

UAS traffic management systems engineer

A UTM systems engineer works on the concepts, requirements and interfaces behind services supporting uncrewed-aircraft traffic management. This is not simply a remote-pilot job or a renamed conventional air traffic controller role. The verified employer describes UAS modernisation engineering with explicit UTM experience, which establishes the distinct service context rather than relying on a generic software vacancy.

Other titles to compare: UTM systems engineer, UAS airspace-integration engineer. Titles alone do not establish equivalent duties.

What the role does

- Develop and review concepts and requirements.
- Analyse gaps between needs and proposed capabilities.
- Coordinate information interfaces and stakeholders.
- Document evidence from prototypes or demonstrations.

Where the work happens

Engineering and programme teams. The verified example supports US FAA-related work through a contractor and is a highly experienced role.

Employer example

Cavan Solutions • United States • Senior UAS Systems Engineer

Vacancy status unconfirmed not an offer • Checked 2026-10-27 [EMP1]

Category	What this employer states
Essential in this source	Engineering bachelor degree; strong writing and communication. Twenty years systems-engineering/concept/FAA-domain experience, with reduction for an advanced degree. Emerging UAS/UTM/UAM and FAA/NASA research experience.
Desirable in this source	Master degree.
Other stated conditions	Infrequent project travel; undated employer role listing.

One employer and role, not worldwide eligibility. Closed or undated examples do not establish current hiring.

PREPARE AND VERIFY

Separate requirements from preparation

United States - service framework versus personal qualification: FAA describes UTM as complementary to, not identical with, air traffic services. Its NTAP service evaluation is not certification. Neither that process nor this vacancy establishes a worldwide personal UTM-engineer licence. [REG1]

Named employer experience: The senior experience threshold and degree preference belong to this role. They are not universal legal entry requirements for every UTM engineering job. [EMP1]

Still to verify: One specific employer example is verified. It is a broader UAS modernisation role with explicit UTM experience, not a job titled exclusively UTM engineer; a second independent employer remains a gap.

Explore a realistic entry route

- Build foundations in systems thinking, requirements, data interfaces and clear technical communication. Compare academic and work-based routes against actual employer tasks; a course with UTM in its name is not automatically an accepted professional qualification.
- Distinguish aircraft-side engineering from airspace-service engineering. The latter focuses on how information, responsibilities and services fit together across organisations, rather than maintaining a drone or simply writing an onboard control programme.
- For an early-career route, look for supervised systems, software, verification or research work with relevant service context. The senior example is a possible later-career destination, not evidence that every entrant needs decades of experience.
- Separate a prototype demonstration from an approved operational service. Ask how the employer handles review, assurance, changes and applicable national arrangements before assuming that a successful demonstration means the system can be deployed.

Build evidence of your skills

- Create an invented information-service diagram for a non-aviation classroom problem. Label each actor, information owner and interface, and identify what would happen if data were missing or late. Do not connect the exercise to live traffic services.
- Write a small requirements table linking a fictional user need to a testable question and a source. Mark assumptions and unresolved issues explicitly. This demonstrates traceability without producing operational UTM designs or conflict-resolution advice.
- Compare two public descriptions of a technical concept and explain where their scopes differ. Keep research vision, existing service and legal permission in separate columns; do not treat promotional language as regulatory approval.
- Practise a short briefing for a software colleague and a non-technical project manager. Explain the same uncertainty in language appropriate to each audience without changing the underlying facts.

Prepare for an interview

Reflection prompts only, not questions claimed to be used by an employer.

- Prepare an example of resolving an ambiguous requirement or coordinating teams with different assumptions. Explain how you recorded the decision and ensured that others understood the remaining limitations.
- Ask about the service scope, national framework, test environment, review process and division between engineering and operational decisions. These are preparation prompts, not real interview questions or guidance to operate a traffic-management system.

Investigate possible next roles

Possible directions include requirements leadership, service integration, verification, technical assurance or research coordination. Progression requires demonstrated capability; experience in UTM engineering does not automatically qualify someone as a controller or remote pilot.

Sources and scope

[EMP1] [Cavan Solutions Senior UAS Systems Engineer](#)

Vacancy status unconfirmed not an offer. United States. Checked 2026-10-27.

[REG1] [Federal Aviation Administration Unmanned Aircraft System Traffic Management \(UTM\)](#)

UTM ecosystem and service-evaluation context. Not an individual engineer licence; the page explicitly distinguishes NTAP evaluation from certification. Checked 2026-10-27.

Educational requirements guide, not operational instructions, professional approval or an employment guarantee. Verify current requirements with the relevant authority and employer. Examples are selective and date-specific. Check the full current vacancy and competent authority before choosing paid training or assessing eligibility. No personal medical, nationality or immigration assessment is made here. No job guarantee.