

Testimony in Support of SB 516 (1).pdf

Uploaded by: Alonzo Washington

Position: FAV

ALONZO T. WASHINGTON
Legislative District 22
Prince George's County

Finance Committee



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THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

February 16, 2023

Testimony in Support of SB 516

Madame Chair, Madame Vice Chair, Fellow members of the Senate Finance Committee:

Senate Bill 516 is a proposal to establish the aptly named commission to promote innovation within the field to promote innovation within fields of space exploration and commercial aerospace opportunities. Additionally, the bill provides for a fund to be created to be managed under said commission to achieve the goals outlined above. Finally, the commission in question will be required to submit a report to the Governor summarizing its activities throughout a given year.

Our state runs the unacceptable risk of falling behind when it comes to the aerospace industry. While other states have poured millions of dollars into supporting one of the most noble and inspirational lines of work, our state has lagged at letting basic issues continue to plague an installation that is trying to expand the frontiers of humanity. With such a long list of complaints from those who work and benefit from the facility, Maryland must move to act on this matter.

By supporting the Aerospace and Technology Industry, Maryland will market itself as a hub for aerospace companies. Furthermore, we will be helping the dozens of subcontractor businesses in the state that are powered by the facility, and see an increase in highly skilled, high-income laborers in our state. This can be the launching point for future industry, and bring billions of dollars to our state economy, all while improving the infrastructure of an important area.

This legislation will also help bolster educational opportunities for the dozens of graduates interested in working in the air and space industries, providing ample opportunities to young dreamers who may not have had this opportunity otherwise. Students will be able to gain valuable learning experience by working with innovative technologies and will be able to push the scientific achievements of our country forward.

We must do our best to support locally beneficial enterprises that can benefit the state's economy and development for decades to come. We must reach for the stars and aim to make Maryland a hub for aerospace companies and a supporter of the small businesses that benefit from them.

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THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

Most importantly, we can teach our youth and provide them with honorable jobs that will help us in the furtherment of human exploration. For this state, the sky is not the limit.

For these reasons, I respectfully request a favorable committee report on SB 515.

SB0516 -- Economic Development - Maryland Aerospac

Uploaded by: Brian Levine

Position: FAV



Senate Bill 516 -- *Economic Development - Maryland Aerospace and Technology Commission*
Senate Finance Committee
February 16, 2024
Support

The Montgomery County Chamber of Commerce (MCCC), the voice of business in Metro Maryland, supports Senate Bill 516 -- *Economic Development - Maryland Aerospace and Technology Commission*.

Senate Bill 516 establishes the Maryland Aerospace and Technology Commission, whose purpose would be to promote innovation in the fields of space exploration and commercial aerospace opportunities, including the integration of space, aeronautics, and aviation industries into the economy of the State.

In Metro Maryland and throughout the State of Maryland, innovative industries are an important part of the economy. To grow these industries and the high-paying jobs they create, it is imperative that policymakers work with the private sector to create competitive pathways for growth. By creating the Maryland Aerospace and Technology Commission, the State would show its commitment to growing and expanding this vital innovation sector of the economy.

Growing Maryland-based industries like aerospace and space exploration also benefits small business federal contractors. In Metro Maryland, these small businesses are often run by military service disabled or veteran entrepreneurs. More and more, thanks to the proximity to the federal government, government contracting is a growing and innovative industry all its own. Maryland's leaders should continue efforts to grow and expand opportunities for this segment of the economy.

For these reasons, the Montgomery County Chamber of Commerce supports Senate Bill 516 and respectfully requests a favorable report.

The Montgomery County Chamber of Commerce, on behalf of our nearly 500 members, advocates for growth in business opportunities, strategic investment in infrastructure, and balanced tax reform to advance Metro Maryland as a regional, national, and global location for business success. Established in 1959, MCCC is an independent non-profit membership organization and a proud Montgomery County Green Certified Business.

*Brian Levine | Vice President of Government Affairs
Montgomery County Chamber of Commerce
51 Monroe Street | Suite 1800
Rockville, Maryland 20850
301-738-0015 | www.mccc.md.com*

15 February 2024 _SB0516 Maryland Senate Finance C

Uploaded by: David Miller

Position: FAV

15 February 2024



RE: Testimony before the Maryland Senate Finance Committee

Dear Chairwoman Beidle, Vice Chair Klausmeier, and Members of the Finance Committee,

I am an Aerospace Engineer and for most of my 40-year career have lived and worked in Maryland in the aerospace industry in small and large businesses. I am also the Vice President and Chief Operating Officer of MERC Aerospace, a Woman-Owned Small Business, which does business in the State of Maryland for organizations such as Goddard Space Flight Center, Applied Physics Laboratory and Aberdeen.

The major Federal budget cuts being proposed and enacted will have a devastating impact not only on small and large businesses, it will also have a symbiotic impact on Maryland's ability to attract and develop high tech workers that contribute to the current tax revenue base. Without robust Federal Funding, those private sector jobs will cease to exist and with it the revenue base that Maryland has come to rely upon.

The growth of any national, state, and local economy is predicated on a robust research and development sector and the technologies created by the activities of those persons employed. These technologies that they create are then spun off into the private sector of Maryland and our nation, creating a depth of new feeder industries that also contribute to making our business sector more productive and more attractive to foreign partnerships and investment opportunities.

This economic engine starts with Federal funding. This multiplier effect has profound impacts as has been reported many times in the past. Chase Econometrics conducted a study and found that for every dollar that NASA spends in their budgets, more than 10 dollars are returned to the private sector. An example today can be seen with SpaceX's rocket systems as they have their origin in the Federally funded development of NASA's 1960's rocket technologies. This science driven ecosystem is good for every township in the State of Maryland and beyond. Without these science and technology driven budget priorities at the Federal level, the economic opportunities for the State of Maryland and it's citizens will stagnate. This reduction will also create job losses, reduction in tax revenue base, decreased investments and major downward pressure on the housing market.



Without the Maryland Statehouse stepping up to the plate and making it's voice heard we cannot reverse this trend and claim the economic rights due to all Marylanders and the United States at large. Without protecting the R&D sector of Maryland and the Federal funding that fuels that economic growth and the multiplier that goes with it, Maryland's economic future is in jeopardy.

Please vote favorably for Senate Bill SB0516, Economic Development – Maryland Aerospace and Technology Commission.

David W. Miller
MERC Aerospace
dmiller@merc-md.com

SB0516_FAV_MTC_Eco. Dev. - MD Aerospace and Tech.

Uploaded by: Drew Vetter

Position: FAV



MARYLAND TECH COUNCIL

TO: The Honorable Pamela Beidle, Chair
Members, Senate Finance Committee
The Honorable Antonio Washington

FROM: Andrew G. Vetter
Pamela Metz Kasemeyer
J. Steven Wise
Danna L. Kauffman
Christine K. Krone

DATE: February 20, 2024

RE: **SUPPORT** – Senate Bill 516 – *Economic Development – Maryland Aerospace and Technology Commission*

The Maryland Tech Council (MTC) is a collaborative community, actively engaged in building stronger life science and technology companies by supporting the efforts of our individual members who are saving and improving lives through innovation. We support our member companies who are driving innovation through advocacy, education, workforce development, cost savings programs, and connecting entrepreneurial minds. The valuable resources we provide to our members help them reach their full potential, making Maryland a global leader in the life sciences and technology industries. On behalf of MTC, we submit this letter of **support** for Senate Bill 516.

This bill would establish the Maryland Aerospace and Technology Commission to promote innovation in the fields of space exploration and commercial aerospace opportunities, including the integrations of space, aeronautics, and aviation industries into the economy of the State. MTC's mission includes working to position Maryland as one of the leading states in the nation for innovation. Core to this strategy is capitalizing on our assets. There are numerous assets in Maryland relevant to this bill, including the National Aeronautics and Space Administration's (NASA) Goddard Space Flight Center, NASA's Wallops Flight Facility, the National Oceanic and Atmospheric Administration, and others. The goal of the bill is to capitalize on these strengths by bringing together these institutions with other stakeholders to identify strategies to foster innovation and build Maryland's economy connected to activities in the aerospace and space exploration industries.

The MTC commends any efforts intended to build on our strengths and promote innovation. This bill is aligned with those goals. We urge a **favorable** report.

For more information call:

Andrew G. Vetter
Pamela Metz Kasemeyer
J. Steven Wise
Danna L. Kauffman
Christine K. Krone
410-244-7000

15Feb2024 MAAWrittenTestimonySB516Combined.pdf

Uploaded by: Georgeann Brophy

Position: FAV



15 February 2024

Dear Chairwoman Beidle, Vice Chair Klausmeier, and Members of the Finance Committee,

I am an aerospace engineer and for the past thirty-five years I've lived and worked in Maryland in the aerospace industry in both large and small businesses. I am also a co-founder of the Maryland Aerospace Alliance, a non-profit organization whose members are businesses working across the state of Maryland. Our industry has been fortunate to grow under the glow of federal funding to NASA Goddard Space Flight Center, NOAA's National Environmental Satellite, Data, and Information Service (NESDIS), Johns Hopkins Applied Physics Laboratory (APL), Naval Air Station Patuxent River and more! We have prospered with this federal funding resulting in a robust eco-system of over 9,600 aerospace-related business, and over 142,000 aerospace-related jobs, resulting in ~\$1B in tax base. My own daughter, a junior in high school in Montgomery County, dreams of attending the University of Maryland to study Aerospace Engineering and then live and work in the aerospace field doing data analytics with machine learning. But those dreams of our best and brightest young people are at risk!

With the advent of major federal budget reductions to the federal organizations that have been the bedrock of Maryland's aerospace ecosystem for so long, our pre-eminence as an "Aerospace State" is at great risk without the State's support. We will experience a "bleed" of companies (both large and small) leaving the state for more aerospace friendly states like Texas, Florida, or California who provide. Graduates from our extraordinary secondary education institutions will go to work in other states and we will lose the talent and skills needed to propel us forward across the industry.

With the creation of the Maryland Aerospace and Technology Commission, the State of Maryland will be able to take steps to ensure the ecosystem stays strong and even grows! The Commission will make recommendations and, eventually, provide funding to programs that will ensure Maryland leaves no one behind and even propels them forward to new heights. This will look like providing incentives to commercial industry to come to the state, spurring new jobs and bringing in revenue. It will look like connecting industry with Maryland's High Schools and higher education institutions to match coursework with industry needs so students can enter the workforce that is welcoming them and needs them. This will look like investing in strategic partnerships across the artificial intelligence (AI) and Machine Learning (ML) community ensuring the state of Maryland provides the most cutting-edge jobs and products available. And it will look like the early career, aerospace work force having places to live, work, play within the state that are affordable.

Please support the Maryland Aerospace and Technology Commission and protect Maryland's aerospace ecosystem and launch it to great heights in the future! For this reason, please vote favorably for SB516.

Sincerely,

Georgeann C Brophy

mdaeroalliance@gmail.com

Support Maryland Aerospace & Technology Commission

Background: Maryland is an Aerospace State

- Highest concentration of Aerospace Engineers nationwide (more than California, Florida, Texas): **140,000+ jobs** across Maryland, mostly high-paying, contributing **over \$1B to the state tax base**
- **9,600 aerospace-related businesses** in Maryland, to include **15 of the top 20** aerospace companies nationwide (*see reverse side*)
- Home to National Investments and Critical Assets
 - Climate Change: NASA Goddard and NOAA make up the largest collection of Earth Science Experts in the world
 - Understanding the Universe: Space Telescope Science Institute, JHU Applied Physics Lab, and NASA Goddard make Maryland a hub for astrophysics & planetary science
 - Advanced Air Mobility Leader: NAVAIR Pax River, UMD UAS Research & Ops Center, Army Research Lab are pushing the next generation of air traffic management and drone usage

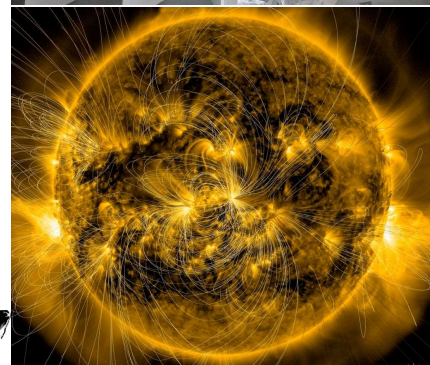
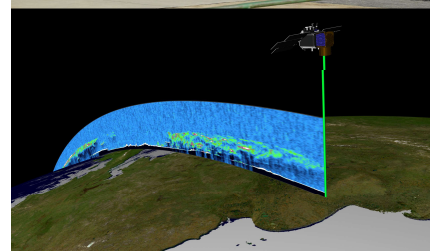
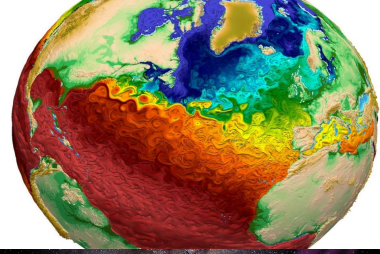
Problem: Maryland Aerospace Is At Risk

- Losing STEM graduates to other states
 - While we're investing in "Blueprint for Education", we **lose over 60% of UMD students** upon graduation
 - Cutting-edge aerospace jobs improve in-state retention
- Losing Aerospace revenue to other states
 - Florida, Texas, and Virginia have state-run ventures for aerospace economic development and attract companies

Solution: Maryland Aerospace & Technology Commission

- Incentivizes commercial aerospace big and small, promotes innovation, strengthens Maryland's aerospace leadership
- Independent Entity like TEDCO/MEDCO
- Full-time Executive Director with administrative authority
- Volunteer Board representing statewide stakeholders
- Maryland Aerospace & Technology Zone for targeted promotion
- Fund for Aerospace grants to build & attract leading companies
- Established this year (*unfunded*) with ability to fund in the future

SB 516 Sponsor: Senator Alonzo Washington
HB 685 Co-sponsors: Kevin Harris, Mark Chang
Contact: Georgie Brophy, mdaeroalliance@gmail.com



2024 SB 516 Support Testimony - Pancholi.pdf

Uploaded by: Kajal Pancholi

Position: FAV



Written Testimony in Support of 2024 Maryland Senate Bill SB 516 – Economic Development: Maryland Aerospace and Technology Commission (MATC)

Madam Chair, Madam Vice Chair, and the esteemed members of the Senate Finance Committee,

Thank you for this opportunity to voice my support of Senator Washington’s proposed Senate Bill 516 – Economic Development: Maryland Aerospace and Technology Commission. As a lifelong resident of our great State of Maryland, I encourage you to respond in favor of this highly impactful legislation.

Maryland hosts over 70 Federal institutions, as well as headquarters 15 of the top 20 aerospace and defense companies. Our state prominently contributes to cutting-edge research and innovation in the aerospace, biomedical, cybersecurity, transportation, manufacturing, and many other highly technical industries. We have some of the largest aerospace facilities in the country, including NASA Goddard Space Flight Center, NOAA, Johns Hopkins University’s Applied Physics Laboratory, Space Telescope Science Institute, Army Research Laboratory, Aberdeen Proving Ground, NAVAIR Pax River, as well as some of the top-rated aerospace educational programs, including University of Maryland (UMD) College Park, UMD Unmanned Aircraft Systems (UAS) Research and Operations Center, University of Maryland Baltimore County, Morgan State University, Johns Hopkins University, and Naval Academy.

As a result of these Federal investments, our state has one of the most educated workforces in the nation, consisting of millions in the STEM fields and the largest concentration of aerospace engineers. Over 140,000 aerospace engineers work in Maryland, and with wages averaging \$90,000 - \$120,000 annually, contribute over \$1,000,000,000 annually to the state’s income tax revenues. As tracked by the Maryland Department of Commerce, there are also over 9,600 aerospace-related businesses in Maryland, the majority of which are small businesses.

Our state’s aerospace posture is in peril. Federal-level budget uncertainty, the continuing resolutions, and the resulting project work uncertainty jeopardize high technology jobs across the state, including hundreds of jobs at the NASA Goddard Space Flight Center and NOAA. Moreover, other “aerospace states” (e.g., Texas, Florida, California) are actively working to attract commercial space companies to their states through similar state-run economic development ventures (as the proposed MATC). We are losing over 60% of our UMD aerospace graduates to these other states, as new graduates often seek and follow the most exciting, highest-paying, and innovative jobs.

My name is Kajal Pancholi, and I am a licensed Professional Engineer (PE) in the State of Maryland. For over the last 50 years, my family has called Maryland home. I am a third-generation Maryland PE, and my father has been an environmental engineer with Maryland Department of Environment for the last nearly 44 years. We are a Maryland family. Born in Baltimore and raised in Glen Burnie, I was interested in exploring and understanding the universe from the fourth grade. In high school, I discovered my talents for mathematics, physics, and engineering. I pursued this passion for STEM and proudly graduated with Honors from the University of Maryland College Park with both Bachelor (2002) and Masters (2004) of Science degrees in Aerospace Engineering.

After college, I joined an aerospace engineering services firm founded by a fellow University of Maryland Aerospace Engineering graduate. I supported various space and missile defense research and development projects for nearly 15 years. In 2016, I was appointed the President & CEO of Avatar Technologies, a Maryland-based aerospace engineering company supporting NASA, DoD, and various commercial space companies. Over the past seven years, I have managed several Federal contracts to design, build, and test innovative aerospace technologies to facilitate the next generation of space



exploration, as well as strengthen national defense and civil aviation capabilities. On our largest project, the Avatar team is designing, integrating, and testing the ground support infrastructure and launch control software for NASA's Artemis program, returning humans back to the Moon.

Since 2013, I have also served on the University of Maryland College Park's Women-in-Engineering Advisory Board, mentoring and supporting women in various STEM fields. I have helped organize fundraisers for engineering scholarships, as well as participated in numerous student engagement, networking, advising, and mentoring activities. In 2019, I championed Avatar Technologies' Corporate Partnership with the University of Maryland College Park's A. James Clark School of Engineering. Via this initiative, I sponsored merit- and need-based scholarships for Aerospace Engineering students and supported the Women in Aeronautics and Astronautics (WIAA) student-run organization. Due to the opportunities afforded to me by Maryland's aerospace ecosystem, I have been able to become a contributing member of my community and give back to our well-deserving underrepresented youth.

As a Maryland small business owner, I strongly support this legislation. Establishing the Maryland Aerospace and Technology Commission will help incentivize cutting-edge aerospace companies of all sizes, attract new projects, promote innovation, strengthen Maryland leadership as an aerospace hub, and create "exciting" new aerospace jobs for our graduates and already-trained workforce. Minimal investment in such a commission will help the state maintain its aerospace posture on the national level and reap numerous benefits for our future generations. For our company, growth of the state's aerospace ecosystem will offer more business opportunities, new customers, meaningful projects, and an available and trained workforce.

I call your attention to Florida. In 2011, after the cancellation of the Space Shuttle program, the area saw a significant economic downturn. Many trained employees left the state in pursuit of high-paying jobs elsewhere. Florida established "Space Florida", a similar state-run entity to promote workforce development, land use negotiations, business grants and tax incentives, and various other economic development measures to attract commercial space & traditional aerospace companies to the Space Coast area. Many large aerospace and defense firms relocated major programs to the area, creating thousands of six-figure average paying jobs, and the Space Coast has seen a significant economic boom in the last decade (with real estate doubling and technical field unemployment rates at historic lows).

Thank you for your consideration and, again, I hope you respond in favor of this important legislation.

Sincerely,
Kajal G. Pancholi
President & CEO
Avatar Technologies, Inc.

SB 516_Aerospace Commission_Support.pdf

Uploaded by: Kevin Anderson

Position: FAV



Wes Moore | Governor
Aruna Miller | Lt. Governor
Kevin A. Anderson | Secretary of Commerce
Signe Pringle | Deputy Secretary of Commerce

DATE: February 16, 2024
BILL NO: Senate Bill 516
BILL TITLE: Economic Development - Maryland Aerospace and Technology Commission
COMMITTEE: House Ways and Means
POSITION: Support

The Maryland Department of Commerce (Commerce) supports Senate Bill 516 - Economic Development - Maryland Aerospace and Technology Commission.

Bill Summary:

Senate Bill 516 establishes the Maryland Aerospace and Technology Commission (MATC) as a new State public instrumentality to promote innovation in the fields of space exploration and commercial aerospace into the economy of the State. The MATC would be advised and directed by a Board comprised of government officials, public and private aerospace industry representatives, and representatives of higher educational institutions. The Maryland Aerospace and Technology Fund is also established within the MATC in order to award grants to eligible entities to promote the growth of space exploration and aerospace technology industries in the State consistent with the strategic plan the MATC is required to create. The bill also establishes the Maryland Aerospace Research and Space Economy Collaborative to advise the MATC and recommend and promote actions and opportunities in partnership with the local community within the Maryland Aerospace and Technology Zone the MATC is directed to designate.

Background:

Maryland has a vibrant and growing aerospace industry, but the State is not recognized as a leader in the industry and lacks coordination throughout the State. A key concern has been Maryland's relatively low visibility and under-promotion as a player in the aerospace industry, despite having significant capabilities and resources, such as the Goddard Space Flight Center. This lack of visibility has potentially limited the State's ability to attract aerospace businesses and talent. Additionally, current and projected future competitiveness in the sector requires channeling students into local aerospace careers. This legislation aims to bridge these gaps by establishing a dedicated Commission that would not only enhance the State's reputation in the aerospace sector but also create a more direct and efficient pathway for local students to enter into aerospace careers, thus ensuring a robust, skilled workforce to propel the state's aerospace industry forward.

Rationale:

Senate Bill 516 brings much needed attention to and collaboration within Maryland's aerospace industry – a much needed effort to support a critical growth industry in the State. Commerce fully supports promoting space exploration and commercial aerospace in Maryland and the Department welcomes the expansion of current efforts within the industry. This is a critical time

for the aerospace industry as there is support among regional aerospace partners to increase collaboration and recognition of Maryland as a leader in the industry. Further promoting and providing additional support for Maryland's aerospace industry should result in future success in attracting new businesses and growing the State's aerospace workforce.

Commerce respectfully requests a favorable report on Senate Bill 516.

15Feb2024 WrittenTestimonySB0516 - Achee.pdf

Uploaded by: Marisa Achee

Position: FAV



15 February 2024

Dear Chairwoman Pamela Beidle, Vice Chair Katherine Klausmeier, and the esteemed Members of the Senate Finance Committee,

I am writing to express my support of Finance Committee Bill SB0516 - Economic Development - Maryland Aerospace and Technology Commission.

As an aerospace engineer supporting large and small businesses for the past thirty-four years, I have observed the importance of aerospace to the Maryland economy. I currently serve as the Executive Vice President of the Maryland Space Business Roundtable (MSBR), an organization dedicated to bringing together businesses, universities, and individuals in aerospace and technology to grow the future of space. Our industry has been fortunate to grow under federal funding to NASA Goddard Space Flight Center (GSFC), NOAA's National Environmental Satellite, Data, and Information Service (NESDIS), Johns Hopkins Applied Physics Laboratory (APL), Naval Air Station Patuxent River, and more! We have prospered with this federal funding, resulting in a robust ecosystem of over 9,600 aerospace-related businesses and over 142,000 aerospace-related jobs, generating ~\$1B in the tax base.

With the advent of major federal budget reductions to the federal organizations that have been the bedrock of Maryland's aerospace ecosystem for so long, our distinction as an "Aerospace State" is at great risk without the State's support. We will experience a migration of large and small companies leaving Maryland for more aerospace-friendly states like Texas, Florida, or California, resulting in a loss of talent and skills needed to propel us forward across the industry.

The creation of the Maryland Aerospace and Technology Commission will support the State of Maryland in ensuring the aerospace ecosystem stays strong. The Commission will make recommendations and, eventually, provide funding to programs to ensure Maryland maintains its technological edge in aerospace. This will look like providing incentives to commercial industry to come to the state, spurring new jobs and bringing in revenue. It will look like connecting industry with Maryland's high schools and higher education institutions to align coursework with industry needs so students are better prepared to enter a workforce that is welcoming and needs them. This will look like investing in strategic partnerships across the artificial intelligence (AI) and Machine Learning (ML) community so that Maryland provides the most cutting-edge jobs and products available. It will look like providing the early-career, aerospace workforce with local, affordable places to live, work, and play.

Please support the Maryland Aerospace and Technology Commission and protect Maryland's aerospace ecosystem to launch it to great heights in the future! For the future of our aerospace community, please vote favorably for SB0516.

Sincerely,

Marisa Achée

MSBR Executive Vice President

marisa.achee@ai-solutions.com

Barton MATC Senate Testimony.pdf

Uploaded by: Michael Barton

Position: FAV



February 15, 2024

Dear Chairwoman Beidle, Vice Chair Klausmeier, and Members of the Senate Finance Committee,

I'm writing today to express my support of Senate Bill 516 for the Maryland Aerospace & Technology Commission.

Maryland has been the anchor of American Aerospace since the very beginning. In 1909, the Wright Brothers taught the first US military pilots how to fly in the oldest airport in the world, College Park Airport. Today Maryland has the most federal R&D spending in the US and twice as many federal labs as any other state. We don't hear about it much, but almost 10,000 aerospace companies call Maryland home, and Maryland has the highest concentration of aerospace engineers in the country. Whether it's exploring the universe with space telescopes, understanding how our climate is changing with Earth science data, or preparing for a future of autonomous aviation, the over 140,000 aerospace workers in Maryland are continuing to set the tone for our nation's aerospace endeavors.

I moved to Maryland after school to work on these space missions, and I've spent the last ten years working as an aerospace engineer at a small business in Lanham, while spending personal time advocating for Maryland facilities on Capital Hill. I co-founded the Maryland Aerospace Alliance because we need your help. Other states are competing to take away these national capabilities that Maryland has held for decades, and we need a structure similar to what Florida, Texas, and Virginia have built to pull all the stakeholders together and fund initiatives to maximize the impact of federal and commercial investment. We need an organization that better connects our ever-changing industry with our educational system to ensure that our workforce reflects the diversity of our state and is prepared to meet the challenges of new technologies like machine learning, AI, augmented reality and model-based systems engineering. We need to advertise to potential employers and employees that Maryland is an Aerospace State. The Maryland Aerospace & Technology Commission will do all of these things.

Let's make sure that Maryland remains #1 in Aerospace, and let's stop keeping it a secret. I ask you to support Senator Washington on Senate Bill 516.

Sincerely,

Michael Barton
a.i. solutions
Co-founder, Maryland Aerospace Alliance
Co-founder, Goddard Advocacy Partnership
Regional Deputy Director for Public Policy, American Institute for Aeronautics and Astronautics
michael.barton@ai-solutions.com
(901) 485-1464

Corporate Headquarters

4500 Forbes Blvd. Suite 300, Lanham, MD 20706

(301) 306.1756 bdsupport@ai-solutions.com ai-solutions.com



Feb 2024 MAA figures and AIAA facts.pdf

Uploaded by: Michael Barton

Position: FAV

Support Maryland Aerospace & Technology Commission

Background: Maryland is an Aerospace State

- Highest concentration of Aerospace Engineers nationwide (more than California, Florida, Texas): **140,000+ jobs** across Maryland, mostly high-paying, contributing **over \$1B to the state tax base**
- **9,600 aerospace-related businesses** in Maryland, to include **15 of the top 20** aerospace companies nationwide (*see reverse side*)
- Home to National Investments and Critical Assets
 - Climate Change: NASA Goddard and NOAA make up the largest collection of Earth Science Experts in the world
 - Understanding the Universe: Space Telescope Science Institute, JHU Applied Physics Lab, and NASA Goddard make Maryland a hub for astrophysics & planetary science
 - Advanced Air Mobility Leader: NAVAIR Pax River, UMD UAS Research & Ops Center, Army Research Lab are pushing the next generation of air traffic management and drone usage

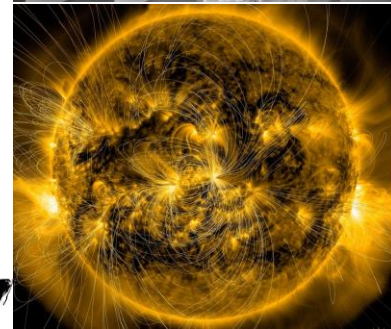
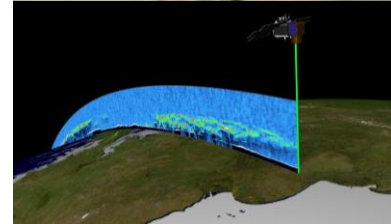
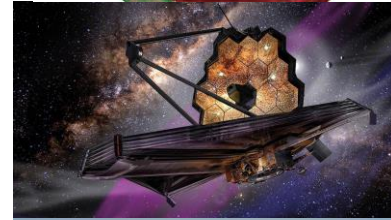
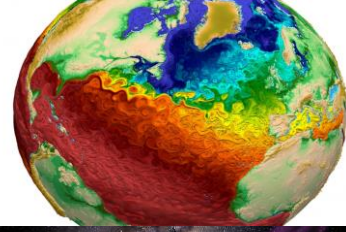
Problem: Maryland Aerospace Is At Risk

- Losing STEM graduates to other states
 - While we're investing in "Blueprint for Education", we **lose over 60% of UMD students** upon graduation
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- Losing Aerospace revenue to other states
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Solution: Maryland Aerospace & Technology Commission

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- Established this year (*unfunded*) with ability to fund in the future

SB 516 Sponsor: Senator Alonzo Washington
HB 685 Co-sponsors: Kevin Harris, Mark Chang
Contact: Georgie Brophy, mdaeroalliance@gmail.com





MARYLAND

AEROSPACE KEY FACTS AND FIGURES

#1

in the nation for highest concentration of aerospace engineers



MAJOR INDUSTRY EMPLOYERS

- › a.i. solutions
- › BAE Systems
- › The Boeing Company
- › GE Aviation
- › Global Science & Technology Inc.
- › Hughes Network Systems
- › Lockheed Martin Corporation
- › Northrop Grumman Corporation
- › Rockwell Collins
- › Science & Technology Corporation
- › SigmaSpace
- › Sierra Nevada Corporation
- › Textron
- › UAV Solutions

\$17.7 billion



Maryland ranks first in the nation in total federal obligations for research and development

142,280



Employees in the state's aerospace and defense sector, with wages totaling **\$16.21 billion**

9,600



Industry-related businesses generate \$37.8 billion in economic activity (home to 15 of the top 20 aerospace and defense companies)



MAJOR MILITARY INSTALLATIONS

- › Joint Base Andrews
- › Naval Air Station Patuxent River
- › Fort Meade
- › Fort Detrick



HEADQUARTERS

- › Lockheed Martin Corporation's corporate headquarters is located in Bethesda
- › The National Oceanic and Atmospheric Administration is headquartered in Silver Spring
- › The Naval Air Station Patuxent River serves as the headquarters for the Naval Air Systems Command and the F-35C stealth fighter
- › NASA Goddard Space Flight Center, located in Greenbelt, is the largest earth and space science research organization in the world



3

*Aerospace Engineering Programs



RESEARCH FACILITIES

- › Arnold Engineering Development Center Hypervelocity Wind Tunnel 9
- › Johns Hopkins University Applied Physics Laboratory
- › US Army Research Laboratory - Aberdeen Proving Ground
- › US Army Research Laboratory - Adelphi Laboratory Center
- › US Naval Surface Warfare Center - Carderock
- › US Naval Surface Warfare Center - Indian Head

REFERENCES

<https://open.maryland.gov/open4business/aerospace-defense/>

* ABET accredited school and/or AIAA Student Branch



The American Institute of Aeronautics and Astronautics (AIAA) comprises nearly 30,000 members that span over 100 countries. They are engineers, researchers, scientists, entrepreneurs, educators, and students. They drive economic growth, discoveries, and innovations that help the aerospace community accomplish what was once thought impossible.

AIAA delivers extensive technical expertise and policy guidance to decision makers at the federal and state levels, serving as a reliable resource on a full spectrum of aerospace issues.

AIAA CAN HELP PROVIDE:

- › One-on-one meetings between technical experts and lawmakers to offer background on key aerospace issues
- › Informational seminars on key issues for groups
- › Expert testimony before lawmakers
- › White papers on specific aerospace topics

aiaa.org/advocacy

SB0516_MACC_FWA.pdf

Uploaded by: Drew Jabin

Position: FWA

Senate Finance Committee

February 16, 2024

**SB 516 - Economic Development - Maryland Aerospace and Technology
Commission****Position: Favorable with Amendments**

The Maryland Association of Community Colleges (MACC), representing Maryland's 16 community colleges, supports **SB 516** with a friendly amendment. This bill would establish the Maryland Aerospace and Technology Commission in order to promote innovation in the fields of space exploration and commercial aerospace opportunities. MACC respectfully asks for a seat at the table and to be amended in as a member of the Commission.

Community colleges are engines of economic growth, fueling innovation, entrepreneurship, and job creation within our state. Through collaboration with industry partners and government agencies, community colleges help drive economic development in the aerospace and technology sectors, benefiting our communities and the state as a whole. By including community colleges in this Commission, Maryland can ensure that our programs are aligned with industry needs, providing students with the skills and training necessary to thrive in ever evolving sectors.

Community colleges in Maryland have a significant role to play in advancing the goals of this Commission and urge you to consider including us as integral members. Accordingly, MACC urges the Committee to issue a **FAVORABLE** vote on **SB 516** with **AMENDMENTS** to include a representative of the Maryland Association of Community Colleges as a member of the Commission.

Please contact Brad Phillips (bphillips@mdacc.org) or Drew Jabin (djabin@mdacc.org) with questions.

028 LOSA SB 516 CSMC signed.pdf

Uploaded by: Randy Guy

Position: FWA



**Senate Bill 516
Economic Development –
Maryland Aerospace and Technology Commission**

SUPPORT WITH AMENDMENTS

February 13, 2024

The Honorable Pamela Beidle
Finance Committee
3 East, Miller Senate Office Building
11 Bladen Street
Annapolis, MD 21401


Dear Chairman Beidle:

The Commissioners of St. Mary's County **SUPPORT WITH AMENDMENTS HB 685 / SB 516 - Economic Development - Maryland Aerospace and Technology Commission** which is being heard in the Ways and Means and Finance committees. The purpose of this bill is to "promote innovation in the fields of space exploration and commercial aerospace opportunities, including the integration of space, aeronautics, and aviation industries." The Commissioners of St. Mary's County support this goal, considering the prominent role the aviation and aerospace industries play in our local economy and the contributions our local industries make to the state economy as a whole.

Anchored by institutions such as Naval Air Station Patuxent River and the St. Mary's County AeroPark Innovation District, the St. Mary's County and Southern Maryland aviation and aerospace industries are significant components of the greater statewide industry. We believe the Aerospace and Technology Commission and the Maryland Aerospace Research and Space Economy Collaborative that will be established by this bill would benefit from including representatives of these institutions and their allied industry associations.

We support HB 685 / SB 516 with amendments that would secure such representation and request a favorable with amendments report. We appreciate the introduction of this legislation and believe that, with the amendments suggested, this legislation will benefit all of Maryland. We look forward to working with you on this and other initiatives throughout the session.

Sincerely,
COMMISSIONERS OF ST. MARY'S COUNTY


James Randy Guy, President

CSMC/AB/sf
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Page 2
The Honorable Pamela Beidle
February 13, 2024

Cc: Senator Jack Bailey
Delegate Todd Morgan
Delegate Matthew Morgan
Delegate Brian Crosby
Commissioner Mike Alderson, Jr.
Commissioner Eric Colvin
Commissioner Michael Hewitt
Commissioner Scott R. Ostrow
David Weiskopf, County Administrator
John Sterling Houser, Deputy County Attorney

Senate Bill 516 2024.pdf

Uploaded by: Tom Garrison

Position: FWA

Hi, I'm Tom Garrison, president of the Southern Maryland Navy Alliance.

Since 1992, the Alliance has supported its regional DoD community., originally established to help survive BRAC proceedings. Today, we work in partnership with the **US Naval Air Systems Command**, and the **Naval Air Warfare Center- Aircraft Division**, aboard Naval Air Station Patuxent River.

When you visit Southern Maryland and NAS Pax River, you arrive at the busiest flight test center ***in the world***, with 33,000 employees, and a \$6.3B dollar annual impact to our state. Leveraging the most sophisticated simulation environment anywhere, we are supporting the manned & autonomous aviation industries, at the highest technical standard. Our diversified aerospace sector supports your Navy, as well as providing solutions for NASA, SpaceX, Space Force, and others.

You'll also see the **AeroPark** Innovation District, home of the University of Maryland's UAS Research & Ops Center (UROC). AeroPark is also home to the Southern Maryland Autonomous Research & Technology facility (SMART), an \$86 million, 84,000-square foot academic research site, and most recently, the MATRIX Lab, an unmatched autonomous systems research site.

Considering these resources, Southern Maryland must be part of conversations to update a strategic plan for the promotion of space, aeronautics, and aviation economic development in the State of Maryland.

We respectfully request that representation from Southern Maryland be **included on the Maryland Aerospace and Technology Commission. We nominate for Commission service, the **President of the Southern MD Navy Alliance and the CO, Patuxent River.****

If excluded from Maryland's Aerospace & Technology Zone, Southern MD's public and private sector entities will face competitive disadvantages, just when *premier cooperation* is the preferred and critical outcome.

Please give a favorable report **on SB516**, recommending **amendments to include two Southern MD representatives on the new commission**, to represent, support, and promote **ALL** of Maryland's aerospace stakeholders.

240216 Testimony FWA SB516.pdf

Uploaded by: Yaakov (Jake) Weissmann

Position: FWA



**Senate Finance Committee
Senate Bill 516
Economic Development - Maryland Aerospace and Technology Commission
February 16, 2024
Letter of Support with Amendments**

Chair Beidle, Vice Chair Klausmeier, and members of the committee, thank you for the opportunity to offer testimony of Favorable with Amendments on Senate Bill 516.

UMBC is a dynamic public research university integrating teaching, research and service to benefit the citizens of Maryland. As an Honors University, the campus offers academically talented students a strong undergraduate liberal arts foundation that prepares them for graduate and professional study, entry into the workforce, and community service and leadership. UMBC has over 14,000 students, in both undergraduate and graduate programs, representing Marylanders throughout the state.

UMBC has a long relationship with NASA, with ongoing work over the last 25 years. This work includes UMBC's Goddard Earth Sciences Technology & Research Center (GESTAR II), Earth & Space Institute (ESI), Goddard Planetary Heliophysics Institute (GPHI), and our Center for Space Sciences and Technology (CSST). This work, which included a rocket launch last week on a PACE mission to study Plankton, Aerosol, Cloud, and Ocean Ecosystem. UMBC's HARP2 Polarimeter will collect global data on aerosols and clouds. Overall, UMBC is currently ranked as the #16 academic institution in the country in receiving NASA funding.

Senate Bill 516 takes an important step in creating a Maryland Aerospace and Technology Commission to ensure that Maryland maximizes the economic development opportunities that have developed at UMBC, Johns Hopkins University, and University of Maryland, College Park due to our strong partnerships with NASA. A strategic plan for the promotion of space, aeronautics, and aviation economic development can pay long-term benefits to Maryland's economy, and ensure a long-term competitive edge for the state.

As a leader in NASA funding, and a long-time partner of NASA, UMBC would request to be amended into the legislation in Section 10-1103 to serve on the Board of Directors of the Commission together with our already named academic partners. Including UMBC would include the only Public R1 University in the Baltimore region, and would ensure that the relationships and insight from our leaders can be to Maryland's benefit.

With this amendment, we urge a Favorable Report on Senate Bill 516.