



MARYLAND STATE POLICE AVIATION COMMAND Year In Review

January 16, 2024





Flight Operations

MSPAC Highlights

The Maryland State Police Aviation Command (MSPAC) celebrated 53 years of uninterrupted delivery of airborne services to the State of Maryland including air medical, law enforcement, search and rescue, homeland security, and disaster assessment. Since transporting its first patient on March 19, 1970, MSPAC has flown over 165,000 patients.

2023 Mission Statistics

- 1916 medevacs
- 1956 patients transported
- 141 law enforcement missions with 30 apprehensions
- 174 search and rescue missions
- 18 aerial extractions (hoists)
- 2,760 flight hours





Flight Operations

Section Highlights

Trooper 1 - Baltimore

December 21, 2023 - Trooper 1 and the Shock Trauma GO-TEAM were requested by the Baltimore County Fire Department for a Box Truck vs a tree on I-83 at RT-439. Trooper 1 responded directly to the scene.



Simultaneously, Trooper 2 responded to Shock Trauma, picked up the trauma surgeon and nurse anesthetist and then flew to the scene. Trooper 1's crew administered whole blood to the patient while they were still trapped and coordinated with the GO-TEAM on patient care throughout the 2.5 hour extrication process. Once extricated, the patient was flown by Trooper 1 with the GO-TEAM to Shock Trauma, where they are being treated for their injuries.

This call exemplified the incredible teamwork by fire, EMS, Shock Trauma and MSPAC to effect a positive outcome for this patient.





Flight Operations

Section Highlights

Trooper 2 – Washington

On October 8, 2023: Trooper 7 was dispatched to the area of Taylor's Island in Dorchester County at 0040 hours for a subject on a boat that had run aground. The fire department stated they received the call around sunset and were initially having trouble finding the victim. Trooper 7 located the victim but the ground units were unable to get to the victim. At 0123 hours, Trooper 2 was dispatched with its crew and aircraft prepped to complete the hoist. Trooper 2 utilized an Air-Lift Rescue Vest (ARV) to safely hoist the victim onto the aircraft. Patient care was transferred to the medic unit for evaluation.



Air-Lift Rescue Vest (ARV)





Flight Operations

Section Highlights

Trooper 3 - Frederick

On July 13, 2023, Trooper 3 was dispatched to Clear Spring, Washington County, for a reported 2-year-old pool drowning. The patient's father quickly removed her from the pool and began CPR. Several minutes into the call, Trooper 3 was canceled as ground EMS were on scene and had decided to transport by ground to Meritus Pr 1 cardiac arrest. An off duty First Sergeant with MSPAC was monitoring the call and directed SYSCOM to divert Trooper 3 to Meritus instead of canceling, should ROSC occur. During ground transport, a pulse was recovered, however, the patient remained in respiratory arrest. Once at Meritus, the crew from Trooper 3 reported to the ED with their equipment. MT Green, a respiratory therapist, took over the airway responsibility from the ED physician and secured a breathing tube. Meritus, an adult trauma center, rarely encounters high acuity pediatric patients. Once stabilized, Trooper 3's crew medevaced this high priority patient to DC Children's for continuation of care. The patient survived and made a full recovery.





Flight Operations

Section Highlights

Trooper 3 Frederick

December 16, 2023 - Trooper 3 was requested to assist Washington County Fire personnel with the extraction of a hiker that fell approximately 50 feet off of a cliff. Once arriving overhead, the crew was able to locate the victim and fire personnel at the base of the cliff. Based on patient condition, terrain and the extended extrication time, the crew decided to perform an aerial rescue of the victim. Trooper 3 was configured for a

hoist and the crew prepped for the mission. The pilots maneuvered the AW-139 helicopter into a steady 110-foot hover above the terrain, while a State Trooper/Flight Paramedic was lowered below. The Trooper/Paramedic obtained the report from Fire/EMS personnel, performed an assessment on the injured woman while addressing her injuries and secured her into a “PEP Bag.” The aircraft maneuvered into a 120-foot hover and hoisted the patient and State Trooper into the aircraft. Once the patient was placed into the cabin, Trooper 3 transitioned into a medevac role and the adult patient was transported to University of Maryland Shock Trauma, for the treatment of her injuries.





Flight Operations

Section Highlights

Trooper 4 - Salisbury

The Town of Ocean City, Maryland requested to establish a Helicopter Instrument Approach Procedure (IAP) and Departure (DP) for the location of Northside Park, West Lagoon Field.



With the assistance of MSPAC, a contract has been signed for HICKOK & Associates to create the IAP to Northside Park and perform the IAP certification, and annual maintenance procedures according to FAA rules and regulations. The IAP/DP is the first in the state of Maryland not directly to/from an airport or hospital.



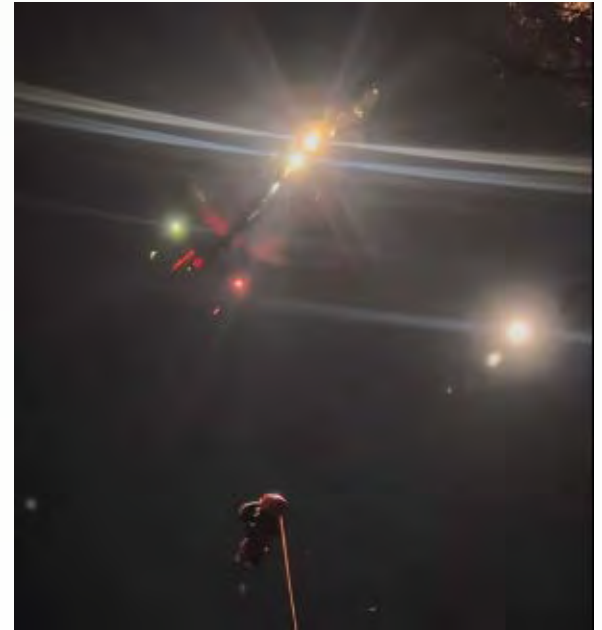


Flight Operations

Section Highlights

Trooper 5 - Cumberland

November 24, 2023, Trooper 5 crew was requested to assist Allegany County Fire personnel with the search for a vehicle rollover received by On Star. While on scene, Trooper 5 was able to locate a sport style UTV lying on its side down at the bottom of a 200' embankment on a remote trail off of Brant road in Cresaptown, MD. Utilizing the Wescam and Trakka, one patient was identified standing outside of the UTV and it was initially unknown if there was a second patient.



Trooper 5 was able to direct Fire and EMS personnel to the accident scene for a patient assessment. Two patients were located by the initial first responders. Based on patient condition, terrain, and the extended extrication time, Trooper 5 was requested to perform an aerial rescue of the more seriously injured patient. Trooper 5 reconfigured the cabin for a hoist. The CC lowered the RT to the patient. The patient was secured in the extrication device, and the RT and patient were hoisted into the aircraft. The crew transitioned into a medevac role and transported the patient to a trauma center.





Flight Operations

Section Highlights

Trooper 6 - Easton

The Queen Anne's County Parks and Recreation Staff, along with Trooper 6 - Easton and other members of the public safety community were recognized by The Queen Anne's County Commissioners for their heroism demonstrated on March 15, 2023.



After a fellow co-worker experienced a medical emergency, the Department of Parks and Recreation staff swiftly initiated a life-saving response by promptly contacting emergency services and administering CPR to a fellow co-worker. Their response during a critical emergency played a pivotal role in saving a life.





Flight Operations

Section Highlights

Trooper 7 - Southern Maryland

April 16, 2023 with a hoist of an injured person from the Carnival Legend Cruise Ship. Trooper 7 was alerted for a hoist mission to retrieve an injured subject from the Carnival Legend cruise ship in the Chesapeake Bay in the area of Point Lookout. The patient sustained injuries related to a fall and could not ambulate.



The crew of Trooper 7 successfully hoisted the patient and transitioned into a medevac role. The patient was transported to the University of Maryland Capital Regional Medical Center in Largo, Maryland for treatment.





Flight Operations

Section Highlights

Trooper 7 - Southern Maryland

December 10, 2023 a serious motor vehicle collision was dispatched in St. Mary's County with multiple patients injured. Both Trooper 2 and Trooper 7 were out of service due to weather and neither section could fly under IFR conditions.



The state trooper flight paramedics from both sections responded to the scene in patrol vehicles to assist with patient care. The flight paramedics from Trooper 7 arrived, triaged the victims, directed care and destination decisions. The flight paramedics went with a ground ambulance crew as the ALS providers and transported to Capital Region Medical Center. Enroute, they provided high quality care and administered Whole Blood to the patient. The crew of Trooper 2 rendezvoused with a second ground ambulance crew enroute to Capital Region Medical Center and joined as the ALS providers for the remainder of the transport.





Flight Operations

Instrument Flight Regulations (IFR) Program

- 66 MedEvac missions
- 1 Law Enforcement mission
- 3 Search and Rescue missions



- These missions were completed through the use of the new IFR policies and procedures and would have been turned down under MSPAC's prior IFR protocols.
- During periods of the heavy smoke generated by the Canadian wildfires that blanketed the Northeast United States, medevacs could only be conducted using the new IFR program.





Flight Operations

Aerial Rescue Program

- In 2023, over 100 pilots and aircrew were qualified in day and night hoist operations.
- 18 hoist rescue missions completed
- These highly trained crews executed these missions in diverse and challenging terrain from mountainsides to mud flats to underway cruise ships.



- In almost all of these cases, the crew immediately transitioned to providing stabilizing care and transported patients to a hospital for treatment.
- 80% increase in hoist missions from 2022 (8) is a testament to the continuous outreach and cooperative training to educate our partners on our capabilities.





Flight Operations

Aerial Rescue Summit

- In October of 2023, the MSPAC hosted its first-ever regional Air Rescue Symposium at MSPAC Headquarters at Martin State Airport.
- Over 55 aircrew members from various Federal, State, County and Local agencies attended the event.
- The Symposium allowed aircrews from around the region to share best practices for aerial rescue operations and discuss future cooperation to enhance readiness in Maryland and the surrounding areas.





Flight Operations

Maryland Department of Emergency Management (MDEM) Rescue Exercise



- In 2023, the MSPAC participated in a Maryland Department of Emergency Management (MDEM) led Search and Rescue Exercise Series.
- MSPAC aircraft and hoist instructor cadre participated in a live Air Operations branch exercise, the first of its kind in the State's history.
- The exercise placed MSPAC Aircrews working side by side with the Natural Resources Police helicopter and two MD National Guard Helicopters to coordinate multiple hoist operations in a simulated disaster area.
- The exercise stressed real-time deconfliction, communications, and coordination.
- Throughout the planning and execution of the exercise, MSPAC learned valuable lessons and formed valuable relationships that will enhance the ability to respond to disasters across the state





Flight Operations

Pilot Training

- The Pilot Training Section is composed of the Chief Pilot and five Command Instructor Pilots (IPs) who provide initial, upgrade and refresher pilot training and checkrides in the Command's helicopters and flight training simulator.
- The Command IPs perform collateral duties including post maintenance test flights, maintenance ferry flights, and flying the Command's logistics support airplane.
- Additionally, each helicopter Section has one assigned Section Instructor Pilot who oversees the ongoing flight and ground training at each Section.
- 2023 Statistics:
 - 112 Annual Pilot Checkrides
 - 97 Day/Night Hoist qualifications
 - 8 recurrency/refresher training programs
 - 4 Second in Command initial qualifications,
 - 3 Second in Command to Pilot in Command upgrades
 - 1 Maintenance Test Pilot trained
 - 216 quarterly training flights conducted by Section IPs
 - Whenever possible, portions of pilot check rides and quarterly training flights are conducted while in mission for cost savings.





Flight Operations Division

Operational Control Center

- 6 full time Duty Officers staff the OCC
- MSPAC personnel received and assigned 1,909 medevac requests within the state and surrounding areas during 2023.
- They received and dispatched an additional 997 mission requests related to search and rescue, law enforcement and other related missions.
- The duty officers maintained operational oversight and management of a combined 2,906 missions during 2023.





Flight Operations

Unmanned Aerial Systems



- The MSP Unmanned Aircraft Systems Team, composed of 31 Troopers/Deputy State Fire Marshals from the MSPAC, Crash Team and the Office of the State Fire Marshal, conducted 429 missions, totaling 266 hours of flight time.
- The UAS Team routinely provides crash, fire and crime scene assistance to enable faster scene processing and roadway reopening.

- The UAS Team supported multiple allied agencies with high profile search incidents including the Washington County Circuit Court Judge Homicide, shooting of multiple Baltimore County Police Officers, shooting of a Delaware State Trooper where the subject was located in Maryland and disaster assessments for the United States Coast Guard and Maryland Department of Emergency Management.
- Utilization of UASs reduce overall program, fuel and aircraft maintenance costs.





Support Branch

Maintenance Division

- In 2023 the MSPAC Maintenance Division achieved full staffing for the first time in many years.
- Maintenance is actively preparing to establish a second workspace, which will enable MSPAC to significantly increase the number of "in-house" Heavy Inspections.
- The objective is to perform 11 in-house inspections over the next twenty-four months.
- 2023 Summary of Activities
 - Total Heavy Inspections: 11
 - Vendor Heavy Inspections: 7
 - 4-Year: 2
 - 2-Year: 3
 - 1-Year: 2
 - In-house Heavy Inspections: 4
 - 2-Year: 2
 - 1-Year: 2





Support Branch

Human Resources Division

2023 Hiring Statistics

- New Hires: 16
- Pilot 1A: 5
- Pilot II: 2
- Procurement Manager I: 1
- Procurement Officer I: 1
- GSE Technician: 1
- Aviation Technician: 5
- Maintenance Control Supervisor I: 1
- Internal Upgrades: 13



2023 Recruitment and Community Outreach Totals

- Static Displays and Outreach Presentations: 280 (180% increase from 2022)
- Operational Awareness Program (OAP): 375 (21% increase from 2022)
- Documented Applicant Contacts: 502 (335.25 documented hours)
- Medics Seated in Academy Classes: 9

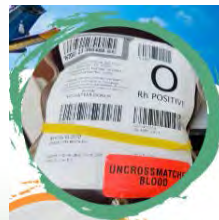




Support Branch

Whole Blood Program

- In May of 2023, the Maryland State Police Aviation Command began carrying Whole Blood on each of its 7 helicopters.
- This new capability was as a result of years of work by a collaborative team from MSPAC, University of Maryland Shock Trauma, and the University of Maryland Medical Center Blood Bank.
- Each helicopter is equipped with 2 units of Low Titer O+ Whole Blood and is available to treat critically injured patients with significant blood loss prior to arriving at a trauma center.
- Whole Blood Program Statistics:
 - 78- Units
 - 63- Patients
 - \$40,911.00





Support Branch

Aircrew Training

Aircrew Training provides initial aircrew, field training supervision, upgrade and refresher medical and operational training to all of the current and incoming Trooper-Clinicians.



In 2023, Aircrew Training conducted:

- 3 Continuing Education sessions
- 6 Entry Level Trooper Medics trained
- 65 Annual comprehensive skills evals
- 7 Crew Chief upgrades



In September of 2023, Aircrew Training introduced the use of FoamFRAT, an online training program that will allow personnel to obtain training hours for both



National Registry as well as advanced Flight Paramedic certifications, which will allow the Command to work towards bringing new, advanced level care to our patients.



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Questions