Unmanned Aircraft System (UAS) Range Flight Safety

Course: SMA-AS-WBT-300

Duration: 3.5 hours

This introductory course provides a fundamental understanding of the roles, responsibilities, and requirements that are essential to perform NASA Unmanned Aircraft System (UAS) operations as it relates to Range Flight Safety. It defines and discusses the major elements of Range Flight Safety (policy and requirements, flight safety analysis, flight safety systems, and range flight operations) for NASA UAS. The course focuses on requirements and real-time support including pre-flight, flight, recovery/landing, and post-flight operations. The course includes the revised NPR 8715.5B, the new NASA-STD-8719.25, FAA 14 CFR Part 107 policy for operation of small UAS, and also addresses the paths available to NASA to authorize UAS flights in special use airspace and the National Airspace System.

Prerequisites:
- SMA-AS-WBT-410, Range Flight Safety Orientation, or equivalent experience and/or training, is recommended.

Target Audience:
- Anyone identified as needing initial training for personnel performing NASA UAS range flight operations.
- Personnel in the management chain responsible for oversight of NASA UAS operations.
- Personnel directly supporting or interacting with NASA UAS range flight operations.

UAS Range Flight Safety

- Introduction
  - What is a UAS?
  - UAS Regulations
  - Ways to Fly
  - Special Considerations

- Analysis
  - Introduction
  - UAS Capability Assessment
  - Hazards
  - Risk Assessment
  - Tools

- Flight Safety Systems
  - Introduction
  - Contingency Management Systems
  - Flight Termination Systems
  - Documentation and Approvals

- Operations
  - Introduction
  - Crew Requirements
  - Flight Planning
  - Authorizations and Coordination
  - Flight Day Activities
  - Mishap Planning and Reporting

- Summary
  - Course Recap
  - Center UAS Status
  - Looking Ahead

RELEASED - Printed documents may be obsolete; validate prior to use.