UAS RESEARCH AND
OPERATIONS CENTER

Drones Are Aircraft – No Matter How Small

- Confusing Uncrewed Aircraft Systems (UAS) laws and regulations plus limited flying experience set researchers up to inadvertently put projects at risk and expose themselves to liability.
- Much of the drone industry views UAS as technology first and aircraft second, sometimes leading to poor engineering design decisions with real-world safety impacts.
- UAS operations in the National Airspace System present safety risks to people and property that drone operators must identify and mitigate through disciplined, methodical preparation.

What We Do for Researchers

UROC engineers and operators help cut through manufacturer claims of capability to identify the UAS best fit for a researcher's purpose and minimize cost to their projects. We modify, program, and test drones; ensure that planned operations are legal and compliant with regulations; and conduct operations with an aviation-first, safety-driven mindset. We enable researchers to focus on getting projects in the air to generate needed data without needing to sort through the mechanics of selecting, modifying, and flying the drones themselves.

Who We Are

UMD's UROC is part of the Aerospace Engineering Department of the A. James Clark School of Engineering. UROC is physically located at the St. Mary's County Regional Airport in Southern Maryland but has operated worldwide and will go wherever projects lead.

Our Advantages

- On a non-tower airfield and close to established local flying areas in uncontrolled airspace.
- Experience obtaining Federal Aviation Administration (FAA) waivers and Certificates of Waiver or Authorization (COA) to legally operate UAS beyond Federal Aviation Regulations Part 107 limits.
- Established Commercial Services Agreement with the Navy enabling access to nearby special-use airspace if required.
- 12,000 sq ft facility including conference rooms, offices, engineering lab, and three hangar bays.
- Available UAS platforms ranging from the smallest consumer-grade drones to large professional systems and including customizable UAS designed expressly to facilitate research.
- Wide range of capabilities for design and manufacture of small UAS and components.
- Expert small UAS engineers versed in all types of drone hardware and software.
- Part 107 certificated UAS operators with extensive military and civilian manned/unmanned flight experience and familiarity with FAA regulations.
- Mobile Operations Center for extended remote operations away from home base.
- Ready access to research design/build/test facilities at nearby UMD MATRIX Laboratory.

University of Maryland UROC - Flexible, Experienced, and Equipped to support UAS-based Research Anywhere & Anytime