White Paper

Impacts of Federal Restrictions on State UAS Programs

National survey synthesis and cost exposure scenarios

February 28, 2026

Prepared from multi-state responses compiled by Oregon Department of Aviation (ODAV) through a NASAO member outreach (Revision 2)
('OMB Impacts' compilation document, Dec 2025 - Jan 2026).

Table of Contents

1. Executive Summary

Recent federal restrictions and guidance affecting foreign-manufactured uncrewed aircraft systems (UAS) have triggered widespread operational disruption across state transportation agencies. Based on responses from 25 states, programs that relied heavily on DJI and Autel platforms report the largest impacts, including fleet grounding or restrictions on federally funded projects, interruption of survey/mapping and construction workflows, and near-term funding gaps for compliant replacements.

While several states report minimal impacts due to proactive NDAA compliance and 'Blue List' adoption, most respondents describe a transition period with elevated risk: reduced emergency response capacity, delayed project delivery, increased field exposure for staff, and significant capital and retraining costs.

This white paper synthesizes the reported impacts, provides quantitative summary tables, and presents scenario-based national cost ranges for (1) state agencies and (2) local transportation agencies and contractors that support federally funded projects. All cost ranges are presented as planning scenarios; the underlying dataset is not a complete census and contains known gaps and TBD responses.

2. Background and Policy Context

State DOT UAS programs have matured from pilot projects to embedded operational capabilities supporting engineering design, survey/mapping (including lidar), construction inspection and documentation, bridge and asset inspection, emergency response, and public communications. In late 2025 and early 2026, multiple federal actions and interpretations (OMB memorandum, FHWA guidance, and related FCC actions) increased restrictions on certain foreign-manufactured UAS and critical components used on federally funded work. Respondents consistently described the practical effect as a requirement to segregate fleets by funding source, restrict or ground certain systems, and accelerate transition to compliant platforms under constrained budgets.

3. Methodology and Data Notes

A compilation of written responses from state DOTs, state aeronautics agencies, and related state transportation entities collected by ODAV through a NASAO member outreach (OMB Impacts compilation document) provided the data for this paper. Responses were structured around eight common questions covering impact status, percentage affected, airframe counts and investment, replacement budget readiness, operational instructions, awareness of impacts to other agencies, use of foreign-made systems, and operational impacts from loss of access to equipment/updates.

The dataset represents a point-in-time snapshot and contains incomplete fields (e.g., 'TBD', 'unknown', or non-public totals). Some states report impacts to contractors but do not quantify contractor fleets. Percent impacted is not standardized across respondents (some report percent of fleet, others percent of operations).

Interpretation approach: Where exact counts were provided, they are used directly. Where ranges were given (e.g., 20-30 airframes), a midpoint is used for aggregate calculations and noted as an assumption in Appendix A.

4. Participating States

Alabama, Alaska, Arkansas, California, Colorado, Georgia, Idaho, Illinois, Indiana, Kansas, Kentucky, Maryland, Massachusetts, Minnesota, Nebraska, New York, Oregon, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, Wisconsin, Wyoming.

5. Findings and Impacts

5.1 Fleet Disruption and Mission Impacts

Across respondents, the most immediate operational impact is the grounding or restriction of foreign-manufactured platforms (commonly DJI and Autel) on federally funded work. Several states report that 75-100% of their operational fleets are affected, while a smaller set reports minimal or zero impact because they already operate only compliant or 'Blue List' aircraft.

Mission impacts recur across states and include: (a) survey and mapping (including lidar and photogrammetry), (b) construction inspection and dispute avoidance workflows, (c) bridge inspection and hard-to-access asset documentation, (d) rockfall/unstable slope monitoring, (e) incident management and emergency response documentation for potential federal reimbursement, and (f) public communications imagery.

5.2 Funding and Compliance Segmentation

A common operating posture is segmentation by funding source: continuing restricted aircraft on state-funded work while prohibiting their use on federally funded projects. This segmentation increases administrative burden, complicates scheduling and training, and can create risk when emergency response initially proceeds under state authority but later seeks federal reimbursement.

Multiple states also note decentralized procurement and governance (district-level purchases, no centralized UAS budget), making fleet transition and compliance tracking more difficult.

5.3 Emergency Response, Safety, and Resilience

Emergency response is repeatedly cited as a high-consequence mission area. Respondents describe UAS as essential for rapid landslide assessment, rockfall monitoring, flood impacts, and incident documentation. Where compliant platforms are limited, agencies anticipate slower response, higher field exposure, and reduced ability to support disaster narratives and reimbursement packages.

5.4 Market Constraints and Capability Gaps

States report that compliant alternatives can be materially more expensive and may not provide equivalent capability for mapping-grade survey, lidar payloads, or established software workflows.

Several respondents explicitly cite price increases for previously procured systems and challenges obtaining equivalent performance from compliant options, especially for survey and mapping requirements.

5.5 Governance, Contractors, and Implementation Friction

In addition to agency-owned fleets, multiple states highlight impacts to contractors and consultants supporting federally funded projects. States with limited visibility into contractor UAS operations anticipate compliance friction at the project manager level and potential delays where contractor toolchains depend on restricted systems.

6. Quantitative Summary Tables

Table 1. Reported Percent of Fleet or Operations Impacted (Selected)

State	Reported impact
Wisconsin	100% (fleet grounded)
Colorado	~90% impacted; 16 units grounded; left with 5 small UAS
Nebraska	86% impacted; 13 airframes
Indiana	85% impacted; 20-30 airframes (midpoint used in Appendix)
Minnesota	84% of aircraft foreign-made; operations segmented by funding
Georgia	~80% fleet impacted; 34 aircraft; ~US$225k affected
Alabama	75% of fleet impacted; 16 airframes; US$15k-30k per replacement unit
New York	23 of 25 drones DJI/Autel; restricted on federal projects
California	DJI ~30% of fleet (91 of 307); state banned DJI/Autel operations on all projects as of Dec 22, 2025
Oregon	21 of 22 active UAS grounded; only 1 NDAA-approved platform in active fleet
Texas	0% impacted (compliant or NDAA supply chain); notes FCC policy could affect future procurements
South Carolina (SCAC)	0% impacted; operates 'Blue Listed' aircraft/components

Table 2. Reported Investments and Replacement Exposure (Selected)

State	Reported affected investment / count	Replacement exposure / notes
Alaska	65 of 130 restricted; estimates US$1.8M loss	Replacement estimate ~US$3.9M

Utah	64 'foreign adversary' drones out of 70 total	Fiscal note ~US$735k (mixed replacement plan)
Georgia	~34 aircraft; ~US$225k	Insufficient budget; phased replacement
Nebraska	US$45k / 13 airframes	Staggered replacement strategy due to budget constraints
Idaho	~US$30k / 8 of 16 affected	Replacement cost increase example: ~US$15k (May 2025) to >US$42k
Indiana	~US$400k; 20-30 airframes	No budget to replace
Kansas	~5 airframes affected	~US$65k estimated to replace remaining units

7. Aggregate National Cost Estimates and Ranges

This section provides planning-level ranges for national cost exposure. The underlying dataset does not provide a full census of impacted airframes or contractor/local agency fleets. Accordingly, the approach uses (1) a measured floor from reported airframe counts in the 25-state respondent set, (2) proportional scaling to 50 states, and (3) scenario-based cost-per-airframe and transition wrap factors to represent software, training, workflow changes, and vehicle integration.

7.1 State transportation agencies (replacement + transition)

From the respondent set, a minimum of 467 impacted airframes can be directly counted where states provided explicit numbers. Scaling this floor to 50 states yields ~934 impacted airframes. Three scenarios are presented: Low (floor), Moderate (planning), and High (payload-heavy).

State-level all-in transition range (replacement plus transition): approximately US$15 million to US$210 million nationally. Assumptions and calculations are detailed in Appendix A.

7.2 Scenario table

Scenario	Impacted airframes (state level)	Replacement $/airframe	All-in state transition cost
Low (floor)	900	$15,000	~$15.5M (15% wrap)
Moderate (planning)	1,500	$30,000	~$56M (25% wrap)
High (payload-heavy)	2,500	$60,000	~$210M (40% wrap)

8. Implications for Local Transportation Agencies

Many UAS missions supporting transportation outcomes are conducted by local transportation agencies (counties, cities, MPO partners, ports, and transit) and by contractors performing survey, documentation, and inspection services on federal-aid projects. Several state respondents explicitly note that local/municipal impacts may be higher than state DOT impacts and that contractor toolchains are affected.

Because local and contractor fleets are not enumerated in the dataset, this paper uses ratio-based scenarios relative to the state-level impacted airframe scenarios. Three illustrative multipliers (2x, 4x, 8x) are used to represent the plausible range of local/contractor impacted fleets.

8.1 Local/contractor cost exposure scenarios

Scenario	Local impacted airframes (illustrative)	Replacement $/airframe	All-in local transition cost
Low (2x of state floor)	1,800	$15,000	~$31M (15% wrap)
Moderate (4x)	6,000	$30,000	~$225M (25% wrap)
High (8x)	20,000	$60,000	~$1.7B (40% wrap)

8.2 Combined national exposure (state + local)

Combining the state and local illustrative ranges yields an overall national transition exposure on the order of ~US$50 million to ~US$2.0 billion, depending on impacted fleet size and mission mix. Appendix A provides the arithmetic.

9. Considerations for Federal and State Decision-Makers

1) Clarify applicability and timing: Respondents report uncertainty around whether restrictions apply to legacy systems, state-funded systems used on federal-aid projects, and contractor operations. Clear, uniform guidance reduces inconsistent implementation and project delays. Consider a waiver until September 2027.

2) Provide transition support: Where restrictions are immediate, agencies face unfunded replacement liabilities and retraining burdens. Transition funding, phased compliance pathways, and procurement lead-time accommodations reduce service degradation. Consider immediate appropriation of the $50 million authorized by the DIIG Grant of the 2024 FAA Reauthorization as a downpayment on transition.

3) Address capability parity: Survey/mapping, lidar, and specialized inspection missions are disproportionately affected. Supporting capability parity in compliant platforms and software ecosystems reduces operational regression and safety risks.

4) Recognize emergency response realities: Emergencies evolve quickly and funding sources may shift after initial response. Policies and guidance should account for practical field conditions and post-event reimbursement processes.

Conclusion

The compiled state responses demonstrate that federal restrictions on certain foreign-manufactured UAS are producing broad operational disruption and significant transition costs. Impacts concentrate in mature programs that integrated UAS into core workflows for safety, engineering, and emergency response. A coordinated transition approach combining clear federal guidance, realistic timelines, and support for compliant capability parity can reduce near-term risk to transportation project delivery and public safety outcomes.

Appendix A. Assumptions and Calculations

A1. Counted impacted airframes in the 25-state respondent set (floor)

The compilation includes explicit impacted airframe counts for a subset of states. Where a range is given, a midpoint is used for aggregate calculations. This produces a minimum counted impacted airframe total of 467 across 23 reporting entities with explicit counts (some respondents did not provide counts).

State (count provided)	Impacted airframes used in floor count
Alabama	16
Alaska	65
Arkansas	5
California	91
Colorado	16
Georgia	34
Idaho	8
Indiana	25
Kansas	5
Kentucky	2
Massachusetts	2
Minnesota	60
Nebraska	13
New York	23
Oregon	21
Tennessee	14
Utah	64
Virginia	2
Wisconsin	1
South Carolina (SCAC)	0
Texas	0
Maryland (SHA)	0
Wyoming	0

Floor sum: 467 impacted airframes (sum of table above).

A2. Scaling floor to a national state-level estimate

Respondent count: 25 states. National states: 50. Assuming respondent set is broadly representative for an initial planning floor, scale by 50/25 = 2.0.

Calculation: 467 × (50/25) = 467 × 2.0 = 934 impacted airframes (state level, scaled floor).

A3. State-level replacement scenarios

Scenario impacted airframes are rounded for planning. Replacement cost per airframe is bracketed using reported examples (e.g., $15k-$30k per airframe for typical replacements; higher for payload-heavy missions). A transition 'wrap factor' is added to cover software subscriptions, retraining, workflow changes, and vehicle integration.

Low scenario: impacted airframes = 900; cost per airframe = $15,000; wrap factor = 15%.
Replacement = 900 × 15,000 = $13,500,000.
All-in = $13,500,000 × 1.15 = $15,525,000 (~$15.5M).

Moderate scenario: impacted airframes = 1,500; cost per airframe = $30,000; wrap factor = 25%.
Replacement = 1,500 × 30,000 = $45,000,000.
All-in = $45,000,000 × 1.25 = $56,250,000 (~$56M).

High scenario: impacted airframes = 2,500; cost per airframe = $60,000; wrap factor = 40%.
Replacement = 2,500 × 60,000 = $150,000,000.
All-in = $150,000,000 × 1.40 = $210,000,000.

A4. Local agency and contractor extrapolation (illustrative)

Because local agency and contractor fleets are not enumerated, use multipliers relative to the state floor scenario to create an illustrative range.
Low: 2×; Moderate: 4×; High: 8×. Apply same replacement and wrap assumptions as in the matched state scenario.

Local Low: airframes = 1,800; cost = $15,000; wrap = 15%.
Replacement = 1,800 × 15,000 = $27,000,000.
All-in = $27,000,000 × 1.15 = $31,050,000 (~$31M).

Local Moderate: airframes = 6,000; cost = $30,000; wrap = 25%.
Replacement = 6,000 × 30,000 = $180,000,000.
All-in = $180,000,000 × 1.25 = $225,000,000.

Local High: airframes = 20,000; cost = $60,000; wrap = 40%.
Replacement = 20,000 × 60,000 = $1,200,000,000.
All-in = $1,200,000,000 × 1.40 = $1,680,000,000 (~$1.7B).

A5. Combined national exposure (state + local)

Low combined: $15.5M (state) + $31M (local) = $46.5M.
Moderate combined: $56M (state) + $225M (local) = $281M.
High combined: $210M (state) + $1.7B (local) = ~$1.9B.

Appendix B — Alternate Local Exposure Model (Enumerated Entity Method)

This appendix provides an alternate approach to estimating potential impacts to local transportation agencies. The prior local exposure figures presented earlier in this paper were generated using ratio-based scaling scenarios (e.g., local impact modeled as 2× / 4× / 8× the state-level impact). This appendix replaces ratio-scaling with an enumerated entity method using national counts for key local transportation entity types.

B.1 Clarification: Prior Method vs. Alternate Method

Model	What it uses	What it produces
Prior model (ratio-based scaling scenarios)	State-level impacted airframes × assumed multipliers (2× / 4× / 8×)	Illustrative local impact ranges (not tied to an entity count)
Alternate model (enumerated entity method)	National entity counts × adoption rate × average fleet × % impacted	Estimated impacted local airframes and cost ranges with transparent math

B.2 Entity Counts Used (National)

Entity counts used to bound exposure (public sources): 3,143 counties & county equivalents; 19,479 incorporated places; ~408 MPOs; and nearly 3,000 NTD-reporting public transit agencies.

Entity type	National count used
Counties & county equivalents	3,143
Incorporated places (cities/towns/villages)	19,479
Metropolitan Planning Organizations (MPOs)	408
Public transit agencies (NTD reporters)	3,000

B.3 Assumptions (Adoption, Fleet Size, Impact Rate)

Because no national inventory of transportation UAS fleets exists across all local entities, this model relies on explicit assumptions that can be adjusted. Defaults below are intentionally moderate and presented for transparency.

Parameter	Value used
County adoption rate	6%
Incorporated place adoption rate	3%
MPO adoption rate	10%
Transit agency adoption rate	12%
Avg fleet (county)	2.0
Avg fleet (place)	1.5
Avg fleet (MPO)	1.0
Avg fleet (transit)	2.5
% of fleet impacted	65%

B.4 Step-by-Step Calculations

Formula used for each entity class:

Impacted airframes = (National entity count) × (Adoption rate) × (Average fleet size) × (% of fleet impacted).

Entity class	National count	Adoption rate	Adopting entities	Avg fleet	% impacted	Impacted airframes
Counties & county equivalents	3,143	6%	189	2.0	65%	245
Incorporated places (cities/towns/villages)	19,479	3%	584	1.5	65%	570
Metropolitan Planning Organizations (MPOs)	408	10%	41	1.0	65%	27
Public transit agencies (NTD reporters)	3,000	12%	360	2.5	65%	585

Total adopting entities (across classes) = 1,174.

Total impacted local airframes (enumerated method) = 1,426.

B.5 Cost Translation (Replacement + Transition)

Replacement cost is estimated as impacted airframes × cost per airframe. All-in transition cost applies an additional wrap factor to cover software, training, workflow redesign, and integration.

Scenario	Cost per airframe	Replacement only	All-in (incl. wrap)
Low	$15,000 (+15%)	$21,396,521	$24,605,999
Moderate	$30,000 (+25%)	$42,793,042	$53,491,303
High	$60,000 (+40%)	$85,586,085	$119,820,519

Interpretation: This enumerated method bounds local exposure using transparent entity counts and adjustable assumptions. Because adoption rates and fleet sizes vary widely by jurisdiction and mission, this appendix is designed to be tunable rather than definitive.

B.6 Total Exposure Summary — State + Local (Enumerated Model)

The table below combines previously modeled state-level exposure with the alternate enumerated local exposure model presented in Appendix B.

Scenario	State Exposure	Local Exposure (Enumerated)	Combined Total Exposure
Low	$15,000,000	$24,605,999	$39,605,999
Moderate	$56,000,000	$53,491,303	$109,491,303
High	$210,000,000	$119,820,519	$329,820,519

Note: State-level exposure reflects previously modeled national ranges. Local exposure reflects the enumerated entity method detailed above. All figures include transition wrap factors (software, training, workflow integration).

B.7 Clarification on Adoption Assumptions

Adoption rates used in this appendix are planning assumptions, not measured national adoption statistics. They represent the estimated share of entities that either (a) operate UAS directly or (b) routinely contract UAS services for transportation, inspection, or infrastructure missions where federal restrictions would apply.

Because no comprehensive national inventory of local transportation UAS programs exists, these adoption values are intended to be adjustable inputs rather than fixed empirical findings.

B.8 Sensitivity Analysis — Adoption Bands (Low / Mid / High)

To demonstrate how total exposure changes under different adoption assumptions, the table below recalculates impacted airframes using Low, Mid (base), and High adoption bands.

Adoption Scenario	Impacted Local Airframes	Replacement (Moderate Cost)	All-In w/ Transition (Moderate)
Low	570	$17,085,218	$21,356,522
Mid	1,426	$42,793,042	$53,491,303
High	2,820	$84,597,045	$105,746,306

Note: Moderate cost assumptions ($30,000 per airframe with 25% transition wrap) are used for comparability. Users may substitute alternate per-unit cost and wrap assumptions to generate additional bounds.