



Capability Statement

Apogee Systems, Inc.

Engineering Services | Technology Development | Program Management

Apogee Systems, Inc. provides engineering, technology development and program management services to commercial and government organizations. Our team can mobilize the right people, skills and technologies to help organizations improve their performance and successfully execute projects.

As a Veteran Owned Small Business (VOSB), Apogee Systems, Inc. is committed to excellence and creating innovative and flexible solutions for our clients.

What sets Apogee Systems apart from the competition?

- Our people
- Performance-based processes
- Integrated solutions teams
- Client relationships
- Extensive experience with proven results

Core Capabilities

Our technology experts and business professionals, research, analyze, design and implement solutions in the areas of:

- Engineering services
- Technology development
- Program management



Engineering Services

Our Engineering Services focus on developing robust, secure and stable solutions for your business. By incorporating common sense solutions into seemingly daunting deliverables, we can ensure at the start of the project that we will safely deliver the product to completion. Our services include:

- Space system development
- Launch complex development and operations
- Systems Engineering, Integration and Test
- System architecture solutions
- Requirements management, Verification & Validation
- System, electrical, mechanical, software, aerospace and facility engineering
- Propulsion and Cryogenic tanking systems
- Skilled technicians for launch systems

Technology Development

Our technology development services focus on delivering new products based on advanced technology and enabling our customers to have a key technical advantage. Technology development includes:

- Command and Control Centers
- Satellite communication systems and ground stations
- System and Hardware Integration Labs
- Simulation and training system
- Advanced material application in aerospace products
- Additive manufacturing
- Design, development and integration of experimental small satellites
- Propulsion Systems (Chemical, Solid, Electric Propulsion (EP), Hybrid)



Program Management

Our program management services focus on integrated solutions designed to enhance the performance of your business. By incorporating industry best practices and extensive experience into your business processes and management strategies, we can help you stay ahead of the competition and better serve your customers. Our services include:

- Program strategy and planning support
- Program and Technical reviews
- Pursuit, capture and proposal development
- System engineering process development and assessment
- Program and project management
- Training of program managers, engineering, technicians and launch conductors
- International and domestic government agency policy and regulation assessment
- Mission Assurance



Customer projects by Apogee Systems

Project Description
Developed countdown data management tool and provided training for human spaceflight program. Supported launch team simulations using countdown tool.
Provided program management and engineering for development of NSSL new entry launch system ground systems and payload processing facility at KSC and VAFB.
Provided independent technical review from PDR to CDR for reusable heavy launch system mission operations system.
Provide proposal management and engineering support for pursuit of GBSD.
SLC-46 ground systems modification, configuration and operations for NASA AA2 test launch.
Developed wireless RF (S-Band) satellite bus communication system implementing conformal antennas using CNT material.
Provide launch support for Minotaur ORS5 launch from SLC-46.
Developed, integrated and launched two advanced material small satellite experiments. Bus comprised of 3D printed and CNT material. Performed systems integration of the payload with the launch vehicle.
Provide engineering and technicians to perform modifications to SLC-46 PAD and mobile tower.
Provided requirements and systems analysis for foreign small launch vehicle booster stage replacement and to launch at VAFB SLC-8 and SLC-46.
Developed mission communications system concept, trade studies and baseline architecture for heavy lift launch system. Performed trade studies and system analysis.
Provided engineering support for commercial crew orbital vehicle. Developed requirements and



system architecture.
Provide technical consulting and engineering for launch complex PAD and mobile tower refurbishment.
Performed systems analysis and operation concept for rapid response mobile launch system.
Refurbish and modernize SLC-46 communication system and launch pad comm room. Designed Range interface and integrated SLC-46 comm with Range systems. Refurbished communication room including substation, UPS and fire detection and suppression system.
Engineering support to develop engineering development lab for human spaceflight system.

Recent Awards:

- 2021 SLS Booster achievement award
- 2020 Northrop Grumman outstanding supplier award



Team Experience:

Apogee System Personnel have extensive experience in all aspects of space systems development. Team members have been key leaders and hands on contributors to most of the launch vehicle systems developed and operated over the past 30 years.

Launch systems development experience expands the range of government to commercial programs. This includes Titan, Delta, Atlas, Athena, Minotaur, Shuttle, Ares, Ares I-X, Space X, Blue Origin, VEGA, Ariane 5, Omega and SLS. Launch complex and control center development includes CX36, CX41, CX40, SLC-46, CX-39B, SLC-3E, SLC8, SLC6, 8510 LCC, WFF, ASOC, VIF, VAB, CPF, LOCC, DOC, XY commercial communication room.

Our team members have been involved with projects using leading A&E firms and Construction companies. This includes launch complex A&E firms RHS, BRPH and TLC. Construction companies include Hensel Phelps, Bechtel, Ivey's, Sauer, Turner, Haskell, and JP Donovan.

- Launch vehicle and ground systems design for operability and maintainability
- Building and operating multiple launch sites
- Launch operations ground command and control systems development and operations
- Mission Operation Centers
- Communication system (fiber, timing, voice, data, cameras)
- Range interface design and integration, NASA interface design and integration (Hanger AE)
- Interfacing and working with Air/Space Force, NASA, FAA and other government agencies
- Requirements and standards including AFSPCMAN 91-710, DoD, FAA, NASA, NFPA, SAE, ANSYS, ASTM, ASME, ITAR
- Electrical power systems (sub-stations, UPS, auto transfer switch gear)
- Cyro (LO2 & LH2) tanking system and ground handling
- Propulsion and pneumatics system testing and ground support equipment development and operations
- RF Telemetry and instrumentation
- FTS handling and checkout (AFTS, CRD, S&A, ordnance, batteries)
- Launch site director, launch conductor, mission manager, and payload integration
- Horizontal test facility design and vehicle integration
- Launch systems concept of operations development
- Software engineering for launch systems, languages includes C, C++ and Java
- Launch processing flow including launch day operations
- Product life cycle tools include PTC, Teamcenter, MS project
- Large element transportation and handling equipment development and operations
- Program development utilizing matrix resources
- Program risk and opportunity development and management



General Information

Apogee Systems is a veteran owned small business incorporated in the State of Florida in 2010 and located on the Space Coast of Florida.

Mailing Address:

Apogee Systems, Inc
PO Box 822
Cape Canaveral, Florida 32920

Facilities, equipment and tools:

Apogee Systems, Inc. has the facilities and tools needed to perform the required task.

SW tools consist of MS office software including project and visio. Analysis tools include Model Based Systems Engineering (MBSE) Cameo, MATLAB & Simulink, Relyence reliability modeling, RPA and REDTOP propulsion analysis software.

3D CAE/CAD using Solidworks, Autocad and CREO.

Fortus 250 3D printing using ABS plastic.

Personnel:

All personnel at Apogee Systems, Inc. are US citizens and pass background checks. Personnel are able to handle ITAR related material and briefed in the handling procedures.



Business Organization

Registered Company Name: Apogee Systems, Inc.

Year Incorporated: 2010

State of Incorporation: Florida

Corporation Type: Subchapter S

D-U-N-S Number: 962424375

CAGE Code: 61EX7

North American Industry Classification System (NAICS)

541330 – Engineering Services

541715 – Research and Development in the Physical, Engineering, and Life Sciences

541512 – Computer Systems Design Services

336419 – Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing

Contact Information

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