

Charter for
Uncrewed Aircraft Systems (UAS) Standards and Specifications
Pooled Fund Study
TPF-5(556)

Purpose

Uncrewed Aircraft Systems (UAS) have been widely adopted by State Departments of Transportation (DOTs) over the past decade to support surveying, construction inspection, bridge inspection, incident response, earth movement, and asset management activities. Despite widespread adoption, the absence of consistent, nationally recognized UAS data collection standards has created measurable challenges for State DOTs and FHWA.

Inconsistent data schemas, flight procedures, accuracy expectations, and quality control practices result in variable data quality, reduced confidence in UAS-derived products, and limited interoperability between agencies, consultants, and software platforms. These inconsistencies increase project risk, drive duplicative validation efforts, complicate cross-agency data sharing, and limit the ability of DOTs to scale UAS programs across districts, projects, and asset classes.

Standardized UAS specifications are necessary to support defensible engineering and surveying workflows, improve worker safety by reducing field exposure, and enable UAS data to be reliably integrated into enterprise systems, digital delivery initiatives, and asset management platforms.

Scope

TPF-5(556) is a multi-year pooled fund study focused on developing practical, implementable UAS standards and specifications for transportation applications. The study will deliver incremental products annually over a five-year period.

Intended Outcomes and Level of Detail

The study will develop implementable standards defining what is required to produce consistent and defensible UAS data, while allowing flexibility in how agencies implement these requirements. The effort will not produce vendor-specific procedures or aircraft manuals.

Outcomes may include standardized data schemas, flight planning parameters, accuracy expectations, QC/QA methods, and documentation requirements suitable for statewide DOT adoption.

Deliverables and Publication Expectations

Deliverables may include draft and final UAS standards, validation reports, pilot documentation, QC/QA frameworks, reference workflows, templates, example datasets, and a consolidated guidebook. Deliverables will be reviewed and approved by the Technical Advisory Committee (TAC) prior to release.

Governance and Voting

Each participating State DOT and FHWA shall have one vote. A quorum is defined as meetings where at least 50% of participating States and FHWA are present, with a minimum of 10 calendar days' notice. Actions are approved by majority vote of members present.

Membership and Voting: The TAC is comprised of one member from each State that contributes to the pooled fund and therefore is a member of the pooled fund. Voting privileges are assessed by the lead state (Alaska DOT&PF) on April 1 of each year and are rescinded for states that have not committed funds for current year (see Funding). States that have committed funding for the Federal Fiscal Year, current at the time of the vote, can designate a voting member and participate in voting. Each participating agency informs the lead state (DOT&PF) who on their staff will serve as the voting member, and the voting member may only be an employee of that agency. In advance of a meeting where voting will take place, the voting member may delegate their vote to another agency employee. Other agency staff participating in the pooled fund, including those who are employed by member states and FHWA cannot vote. However, non-voting pooled fund members are welcome to participate in all pooled fund meetings, conference calls, and other events at their own cost.

Decisions: Voting on all matters before the TAC; including the work plan, research priorities, or questions posed by or to the TAC, will be decided by a simple majority of the TAC's voting members. The lead state (DOT&PF) will be responsible for tallying and reporting the vote results. The lead state (DOT&PF) is also responsible for determining the voting method that will be used for any particular vote. The lead state (DOT&PF) shall announce the chosen voting method before the vote is taken and may solicit advice from voting members or other participants. This includes decisions related to the confidentiality of any particular vote. A revote on an issue may be conducted by the lead state (DOT&PF) at the request from the simple majority of the TAC. Votes may be taken either live or using an electronic tool such as a web-based survey software at the lead state's discretion.

Non-Voting Liaison Participation

To broaden program awareness and encourage participation from interested jurisdictions, the TAC may designate Non-Voting Liaison seats for State DOTs and other public agencies that have not made a financial contribution to the pooled fund. Non-Voting Liaisons may attend TAC meetings, participate in discussions, and provide input on draft deliverables, but do not hold voting rights and may not block or delay TAC actions.

Non-Voting Liaison status is intended to provide a pathway for States considering future financial participation and to support broader adoption of the standards developed through this study. The TAC may establish procedures governing the designation, term, and conduct of Non-Voting Liaisons.

Industry Liaison Participation

Recognizing that private sector expertise is essential to developing practical, implementable UAS standards, the TAC shall establish a formal Industry Liaison role. Industry Liaisons

represent UAS technology providers, geospatial service firms, software developers, and other private sector organizations with a direct interest in transportation UAS standards.

Industry Liaisons may attend designated TAC meetings or working sessions, contribute technical expertise, review draft deliverables, and provide written comment during formal review periods. Industry Liaisons do not hold voting rights and may not participate in closed deliberations or procurement-sensitive discussions.

The TAC shall define the process for soliciting, designating, and renewing Industry Liaison participation. Designation shall be open and transparent, with priority given to organizations that can provide relevant technical expertise across the scope areas addressed by this study. The TAC may limit the number of active Industry Liaisons at any time to ensure productive engagement.

Meetings: The pooled fund holds several virtual meetings each year culminating with an in-person annual meeting. The annual meeting discusses the progress on current pooled fund projects, voting on new projects for the upcoming year & committee updates and other topics. Only state agencies, FHWA, and consultant staff will be allowed to attend pooled fund meetings. Outside agencies are not allowed to attend any pooled fund meetings. The annual meeting is an in-person meeting that is held once a year and is normally scheduled to take place over a minimum of two consecutive days. TAC members are welcome to attend and participate as described in “Membership” above. Travel costs for the voting member representing each agency is sponsored by the transportation pooled fund. The location for the annual meeting will be determined.

TAC Chair: The TAC Chair will be the Alaska Department of Transportation (DOT&PF) voting member. The Chairperson participates in the development of the meeting agenda, facilitates the meeting discussion and decision-making, and provides direction and oversight of the administration of the pooled fund.

Lead State: Alaska DOT&PF is the lead state for the pooled fund program. As the lead state, it is responsible for the following: 1) Collecting the financial transfers from participating states into the pooled fund. 2) Developing and executing work under the master agreement with consultant. 3) Reviewing and processing invoices on task orders. It is also responsible for fulfilling bookkeeping, reporting, and other requirements imposed by FHWA on pooled fund operations. 4) Reimbursing travel for the TAC members based on their commitment status. 5) Planning for meetings and events or arranging for that work to be done by others. Coordinating with the consultant on products such as agendas, information materials, presentations, and other details about the program necessary for conducting meetings as required.

Communications: The lead state (DOT&PF) keeps a list of the voting member from each state who serves as the primary point of contact. Other names of agency staff may be submitted by the voting member to be included on that roster for routine communications. Occasionally, information about ongoing projects is requested by voting members or others including outside parties. Information about ongoing projects may be shared by consultant or the TM with one or all voting members (one per state) who request it. It is each TAC member’s responsibility to keep their respective states’ decision makers, funding staff, research management personnel, and others apprised on the status and progress of the pooled fund and the benefits of maintaining their commitments and contributions as necessary.

Funding: Member states must post yearly commitments to the Transportation Pooled Fund website. The yearly commitment is a promise to obligate (transfer) funds to the lead state (WSDOT) through the obligation transfer process. It is preferred that states use federal SPR-B funds. If desiring to use an alternative funding source, the member state must first contact the Lead State's (DOT&PF's) research office to determine if the desired alternate funding source is acceptable. If the alternate funding is approved, the member state shall then work with the Lead State's (DOT&PF's) research office to complete the alternate funding processing requirements.

The required member state pooled fund annual contribution is \$25,000. The lead state (DOT&PF) shall only contract for work in which sufficient funding obligations have been received. Therefore, at a minimum, member states shall transfer yearly annual contributions that are due within a given federal fiscal year. It is preferred the annual contributions are obligated and transferred as soon as the funds become available (Note: Federal SPR-B funds are typically released in October of each year). This allows pooled fund work for the fiscal year to be planned meaningfully and quickly implemented. Multiple year transfers are also accepted.

Any other contribution exceptions or extensions may be granted at the discretion of the lead state (WSDOT).

To support member travel to the annual meeting and maintain voting privileges (see Membership), contributions must be received and processed on or before March 31 of each year to be credited to the current federal fiscal year (ending September 30).

Working Groups

Working Groups will draft deliverables within assigned scopes. Working Group Leads serve as primary technical reviewers. Final adoption of deliverables requires TAC approval. Industry Liaisons may be invited to participate in Working Group activities at the discretion of the Working Group Lead and with TAC concurrence.

Facilitation Contract

TPF-5(556) shall establish a facilitation contract to support the administrative and logistical functions of the TAC and its associated working groups. The TAC shall serve as the controlling authority for the facilitation contract. The facilitation contractor serves at the direction of the TAC and does not hold voting rights or decision-making authority over study deliverables or program direction.

The facilitation contract may cover meeting planning and logistics, preparation and distribution of agendas and meeting summaries, coordination of TAC and working group communications, management of travel reimbursement for eligible TAC members, and administrative support for deliverable review and comment processes. Eligible travel expenses may include transportation, lodging, and per diem for TAC member attendance at in-person meetings, subject to applicable federal and state travel regulations.

The scope, budget, and duration of the facilitation contract shall be approved by the TAC. Any modifications to the facilitation contract that affect scope or funding require TAC concurrence. FHWA participates in this process as a voting member of the TAC.

Scope Modifications

Major scope changes will be discussed at scheduled TAC meetings and require TAC concurrence. Any scope changes requiring additional funding or contract modification remain subject to FHWA approval.

Charter Approved

April 2, 2026