St. Mary's County Airport Advisory Board 2023 Annual Report

January 22nd, 2024

st. mary's county REGIONAL AIRPORT

James Alexander, Chairman Robert Lightstone, Vice Chairman George Hill, Secretary Albert Babcock John Eid Henri Sahut Kevin Suggs Robert Zaorski

Appointed Ex-Officio Members: Allison Swint, Deputy Director Transportation and Airport Manager LCDR Sam Hughes, NAS Patuxent River

> Assigned Technical Advisor and Staff Support: Gary B. Whipple, P.E.

St. Mary's County Regional Airport (2W6)



Aviation is in the DNA of St. Mary's County, and it is rooted even deeper in the history of this place where exploration and discovery form the foundation of Maryland itself. It is here that military and civil aviation launch dynamic collaborations. Today, the connection between Naval Aviation PAX River, our centralized and modern airport, and our strategic location in the state and nation position us to take flight in ways never before imagined.

INTRODUCTION

PURPOSE AND GOALS OF THE BOARD

The Bylaws of the St. Mary's County Airport Advisory Board (AAB), adopted January 15th, 2019, govern the purpose, composition, and procedures of the Board. The purpose of the Board is to "advise the Commissioners of St. Mary's County concerning the development and management of the St. Mary's County Regional Airport." This broad purpose encompasses airport operations, planning, economic development, responsible growth, and identification of the needs and best interests of the citizens of St. Mary's County. Specific goals of the Board are:

- \rightarrow Ensure safe and secure facilities for general aviation;
- \rightarrow Promote safe ground and flight operations;
- Maintain a friendly environment for the aviation community and the general public;
- Support responsible economic development and increased revenue;
- Provide an observation area and pilot lounge for the benefit of the airport community and general public;
- Complete the extension of the runway to meet or exceed Federal Aviation Administration standards for the Airport Reference Code (B-II large, aircraft less than 12,500 lbs);
- Protect and enhance airspace and approaches;
- Ensure that commercial, private and public development in and around the airport meets standards with respect to safety and noise;
- Promote the sustainment and growth of general aviation through local activities that showcase the airport to the general public, introduce youth to potential aviation careers, and support Science, Technology, Engineering, and Math (STEM) education;
- + Focus on identifying and resolving airport-related issues in a timely manner.

Mission Statement

"To satisfy aviation demand and promote airport development that both integrates with the community and serves the region's general aviation needs."

BOARD COMPOSITION

The Board currently consists of eight volunteer members appointed by the Commissioners of St. Mary's County, plus one ad hoc member from Patuxent River NAS. John Eid was welcomed as a new member of the Board this year. Board officers are elected by the Board each January or as required. The Board meets on the fourth Monday of each month in the conference room of the Captain Walter F. Duke Terminal Building in California, Maryland, unless otherwise indicated on the county website or a special meeting is necessary.

CHART OF ATTENDANCE

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The Airport Operations Division of the Department of Public Works & Transportation (DPW&T) provides administrative staff support and valuable technical input to the Airport Advisory Board. The Airport Manager, Allison Swint, serves as an ex-officio member of the Board (and also became President of the Maryland Aviation Council in late 2023). The St. Mary's County Building Services Division assists the Airport Manager by providing facilities maintenance services. A Private-Public relationship for airfield operations was established via the 2005 Operating Agreement with the primary Fixed Base Operator (FBO), RCS Services LLC, providing daily operational support.

Mr. James Gotsch, Director of Public Works and Transportation, is assisted by outstanding staff support which he directs through his deputy, Mr. Gary Whipple. Allison Swint manages day-to-day airport operations with the assistance of Mr. David Gately. The Board wishes to extend its recognition of the County Highways & Building Services Divisions of the DPW&T, Department of Recreation & Parks (snowplowing), Department of Economic Development (DED), Department of Land Use & Growth Management (LUGM), Department of Finance, Civil Air Patrol (CAP), Experimental Aircraft Association (EAA), and fixed-based tenants on the airfield for their continued assistance over the past year.

MESSAGE FROM THE AIRPORT ADVISORY BOARD

The St. Mary's County Regional Airport is a hidden treasure to both the County and the broader Southern Maryland region. It's the only public use airport in the region not inside the Washington, DC Special Flight Rules Area (SFRA), which means fewer security restrictions and easier access to the sky. This is especially important for a region with no commercial air service, no interstate highways, and no passenger rail.

The airport has been growing dramatically in the past few years, and a runway extension scheduled for completion in 2024 will allow access by larger aircraft. Yet most regional residents don't use the airport (or even know it exists) because it doesn't offer them any benefit. One potential solution to raise the airport's profile and value, better serve the local public, better utilize the airport and terminal building, and lead the way in advancing cutting edge technology is to establish a vertiport for electric Vertical Takeoff and Landing (eVTOL) air taxis. Flying from St. Mary's Airport, these revolutionary new aircraft could quickly and quietly whisk passengers to Baltimore or Reagan airports, downtown Washington, DC, the Eastern Shore, or other regional destinations. Economic benefits could be significant.

This concept, known as Advanced Air Mobility (AAM), has seen accelerated growth and development in the past year. The FAA's goal is to "safely and responsibly usher in this new era in aviation". Select milestones include:

- Aug 2022: White House holds AAM Summit
- Sep 2022: FAA issues vertiport design standards
- Nov/Dec 2022: FAA issues proposed airworthiness criteria for eVTOLs
- May 2023: FAA issues updated blueprint for air taxi operations in urban areas
- Jun 2023: FAA issues proposed rule for training/certifying powered lift pilots
- Jul 2023: FAA issues AAM implementation plan "Innovate28"
- Aug 2023: FAA holds first AAM Summit (in Baltimore)
- Nov 2023: USAF & NASA announce creation of AAM digital operations center
- Nov 2023: FAA initiates monthly AAM webinar series on implementation
- Dec 2023: Association for Uncrewed Vehicle Systems International (AUVSI) launches advocacy campaign to help states prepare for AAM

Manufacturers have been busy with flight testing, and the FAA expects the first eVTOL aircraft will receive airworthiness certification in 2025 and air taxis will be in operation for the Summer Olympics in Los Angeles in 2028. Virginia received FAA conditional approval for the nation's first public-use vertiport in September 2023. Virginia also organized the AAM Multistate Collaborative in November 2023 (Maryland not currently a member) to discuss state-level policies and infrastructure needed.

Now is the time for St. Mary's County to seriously consider the costs and benefits of a vertiport at our airport. We may not have the luxury of "wait and see what happens" if the AAM industry evolves as rapidly as some predict. The airport is an ideal location, as it already has aviation infrastructure and an underutilized terminal building. If research

indicates a demand signal from the local population, then planning should proceed quickly. This is a natural evolution for the airport which is already a focal point for innovative research and engineering, technical education, autonomous and uncrewed systems, and other aerospace technology.

To be successful with any future plans for the airport, the County must move forward with one voice in a coordinated effort that balances the unique considerations specific to aviation with economic development considerations. An airport without businesses is not beneficial, but neither is business development without informed consideration to keeping the airport viable which may, over time, have a negative impact. A recent cautionary tale is Torrance, CA, where the city council banned touch and go landings because the economic development around the busy airport led to noise complaints. This is detrimental to the flight schools there trying to conduct training to alleviate the severe national pilot shortage. While the original intent was probably not to close the airport in favor of other priorities, it's possible they're on that path as others before them.

We should keep this in mind as we consider future possibilities for our airport, and seek to hear the perspectives and expertise of all stakeholders. A team effort will help make the future brighter for all concerned.



EXECUTIVE SUMMARY

The St. Mary's County Airport Advisory Board (AAB) submits this 2023 annual report in accordance with Bylaws Article III. The report includes the following highlights:

- The County should plan now for a potential future vertiport at the airport for Advanced Air Mobility (AAM) electric air taxi operations to serve regional citizens and better utilize the airport and Terminal building.
- County government should have a unified vision and plan for the future of the airport and facilities, and should work together to achieve it. This should be reflected in the next revision of the Airport Master Plan and Airport Layout Plan.
- Funding should be provided to replace the Automated Weather Observing System (AWOS) and furnish the pilot's lounge, reinstall aviation history displays and memorabilia, and upgrade internet in the Terminal. \$380K is available for a gazebo and landscaping at the Terminal, but nothing for these airport basics.
- Environmental impacts of the discovered garbage dump on the west end continue to cause both time and money delays to the completion of the runway extension. The extension is now anticipated to be completed by the end of 2024, including the taxiway, lighting, and Precision Approach Path Indicator (PAPI).
- → Hangar Z was completed in March, the 18th and final building completed by S. Hunt Aero LLC since 2015. Land for additional airport construction by other developers is available at the west end. The Dept of Economic Development has contracted with the Maryland Economic Development Corporation (MEDCO) to explore options. The Board suggests inclusion of a maintenance training facility to help alleviate the nationwide shortage of aircraft mechanics.
- The AeroPark Innovation District Board of Advisors was established in November with the noticeable absence of the Airport Manager included in the membership. This should be remedied so all relevant factors are understood when planning.
- The second Student UAS Competition held at 2W6 in June included US and International competitors. This is planned to be an annual event at 2W6.
- Notable airport activities advanced technology; stimulated research, development, and innovation; promoted general aviation and STEM education; and trained pilots to help meet a nationwide demand. Local youth and the general public are encouraged to visit the airport.
- → 2W6 was the victim of an organized crime ring in January, where several aircraft on the west ramp had expensive avionics stolen. The FBI investigated. The event serves as a reminder for vigilance.

- Economic Impact Based upon the Maryland Aviation Administration (MAA) 2018 economic impact report, business revenues exceeded \$35M with 499 direct and indirect jobs producing more than \$32M in local income and \$6M in tax revenue. These figures have likely grown over the past few years. Due to MAA funding issues, the next economic impact report will likely be available no earlier than December 2024.
- Annual Budgeting Capital Budget Improvements remain on track with the 2002 Master Plan. In 2023, the airport operated at a net gain of \$74,987 when comparing direct operational expenses and direct revenues. This is the fifth consecutive year of operating at a net gain.
- Airport Activity and Capacity 2019 MAA data show more than 40,000 operations annually, an increase of 13.1% from previous data. Due to MAA funding issues, the next report is TBD. A total of 218 aircraft are based at the airport. The airport is currently at aircraft storage hangar capacity with 63 aircraft owners on the waiting list for occupancy with 13 of them having an immediate need. A hangar occupancy review to identify non-registered aircraft and non-aeronautical uses of hangars should free up additional hangars for those on the waiting list. Outdoor tie-downs remain available.

HIGHLIGHTED ACTIVITIES AND ACCOMPLISHMENTS FOR 2023

STUDENT UNMANNED AERIAL SYSTEMS COMPETITION

For the second time, the SUAS Competition, hosted by RoboNation, was held at 2W6 on June 20th. A total of 72 teams from around the world competed. New this year, the flight portion of the competition was completed in one day, minimizing runway closure and other airport impacts.



This competition, held annually since 2002, fosters interest in Unmanned Aerial Systems (UAS), stimulates interest in UAS technologies and careers, and engages students in a challenging UAS mission.

Students are required to design, integrate, report on, and demonstrate a UAS capable of autonomous flight and navigation, remote sensing via onboard payload sensors, and execute a specific set of tasks.

The 2024 event is planned for June $25^{th} - 27^{th}$.



AIRPORT CONSTRUCTION & IMPROVEMENTS

Environmental impacts of the discovered garbage dump on the west end continue to cause both time and money delays for the completion of the runway. The extension is now estimated to be completed by the end of 2024 and will include the runway, taxiway, lighting, and Precision Approach Path Indicator (PAPI).

Airport Development LLC has made structural upgrades and added concrete floors to Hangar A, the oldest T-hangar building on the airport. Work continues into 2024.

The fencing was replaced along Airport Rd, and brighter parking lot and ramp lights were added at the Terminal Bldg to increase safety.

Inside the Terminal, sound panels were added to reduce the echo. While Terminal renovations were completed in May 2022, the building has a sterile look and feel since none of the history displays or aviation memorabilia were put back on display. In addition, the pilot lounge still remains mostly empty due to lack of funding for basics such as furniture and a flight planning computer to check weather, review NOTAMs, etc. The Airport Manager's survey of local pilots indicated a desire for a comfortable place for flight planning, crew rest, camaraderie, and relaxation.

Visit nearly any small local airport and you'll find an inviting space that serves the aviation community and showcases the unique aviation heritage of the region. The Terminal Building must first and foremost serve the aviation community, particularly if a vertiport there comes to fruition. A moderate amount of additional County funding would go a long way in making the facility more inviting and useful.

BIRD DOG BISTRO

The Bird Dog Bistro, located in the Terminal building, has been open for more than a year now. Current hours are Tuesday through Saturday for lunch from 10:00 AM to 2:00 PM. They have also been opening for other events such as Sunday Farmer's Market days at the airport, and have catered other on and off-site events. Business is good but many people still don't know about it. New signs at the airport entrance and terminal building have helped with advertising.

https://www.birddogbistro.com

S. HUNT AERO, LLC

S. Hunt Aero, LLC is a private entrepreneur development company with a vested market-driven approach to excellence in developing aviation-related facilities at St. Mary's County Regional Airport.

Hangar Z was completed and occupied by AirTec in March 2023. This is the 18th and final building completed by S. Hunt Aero since 2015. Land for additional airport construction by the County or other developers is available at the west end but is subject to engineering and approval by the County. The Department of Economic Development has contracted with the Maryland Economic Development Corporation (MEDCO) to explore options.

S. Hunt Aero's focus is now on facility maintenance, upgrade, and leasing. Several taxilanes between hangars were repayed and repainted in the Spring, along with the County hangar parking lot. Hangar BB was upgraded in Fall 2023 and is now occupied by Rapid Response Research Group Inc (3RGI).



AEROPARK AIRPORT INNOVATION DISTRICT

AeroPark combines business, industry, education, and research centered on the St. Mary's County Regional Airport. Per the Department of Economic Development (DED), "This effort provides a unique opportunity to strengthen and expand the local economy, deliver education and employment opportunities, and create a world-class research and innovation hub."

\$380,000 is available for parking and landscaping upgrades outside the Terminal including a gazebo.

DED has contracted with the Maryland Economic Development Corporation (MEDCO) to provide recommendations for hangar construction ideas that could be developed for the West End of the airport. This initiative could provide more hangar capacity and a worthwhile use of available land. The Board suggests a maintenance training facility would be valuable to help alleviate the nationwide shortage of aircraft mechanics.

DED established an AeroPark Board of Advisors and held the inaugural meeting on November 16th. There are innovation districts across the nation, but it was noted that having an airport at the center of one is unique and brings additional considerations regarding development. The Airport Manager has the expertise and experience to ensure compliance with FAA and other requirements, protect FAA funding, and address other aviation-related issues and concerns, but was noticeably absent in the membership of the AeroPark Board of Advisors (and other airport-related discussions). This needs to be remedied so that all relevant factors are understood when planning.

AeroPark updates from DED were added as a permanent AAB meeting agenda item in February to help ensure better communication and coordination.



AIRPORT DATA

SAFETY & SECURITY

The Maryland Aviation Administration (MAA) conducted their annual licensing inspection on April 6th, 2023, without any significant issues noted.

The addition of the NAS Patuxent River Air Traffic Control Facility Officer as an ad-hoc member of the Board has been quite valuable for increasing safety and communication between the two airfields. Working together, the 2018 Letter of Agreement for Coordinating Use of R-4007 Restricted Airspace was revised and posted on the County airport website in October. During this process, updates were made to the FAA Chart Supplement and AWOS recording to improve safety, situational awareness, and traffic deconfliction.

The FAA Safety Team (FAASTeam) mission is to "lower the Nation's aviation accident rate by conveying safety principles and practices through training, outreach, and education; while establishing partnerships and encouraging the continual growth of a positive safety culture within the aviation community." The FAASTeam Program Manager at the Washington Flight Standards District Office (FSDO) provides national policy and guidance for the southern Maryland region. Local FAASTeam Representatives are James Alexander, Jacque La Valle, and Bill Posnett. Of note, the FAASTeam hosted its third annual pilot forum with NAS Patuxent River Air Traffic Control on June 28th to improve communication, increase traffic awareness and deconfliction, and enhance safety between 2W6 and Pax River air traffic. The event was well received with 27 people attending.

The Hollywood Volunteer Fire Department visited the airport on August 22nd for a refresher on aircraft and airport hazards so they are better prepared to respond to airport incidents if needed.

The voluntary Aircraft Owners and Pilots Association (AOPA) Airport Watch Program continues to enhance safety, security, and a sense of ownership among airport tenants. The program features a centralized nationwide toll-free hotline (1-866-GA-SECURE) for reporting and responding to information provided by the airport community. In 2023, the Office of the Sheriff responded to several reported security-related matters at the airport, the most serious involving theft of avionics equipment from airplanes in tie-down locations on the west ramp in January. The FBI investigation revealed that this was an organized crime ring that specifically targets airports on the I-95 corridor. While these incidents have been few, it emphasizes the importance of watchfulness by the airport community.

ANNUAL BUDGETING

Since 1978, the Federal and State Aviation Administrations have funded 32 grants at the St. Mary's County Regional Airport in excess of \$34 million. FAA funding is 90% with the State and County providing 5% each. However, beginning in FY2021, the State of Maryland will only provide the 5% match for construction costs due to significant State budget constraints. Planning, design and construction management will not be funded by the State.

The draft FY2025 Capital Budget Master Plan Improvements include:

- ✤ \$3M in prior approval for the Hangar Access Road extension (Local funding).
- \$5.4M in prior approval for Phase 3 airfield construction (FAA Airport Improvement Program, 100% federally funded under the Coronavirus Aid, Relief, and Economic Security (CARES) Act).
- \$1.075M in prior approval for perimeter fence replacement and airfield and ramp pavement repairs (Local funding).
- \$120,000 in prior approval for a pavement management study in advance of existing runway rehabilitation.
- FY2024 funding \$380,000 for terminal exterior improvements and \$750,000 for additional solid waste removal costs.
- ✤ FY2025 local funding of \$500,000 for additional maintenance and repair and \$285,000 for additional property acquisition and an Airport Property Map update.
- \$500,000 for Airport Master Plan update and \$600,000 for Runway Rehabilitation design in FY2026.
- ✤ \$7,000,000 for Runway Rehabilitation construction in FY2027.
- ✤ \$680,000 for Access and Security Improvements in FY2028.

The airport also received an additional:

- \$59,000 in discretionary funding through the American Rescue Grant Program (ARPG), which will be applied to operational expenses.
- \$23,000 in discretionary funding through the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA), which will be applied to staffing for additional janitorial and disinfection requirements.

The table below presents the costs and revenue associated with maintaining and operating the airport. Expenses are grouped by type. Revenues include tie-down and hangar rentals, office space rent, and fuel sales.

Facility	2019	2020	2021	2022	2023
Expenses					
Facility	\$ 25,359.22	\$ 12,076.30	\$35,511.48	\$20,395.39	\$6,108.82
Maint/Utility					
Electric (incl.	\$ 20,724.16	\$ 18,336.77	\$21,917.01	\$23,778.43	\$26,905.29
Nav Aids &					
Lighting)					
Airport Lighting	\$ 833.56	\$ 1,615.44	\$1,200.01	Combined in	Combined in
				above	above
Liability	\$ 6,160.00	\$ 6,160.00	\$ 7,700.00	\$ 7,700.00	\$7,700.00
Insurance					
Property	\$ 3,479.00	\$ 3,847.00	\$ 3,980.00	\$ 3,980.00	\$5,613.00
Insurance					
(structure)					
Grounds	\$ 11,762.00	\$ 10,495.00	\$ 7,626.00	\$ 3,183.00	\$1,500.00
Runway/Taxiway	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Maint.					
Total expenses	\$ 68,317.94	\$ 52,530.51	\$ 77,934.50	\$59,036.82	\$47,827.11
Income					
Direct Revenue	\$ 84,358.79	\$122,009.68	\$119,724.19	\$127,077.12	\$122,814.23
Gain/Loss					
Asset / (Liability)	\$ 16,040.85	\$ 69,479.17	\$41,789.69	\$68,040.30	\$74,987.12

ECONOMIC IMPACT

The MAA issues an economic impact report every three years. Below is a graphical depiction of the economic impact at St. Mary's County Regional Airport as of December 2018. Due to MAA funding issues, the next economic impact report will likely be available no earlier than December 2024.



AIRPORT CAPACITY

The FAA's National Based Aircraft Inventory assists the FAA in administering its various national airspace planning programs. The data update ensures that all planes are accounted for by location and tail number and is a requirement for receiving continued Federal and State funding. The FAA required each airport to review and update their based aircraft inventory by December 31st, 2023. As of that date, 218 total aircraft are recorded in the inventory: 212 fixed wing (including 181 single-engine, 19 multi-engine, eight gliders, three jets, and one ultralight) and six rotary wing. Total airport capacity is 74 tie-down spaces, 123 general aviation hangar spaces, and 15 commercial hangars (including the county hangar). The general aviation hangar waiting list, as of December 31st, 2023, shows 63 requests for space with 13 of those for immediate occupancy. A review by hangar leasing companies to identify non-registered aircraft and non-aeronautical uses of hangars will continue into 2024 and should free up some hangars for those on the waiting list. While outdoor tie-downs are available, there continues to be a shortage of hangar facilities for indoor aircraft storage and that is unlikely to change due to land availability.

AIRPORT OPERATIONS

Each take-off and landing is considered a separate aviation-related operation. The MAA conducts a study every three years for aircraft operations at all Maryland airports. A new study was conducted in 2019 and St. Mary's County Regional Airport had 40,263 operations in 2019, an increase of 13.1% over the previous report. No study was done in 2022 due to COVID. Due to MAA funding issues, the next study is TBD.

The following data from February 2022 is based on local estimated changes from the 2019 MAA study. No update was made for 2023.

Annual Aircraft Operations

Local GA	23,380
Transient GA	15,589
Air Taxi	1,126
Military	216
Total Operations	40,308

AIRPORT MAINTENANCE

With an increasing number of based and transient aircraft, access to general aviation maintenance providers at the airport remains extremely important. There is a current and forecast shortage of certified Airframe and Powerplant (A&P) mechanics throughout the aviation industry; with community support and commitment a maintenance training program in St. Mary's County may be possible. The West End development being planned would be an ideal location on the airport.

OPERATIONS EQUIPMENT AND NAVIGATION AIDS

- The Automated Weather Observing System (AWOS) is inspected three times per year, one of which is completed by the FAA. The last FAA inspection was in October 2023. The AWOS continued to struggle in 2023 with limited range (despite a replacement of the system's antenna) and recurring outages. AWOS status is a key safety item for the airport. MAA indicates we have the oldest AWOS in the state. The Airport Manager has received spare AWOS equipment from Montgomery County Airpark in Gaithersburg which will keep 2W6 operational for now. A new AWOS is still needed. The MAA continues to fund the AWOS connectivity to the national FAA weather database.
- ✤ For Instrument Flight Rules (IFR) operations, the airport is serviced by nonprecision RNAV GPS approaches for both runways 11 and 29.
- While a GPS WAAS signal is available via Channel 70502 W11A, the GPS approaches have not been developed for CAT II approach minimums and are currently restricted to a decision height of 298 feet Above Ground Level (AGL).
- Automatic Dependent Surveillance-Broadcast (ADS-B) Out is an FAA requirement as of January 1st, 2020 for all civil aircraft that operate in airspace requiring a Mode C transponder. Aircraft equipped with ADS-B In can see ADS-B traffic on a cockpit display to enhance situational awareness and safety.

ADDITIONAL FACILITIES ON THE AIRPORT





UMD Uncrewed Aircraft Systems (UAS) Research and Operations Center (UROC)

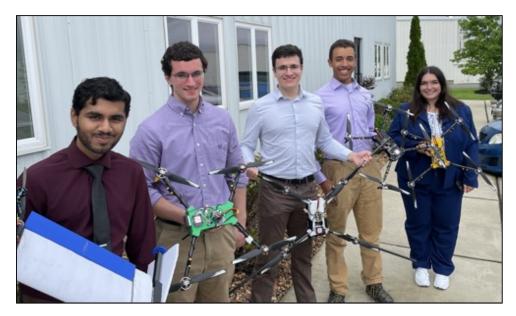
The UMD UROC is dedicated to facilitating the safe and effective use of UAS in research and educational settings; providing expert technical and operational support to public and private entities employing UAS in new and innovative ways; and to advancing the state of the art in UAS and their seamless integration into the National Airspace System. For nine years, it has enabled research in development or application of technology involving UAS from a wide variety of government, academia, and industry customers.



Highlights this year included flights in Nome, Alaska in March to collect data for a NOAA sea ice study, followed by a second trip to Hawaii in April for a NASA/NOAA project to validate data for ground station commissioning of a new generation international Search and Rescue (SAR) satellite system. April also saw flights for testing components for terminal guidance of spacecraft in support of an upcoming lunar landing.



In addition to the intern program, the summer months were busy with research and test flights in support of a large, multi-year project on applied aerial autonomy for long distance collaborative operations involving UMD and the Army Research Lab. This included design and manufacture of a small family of low-cost and versatile research drones. The summer/fall period ended with UROC conducting an electric Vertical Takeoff and Landing (eVTOL) Technology Demonstration on behalf of NAVAIR PMA-263 over three weeks in September and October. This was the third such tech demo done in the past few years, with a fourth planned in early 2024. UROC also conducted STEM outreach events and began work on several projects related to wildfire detection, observation, and response.



The Chesapeake UAS Route Network (CURN) project made significant progress this year, with \$1.3M in funding secured. CURN is envisioned to allow routine transit of civil, public (i.e. government), and military UAS between various locations in the Chesapeake Bay region in non-segregated airspace, fully integrated with crewed aircraft in the National Airspace System. Initial test flights are planned in 2024.

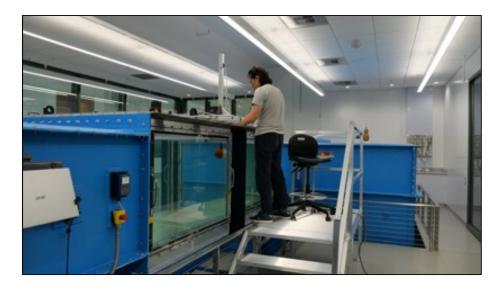
Additionally, UMD UROC developed and implemented a Safety Management System (SMS) to ensure effective risk management and to protect the organization from unacceptable risks. An SMS is mandatory for US commercial airlines and is gaining more traction in other parts of the aviation industry.

UMD UROC will continue to be at the forefront of technical advancement and operational best practices during the rapid evolution of the uncrewed aircraft systems industry.



The University of Maryland MATRIX Lab and the University System of Maryland at Southern Maryland (USMSM)

The University of Maryland (UMD) MATRIX Lab is the hub for autonomous technologies and uncrewed systems research in Southern Maryland. Facilities including the Open Air-Land Lab, water tunnel, and anechoic chamber that support basic, applied, and operational research. The lab serves its industry, government, and academia partners as well as the people of Southern Maryland.



In the past year, the MATRIX Lab has expanded its research, adding one Assistant Research Scientist position and one Visiting Robotics Engineer position. It has also emphasized its commitment to education by offering its first short course called "How to Build, Fly, and Verify Autonomous Aerial Systems." As the lab continues to expand, it will host a UMD course. ENEE 419M, "Advanced Manufacturing Lab (AML)," is currently being offered on the College Park campus and will come to the USMSM campus in Fall 2024. The course teaches advanced fabrication skills to prepare a semiconductor manufacturing workforce for the future. It will bring in-demand skills and access to state-of-the-art technology to the Southern Maryland region. The AML will serve as a basis for future activities including research and industry and academia short courses.

Due to the prominence of autonomy in our defense and commercial sectors going forward, and the need to grow the workforce in that sector, the Maryland Economic Development Corporation and Deloitte hosted the Maryland Autonomy Summit at the USMSM SMART Building. Participants discussed how to make Maryland a leader in the autonomous technologies industry with Southern Maryland as a hub of research and education activity.



USMSM continues to grow its upper-level undergraduate and graduate level program options through its University System of Maryland partners, including new undergraduate programs and certificates in computer science, cyber security, and cloud computing, as well as master's degrees in nursing and special education, which started in Fall 2023.

Other programs that support the regional workforce needs are still offered: mechanical and electrical engineering, criminal justice (forensics), elementary education, human resources, and social work. USMSM is also a location for the collaborative endeavors that mark the region, bringing together the DoD, local industry, and academia.



TechPort Technology Collaboration

The key organizations at TechPort include:

- NavalX Southern Maryland's Tech Bridge focuses on unmanned aviation, autonomous systems, modeling and simulation, and live/virtual/constructive environments for training and test.
- Naval Aviation Systems Consortium (NASC)
- IMPAX A partnership between NAWCAD and the Georgia Tech Research Institute - Bridging the gap between technology and capability
- NAWCAD Technology Transfer Office (TTO)
- NAWCAD AirWorks

These organizations will support the innovation pipeline enabling stakeholders to source, curate, scan, incubate, prototype, validate, field and sustain critical technologies to address Naval Aviation capability gaps more timely and cost effectively.





St. Mary's Composite Squadron, Civil Air Patrol

From 2002 through 2023, the St. Mary's Composite Squadron of the Civil Air Patrol (CAP) met weekly at the Captain Walter Francis Duke Terminal Building. The National CAP Mission Statement is: Supporting America's communities with emergency response, diverse aviation and ground services, youth development, and promotion of air, space, and cyber power. CAP is a federally chartered corporation that is also the official Auxiliary of the United States Air Force. It is mainly made up of volunteers who dedicate their time to helping others and improving the community. Nationally, there are more than 25,000 cadet members and more than 35,000 adult members.



Cadet members range in age from 10 to 21 years old but mainly consist of middle and high school students between the ages of 12 and 18. Senior Members (adults) conduct the supervisory and execution roles of the organization. Aircraft and vehicles are provided to CAP units for their use in training and providing services in aerospace education, cadet training and emergency services and are funded by the United States Air Force. Many times, fuel is paid for by members out of their pocket.



Cadets are beneficiaries of many unique and valuable opportunities presented through CAP. The Cadet Program is an outstanding leadership opportunity, with many of the cadet leaders moving on to graduate from college and continue to be a positive influence in their community. There is no military commitment incurred by participating in the Civil Air Patrol, however, it does allow youth to see how a military style organization is structured and offers education and leadership activities to benefit the whole community, both here locally and elsewhere in the state and country. Many cadets have gone on to leadership roles in local companies, government, medical fields, or the military.



The St. Mary's Composite Squadron is also associated with the Esperanza Middle School Flight and the two organizations frequently operate together as one large unit. Membership consists of 150 members made up of 96 Cadets and 54 Senior Members. St. Mary's Composite Squadron conducted more than 250 events during 2023; some completed virtually. The squadron meets weekly on Wednesday nights where they conduct training in aerospace, leadership, core values, character development, and physical fitness.

St. Mary's members participated in disaster relief operations and contributed to the 151 lives saved by CAP in FY 2023. The squadron operates a corporate aircraft from the St. Mary's County Regional Airport to perform search missions and can use the aircraft and ground vehicles to locate Emergency Locator Transmitters (ELTs). Across many pilots, the squadron completed more than 55 qualification events in nine qualification levels. During 2023, the squadron supported nearly 100 orientation flights for cadets.



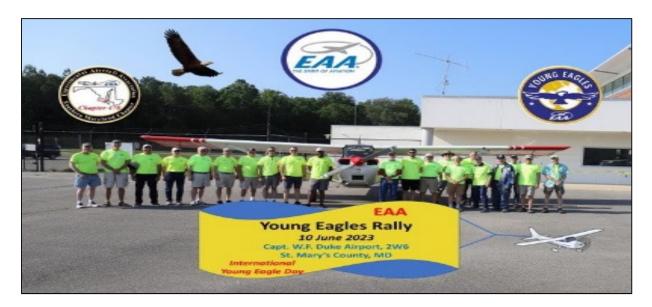
Other activities in 2023 included Flight Operations, Pilot training (more than 250 hours flown on squadron aircraft), STEM events, MD National Guard cook team support, aerospace education and leadership training, emergency services training, and tutoring events. The St. Mary's Squadron fields a CyberPatriot cyber defense competition team and were National Champions in the Academy of Model Aeronautics (AMA) UAS4STEM beginners' division competition at Oshkosh, WI in July.

In 2023 the CAP National Headquarters awarded the squadron a quality cadet unit award for their activities and achievements. This was the 14th consecutive year they have won that award. Of almost 1000 squadrons nationwide, only five had received that award 14 times.

The Walter Francis Duke terminal building is essential to the continued success of the St. Mary's Composite Squadron and the outstanding positive influence provided to our local youth.

Experimental Aircraft Association Chapter 478

EAA Chapter 478 conducted two major Young Eagles events and several mini Young Eagle events at the airport this year. Over 150 Young Eagles were flown by the chapter this year. A Young Eagles flight allows youth aged 8 to 17 to experience a free airplane ride, perhaps inspiring them towards a career in aviation. The Chapter was recognized for achieving Bronze Status by EAA. This status is only achieved by a small number of Chapters who participate in the various Chapter and HQ programs. The Chapter also hosted a successful open hangar night at the airport on June 20th.



The monthly VMC Club meetings were held at the terminal building conference room. Rich Byrnes does a fantastic job as organizer and facilitator. The VMC Club is a free pilot safety and proficiency forum open to all pilots; you do not need to be an EAA member to participate. It meets the third Saturday of each month at 9:00 am.



Commercial Services Provided at the Airport

- ABSI Aerospace and Defense: Expertise in Unmanned Systems Training and Curriculum Development, Acquisition and Program Management Support, Manned/Unmanned Test and Evaluation, and SecondSky Live, Virtual, Constructive (LVC) Training Environment.
- + Airport Development, LLC: Hangar Leasing.
- AIRtec Inc.: AIRtec is an aviation and technology integration company that specializes in maritime radar surveillance, range safety, airborne telemetry flight operations, priority air transport; Intelligence, Surveillance and Reconnaissance (ISR); maintenance, training, equipment integration and sensor operation. Several aircraft are based at 2W6.
- Huntington Ingalls Industries (formerly Alion Science and Technology): An engineering, science, and technology firm with expertise in Artificial Intelligence; Intelligence, Surveillance, Reconnaissance (ISR); LVC Training; Modernization & Sustainment, Networks & Software, Systems Engineering & Integration, and Weapons Platforms.
- ★ Atkinson Aeronautics and Technology, Inc.: A dedicated full-service general aviation maintenance facility offering maintenance, repair, overhaul, interior refresh, and modification for all reciprocating engine and light turbine powered aircraft. Also offering 14 CFR Part 91.411 and 91.413 IFR aircraft certification services under a 14 CFR Part 145 Repair Station certificate.
- Aviation Systems Engineering Company (ASEC): Systems engineering, test and evaluation, logistics, flight operations, and training. ASEC currently operates a North American Navion based at 2W6.
- Chesapeake Aviation Services provides inspections, maintenance, and repair of aircraft.
- Chesapeake Technology International: Offering advanced technology engineering including systems work on Electronic Warfare, Tactical/Unmanned, and Training/Simulation.
- MTech: A dynamic aerospace firm, that blends classical techniques with cutting-edge technology allowing for rapid prototyping of optimized and integrated aerostructure design systems. A certified ISO AS:9100 manufacturer. Strength lies in providing multi-discipline subject matter expertise, analysis, analytical modeling support and best-in-class Product Lifecycle Management modeling software.
- ✤ PAE: Training, Logistics, Operations, and Maintenance services.
- Pax Aero Solutions: Aircraft engineering, fabrication, modification, integration, and repair.
- Piedmont Flight Center: Aircraft rental, Part 61 flight training, and provide airport courtesy car.
- Rapid Response Research Group, Inc (3RGI): Customized aircraft, airborne sensors, system development, advanced processing solutions, and integration of airborne systems, sensors and platforms for DOD and Commercial activities.
- + RCS Services LLC (FBO Services): Aircraft fueling, transient aircraft support

- S. Hunt Aero, LLC: The company continues in leasing and maintaining general aviation hangars, commercial hangars, office/R&D buildings and production facilities. The rapid growth of St. Mary's County Airport would not be possible without this substantial corporate involvement.
- Ready 9 & Southern Maryland Seaplanes: Steeped in traditions of naval aviation and flight test, we offer specialized flight instruction in seaplanes, tail wheel, or your aircraft. We also offer introductory flights, seaplane sightseeing flights, and other Part 61 flight instruction.
- + Velos Rotors: Drone helicopters for industrial applications.
- ✤ WGS Services: A system engineering products and services company with expertise in communications, sensor development, system integration, test and performance characterization, sustainment and modernization for Airborne Intelligence, Surveillance and Reconnaissance (ISR), and weaponized ISR for manned and unmanned platforms.
- Maryland State Police Trooper 7: The Maryland State Police Aviation Command continues to provide critical community services through Trooper 7 located at the airport. Trooper 7 continues to enhance airport security by providing a continuous law enforcement presence. Trooper 7 completed 364 total missions in 2023 broken down as follows:
 - o 340 medevacs (275 trauma & 65 medical)
 - 20 Search and Rescue
 - 4 Law Enforcement



MedSTAR Transport: MedSTAR Transport, a non-profit service based out of MedStar Washington Hospital Center, provides enhanced response times to better assist critical care patients in the Southern Maryland region. MedSTAR's aircraft and crews are single-pilot IFR and night vision goggle qualified to ensure immediate response 24/7 in a wide variety of conditions. MedSTAR flew 756 patient transport flights out of the airport in 2023.



CHALLENGES ENCOUNTERED OR EXPECTED

- ✤ The AAB recognizes the challenges faced by the Commissioners of St. Mary's County and the DPW&T Director, especially with only limited financial resources and staffing available. The Board will continue to search for ways to increase a revenue stream and enhance the economic value of the airport. The ultimate goal is for the airport to remain self-sustaining financially.
- As the airport and surrounding area continues to grow and expand, it must be a top priority to ensure the airport remains an airport. While there is no reason to believe that may be in jeopardy here, there are examples of general aviation airports in other communities that were closed or restricted to accommodate other priorities. A notable recent example is Washington Executive Airport/Hyde Field in Clinton, MD.
- The AAB recognizes the unique operational demographics of the airport when attempting to maintain appropriate Rules, Minimum Standards, Standard Operating Procedures, and other documents. The Board will continue to engage the airport and surrounding community in order to provide sound recommendations to the County regarding these important documents.
- The AAB recognizes the significant nationwide shortage of pilots and mechanics to sustain and grow the aviation industry, and the implications for national defense, commercial air transportation, business aviation, and our local airport. FAA data indicates there were 827,071 active pilots in 1980 and only 756,928 in 2022. While the numbers have trended positive since 2017 after years of decline, the Boeing Pilot and Technician Outlook 2022-2041 estimates there will be a demand for 602,000 new pilots and 610,000 new maintenance technicians to support commercial aviation globally over the next 20 years. The demand remains strong, but the numbers slightly decreased from the 2021 estimates. It is evident that a shortage of pilots and maintainers is detrimental to the future of general aviation and general aviation industry. We should do all we can at the grass roots level to generate interest in aviation and inspire people to fly or fix airplanes.

RECOMMENDATIONS FOR THE FUTURE

The County should plan now to utilize the airport as a vertiport for future Advanced Air Mobility (AAM) operations. AAM is envisioned to use electric Vertical Takeoff and Landing (eVTOL) aircraft as air taxis connecting remote hubs to urban centers or large airports. Smaller regional airports such as 2W6 are well-positioned to support AAM development and success because the flight operations infrastructure and expertise is already in place. The airport is within a short drive of thousands of local passengers who could benefit from quick, quiet, economical, efficient travel to Washington DC, Reagan National Airport, Baltimore-Washington International (BWI) Airport, Richmond, or the eastern shore. With no interstates, commercial rail, or commercial air travel in St. Mary's County, AAM would offer a tremendous convenience for local businesses and residents, and a new source of revenue. This is an opportunity to be seized. St. Mary's County Regional could be a key location in the Chesapeake UAS Route Network (CURN) project being led by the University of Maryland. SMECO inspected the terminal ramp area in 2022 and indicated it would be highly feasible to install aircraft electrical charging capability to support vertiport operations.



➤ The Board continues to fully support the goals and objectives of the 2002 Airport Master Plan and is pleased to see great progress made in recent years with more to come. It has been 22 years since the Airport Master Plan was last updated, and technology and society have changed. Now that contracting issues are resolved and AECOM is the new airport consultant, the Board plans to support review and revision of the Master Plan to account for growth in the southern Maryland region and at NAS Patuxent River, and industry advances underway such as AAM.

- Continue to work with the County and the FBO to evaluate and provide recommendations on the Airport Layout Plan, identify additional areas for tie-down spaces, and consolidate parking areas where available in order to meet current and future demand.
- ✤ Work with the Department of Economic Development and airport stakeholders to further develop and market the airport and surrounding area (AeroPark Innovation District) as a regional asset for all Southern Maryland. Build on the establishment of a cafe in the terminal by supporting establishment of an observation area and pilot lounge to increase utilization of the airport terminal building, attract transient pilots and the public to the airport, and increase revenue. By providing a convenient airport with attractive amenities, St. Mary's can lure pilots looking for an excuse to go flying and the local community looking for an excuse to enjoy a good meal while watching an operating airfield.
- Purchase a new Automated Weather Observing System (AWOS) for the airport. While the current system is usually operational, safety of flight is impacted by the short range of the current system and repeated component failures.
- Provide sufficient budget now to complete the pilot lounge and displays of local aviation history and memorabilia in the Terminal building, and upgrade internet access for meetings and transient visitors.
- Ensure increased safety for pilots, aircraft, persons and properties through the review and update of existing safety processes and encouraging participation in FAA Safety Team events (WINGS pilot proficiency program), VMC Club, and other pilot forums.
- Continue to provide and support activities that promote interest in general aviation, flight/maintenance training, and STEM education. The ultimate goal is to locally grow a qualified workforce to meet the demands of the airport, the Patuxent River Naval Air Station, and the Patuxent River Naval Air Museum. The addition of an aircraft maintenance training program to local education offerings would be extremely beneficial. The AAB encourages one or more local education institutions to seriously consider this opportunity.
- Continued monitoring of development within the Airport Environs and in the vicinity of the airport property to provide sound technical recommendations to the Commissioners of St. Mary's County in order to protect the County's and the FAA's substantial investment in this important public asset.
- \rightarrow Pursue and obtain all required navigation and obstruction removal easements.
- Track, monitor, and assist new activities on the airfield to ensure they are conducted with all notifications, permits, and notice. Facilitate the process of allowing new businesses to operate on the airfield in a timely manner.

- → Provide a public facing perspective on airport activities and opportunities.
- Update airport website <u>https://www.stmarysmd.com/dpw/airport-operations/</u> to be more current, better organized, and easier to find.
- The Board concurs with the Airport Operations action items that have been integrated with the DPW&T's 2006 Transportation Plan. Brudis & Associates, Inc. was contracted in November 2021 to update the Transportation Plan. The Board will continue to monitor and address these issues as presented for recommendation and/or action. Specific Action Items of particular interest to the Board are as follows:
 - Develop an Airport Business/Finance Plan that is integrated with the Airport Master Plan and in conjunction with the Department of Economic Development. As the County deals with growth, budget challenges, and FAA requirements, it is essential the County have a vision on how to manage this essential resource.
 - Once the runway is extended, "open up" the southwestern portion of the airport for development by extending water and sewer with County funding resources as shown in the capital improvement plan, and providing a second entrance to the airport via Lawrence Hayden Road connection to the planned Airport Loop Road.
 - Work with the Emergency Services Director to provide annual updates of the disaster preparedness plan.

THANK YOU

The Board recognizes the service of Henri Sahut who departed in the past year. Finally, we wish to recognize the outstanding leadership provided by Mr. James Alexander as Board Chairman as he departs after six years of service.