Velev (773) 856-6633

08-1-X1.02-8609 ARC

[An Efficient Parallel SAT Solver Exploiting Multi-Core Environments](#) [136]

Epsilon Lambda Electronics Corporation

396 Fenton Lane, Suite 601

West Chicago, IL 60185

Robert Knox (630) 293-7118

08-1-O2.01-8868 KSC

[Automated Collection and Transfer of Launch Range Surveillance/Intrusion Data](#) [137]

IllinoisRocstar, LLC

P. O. Box 3001

Champaign, IL 61826

William Dick (217) 417-0885

08-1-A2.03-9805 GRC

[High-Fidelity Simulation of Turbofan Noise](#) [138]

Ingenium Technologies Corporation

4216 Maray Drive

Rockford, IL 61107

Paul Wild (815) 226-6138

08-1-A1.05-9347 LaRC

[Voice to Text Language Translation \(VTLT\)](#) [139]

Microengineered Metals, Inc.

1808 Country Hills Drive

Yorkville, IL 60560

Susan Wilson (630) 553-2923

08-1-S2.05-9500 GSFC

[Super Polishing of Aluminum 6061-T6 Mirrors](#) [140]

MicroLink Devices

6457 Howard Street

Niles, IL 60714

Noren Pan (847) 588-3001

08-1-S1.02-9002 JPL

[InGaP HBT Lift-Off for High Efficiency L-band T/R Module](#) [141]

Superior Graphite Co.

10 South Riverside Plaza, Suite 1470

Chicago, IL 60606

Ron Pawelko (312) 559-2999

08-1-X6.02-8492 GRC

[SiLix-C Nanocomposites for High Energy Density Li-ion Battery Anodes](#) [142]

Vega Wave Systems, Inc.

1275 W Roosevelt Road, Suite 104

West Chicago, IL 60185

Alan Sugg (630) 562-9433

08-1-O1.06-9602 JPL

[High-Efficiency, High-Power Laser Transmitter for Deep-Space Communication](#) [143]

• **Indiana (5)**

GFT, LLC

130 E. Monroe Street

Pennville, IN 47369

Philip Griffith (260) 731-1450

08-1-O3.03-8713 KSC

[Highly Flexible and Extremely Durable Polyimide Cryogenic Insulation](#) [144]

Jabiru Software and Services

3819 Sunnycroft Place

West Lafayette, IN 47906

Sanjay Mathur (765) 497-3653

08-1-A2.10-9784 GRC

[Sensitivity-Based Simulation Software for Optimization of Turbine Blade Cooling Strategies](#) [145]

PC Krause and Associates, Inc.

3016 Covington Street

West Lafayette, IN 47906

Paul Krause (765) 464-8997

08-1-A2.06-8900 LaRC

[Efficient, Multi-Scale Radiation Transport Modeling](#) [146]

Techshot, Inc.

7200 Highway 150

Greenville, IN 47124

Mark Deuser (812) 923-9591

08-1-X14.02-9395 JSC

[Microfluidic Multichannel Flow Cytometer](#) [147]

Zeeko Technologies, LLC

3495 Kent Avenue, K100

West Lafayette, IN 47906

John Kelchner (765) 775-1010

08-1-S2.05-9001 MSFC

[Application of Zeeko's Novel Random Tool Path for Improvement of Surface PSD](#) [148]

• **Kansas (1)**

KALSCOTT Engineering, Inc.

PO Box 3426

Lawrence, KS 66046

Suman Saripalli (785) 979-1116

08-1-S1.08-8917 ARC

[Reusable In Situ AirCore System for CO2 and Trace Gas Measurements](#) [149]

- **Kentucky (2)**

Advanced Dynamics, Inc.

1500 Bull Lea Road, Suite 203

Lexington, KY 40511

Patrick Hu (859) 699-0441

08-1-A2.04-9607 LaRC

[Physics-Based Identification, Modeling and Risk Management for Aeroelastic Flutter and Limit-Cycle Oscillations \(LCO\)](#) [150]

Advanced Dynamics, Inc.

1500 Bull Lea Road, Suite 203

Lexington, KY 40511

Patrick Hu (859) 699-0441

08-1-A2.05-8622 LaRC

[Towards Efficient Viscous Modeling Based on Cartesian Methods for Automated Flow Simulation](#) [151]

- **Maryland (21)**

Active Signal Technologies, Inc.

611-Q Hammonds Ferry Road

Linthicum, MD 21090

Keith Bridger (410) 636-9350

08-1-A2.02-9443 GRC

[High Temperature, High Frequency Fuel Metering Valve](#) [152]

Applied Sensor Research & Development Corporation

1195 Baltimore-Annapolis Blvd., Unit #2

Arnold, MD 21012

Jacqueline Hines (410) 544-4664

08-1-X4.04-9057 JSC

[SAW Passive Wireless Sensor-RFID Tags with Enhanced Range](#) [153]

CoolCAD Electronics

7101 Poplar Avenue

Takoma Park, MD 20912

Neil Goldsman (240) 432-6535

08-1-X1.03-8518 GSFC

[Electronics Modeling and Design for Cryogenic and Radiation Hard Applications](#) [154]

Emerald Sky Technologies, LLC

6106 Hour Hand Court

Columbia, MD 21044

Steven Fritz (443) 745-4109

08-1-A1.05-8676 LaRC

[Flight Crew State Monitoring Metrics](#) [155]

Emergent Space Technologies, Inc.

6301 Ivy Lane, Suite 720

Greenbelt, MD 20770

Everett Cary (301) 345-1535

08-1-X1.02-9163 JSC

[Automated, Real-Time Targeting and Guidance Software for Lunar Descent and Precision Landing](#) [156]

Emergent Space Technologies, Inc.

6301 Ivy Lane, Suite 720

Greenbelt, MD 20770

Everett Cary (301) 345-1535

08-1-O2.01-9162 KSC

[Marine ASV Range Surveillance System](#) [157]

Energy Research, Inc.

P.O. Box 2034

Rockville, MD 20847

Tracey Mullinix (301) 881-0866

08-1-X2.01-9303 JSC

[Scaling of Two-Phase Systems Across Gravity Levels](#) [158]

Epitaxial Technologies, LLC

1450 South Rolling Road

Baltimore, MD 21045

Leye Aina (410) 455-5594

08-1-S1.05-8508 GSFC

[Novel Single Photon Counting Readout Circuits and APD Arrays with Capability from UV to IR](#) [159]

Global Science & Technology, Inc.

7855 Walker Drive, Suite 200

Greenbelt, MD 20770

Jack Kelly (301) 474-9696

08-1-S6.05-9187 GSFC

[Enhancing Access to Scientific Models through Standard Web Services](#) [160]

Intelligent Automation, Inc.

15400 Calhoun Drive, Suite 400

Rockville, MD 20855

Mark James (301) 294-5221

08-1-O1.04-8899 JSC

[Reconfigurable EVA Radio with Built-In Navigation Capability](#) [161]

Intelligent Automation, Inc.

15400 Calhoun Drive, Suite 400

Rockville, MD 20855

Mark James (301) 294-5221

08-1-A3.01-8875 ARC

[ACES-Based Testbed and Bayesian Game-Theoretic Framework for Dynamic Airspace Configuration](#) [162]

Intelligent Automation, Inc.

15400 Calhoun Drive, Suite 400

Rockville, MD 20855

Mark James (301) 294-5221

08-1-A1.05-9507 LaRC

[Cognitive Modeling for Closed-Loop Task Mitigation](#) [163]

Intelligent Automation, Inc.

15400 Calhoun Drive, Suite 400

Rockville, MD 20855

Mark James (301) 294-5221

08-1-O1.03-9360 GRC

[Reconfigurable, Cognitive Software Defined Radio](#) [164]

Intelligent Automation, Inc.

15400 Calhoun Drive, Suite 400

Rockville, MD 20855

Mark James (301) 294-5221

08-1-A1.02-9028 GRC

[Ultrasonic Guided Wave Simulation Toolbox for Virtual Inspection of Composites](#) [165]

Mobitrum Corporation

8070 Georgia Avenue, Suite 207

Silver Spring, MD 20910

Ray Wang (301) 585-4040

08-1-O2.02-9981 SSC

[Passively Powered and Programmable Sensor-RFID for ISHM Systems](#) [166]

Open Research, Inc.

104 Fountain Green Lane

Gaithersburg, MD 20878

Qiming He (571) 214-6386

08-1-S6.04-9972 GSFC

[Data Intensive Scientific Computing on Petabyte Scalable Infrastructure](#) [167]

Pharad, LLC

797 Cromwell Park Drive, Suite V

Glen Burnie, MD 21061

Austin Farnham (410) 590-3333

08-1-O1.02-9948 GRC

[Efficient Wearable Antennas for Astronaut EVA Communications](#) [168]

Signal Processing, Inc.

13619 Valley Oak Circle

Rockville, MD 20850

Chiman Kwan (240) 505-2641

08-1-O3.02-9615 GRC

[A Novel and High Performance System for Enhancing Speech in Helmet](#) [169]

Techno-Sciences, Inc.

11750 Beltsville Drive, Suite 300

Beltsville, MD 20705

Amy Hizoune (240) 790-0609

08-1-A1.07-9537 LaRC

[Upset Prevention and Recovery for Unimpaired and Impaired Aircraft](#) [170]

Techno-Sciences, Inc.

11750 Beltsville Drive, Suite 300

Beltsville, MD 20705

Amy Hizoune (240) 790-0609

08-1-A2.05-9072 LaRC

[Morphing Control Surface for Improved Efficiency and Maneuverability](#) [171]

Xigen, LLC

11001 Sugarbush Terrace

Rockville, MD 20852

Jason Geng (301) 637-6828

08-1-O2.01-9918 KSC

[A Novel Smart Pan/Tilt/Zoom Visible/Infrared Sensor for UAV On-Board Video Surveillance of Launch Range](#) [172]

• **Massachusetts (40)**

Aerodyne Research, Inc.

45 Manning Road

Billerica, MA 01821

George Wittreich (978) 663-9500

08-1-A2.02-9318 GRC

[An Ultra-Sensitive, Size Resolved Particle Mass Measurement Device](#) [173]

aPeak, Inc.

63 Albert Road

Newton, MA 02466

Stefan Vasile (617) 964-1788

08-1-O1.06-9563 JPL

[High-Bandwidth Photon-Counting Detectors with Enhanced Near-Infrared Response](#) [174]

Aptima, Inc.

12 Gill Street, Suite 1400

Woburn, MA 01801

Margaret Clancy (781) 496-2415

08-1-A3.01-9466 ARC

[Use-Driven Testbed for Evaluating Systems and Technologies \(U-TEST\)](#) [175]

Aspen Aerogels, Inc.

30 Forbes Road, Bldg. B

Northborough, MA 01532

Kevin Schmidt (508) 691-1161

08-1-X7.01-9093 KSC

[Lightweight Non-Compacting Aerogel Insulation for Cryotanks](#) [176]

Aspen Aerogels, Inc.

30 Forbes Road, Bldg. B

Northborough, MA 01532

Kevin Schmidt (508) 691-1161

08-1-O3.03-8842 KSC

[Lightweight, Cost Effective LOX Compatible Aerogel Insulation Material for Cryogenic Fluid Transfer Applications](#) [177]

Boston Applied Technologies, Inc.

6F Gill Street

Woburn, MA 01801

Kevin Zou (781) 935-2800

08-1-S1.01-8941 GSFC

[OptoCeramic-Based High Speed Fiber Multiplexer for Multimode Fiber](#) [178]

Boston Applied Technologies, Inc.

6F Gill Street

Woburn, MA 01801

Kevin Zou (781) 935-2800

08-1-A2.01-8800 AFRC

[Novel High Temperature Strain Gauge](#) [179]

Broadband Photonics Incorporated

11 Bradford Road

Winchester, MA 01890

Wei Xu (781) 640-4186

08-1-X7.03-8643 GRC

[Fiber Optic Continuous Liquid Sensor for Cryogenic Propellant Gauging](#) [180]

Busek Co., Inc.

11 Tech Circle

Natick, MA 01760

Judy Budny (508) 655-5565

08-1-S3.04-9007 GRC

[Long Life 600W Hall Thruster System for Radioisotope Electric Propulsion](#) [181]

Busek Co., Inc.

11 Tech Circle

Natick, MA 01760

Judy Budny (508) 655-5565

08-1-S2.01-8869 JPL

[Precise Thrust Actuation by a Micro RF Ion Engine](#) [182]

Busek Co., Inc.

11 Tech Circle

Natick, MA 01760

Judy Budny (508) 655-5565

08-1-S3.04-8865 JPL

[Light Metal Propellant Hall Thruster](#) [183]

Busek Co., Inc.

11 Tech Circle

Natick, MA 01760

Judy Budny (508) 655-5565

08-1-S4.01-8862 ARC

[ESPA Based Secondary Payload Orbit Maneuvering System](#) [184]

EIC Laboratories, Inc.

111 Downey Street

Norwood, MA 02062

David Rauh (781) 769-9450

08-1-X6.02-9442 GRC

[Nanoshell Encapsulated Li-ion Battery Anodes for Long Cycle Life](#) [185]

EIC Laboratories, Inc.

111 Downey Street

Norwood, MA 02062

David Rauh (781) 769-9450

08-1-X4.02-9329 LaRC

[Polyolefin-Nanocrystal Composites for Radiation Shielding](#) [186]

EIC Laboratories, Inc.

111 Downey Street

Norwood, MA 02062

David Rauh (781) 769-9450

08-1-X12.02-9041 JSC

[Flexible High-Barrier Polymers for Food Packaging](#) [187]

Electrolytic Research Corporation, LLC

73 Winsor Road

Sudbury, MA 01776

Bruce Osterling (978) 443-9861

08-1-X3.02-9651 KSC

[Large Scale Inert Anode for Molten Oxide Electrolysis](#) [188]

EM4, Inc.

7 Oak Park Drive

Bedford, MA 01730

Basil Garabet (781) 275-7501

08-1-S1.01-9464 LaRC

[Efficient and Compact Semiconductor Laser Transmitter Modules](#) [189]

Energid Technologies

124 Mount Auburn Street, Suite 200N

Cambridge, MA 02138

James English (888) 547-4100

08-1-X3.03-8930 GRC

[Lunar Excavator Validation](#) [190]

Giner Electrochemical Systems, LLC

89 Rumford Avenue

Newton, MA 02466

Anthony Vaccaro (781) 529-0504

08-1-X2.02-9538 GRC

[Straight Pore Microfilter with Efficient Regeneration](#) [191]

Giner Electrochemical Systems, LLC

89 Rumford Avenue

Newton, MA 02466

Anthony Vaccaro (781) 529-0504

08-1-X6.01-9699 JPL

[Static Water Vapor Feed Electrolyzer](#) [192]

Giner, Inc.

89 Rumford Avenue

Newton, MA 02466

Anthony LaConti (781) 529-0501

08-1-S3.03-9801 GRC

[High Cycle Life, Low Temperature Lithium Ion Battery for Earth Orbiting and Planetary Missions](#) [193]

Giner, Inc.

89 Rumford Avenue

Newton, MA 02466

Anthony LaConti (781) 529-0501

08-1-X6.02-9700 JPL

[Non-Flammable, High Voltage Electrolytes for Lithium Ion Batteries](#) [194]

Innovative Communications Engineering

55 Middlesex Street, Suite 227

N. Chelmsford, MA 01863

Erik Thoen (978) 251-0160

08-1-O1.01-9503 JPL

[Long Burst Error Correcting Codes](#) [195]

JENTEK Sensors, Inc.

110-1 Clematis Avenue

Waltham, MA 02453

Joni Hatem (781) 642-9666

08-1-A1.02-8907 LaRC

[Micromechanical Models for Composite NDE and Diagnostics](#) [196]

Luminad Technologies

73 Pond

Sharon, MA 02067

Michael Zeifman (781) 784-3907

08-1-A2.06-8955 AFRC

[Computational Tool for Kinetic Modeling of Non-Equilibrium Multiphase Flows in Ablation](#) [197]

Metis Design Corporation

10 Canal Park, Suite 601

Cambridge, MA 02141

Seth Kessler (617) 661-5616

08-1-X4.04-9410 ARC

[Cable-Free Sensor-Bus for Large Area Composites](#) [198]

Nanowave, Inc.

8C Pondview Drive

Sutton, MA 01590

Tetsuo Ohara (508) 667-7964

08-1-S2.05-9876 GSFC

[High-Speed Scanning Interferometer Using CMOS Image Sensor and FPGA Based on Multi-Frequency Phase-Tracking Detection](#) [199]

Physical Sciences, Inc.

20 New England Business Center

Andover, MA 01810

B. David Green (978) 689-0003

08-1-X4.01-9712 GRC

[High Performing, Low Temperature Operating, Long Lifetime, Aerospace Lubricants](#) [200]

Physical Sciences, Inc.

20 New England Business Center

Andover, MA 01810

B. David Green (978) 689-0003

08-1-S1.08-9311 ARC

[Next Generation, UAV-Class Ozone Photometer](#) [201]

Physical Sciences, Inc.

20 New England Business Center

Andover, MA 01810

B. David Green (978) 689-0003

08-1-X6.02-9113 GRC

[Silicon Whisker and Carbon Nanofiber Composite Anode](#) [202]

Physical Sciences, Inc.

20 New England Business Center

Andover, MA 01810

B. David Green (978) 689-0003

08-1-X5.02-8794 KSC

[Liquid Crystal Membrane Dust Mitigation System for Lunar or Martian Operations](#) [203]

Q-Peak, Inc.

135 South Road

Bedford, MA 01730

Peter Moulton (781) 275-9535

08-1-A1.04-9335 LaRC

[Low-Cost LIDAR for Wake Vortex Detection](#) [204]

Reactive Innovations, LLC

2 Park Drive, Unit 4

Westford, MA 01886

Michael Kimble (978) 692-4664

08-1-X3.02-9269 GRC

[Reactive-Separator Process Unit for Lunar Regolith](#) [205]

Remote Sensing Solutions, Inc.

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

Barnstable, MA 02630

James Canniff (508) 362-9400

08-1-S1.02-8521 GSFC

[A High Cross-Pol Isolation Multi-Frequency Antenna for Cloud and Precipitation Research](#) [206]

Remote Sensing Solutions, Inc.

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

Barnstable, MA 02630

James Canniff (508) 362-9400

08-1-S1.02-8466 JPL

[A Novel Low-cost, Ka-band, High Altitude, Multi-Baseline Unmanned Aerial Vehicle Sensor for Surface Water Ocean Topography](#) [207]

Scientific Systems Company, Inc.

500 West Cummings Park, Suite 3000

Woburn, MA 01801

Raman Mehra (781) 933-5355

08-1-A3.02-8710 LaRC

[Safe and Efficient Dynamic Airportal Traffic and Resource Planner](#) [208]

Scientific Systems Company, Inc.

500 West Cummings Park, Suite 3000

Woburn, MA 01801

Raman Mehra (781) 933-5355

08-1-A1.07-8708 LaRC

[Algorithm Design and Validation for Adaptive Nonlinear Control Enhancement \(ADVANCE\) Technology Development for Resilient Flight Control](#) [209]

Scientific Systems Company, Inc.

500 West Cummings Park, Suite 3000

Woburn, MA 01801

Raman Mehra (781) 933-5355

08-1-S2.01-8499 JPL

[Topology Control Algorithms for Spacecraft Formation Flying Networks Under Connectivity and Time-Delay Constraints](#) [210]

SeaFire Micros, Inc.

39 Dodge Street, #319

Beverly, MA 01915

James Awrach (978) 317-1831

08-1-S6.04-9198 GSFC

[n x 10 Gbps Offload NIC for NASA, NLR, Grid Computing](#) [211]

The DNA Medicine Institute

116 Charles Street, Suite 6

Boston, MA 02114

Eugene Chan (617) 233-7656

08-1-X10.01-9385 JSC

[Nanoscale Test Strips for Multiplexed Blood Analysis](#) [212]

• **Michigan (9)**

Claytec, Inc.

5901 E. Sleepy Hollow Lane

East Lansing, MI 48823

Thomas Pinnavaia (517) 862-3928

08-1-A2.01-9433 GRC

[Advanced Thermoset Nanocomposites](#) [213]

Comet Technology Corporation

3830 Packard, Suite 110

Ann Arbor, MI 48108

S Raveendra (734) 973-1600

08-1-A2.03-9755 LaRC

[Hybrid Element Method for Mid-Frequency Vibroacoustic Analysis](#) [214]

Cybernet Systems Corporation

727 Airport Boulevard

Ann Arbor, MI 48108

Daniel Jarrell (734) 668-2567

08-1-X11.01-8978 JSC

[Automated Behavior and Cohesion Assessment Tools](#) [215]

Cybernet Systems Corporation

727 Airport Boulevard

Ann Arbor, MI 48108

Daniel Jarrell (734) 668-2567

08-1-X1.01-8867 ARC

[Procedure Execution and Projection System](#) [216]

Cybernet Systems Corporation

727 Airport Boulevard

Ann Arbor, MI 48108

Daniel Jarrell (734) 668-2567

08-1-O1.01-8555 JPL

[High-Speed FPGA Image Decoder](#) [217]

Cybernet Systems Corporation

727 Airport Boulevard

Ann Arbor, MI 48108

Daniel Jarrell (734) 668-2567

08-1-S1.09-8507 JSC

[Grasp Algorithms For Optotactile Robotic Sample Acquisition](#) [218]

Cybernet Systems Corporation

727 Airport Boulevard

Ann Arbor, MI 48108

Daniel Jarrell (734) 668-2567

08-1-S4.02-8474 ARC

[Small Sat Analysis Laboratory](#) [219]

Michigan Engineering Services, LLC

2890 Carpenter Road, Suite 1900

Ann Arbor, MI 48108

Nick Vlahopoulos (734) 358-0792

08-1-A2.09-9167 LaRC

[Hybrid Finite Element Developments for Rotorcraft Interior Noise Computations within a Multidisciplinary](#)

[Design Environment](#) [220]

Munro and Associates

1749 Northwood

Troy, MI 48084

Joe Feord (248) 362-5110

08-1-A3.01-8748 ARC

[An ADS-B Emergency Response System for NextGen Airspace Safety](#) [221]

• **Minnesota (3)**

H.V. Setty Enterprises, Inc.

12110 Red Oak Court, South

Burnsville, MN 55337

H.V. Venkatesetty (952) 894-2792

08-1-X2.04-9786 JPL

[Novel Microsensor for Measuring Oxygen, Water and Carbon Dioxide in the Spacecraft](#) [222]

SIFT, LLC

211 N. First Street, Suite 300

Minneapolis, MN 55401

Harry Funk (612) 578-7438

08-1-X1.01-8449 ARC

[SAFE-P: System for Assurance of Flight Executable Procedures](#) [223]

SVT Associates

7620 Executive Drive

Eden Prairie, MN 55344

Leslie Price (952) 934-2100

08-1-S1.05-8779 JPL

[GaN-Based, Low-Voltage Avalanche Photodiodes for Robust and Compact UV Imagers](#) [224]

• **Missouri (1)**

Ceramitron, LLC

9286 Old Bonhomme Road

St Louis, MO 63132

Philip Berger (314) 341-3085

08-1-S1.08-9921 GSFC

[Miniature Mass Spectrometer for Earth Science Research](#) [225]

• **Montana (3)**

ADVR, Inc.

2310 University Way, Bldg. 1

Bozeman, MT 59715

Betsy Heckel (406) 522-0388

08-1-S1.01-9372 LaRC

[Compact, Wavelength Stabilized Seed Source for Multi-Wavelength Lidar Applications](#) [226]

ADVR, Inc.

2310 University Way, Bldg. 1

Bozeman, MT 59715

Betsy Heckel (406) 522-0388

08-1-S1.11-8851 MSFC

[Electro-Optic Tunable Laser Sensor](#) [227]

S&K Aerospace

63066 Old Highway 93

St Ignatius, MT 59865

Arthur Molin (281) 480-1453

08-1-O3.01-9462 JSC

[Medical Operations Decision Support System](#) [228]

• **New Hampshire (8)**

Creare, Inc.

P.O. Box 71

Hanover, NH 03755

James Barry (603) 640-2487

08-1-S3.01-9845 GSFC

[Miniature, Variable-Speed Control Moment Gyroscope](#) [229]

Creare, Inc.

P.O. Box 71

Hanover, NH 03755

James Barry (603) 640-2487

08-1-X5.03-9734 JSC

[Compact, Efficient, and Reliable Ventilation Fan for EVA Suits](#) [230]

Creare, Inc.

P.O. Box 71

Hanover, NH 03755

James Barry (603) 640-2487

08-1-A2.01-9677 GRC

[Thermal Management System for Superconducting Aircraft](#) [231]

Creare, Inc.

P.O. Box 71

Hanover, NH 03755

James Barry (603) 640-2487

08-1-X7.02-9609 GSFC

[An Advanced Cooling System for In-Situ Resource Utilization](#) [232]

Erigo Technologies, LLC

P.O. Box 899

Enfield, NH 03748

Nabil Elkouh (603) 632-4156

08-1-A4.02-9904 AFRC

[Miniature Network Data Acquisition System for Airborne Sensors](#) [233]

GPD Optoelectronics Corporation

7 Manor Parkway

Salem, NH 03079

Rufus Ward (603) 894-6865

08-1-S3.03-8882 GRC

[Motor Controller for Extreme Environments Based on SiGe](#) [234]

QmagiQ

22 Cotton Road, Unit H, Suite 180

Nashua, NH 03063

Mani Sundaram (603) 821-3092

08-1-S1.05-9008 GSFC

[Longwave Imaging for Astronomical Applications](#) [235]

QmagiQ

22 Cotton Road, Unit H, Suite 180

Nashua, NH 03063

Mani Sundaram (603) 821-3092

08-1-S1.04-8762 JPL

[Hyperspectral Longwave Infrared Focal Plane Array and Camera Based on Quantum Well Infrared Photodetectors](#) [236]

• **New Jersey (11)**

Artann Laboratories, Inc.

1753 Linvale Harbourton Road

Lamberville, NJ 08530

Noune Sarvazyan (512) 996-8565

08-1-A1.02-9322 LaRC

[Nonlinear Time Reversal Acoustic Method of Friction Stir Weld Assessment](#) [237]

Continuum Dynamics, Inc.

34 Lexington Avenue

Ewing, NJ 08618

Barbara Agans (609) 538-0444

08-1-A2.08-9454 LaRC

[Variable-Fidelity Conceptual Design System for Advanced Unconventional Air Vehicles](#) [238]

Continuum Dynamics, Inc.

34 Lexington Avenue

Ewing, NJ 08618

Barbara Agans (609) 538-0444

08-1-A2.09-9451 LaRC

[Physics Based Tool for Rotorcraft Computational Aeroacoustics](#) [239]

Continuum Dynamics, Inc.

34 Lexington Avenue

Ewing, NJ 08618

Barbara Agans (609) 538-0444

08-1-A2.09-8759 ARC

[A Surface-Mounted Rotor State Sensing System](#) [240]

Continuum Dynamics, Inc.

34 Lexington Avenue

Ewing, NJ 08618

Barbara Agans (609) 538-0444

08-1-A1.07-8601 LaRC

[Aircraft Flight Envelope Identification through On-Board Model Based Estimation](#) [241]

Discovery Semiconductors, Inc.

119 Silvia Street

Ewing, NJ 08628

Abhay Joshi (609) 434-1311

08-1-S1.05-9434 GSFC

[Ultra-Low Noise Quad Photoreceiver for Space Based Laser Interferometric Gravity Wave Detection](#) [242]

NEI Corporation

201 Circle Drive N., Suite 102/103

Piscataway, NJ 08854

Ganesh Skandan (732) 868-3141

08-1-X4.05-9108 MSFC

[A Nanocomposite Approach to Microcrack Prevention in Composite Cryotanks](#) [243]

Princeton Optronics, Inc.

1 Electronics Drive

Mercerville, NJ 08619

Narayan Bhatta (609) 584-9696

08-1-S1.01-9781 LaRC

[A High Reliability Frequency Stabilized Semiconductor Laser Source](#) [244]

Princeton Optronics, Inc.

1 Electronics Drive

Mercerville, NJ 08619

Narayan Bhatta (609) 584-9696

08-1-S1.01-9778 GSFC

[Miniature, Rugged, Pulsed Laser Source for LIDAR Application](#) [245]

Princeton Satellite Systems

33 Witherspoon Street

Princeton, NJ 08542

Michael Paluszek (609) 279-9606

08-1-S4.02-8649 ARC

[VisualCommander for Rapid End-to-End Mission Design and Simulation](#) [246]

WEVOICE, Inc.

9 Sylvan Drive

Bridgewater, NJ 08807

Sherry Ye (718) 614-8084

08-1-O3.02-9018 GRC

[Superior Speech Acquisition and Robust Automatic Speech Recognition for Integrated Spacesuit Audio Systems](#) [247]

- **New Mexico (7)**

Adherent Technologies, Inc.

9621 Camino del Sol NE

Albuquerque, NM 87111

Susan Switzer (505) 346-1685

08-1-X5.02-9458 KSC

[Dust Mitigation for the Lunar Surface](#) [248]

Adherent Technologies, Inc.

9621 Camino del Sol NE

Albuquerque, NM 87111

Susan Switzer (505) 346-1685

08-1-S5.02-9455 JPL

[Foam-in-Place Contaminant Containment System](#) [249]

Southwest Sciences, Inc.

1570 Pacheco Street, Suite E-11

Santa Fe, NM 87505

Alan Stanton (505) 984-1322

08-1-S1.08-9542 ARC

[Self-Calibrating Greenhouse Gas Balloon-Borne Sensor](#) [250]

TH Chem, Inc.

8415 Manuel Cia Place, NE

Albuquerque, NM 87122

Tuqiang Chen (505) 610-6027

08-1-X6.02-9350 JSC

[New Li Battery Chemistry for Improved Performance](#) [251]

Vista Photonics, Inc.

67 Condesa Road

Santa Fe, NM 87508

Jeffrey Pilgrim (505) 466-3953

08-1-X2.04-8707 JPL

[Optical Monitor for Major Air Constituents](#) [252]

Vista Photonics, Inc.

67 Condesa Road

Santa Fe, NM 87508

Jeffrey Pilgrim (505) 466-3830

08-1-S1.08-9765 GSFC

[In Situ Aerosol Detector](#) [253]

Vista Photonics, Inc.

67 Condesa Road

Santa Fe, NM 87508

Jeffrey Pilgrim (505) 466-3953

08-1-S1.11-9078 JSC

[In Situ Water Isotope Analyzer for Moon Exploration](#) [254]

• **New York (11)**

Honeybee Robotics Ltd.

460 W 34th Street

New York, NY 10001

Chris Chapman (646) 459-7802

08-1-X3.03-9724 GRC

[Vacuum Compatible Percussive Dynamic Cone Penetrometer](#) [255]

Honeybee Robotics Ltd.

460 W 34th Street

New York, NY 10001

Chris Chapman (646) 459-7802

08-1-X5.01-8674 JSC

[Autonomous Utility Connector for Lunar Surface Systems](#) [256]

Honeybee Robotics Ltd.

460 W 34th Street

New York, NY 10001

Chris Chapman (646) 459-7802

08-1-X3.01-8567 KSC

[Impact-Actuated Digging Tool for Lunar Excavation](#) [257]

Honeybee Robotics Ltd.

460 W 34th Street

New York, NY 10001

Chris Chapman (646) 459-7802

08-1-S1.11-8488 JPL

[Novel Heat Flow Probe Design and Deployment](#) [258]

Impact Technologies, LLC

200 Canal View Blvd.

Rochester, NY 14623

Carol Marquardt (585) 627-1923

08-1-A1.07-9900 LaRC

[Adaptive Flight Envelope Estimation and Protection](#) [259]

Impact Technologies, LLC

200 Canal View Blvd.

Rochester, NY 14623

Carol Marquardt (585) 627-1923

08-1-A1.10-9580 GRC

[A Nonlinear Adaptive Approach to Isolation of Sensor Faults and Component Faults](#) [260]

Impact Technologies, LLC

200 Canal View Blvd.

Rochester, NY 14623

Carol Marquardt (585) 627-1923

08-1-A2.07-9546 GRC

[System-Level Development of Fault-Tolerant Distributed Aero-Engine Control Architecture](#) [261]

Impact Technologies, LLC

200 Canal View Blvd.

Rochester, NY 14623

Carol Marquardt (585) 627-1923

08-1-A1.11-8886 ARC

[Prognostic and Fault Tolerant Reconfiguration Strategies for Aerospace Power Electronic Controllers and Electric Machines](#) [262]

Phoebus Optoelectronics, LLC

12 Desbrosses Street

New York, NY 10013

Thomas James (718) 484-7033

08-1-S1.04-8873 GSFC

[The Development of Polarimetric and Nonpolarimetric Multiwavelength Focal Plane Arrays](#) [263]

QEL

453 4th Street,1R

Brooklyn, NY 11215

Michael Bardash (917) 991-0821

08-1-X13.01-9217 ARC

[A Solid State Tissue Equivalent Detector for Microdosimetry](#) [264]

Reflective X-ray Optics, LLC

1361 Amsterdam Avenue, Suite 3B

New York, NY 10027

David Windt (212) 678-4932

08-1-S2.05-8983 GSFC

[Low-Stress Iridium Coatings for Thin-Shell X-Ray Telescopes](#) [265]

• **North Carolina (1)**

Horizon Performance

121 Edinburgh S. Drive, Suite 214

Cary, NC 27511

John Thompson (919) 674-6644

08-1-X11.01-9344 JSC

[Behavior Tracking Software Enhancement and Integration of a Feedback Module](#) [266]

• **Ohio (9)**

Cornerstone Research Group, Inc.

2750 Indian Ripple Road

Dayton, OH 45440

Stephen Vining (937) 320-1877

08-1-A1.12-9820 GRC

[Integrated Structural Health Management](#) [267]

Hyper Tech Research, Inc.

1275 Kinnear Road

Columbus, OH 43212

Lawrence Walley (614) 481-8050

08-1-A2.01-9047 GRC

[Low AC-loss MgB2 Superconductors for Turbo-Electric Aircraft Propulsion Systems](#) [268]

Innovative Scientific Solutions, Inc.

2766 Indian Ripple Road

Dayton, OH 45440

Larry Goss (937) 429-4980

08-1-A4.01-9846 GRC

[Elastic Films for Cryogenic Skin Friction Measurements](#) [269]

Innovative Scientific Solutions, Inc.

2766 Indian Ripple Road

Dayton, OH 45440

Larry Goss (937) 429-4980

08-1-A2.09-9022 LaRC

[Fast Responding PSP for Rotorcraft Aerodynamic Investigations](#) [270]

Orbital Research, Inc.

4415 Euclid Avenue, Suite 500

Cleveland, OH 44103

Joseph Snyder (216) 649-0399

08-1-O2.02-9732 SSC

[Universal Smart Sensor Interface](#) [271]

RNET Technologies, Inc.

240 W Elmwood Drive, Suite 2010

Dayton, OH 45459

V. Nagarajan (937) 433-2886

08-1-X1.03-8589 LaRC

[Radiation Mitigation Methods for Reprogrammable FPGA](#) [272]

Spectral Energies, LLC

2238 Hunters Ridge Blvd.

Dayton, OH 45434

Sivaram Gogineni (937) 266-9570

08-1-A2.10-8880 GRC

[Plasma Control of Turbine Secondary Flows](#) [273]

SynGenics Corporation

5190 Olentangy River Road

Delaware, OH 43015

Carol Ventresca (740) 369-9579

08-1-A2.10-8761 GRC

[Optimal Shockwave Boundary Layer Interaction Control for Supersonic Mixed Compression Inlets](#) [274]

UES, Inc.

4401 Dayton-Xenia Road

Dayton, OH 45432

John Gruenwald (937) 426-6900

08-1-X4.01-9798 GRC

[Improved Ionic Liquids as Space Lubricants](#) [275]

- **Oregon (3)**

- **The Innovation Laboratory, Inc.**

- 2360 SW Chelmsford Avenue

- Portland, OR 97201

- Michelle Camarda (503) 242-1761

- 08-1-A3.01-9422 ARC

- [Flexible Tube-Based Network Control](#) [276]

- **UMPQUA Research Company**

- PO Box 609

- Myrtle Creek, OR 97457

- John Aker (541) 863-2655

- 08-1-X2.02-9643 ARC

- [Regenerable Lunar Airborne Dust Filter](#) [277]

- **UMPQUA Research Company**

- PO Box 609

- Myrtle Creek, OR 97457

- John Aker (541) 863-2655

- 08-1-X2.03-8729 ARC

- [Brine Dewatering Using Ultrasonic Nebulization](#) [278]

- **Pennsylvania (11)**

- **Combustion Research and Flow Technology**

- 6210 Keller's Church Road

- Pipersville, PA 18947

- Paula Schachter (215) 766-1520

- 08-1-X7.01-9519 GRC

- [A High Fidelity Computational Tool for Modeling Thermal Vent Systems in Cryogenic Tanks](#) [279]

Integran Technologies USA, Inc.

2541 Appletree Drive

Pittsburgh, PA 15241

Robert Heard (412) 638-1140

08-1-X4.05-8468 JSC

[Investigation of Nanometal/Carbon Fiber Composite Structures for Use in Novel Lightweight Cryotank Designs](#) [280]

k Technology Corporation

2000 Cabot Blvd. West, Suite 150

Langhorne, PA 19047

Adam Rosen (215) 375-3035

08-1-S3.02-9111 GSFC

[Integrated Composite - Heatpipe Radiator Panel](#) [281]

Materials Research and Design

300 E. Swedesford Road

Wayne, PA 19087

Brian Sullivan (610) 964-6131

08-1-A2.01-8997 LaRC

[Calibration of 3D Woven Preform Design Code for CMC Materials](#) [282]

Nokomis, Inc.

310 5th Street

Charleroi, PA 15022

Eli Polovina (724) 483-3946

08-1-O1.02-8858 GRC

[Slot Coupled Patch Array Antenna Technology](#) [283]

Pulsar Informatics, Inc.

3624 Market Street, Suite 5E

Philadelphia, PA 19104

Daniel Mollicone (215) 520-2530

08-1-X11.01-8824 JSC

[Individualized Fatigue Meter for Space Exploration](#) [284]

SureLogic, Inc.

5806 Forbes Avenue

Pittsburgh, PA 15217

Timothy Halloran (412) 787-6395

08-1-X1.02-8839 ARC

[Integrating Multi-Vendor Software Analysis into the Lifecycle for Reliability, Productivity, and Performance](#) [285]

Thermacore, Inc.

780 Eden Road

Lancaster, PA 17601

Nelson Gernert (717) 519-5819

08-1-S3.02-9709 GSFC

[Self Deploying Nitinol LHP Radiator for Small Spacecraft](#) [286]

Thermacore, Inc.

780 Eden Road

Lancaster, PA 17601

Nelson Gernert (717) 569-6551

08-1-X6.01-8889 GRC

[Titanium Heat Pipe Thermal Plane](#) [287]

TRS Ceramics, Inc.

2820 East College Avenue

State College, PA 16801

Xiaoning Jiang (814) 238-7485

08-1-X7.02-8558 JSC

[Cryogenic Fluid Transfer Components Using Single Crystal Piezoelectric Actuators](#) [288]

TRS Ceramics, Inc.

2820 East College Avenue

State College, PA 16801

Xiaoning Jiang (814) 238-7485

08-1-A2.01-9769 AFRC

[Piezoelectrical Structural Sensor Technology for Extreme Environments \(> 1800 F\)](#) [289]

- **South Carolina (1)**

Sensor Electronic Technology, Inc.

1195 Atlas Road

Columbia, SC 29209

Jianyu Deng (803) 647-9757

08-1-S1.04-9340 LaRC

[FIR Detectors/Cameras Based on GaN and Si Field-Effect Devices](#) [290]

- **Tennessee (2)**

Gloyer-Taylor Laboratories, LLC

2212 Harton Blvd.

Tullahoma, TN 37388

Paul Gloyer (931) 393-5108

08-1-A2.02-9878 GRC

[Scramjet Combustion Stability Behavior Modeling](#) [291]

Tai-Yang Research Company

9112 Farrell Park Lane

Knoxville, TN 37922

Christopher Rey (865) 250-0237

08-1-S1.07-9379 GSFC

[Hybrid High-Temperature Superconductor Current Leads for Space Applications](#) [292]

- **Texas (15)**

AM Biotechnologies, LLC

12521 Gulf Freeway

Houston, TX 77034

Mark Shumbera (409) 771-1981

08-1-X10.01-9543 JSC

[Thioaptamer Diagnostic System](#) [293]

Dallas Optical Systems, Inc.

1790 Connie Lane

Rockwall, TX 75032

John Casstevens (972) 564-1156

08-1-S2.04-9926 MSFC

[Low Cost Very Large Diamond Turned Metal Mirror](#) [294]

Integrated Micro Sensors, Inc.

10814 Atwell Drive

Houston, TX 77096

David Starikov (713) 748-7926

08-1-S3.03-9731 GRC

[InGaN High Temperature Photovoltaic Cells](#) [295]

Lynntech, Inc.

7610 Eastmark Drive

College Station, TX 77840

Cynthia Barnett (979) 693-0017

08-1-X4.01-9369 GSFC

[Low Friction Surfaces for Low Temperature Applications](#) [296]

Lynntech, Inc.

7610 Eastmark Drive

College Station, TX 77840

Cynthia Barnett (979) 693-0017

08-1-X2.05-9325 JSC

[Comfortable and Durable Clothing Ensemble with Flame-Resistant Properties](#) [297]

Lynntech, Inc.

7610 Eastmark Drive

College Station, TX 77840

Cynthia Barnett (979) 693-0017

08-1-S3.02-9212 JPL

[Highly Efficient and Robust Micropump for Small Spacecraft Thermal Control](#) [298]

Lynntech, Inc.

7610 Eastmark Drive

College Station, TX 77840

Cynthia Barnett (979) 693-0017

08-1-X10.01-9124 JSC

[Portable Cathode-Air-Vapor-Feed Electrochemical Medical Oxygen Concentrator](#) [299]

Lynntech, Inc.

7610 Eastmark Drive

College Station, TX 77840

Cynthia Barnett (979) 693-0017

08-1-X2.04-9115 JPL

[Reagent-Free Compact Online TOC Sensor](#) [300]

Nanohmics, Inc.

6201 East Oltorf Street, Suite 400

Austin, TX 78741

Keith Jamison (512) 389-9990

08-1-O4.03-8459 GRC

[Plenoptic Imager for Automated Surface Navigation](#) [301]

Odyssey Space Research

1120 NASA Parkway, Suite 505

Houston, TX 77058

Jana Rebmann (281) 862-7819

08-1-S4.04-8809 ARC

[Evolution of the 'Trick' Dynamic Software Executive and Model Libraries for Reusable Flight Software](#) [302]

Polatomic, Inc.

1810 N. Glenville Drive, #116

Richardson, TX 75081

Robert Slocum (972) 690-0099

08-1-S1.06-8783 GSFC

[Laser Femto-Tesla Magnetic Gradiometer \(LFMG\)](#) [303]

QuickFlex, Inc.

8401 N. New Braunfels, Suite 324

San Antonio, TX 78209

Sally Draper (210) 824-2348

08-1-S4.04-9759 ARC

[QuickDirect - Payload Control Software Template Package](#) [304]

TRAC Labs, Inc.

100 N.E. Loop 410, Suite 520

San Antonio, TX 78216

Jim Anderson (832) 415-4407

08-1-X1.01-9682 ARC

[Embedding Procedure Assistance into Mission Control Tools](#) [305]

TRAC Labs, Inc.

100 N.E. Loop 410, Suite 520

San Antonio, TX 78216

Jim Anderson (832) 415-4407

08-1-X12.01-9244 JSC

[Semantic Language and Tools for Reporting Human Factors Incidents](#) [306]

TRAC Labs, Inc.

100 N.E. Loop 410, Suite 520

San Antonio, TX 78216

James Anderson (281) 461-7886

08-1-O1.09-9103 JPL

[Intelligent Agents for Scheduling Space Communications](#) [307]

- **Utah (1)**

Materials and Systems Research, Inc.

5395 West 700 South

Salt Lake City, UT 84104

Anthony Decheek (801) 530-4987

08-1-X3.03-9097 GRC

[Development of a Direct Carbon Fuel Cell for Power and Fuels Cogeneration Directly from Plastic Trash](#) [308]

- **Virginia (31)**

AEROPROBE

1700 Kraft Drive, Suite 2350

Blacksburg, VA 24060

Demetri Telionis (540) 951-3858

08-1-S1.08-9310 GSFC

[A Fast-Response Atmospheric Turbulence \(FRAT\) Probe with Gas-Sampling Ducts](#) [309]

Aerospace Innovations, LLC

4822 George Washington Memorial Hwy, Suite 200

Yorktown, VA 23692

Dung Nguyen (757) 875-5144

08-1-A3.02-9942 LaRC

[Wake Vortex Lidar Monte Carlo Simulation and Visualization Tool](#) [310]

Aerotech Research

11836 Fishing Point Drive, Suite 200

Newport News, VA 23606

Steven Velotas (757) 723-1300

08-1-A3.02-9120 LaRC

[In Situ Wake Vortex Encounter Detection and Reporting System](#) [311]

Aerotech Research

11836 Fishing Point Drive, Suite 200

Newport News, VA 23606

Steven Velotas (757) 723-1300

08-1-A3.01-9117 ARC

[Integration of Performance Based Operations into ATM and TFM Simulations](#) [312]

Aurora Flight Sciences Corporation

9950 Wakeman Drive

Manassas, VA 20110

Scott Hart (617) 500-0536

08-1-A1.09-9907 ARC

[A Robust Flare Planning Logic for Unmanned Aerial Vehicle Applications](#) [313]

Aurora Flight Sciences Corporation

9950 Wakeman Drive

Manassas, VA 20110

Scott Hart (617) 500-0536

08-1-A3.01-9867 ARC

[Analysis and Development of UAV Operations in the NAS](#) [314]

Aurora Flight Sciences Corporation

9950 Wakeman Drive

Manassas, VA 20110

Scott Hart (617) 500-0536

08-1-X13.01-9865 JSC

[ADIS-type Charged Particle Spectrometer for Manned Space Radiation Dosimetry](#) [315]

Aurora Flight Sciences Corporation

9950 Wakeman Drive

Manassas, VA 20110

Scott Hart (617) 500-0536

08-1-X14.02-9864 JSC

[On Orbit Immuno-Based, Label-Free, White Blood Cell Counting System with MicroElectroMechanical](#)

[Sensor \(MEMS\) Technology \(OILWBCS-MEMS\)](#) [316]

Aurora Flight Sciences Corporation

9950 Wakeman Drive

Manassas, VA 20110

Scott Hart (617) 500-0536

08-1-S3.05-9861 JPL

[Shielded Mars Balloon Launcher \(SMBL\)](#) [317]

AVEC, Inc.

3154 State Street, Suite 2230

Blacksburg, VA 24060

Ricardo Burdisso (540) 961-2832

08-1-A2.03-8712 LaRC

[Sonic Boom Vibro-Acoustic Simulations using Multiple Point Sources](#) [318]

Barron Associates, Inc.

1410 Sachem Place, Suite 202

Charlottesville, VA 22901

Connie Hoover (434) 973-1215

08-1-A2.07-9068 ARC

[Robust Switching Control for Hypersonic Vehicles](#) [319]

Bear Engineering

2415 Two Turtles Road

Maidens , VA 23102

Tom Myrick (804) 240-0814

08-1-S5.02-9477 JPL

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Cellular Materials International, Inc.

2 Boars Head Lane

Charlottesville, VA 22903

Matthew Terry (434) 977-1405

08-1-A2.05-9023 LaRC

[Dielectric Barrier Discharge Plasma Actuators for Aerodynamic Control](#) [321]

Fibertek, Inc.

510 Herndon Parkway

Herndon, VA 20170

Guy Beagler (703) 956-3600

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[Fiber Laser Coherent Lidar for Wake-Vortex Hazard Detection](#) [322]

Fibertek, Inc.

510 Herndon Parkway

Herndon, VA 20170

Ralph Burnham (703) 471-7671

08-1-S1.01-8652 GSFC

[Space-Qualifiable High Reliability Frequency-Stabilized CW Laser Source](#) [323]

GATS, Inc.

11864 Canon Blvd., Suite 101

Newport News, VA 23606

Tammy Williams (757) 873-5920

08-1-S1.04-8855 LaRC

[Digital Array Gas Radiometer \(DAGR\)](#) [324]

Luna Innovations Incorporated

1 Riverside Circle, Suite 400

Roanoke, VA 24016

Michael Pruzan (540) 769-8430

08-1-A1.11-9405 LaRC

[All-Fiber-Optic Ultrasonic Health Management System](#) [325]

Luna Innovations Incorporated

1 Riverside Circle, Suite 400

Roanoke, VA 24016

Michael Pruzan (540) 769-8430

08-1-A4.01-9399 GRC

[Versatile Fiber Optic 6-Component Force Measurement System](#) [326]

Luna Innovations Incorporated

1 Riverside Circle, Suite 400

Roanoke, VA 24016

Michael Pruzan (540) 769-8430

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[Design Methodologies and to Combat Radiation Induced Corruption in FPGAs and SoCs](#) [327]

Materials Modification, Inc.

2721-D Merrilee Drive

Fairfax, VA 22031

Tirumalai Sudarshan (703) 560-1371

08-1-X4.02-8428 ARC

[Multifunctional B/C Fiber Composites for Radiation Shielding](#) [328]

Mosaic ATM, Inc.

801 Sycolin Road, Suite 212

Leesburg, VA 20175

Chris Brinton (703) 737-7637

08-1-A3.02-8432 ARC

[Future Airportal Surveillance and Prediction](#) [329]

Nanosonic, Inc.

1485 South Main Street

Blacksburg, VA 24060

Lisa Lawson (540) 953-1785

08-1-S3.05-9398 GSFC

[Novel Ultralow-Weight Metal Rubber Sensor System for Ultra Long-Duration Scientific Balloons](#) [330]

Nanosonic, Inc.

1485 South Main Street

Blacksburg, VA 24060

Lisa Lawson (540) 953-1785

08-1-A1.01-9133 LaRC

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Nanosonic, Inc.

1485 South Main Street

Blacksburg, VA 24060

Lisa Lawson (540) 953-1785

08-1-A2.09-8605 LaRC

[Metal Rubber Sensor Appliqu?s for Rotor Blade Air](#) [332]

Nuvotronics, LLC

7586 Old Peppers Ferry Loop

Radford, VA 24141

Chris Nichols (540) 552-4610

08-1-S1.02-8501 JPL

[Microfabricated G-Band Antenna Arrays](#) [333]

Nuvotronics, LLC

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Radford, VA 24141

Chris Nichols (540) 552-4610

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[3D Microfabricated Low Loss Reconfigurable Components](#) [334]

Phoenix Integration

1715 Pratt Drive, Suite 2000

Blacksburg, VA 24060

Scott Ragon (540) 961-7215

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Progeny Systems Corporation

9500 Innovation Drive

Manassas, VA 20110

Christine Sigety (703) 368-6107

08-1-O4.03-9024 GRC

[Lunar Surface Navigation](#) [336]

Virginia Diodes, Inc.

979 Second Street, SE

Charlottesville, VA 22902

Thomas Crowe (434) 297-3257

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[Active Noise Sources](#) [337]

WxAnalyst, LTD

5800 Chase Commons Court, #408

Burke, VA 22015

Scott Shipley (571) 309-6024

08-1-S6.04-9159 LaRC

[GIS Function Coupling for Virtual Globes](#) [338]

Zron Networks, Inc.

1102 Arboroak Place

Herndon, VA 20170

Irfan Ali (703) 430-1743

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[A Unified Network Security Architecture for Large, Distributed Networks](#) [339]

• **Washington (6)**

Eagle Harbor Technologies, Inc.

321 High School Road NE, Suite D3, #179

Bainbridge Island, WA 98110

Timothy Ziembra (206) 780-3667

08-1-S2.01-8791 JPL

[Micro Pulsed Inductive Thruster with Solid Fuel Option \(uPIT_SF\)](#) [340]

LVI Systems, Inc.

1331 Broadview Road

West Richland, WA 99353

Aubrey Huber (480) 861-4759

08-1-X13.01-9762 ARC

[TEPC Microdosimeter for LEO and Beyond](#) [341]

nLight Photonics

5408 NE 88th Street, Building E

Vancouver, WA 98665

Paul Leisher (360) 566-4460

08-1-S1.01-9608 LaRC

[Single-Frequency Semiconductor Lasers Operating at 1.5 and 2.0 microns](#) [342]

ORMOND, LLC

4718 B Street NW, Suite 104

Auburn, WA 98001

Daniel Alberts (253) 854-0796

08-1-A2.01-9890 GRC

[Low Cost Method of Manufacturing Cooled Axisymmetric Scramjets](#) [343]

Teranovi Technologies

10033 NE 140th Street

Bothell, WA 98011

Xudong Wang (425) 820-9853

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[Reconfigurable Ultra-Low Power Miniaturized EVA Radio](#) [344]

Teranovi Technologies

10033 NE 140th Street

Bothell, WA 98011

Xudong Wang (425) 820-9853

08-1-O1.08-9622 GRC

[Scalable Lunar Surface Networks and Adaptive Orbit Access](#) [345]

- **West Virginia (1)**

Touchstone Research Laboratory, Ltd.

The Millenium Centre, RR 1, Box 100B

Triadelphia, WV 26059

Brian Joseph (304) 547-5800

08-1-X4.06-9473 ARC

[Carbon Foam Self-Heated Tooling for Out-of-Autoclave Composites Manufacturing](#) [346]

- **Wisconsin (1)**

Aniuk Consulting, LLC

7015 61st Avenue

Kenosha, WI 53142

Brian Harshburger (262) 997-2070

08-1-S6.03-8863 GSFC

[A GIS Software Toolkit for Converting NASA HDF-EOS Data Products to GIS and Other Geospatial Formats](#) [347]

- **Wyoming (1)**

Wyoming Silicon, LLC

1923 Big Horn Avenue, Unit B

Sheridan, WY 82801

Zachary Gray (307) 752-2615

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