Aerospace Maryland

Maryland is an aerospace and defense hot spot, holding the majority of the country's top aerospace companies and defense contractors.

U.S. News & World Report/Best States 2017

Robust Aerospace Supply Chain

A global force in the aerospace industry, Maryland's 8,700 aerospace and defense businesses represent one of the world's most impressive supply chains for aviation and space related products and services. The state's highly trained professional and technical workforce designs and manufactures critical equipment and parts for military and commercial aircraft, and satellites and space missions that include avionics, electronic systems, sensors, software, robotics and more. With a Maryland location, 60 federal facilities and 70 of the top 100 defense contractors enjoy shoulder-to-shoulder proximity to key US. and international decision makers and partners, with access to business opportunities, unrivaled anywhere.

On the Leading Edge

A highly developed, thriving and strategic location for space exploration, earth observation, and aerospace technology development, Maryland is home to the GOES-16 environmental satellite, New Horizons Pluto mission, Hubble Space Telescope, the next-in-line James Webb Space Telescope, the F-35C Joint Strike Fighter and an impressive sphere of leading edge aerospace activities and operations.

First in the nation in total federal obligations for research and development ($16.8 billion), the state's more than 350 federal and academic research centers include NASA Goddard Space Flight Center, Naval Air Station Patuxent River, Johns Hopkins University Applied Physics Lab, the National Oceanic and Atmospheric Administration and the Army Research Lab.

"With industry-leading aerospace companies, unique federal research and development assets, and an innovative culture second to none, Maryland offers a diverse portfolio of aerospace capabilities," said Governor Larry Hogan. "From cutting-edge drone technology in Southern Maryland to the groundbreaking James Webb Space Telescope at the NASA Goddard Space Flight Center, Maryland is a global leader in space science research, advanced avionics development, and unmanned systems integration."

Governor Larry Hogan

a.i. solutions

Space mission engineering

NORTHROP GRUMMAN

Electronics systems

SNC SIERRA NEVADA CORPORATION

Integrated mission systems

J.F. Taylor, Inc.

RDT&E

SigmaSpace

Aerospace technology
and geospatial solutions

STC SCIENCE & TECHNOLOGY CORP

Aerospace engineering, earth
and atmospheric sciences

L3 Technologies

GEOINT data collection
and processing

Global Science & Technology, Inc.

Earth science applications

LOCKHEED MARTIN

Security and aerospace company

Triumph Group, Inc.

Triumph thermal systems

UAV SOLUTIONS

Manufacturing UAV systems

HUGHES NETWORK SYSTEMS

Broadband satellite technology
and services

THALES

Defense and security

TEXTRON Systems

Unmanned systems

Rockwell Collins

ARINCDirectSM
Flight support services

BAE SYSTEMS INSPIRED WORK

Development of next-generation UAS

Orbital ATK

Space systems

smiths detection

Manufacturers security
detection devices

BOEING

Defense, space systems and security

Maryland

Technology Strong Workforce

Maryland has a core workforce of science and engineering workers and **74 federal laboratories—more than twice as many as any other state—**that provide easy access to innovation, technology transfer and an extensive network of well-trained, highly-educated, technology professionals.

Industry Snapshot—Aerospace & Defense in Maryland

The state's stellar workforce provides the critical backbone securing Maryland as a leader in aerospace technology, communications, design, research, development, testing and evaluation.

- Employment (2015) **90,470 private sector jobs** (131,970 including public sector)
- Leading subsectors:
  - Computer systems design and related services **65,400 jobs**
  - National Security **35,300 jobs**
  - R&D in physical, engineering and life sciences **11,600 jobs**
- Business establishments (2015) **8,720**
- Total wages (2015) **$14.18 billion**
- Average salary (2015) **$107,430**
- Gross state product (2014) **$33.03 billion**
- Federal procurement (FY2015) **$8.54 billion**

Sources: Maryland Department of Labor, Licensing and Regulation; U.S. Bureau of Economic Analysis; U.S. Census Bureau.

DID YOU KNOW? **Women make up approximately 25% of the New Horizons Pluto Mission flyby team.**

TOP TECH CLIMATE

#1	#1	#1	#1
Concentration of IT[1] 8.5%	**Academic R&D intensity[2]**	**High-tech share of all businesses[2]**	**STEM job concentration[2]**

[1] Cyberstates report 2016 | [2] 2015 Enterprising States: States Innovate study, U.S. Chamber of Commerce Foundation

Maryland Women at Work

On the job, Alice Bowman is the "MOM" (Mission Operations Manager) of the Johns Hopkins Applied Physics Laboratory. She joined JHU APL in 1997, and has served on various spacecraft teams such as the Midcourse Space Experiment, CONTOUR and New Horizons.

Maryland Aerospace Employment MAY 2016

Selected Occupation	Employment	Location Quotient*	
		Index	Rank
Computer network support specialists	8,120	2.29	1
Aerospace engineers	3,180	2.47	3
Computer systems analysts	15,760	1.47	3
Software developers, systems software	15,640	2.03	3
Electronics engineers, except computer	4,750	1.91	4
Atmospheric and space scientists	590	3.22	5

*Location Quotient indicates concentration of the occupation in Maryland, with national average equal to 1.0. Rank indicates Maryland's rank among the 50 states.

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics.

DID YOU KNOW? Maryland is first among the states in WalletHub's State Innovation Index based on 18 indicators including share of STEM professionals, R&D spending per capita, tech company density, and other human capital and innovation environment factors.

Overall Rank	State	WalletHub State Innovation Index	'Human Capital' Rank	'Innovation Environment' Rank
1	District of Columbia	**70.87**	1	7
2	Maryland	**69.82**	2	1
3	Massachusetts	**69.65**	3	2
4	California	**62.46**	6	3
5	Colorado	**59.33**	7	5

Source: WalletHub, 2017's Innovative States, March 23, 2017

AEROSPACE
Maryland

14 OF TOP **25** Aerospace Companies

60+ Federal Agencies

36 Public Use Airports

20 Military Facilities

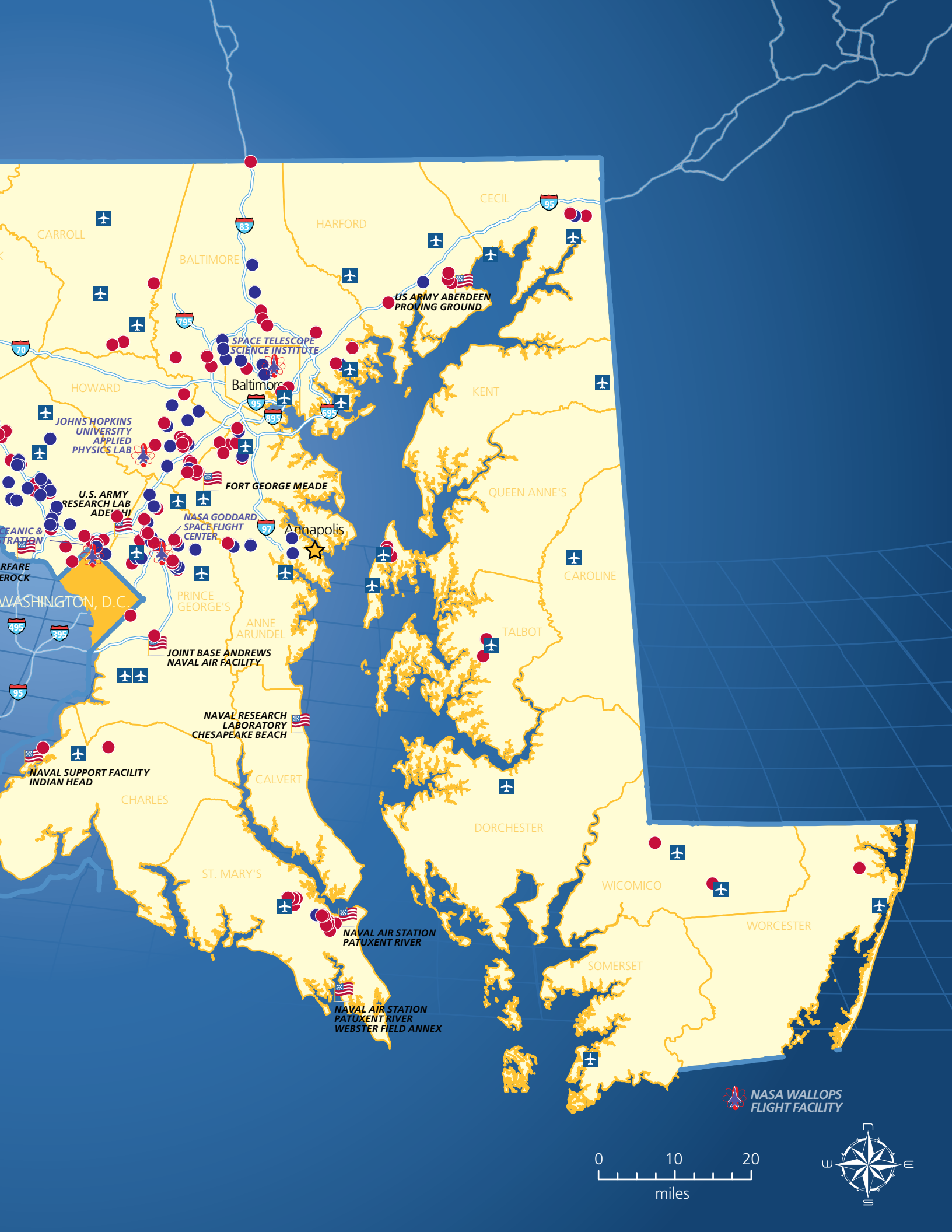
70 OF TOP **100** Defense Contractors

8,700 A&D Establishments

LEGEND

- Major Aerospace Contractors
- Major Space Contractors
- Major Academic or Federal Institutions
- Major Military Installations

- Public Use Airports


CECIL
CARROLL
HARFORD
BALTIMORE
US ARMY ABERDEEN PROVING GROUND
SPACE TELESCOPE SCIENCE INSTITUTE
Baltimore
HOWARD
KENT
JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LAB
FORT GEORGE MEADE
U.S. ARMY RESEARCH LAB
NASA GODDARD SPACE FLIGHT CENTER
Annapolis
QUEEN ANNE'S
CAROLINE
WASHINGTON, D.C.
PRINCE GEORGE'S
ANNE ARUNDEL
TALBOT
JOINT BASE ANDREWS NAVAL AIR FACILITY
NAVAL RESEARCH LABORATORY CHESAPEAKE BEACH
NAVAL SUPPORT FACILITY INDIAN HEAD
CALVERT
CHARLES
DORCHESTER
ST. MARY'S
WICOMICO
WORCESTER
NAVAL AIR STATION PATUXENT RIVER
SOMERSET
NAVAL AIR STATION PATUXENT RIVER WEBSTER FIELD ANNEX
NASA WALLOPS FLIGHT FACILITY
0
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Maryland

One-of-a-kind Assets

Federal Aerospace Missions and Assets

Maryland is unique among states with its cluster of more than **60 federal agencies and 20 military facilities,** with many of them directly or indirectly connected to the state's aerospace community and impacting the future of our world. Research activities from many of these facilities fuel the increasingly dynamic growth of Maryland companies in a wide variety of industries, offering the potential for collaborative relationships and market opportunities for domestic and international businesses.

Naval Air Station Patuxent River

Naval Air Station Patuxent River, also known as NAS Pax River, is a United States naval air station located in St. Mary's County, Md., on the Chesapeake Bay near the mouth of the Patuxent River. NAS Pax River is home to Headquarters for Naval Air Systems Command (NAVAIR), the U.S. Naval Test Pilot School, the Atlantic Test Range, and serves as a center for testing and evaluation and systems acquisition relating to naval aviation.

Naval Air Systems Command

Headquartered in Patuxent River, Md., NAVAIR provides full life-cycle support of naval aviation aircraft, weapons and systems operated by Sailors and Marines. This support includes research, design, development and systems engineering; acquisition; test and evaluation; training facilities and equipment; repair and modification; and in-service engineering and logistics support.

"We have provided technical expertise and service to NAWCAD for 25 years"

Mark Keeler, Vice President and General Manager
of Integrated Electronics and Warfare Systems at BAE Systems

Naval Air Warfare Center Aircraft Division

A Division of NAVAIR, NAWCAD is the Navy's principal RDT&E, engineering and fleet support activity for naval aircraft, engines, avionics, support systems and ship/shore/air integration. Key features include:

- 665 structures on 13,812 acres, with 10 hangars, 5 runways.
- 2,700 sq. miles Patuxent Special Use Airspace to 85,000 ft.
- Access to more than 50,000 sq. miles of additional offshore air and sea space.

U.S. Naval Test Pilot School

USNTPS provides instruction to experienced pilots, flight officers and engineers in the theory, processes and techniques of aircraft and systems testing and evaluation. Graduating students use this expertise in the acquisition community, working on aircraft and weapons systems, performing flight tests and managing introduction of new assets to the fleet.

F-35C Lightning II

The F-35C carrier variant (CV) is the Navy's first stealth fighter and the world's only 5th-generation, long-range stealth strike fighter designed and built explicitly for carrier operations. Stationed at NAS Patuxent River for testing, the F-35C combines this unique capability of operating from a carrier deck with the unmatched 5th-generation capabilities of stealth, fused sensors and reliability. Lockheed Martin is the prime contractor and Northrop Grumman and BAE are principal partners in the project.

$187B Dollar value of 247+ defense contracts awarded between 2000-2015.

Get connected to the **Maryland Defense Network**, a powerful market research tool fueled by millions of federal agency transactions and thousands of defense vendor profiles. **MarylandDefenseNetwork.org**

NASA Goddard Space Flight Center

NASA's Goddard Space Flight Center, Greenbelt, Md., is the nation's largest organization of scientists, engineers and technologists who build spacecraft, instruments and new technology, from tiny satellites that fit in the palm of your hand, to high-profile flagship missions to study Earth, the sun, our solar system and the universe. Home to Hubble operations and the upcoming James Webb Space Telescope, Goddard has built and operated more Earth science research satellites than any other institution in the world.

NASA Goddard Wallops Flight Facility

NASA Goddard Space Flight Center's Wallops Flight Facility is NASA's premier location for conducting research using suborbital vehicles, aircraft, scientific balloons and sounding rockets. WFF's launch center supports regional activity and is the only commercially accessible facility with access to the Mid-Atlantic Test Range. The facility's partnership with the Mid-Atlantic Regional Spaceport expands capabilities that support the launch of orbital vehicles. Located just across the border in Virginia, WFF is supported by a workforce from Maryland's Eastern Shore, generating substantial economic value for the state.

James Webb Space Telescope

JWST, a large, space-based observatory optimized for infrared wavelengths, will complement and extend the discoveries of the Hubble Space Telescope. Set to launch in 2018 with enough power to detect a bumblebee on the moon, the completed $8.8 billion JWST will be able to see the universe as it was 13 billion years ago.

National Business Park

A 285-acre business community of cybersecurity companies and defense contractors such as Booz Allen Hamilton, L-3 Communications, CSC, Northrop Grumman and General Dynamics is located just outside the National Security Agency and Fort Meade. The National Business Park is 10 minutes from BWI Thurgood Marshall Airport, 15 minutes from downtown Baltimore, 15 minutes from the Washington Beltway (I-495) and 23 miles from downtown Washington, DC.

National Oceanic and Atmospheric Administration

Headquartered in Silver Springs, Md., NOAA enriches life through science, reaching from the surface of the sun to the depths of the ocean floor to keep citizens informed of the changing environment around them. NOAA's 6,773 scientists and engineers use cutting-edge research and high-tech instrumentation to provide daily weather forecasts, severe storm warnings, and climate monitoring to fisheries management, coastal restoration and supporting marine commerce.

National Environmental Satellite, Data and Information Service

NESDIS acquires and manages the nation's environmental satellites and the NOAA national data centers. NESDIS provides secure and timely access to global environmental data and information from satellites and other sources to promote and protect the Nation's security, environment, economy and quality of life.

Private Sector and Nonprofit Aerospace Assets

Maryland's aerospace industry is a $33 billion economic engine. Major aerospace companies also enjoy the close proximity of many unique organizations conducting specialized research.

Northrop Grumman

Northrop Grumman (NG) is a leading global security company providing innovative systems, products and solutions in autonomous systems, cyber, C4ISR, strike, and logistics and modernization. NG's Aerospace Systems sector is a premier provider of military aircraft, autonomous and space systems and next-generation solutions. The company's Electronics Systems is headquartered in Linthicum, Md., with nearly 30,000 employees worldwide.

Lockheed Martin

Headquartered in Bethesda, Md., Lockheed Martin is a global security and aerospace company that employs approximately 97,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.

New Horizons Mission

JHU APL in Laurel, Md. designed, built, and operates the New Horizons spacecraft and manages the mission for NASA's Science Mission Directorate. After a 3-billion-mile, decade-long journey through our solar system, New Horizons made its closest approach to Pluto July 14, 2015, about 7,750 miles above the surface—roughly the same distance from New York to Mumbai, India—making it the first-ever space mission to explore a world so far from Earth.

BAE Systems, Inc.

Headquartered in Rockville, Md., BAE Systems Inc. consists of three operating groups: one that provides support and service solutions for current and future defense, intelligence, and civilian systems; another that designs, develops and manufactures a wide range of electronic systems and subsystems for both military and commercial applications; and one that designs, develops, produces, and provides service support of armored combat vehicles, artillery systems and intelligent munitions.

Orbital ATK

A global leader in aerospace and defense technologies, Orbital ATK designs, builds and delivers space, defense and aviation-related systems to customers around the world both as a prime contractor and as a merchant supplier. Orbital ATK has four locations in Maryland, including Defense Systems Group, Missile Products, Technical Systems and Space Systems.

Hughes Network Systems

Hughes Network Systems, LLC, headquartered in Germantown, Md., is a global leader in broadband satellite technology and services for home and office. Its flagship high-speed satellite Internet service is HughesNet®, the world's largest satellite network. The company's HughesON® managed network services provide complete connectivity solutions employing an optimized mix of satellite and terrestrial technologies. The JUPITER™ System is the world's most widely deployed High-Throughput Satellite (HTS) platform by leading providers operating on more than 20 satellites.

Johns Hopkins University Applied Physics Lab

The "Nation's Largest University Affiliated Research Center," JHU APL is an independent, nonprofit organization that conducts essential research, development and systems engineering to support national security needs. JHU APL's centers serve strategic national priorities free from conflicts of interest or competition with commercial industry.

Space Telescope Science Institute

STScI is a multi-mission operations center for NASA's flagship observatories and a world-class astronomical research center. Located in Baltimore, Md., the Institute developed and executed the science program for the Hubble Space Telescope since its launch in 1990. STScI is developing new technologies for the science and flight operations center for NASA's next Great Observatory, the James Webb Space Telescope.

Universities Space Research Association

Headquartered in Columbia, Md., USRA works across a wide range of disciplines. From biomedicine to astrophysics, from basic research to facility management and operations, USRA supports the study of the Universe from ground, airborne, and orbiting observatories; the study of Earth from space-based platforms; the development of advanced technologies for complex spacecraft; the human exploration of space by astronauts and much more. In FY 2016, more than 380 universities were directly involved in USRA activities.

Growing Unmanned Aircraft Systems (UAS) Assets

Maryland has a significant opportunity to capture new employment and capital investment from UAS as the commercial market grows. The state's concentration of commercial and federal assets includes UAS experts with a history of designing and manufacturing larger UAS for military markets. Maryland has two of the nation's leading UAS locations, Webster Field Navy Annex and NAS PAX River, providing in-depth T&E facilitation and access to available airspace.

Leveraging the University of Maryland UAS Test Site

The UMD Unmanned Aircraft Systems Test Site, located in California, Md., leverages the capabilities of the people and infrastructure in Southern Maryland and the University System of Maryland to address technical and policy issues associated with UAS. This work by the University, the Naval Air Systems Command (NAVAIR) and industries throughout Maryland is supported by federal, state and local governments, as well as industry and other sectors.

The Test Site Brings Together:

- Industry experts conducting collaborative UAS research.
- Segregated and non-segregated airspace to fly UAS.
- Research and development infrastructure and existing and planned expansions to support UAS development.
- Education opportunities to prepare the workforce of tomorrow.

"Maryland's long-established leadership in the aerospace industry continues to evolve with new and exciting opportunities in civil and commercial unmmaned aerospace. Today, cutting edge research and development, a stellar workforce and a robust UAS community are busy creating companies and jobs for Maryland's future."

Matt Scassero, Director, University of Maryland Unmanned Aircraft Systems Test Site

Talon 120LE Delivers Emergency Supplies

The University of Maryland (UMD) Unmanned Aircraft Systems (UAS) Test Site and University of Maryland Shore Regional Health recently conducted the State's first civil unmanned aerial delivery of simulated medical cargo. Engineers from UMD flew a Talon 120LE fixed wing aircraft across the Chesapeake Bay with saline solution simulating four vials of Epinephrine to demonstrate the key role that UAS' can play in emergency situations.

The Corrosion Resistant Aerial Covert Unmanned Nautical System—or CRACUNS—is a submersible UAV that can be launched from a fixed position underwater, or from an unmanned underwater vehicle (UUV).

New UAV Can Launch from Underwater for Aerial Missions

A team from Johns Hopkins University Applied Physics Laboratory Force Projection Sector worked to create a new type of unmanned vehicle that can operate effectively in air and water. The most innovative feature of CRACUNS is that it can remain at and launch from a significant depth without needing structural metal parts or machined surfaces. CRACUNS enables new capabilities not possible with existing UAV or UUV platforms. Its ability to operate in the harsh littoral (shore) environment, as well as its payload flexibility, enables a wide array of potential missions.

Textron Systems

Textron Systems, Hunt Valley, Md., has been designing, manufacturing, operating and supporting some of the world's most reliable and trusted multi-mission unmanned aircraft since the 1980s. The Textron Systems **RQ-7Bv2 Shadow** is fitted with a high-bandwidth, encrypted tactical data link to stream real-time information. Proven with **over one million flight hours** and optimized for multi-mission, single-sortie profiles and manned/unmanned teaming, the Shadow V2 is in service with the Department of Defense, and in Australia, Sweden and Italy.

UAV Solutions

UAV Solutions, Jessup, Md., a proven leader in the manufacturing, testing and design of unmanned aircraft systems, provides unmanned technology that delivers mission critical performance and high levels of surveillance. The **Phoenix 60** is a rugged **vertical take-off and landing (VTOL) hexacopter** UAS that can be integrated into any situation within minutes. It is ideal for use by the military, police and first responders alike.

Baltimore's STScI Scientists in Driver's Seat, Again

Scientists at Baltimore's Space Telescope Science Institute are preparing facilities, personnel, software and equipment for the October 2018 launch of the James Webb Space Telescope. Institute engineers will hold the reins, radioing instructions to the telescope 1 million miles away and downloading hundreds of gigabits of data every day. Founded in 1982, STCI has performed the science operations for the most famous observatory in history — the Hubble Space Telescope.

NASA's Webb Telescope Ghostly 'Lights Out' Inspection

Academic Aerospace Assets

An important source of ideas, skills, and continuing educational opportunities, Maryland is one of the country's key research centers. The state continues to enhance the relationship between universities and industry. Maryland's higher education institutions contribute to an advanced and technically proficient human resources environment where leading firms find a high concentration of doctoral scientists.

Virtually every kind of training and research required by business and industry can be obtained from a higher education institution in Maryland. 57 accredited two- and four-year colleges and universities in the state serve over 360,000 students, together with Maryland campuses of several out-of-state institutions.

University of Maryland

The University of Maryland, College Park is the state's flagship university and one of the nation's preeminent public research universities. A global leader in research, entrepreneurship and innovation, the university has a $1.9 billion operating budget, and secures $560 million annually in external research funding.

The University of Maryland is ranked No. 20 among public universities and No. 25 overall for most innovative schools by U.S. News & World Report, as well as No. 14 among public universities by Forbes. The University of Maryland, College Park has a top ten ranking in undergraduate aerospace engineering and 48 graduate programs ranked in the Top 25 by US News & World Report. Top 10 listings include:

- Physics: Atomic/Molecular/Optical, Plasma, Quantum
- Information Science: Information Systems
- Earth Science: Geo-chemistry

UMD A. James Clark School of Engineering

The University of Maryland's A. James Clark School of Engineering is a premier program ranked among the best in the world. Located just a few miles from Washington, D.C., the Clark School is at the center of a constellation of high-tech companies and federal laboratories, offering students and faculty access to unique professional advancement opportunities with industry and government partners. The Clark School is leading research advancements in aerospace, bioengineering, robotics, nanotechnology, disaster resilience, energy and sustainability, and cybersecurity.

Glenn L. Martin Wind Tunnel

The Glenn L. Martin Wind Tunnel, a Clark School of Engineering facility, is used in aerodynamic research and development of "almost anything that moves in air and water." A state-of-the-art low speed wind tunnel, it is large enough to perform extensive development tests for a wide range of vehicles and other systems and is well-suited for conducting major research efforts in low speed aerodynamics and hydrodynamics.

Image Credit: NASA/Chris Gunn

DID YOU KNOW?

Maryland is first in the nation with 16 higher education institutions designated by the National Security Agency and Department of Homeland Security as National Centers of Academic Excellence in Cyber Defense education and research.

Source: National Security Agency, Information Assurance Directorate, as of January 24, 2017.

UMD Earth System Science Interdisciplinary Center

ESSIC represents a two decade collaboration between UMD and NASA Goddard that includes world-class research in meteorology, oceanography, terrestrial physics, hydrology, atmospheric chemistry, ecosystem science and satellite Earth observations. The broad goal of ESSIC is to understand the relationships between Earth's atmosphere, oceans, land masses and biosphere, with an eye to the influence of human activities on Earth's coupled systems.

University of Maryland, Eastern Shore

The Department of Engineering and Aviation Sciences at UMES offers a Bachelor of Science degree in Engineering with specialization in Aerospace, Computer, Electrical, or Mechanical. The department also offers a Bachelor of Science program in Aviation Sciences with concentrations in Aviation Electronics, Aviation Management, Aviation Software or Professional Pilot. Laboratories in the department, include a flight simulator, and are equipped with state-of-the-art instrumentations, developmental hardware, and software tools for teaching and research.

Capitol Technology University

Capitol Technology University's Astronautical Engineering degree, with the new Cube-Sat focused programs, prepares students to become a NASA mission specialist, create software applications and design electrical systems for space missions. Students have the opportunity to be placed in co-op positions and internships at the nearby NASA Goddard Space Flight Center.

Aerospace Incentives and Investments

The Maryland Department of Commerce has a variety of programs and resources for businesses. More details on these programs and other state resources can be found at commerce.maryland.gov.

Employer Security Clearance Costs Tax Credit

Businesses that incur qualified federal security clearance administrative expenses may qualify for a tax credit up to $200,000. A business may qualify for a 50% tax credit up to $200,000 for costs related to constructing or renovating a Sensitive Compartmented Information Facility (SCIF) and up to $500,000 for multiple SCIFs. In addition, a qualified small business that performs security based contracting in Maryland may be eligible for a tax credit up to $200,000 for the first year of rental payments for spaces leased in Maryland. Businesses must submit an application to the Department by September 15 for expenses incurred in the previous tax year.

Cybersecurity Investment Incentive Tax Credit

CIITC provides a refundable income tax credit to Qualified Maryland Cybersecurity Companies (QMCCs) that secure investment from investors. A QMCC may receive a credit equal to 50% of an eligible investment in the QMCC. A QMCC is limited to $250,000 for each investor, each fiscal year. A single QMCC may not receive total credits exceeding 15% of the total program appropriation for each fiscal year. If the QMCC is located in Allegany, Dorchester, Garrett or Somerset counties, the CIITC increases the amount to 75% (not to exceed $500,000).

More Jobs for Marylanders

New manufacturing businesses locating in a Tier 1 county and creating at least five news jobs may be entitled to a 10-year (1) income tax credit based on the number of jobs created; (2) State property tax exemption; (3) sales and use tax refund for specific purchases; and (4) corporate filing fee exemption. Tier 1 counties include Allegany, Dorchester, Somerset, Worcester Counties as well as Baltimore City and up to three additional counties designated by Commerce. Additionally, existing manufacturing businesses located anywhere in the State will qualify for the 10-year income tax credit if they create five jobs in a Tier 1 county or 10 jobs in a Tier 2. Commerce will give priority to applications for eligible projects in a Tier 1 county.

Research and Development Tax Credit

For Maryland businesses that incur Maryland qualified research and development expenses, the Basic R&D tax credit is the lesser of 3% of eligible R&D expenses or 3% of the Maryland Base Amount. The Growth R&D tax credit is 10% of eligible R&D expenses in excess of the Maryland Base Amount. The Basic credit is capped at $5.5 million annually, and the Growth credit is capped at $6.5 million. If the amount of credits all businesses apply for exceeds the cap, each business receives its pro rata share. R&D tax credits certified after December 15, 2012 are refundable for a "small business" if the tax credits exceed the income tax liability. Businesses must submit an application to the Maryland Department of Commerce by September 15 for expenses incurred in the previous tax year.

One Maryland Tax Credit

Businesses that invest in an economic development project in a "Qualified Distressed County" and create at least 25 new full-time jobs may qualify for up to $5.5 million in state income tax credits. Project tax credits of up to $5 million are based on qualifying costs incurred in connection with the acquisition, construction, rehabilitation and installation of a project. Startup tax credits of up to $500,000 are available for the expense of moving a business from outside Maryland and for the costs of furnishing and equipping the new location. The credit can be carried forward 14 years and is refundable, subject to certain limitations.

Enterprise Zone Tax Credit

The Enterprise Zone program provides real property and state income tax credits for businesses located in a Maryland enterprise zone. The real property tax credit is 80% of the incremental increase in property taxes over the first five years, decreasing 10% annually during the next five years. The income tax credit is a $1,000 credit per new employee. For economically disadvantaged employees, the credit increases to $6,000 per new employee over three years. Enhanced credits for both property and income tax credits are available in Enterprise Zone Focus Areas.

Job Creation Tax Credit

Businesses that create a minimum number of new full-time positions may be entitled to state income tax credits of up to $3,000 per job or up to $5,000 per job in a "revitalization area." Businesses engaged in an eligible activity must create at least 60 new full-time jobs in a 24-month period; this is reduced to 30 new full-time jobs if they are high wage jobs, and reduced to 10 new full-time jobs if they are located in a county with average employment of less than 75,000, or a median household income that is less than two-thirds of the statewide median household income.

Maryland Economic Development Assistance Authority and Fund

A flexible and broad based program, MEDAAF funds grants, loans and investments to support economic development initiatives. Uses include business attraction and retention, infrastructure support, Brownfield redevelopment, arts and entertainment districts, daycare, revolving loan funds and local strategic planning. Projects must be within Priority Funding Areas and Eligible Industry Sectors. Awards are made on a competitive basis.

Commercialization Programs

Maryland Technology Development Corporation

From concept to commercialization, TEDCO is another state resource that offers mentoring, funding and networking for entrepreneurs and startups. TECDO makes seed and early-state investments as well as series A/B investments. Learn more at tedco.md.

University of Maryland Industrial Partnerships

MIPS promotes the development and commercialization of products and processes through industry/university research partnerships. Nationally recognized by the Small Business Administration, since the program's inception in 1987, MIPS–enabled products have generated sales of $30.3 billion.

Learn More

In addition to the Office of Cybersecurity and Aerospace, Maryland Commerce provides a wide array of resources and incentives for new and expanding businesses in the state's aerospace community. Services include:

- Office of Finance Programs – Assistance with numerous financing and tax credit programs.
- Office of Military and Federal Affairs – B2G assistance for companies seeking state or federal government contracting opportunities.
- Office of International Investment and Trade – Provides support to Maryland companies planning to enter new foreign markets or advance their export sales.

- Office of Marketing and Communications – Coordinates various events and press coverage for aerospace industry shows, including the Paris Air Show and AUVSI.

For more information visit **commerce.maryland.gov/aerospace** or contact:
Randall TeBeest, Program Manager, Aerospace
410-767-6881 or randall.tebeest@maryland.gov.

Located in Prince George's County, Md., Joint Base Andrews is home to the 89th Airlift Wing, operators of Air Force One and is responsible for worldwide special mission airlift, logistics and communications support for the President, Vice President and other U.S. senior leaders.

401 E. Pratt Street · The World Trade Center · Baltimore, MD 21202
888-246-6736 · commerce.maryland.gov

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