AEROSPACE

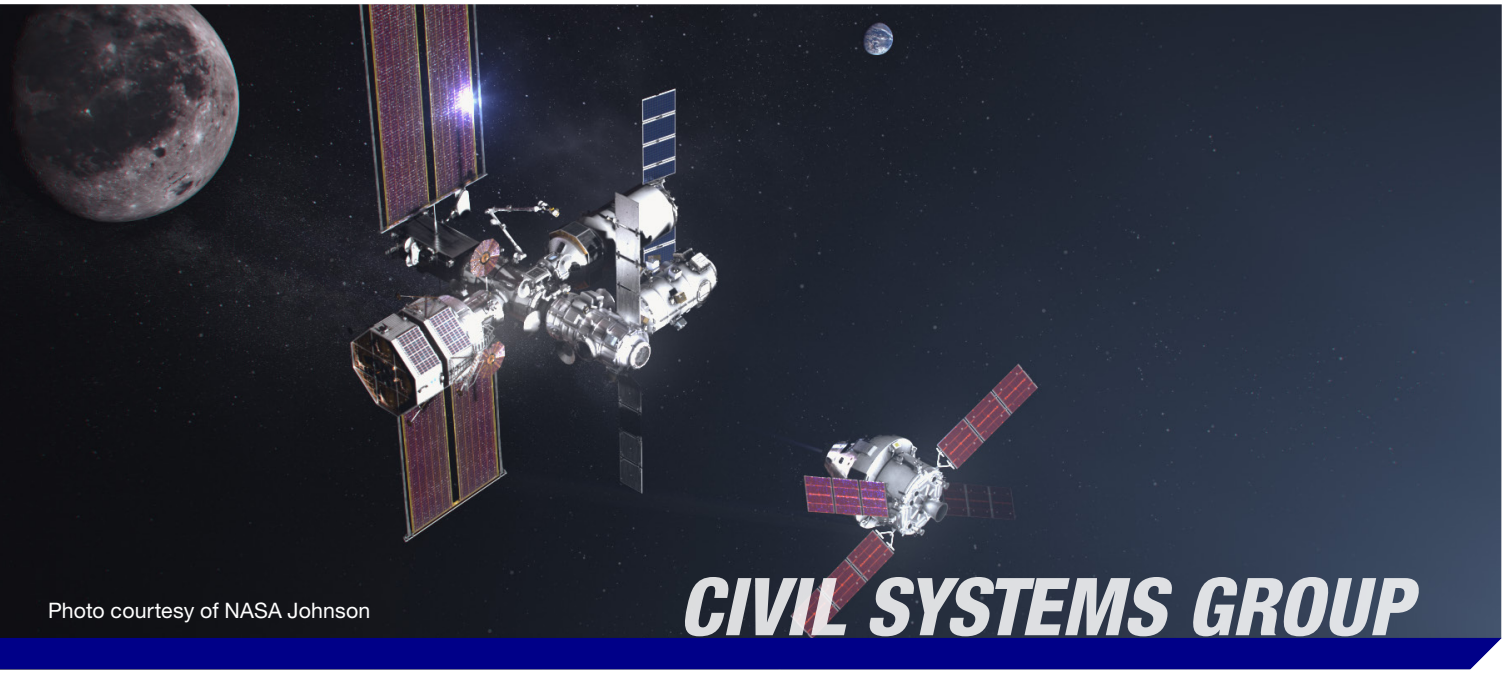

Photo courtesy of NASA Johnson

CIVIL SYSTEMS GROUP

SE&I Support to Civil, Commercial, and International Space

The Aerospace Corporation (Aerospace) is a nonprofit systems engineering and integration (SE&I) partner operating the only federally funded research and development center (FFRDC) dedicated to the entire space enterprise. Aerospace establishes strategic partnerships with civil, commercial, and international customers through its Civil Systems Group. In this integrative role, Aerospace can improve the flow of information, help programs mature more quickly, and enable the rapid deployment of new capabilities to space.

Space Enterprise Evolution

Space is changing more rapidly than ever, as technological advancement, lower-cost access to orbit, and private investments drive a wave of innovation. Aerospace works to ensure that next-generation capabilities align with current and emerging national priorities for U.S. space and related complex systems.

Direct Commercial Programs

Aerospace brings SE&I capabilities to the private sector to advance U.S. commercial space innovation, capabilities, and safety. Aerospace's Direct Commercial Programs Office helps reduce risk and uncertainty across capability development lifecycles to foster confidence in commercial capabilities among commercial buyers, investors and venture capital firms, and the U.S. government. To learn more contact **commercialprograms@aero.org**.

International Programs and Partnerships

Aerospace is integrated to optimize international partnerships, allowing U.S. allies and partners access to our independent, objective insight and full range of technical expertise. Aerospace works with more than 30 nations and international partners to expand space collaboration, advance technical capabilities, and enable future cooperative and integrated space solutions for civil, commercial, and military space.

Space Traffic and Emerging Programs

Aerospace delivers independent, objective subject-matter and technical expertise to the federal civil space operations, including space traffic coordination, the homeland security enterprise, and the science community, as a trusted partner, providing holistic, enterprise capabilities for emerging critical challenges.

Civil Systems Group

Contact us at **CSG@aero.org**.

Aerospace Corporate Locations:

› Chantilly, VA, Headquarters
› Huntsville, AL
› El Segundo, CA
› Colorado Springs, CO
› Albuquerque, NM
› Houston, TX
› Crystal City, VA

Aerospace CSG Locations:

› NASA HQ and NASA Centers (Ames, Armstrong, Glenn, Goddard, Johnson, Kennedy, Langley, Marshall)
› NASA Jet Propulsion Laboratory (Pasadena, CA)
› National NNSA locations
› NOAA Space Operations Facility (Suitland, MD)
› NSF/UCAR National Center for Atmospheric Research (Boulder, CO)
› USGS (Sioux Falls, SD)

Human Exploration and Spaceflight

By supporting government customers and spacefaring entities operating in low Earth orbit, deep space, and planetary exploration, Aerospace helps shape the future of human spaceflight. Specific services include program development; mission planning, operations, assurance, science, and technology integration; analysis of alternatives; launch vehicle and spacecraft processing, surveillance, and day-of-launch support; and extravehicular activities, including spacewalking and surface exploration.

Civil Space Programs Operations

Aerospace applies the entire breadth of program experience, SE&I expertise, and internal research and development to support civil spacefaring agencies with operational programs that serve the nation in providing data and services to protect life, health, property, and natural resources, including science and operational missions. This support to civil space includes space asset protection and resiliency; systems architecture and engineering; ground systems engineering and integration; operational satellite support and anomaly resolution; and space-based environmental monitoring.

Strategic Assessments, Studies, and Projects

Aerospace provides a wide variety of independent programmatic and technical assessments and advice to inform top-level decisionmakers at U.S. federal agencies and the National Academies of Science, Engineering, and Medicine (NASEM). This work includes program technical risk, schedule, and cost evaluations; architecture analyses; technology roadmapping; assessments of large, complex facilities; technical capabilities assessments; special studies and strategy development; and analysis of alternatives.

National Nuclear Security Administration (NNSA) Programs

Aerospace's work is key to supporting the NNSA's deterrence mission to protect U.S. national security from adversarial threats and advance our national nuclear enterprise capabilities. For the past 60 years, Aerospace's technical expertise has included threat deterrence, satellites, lasers, launch vehicles, cruise missiles, reentry vehicles, program and mission assurance, systems engineering, digital engineering, and other specialties, including the use of cyberspace tools, to ensure protection against all adversaries.

Aerospace supported multiple essential components of NASA's Artemis I mission, from avionics to programmatic assessments, with more work planned to ensure future Artemis milestones. Image courtesy of NASA.

To build confidence in commercial cislunar systems, Aerospace performs independent technical reviews and activities to mature unproven capabilities via in-space testbeds and proving grounds. Image courtesy of NASA.

Our Unique Role as the FFRDC for Space

FFRDCs provide technical expertise for efforts critical to national leadership. Aerospace's technical and engineering support to the entire U.S. space enterprise makes it unique among FFRDCs. As a trusted partner, Aerospace provides objective, unbiased analysis and recommendations without conflicts of interest. Aerospace does not compete with industry or manufacture products, operating as strategic partners with sponsoring agencies to ensure the highest levels of objectivity, disciplinary continuity, and technical excellence.

The Aerospace Corporation

The Aerospace Corporation is a leading architect for the nation's space programs, advancing capabilities that outpace threats to the country's national security while nurturing innovative technologies to further a new era of space commercialization and exploration. Aerospace's national workforce of more than 4,600 employees provides objective technical expertise and thought leadership to solve the hardest problems in space and assure mission success for space systems and space vehicles. For more information, visit www.aerospace.org.

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