

# Which States Are Prepared for the Drone Industry? A 50-State Report Card

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## ABSTRACT

Worldwide, commercial drone services are being tested and permitted. Progress in the United States has been slow, in part because of a lack of clarity about the federal and state roles over drones and airspace management. To jump-start the drone industry, states can create drone highways—airial corridors directly above public roads. We score and rank the 50 states based on their laws and drone industry data that indicate their preparedness for drones and drone highways. By adopting laws that allow cities to lease the air rights above public roads, vest air rights with property owners, and establish avigation easements, states can facilitate drone integration independent of reform from Congress or the Federal Aviation Administration. Creating a clear and coherent framework, such as a system of drone highways, will make parcel delivery faster, improve distribution of medical supplies, and create technology and logistics jobs.

*JEL* codes: H77, K11, K23, L93, R48, R52

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**W**orldwide, hundreds of drone companies are testing and creating new drone services. Commercial drone companies have operated for years in countries such as China, Japan, Rwanda, and Switzerland for agricultural uses, deliveries in rural areas, and medical deliveries. In the United States, UPS, Amazon, USPS, and others also want to gain a sliver of the \$30 billion home delivery market. The Trump administration has created several drone pilot projects, including some for public safety and medical uses, but widespread deployment of commercial drones is years away in the United States.

Progress has been slow in part because of a lack of clarity about the federal and state roles over drones and airspace management. For instance, in 2019, the North Dakota legislature authorized \$28 million for a statewide drone traffic management system but is negotiating with the Federal Aviation Administration (FAA) over the state's role in traffic management.<sup>1</sup> Some in Congress would like to codify state and local authority over drone flight management, but the technology is moving faster than federal legislation.<sup>2</sup>

## CREATING DRONE HIGHWAYS

States and cities have police powers over land use and zoning, and low-altitude airspace is inseparable from the land beneath it.<sup>3</sup> Courts look to state law when

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1. Patrick Groves, *North Dakota Plans Statewide Drone Air Traffic Control*, GovTECH (June 10, 2019), <https://www.govtech.com/products/North-Dakota-Plans-Statewide-Drone-Air-Traffic-Control.html>.

2. There are a few bills in Congress that would codify state authority over low-altitude airspace, generally up to 200 feet above the ground. *See* Drone Integration and Zoning Act of 2019, S. 2607, 116th Cong. (2019); Drone Federalism Act of 2017, S. 1272, 115th Cong. (2017); Drone Innovation Act, H.R. 2930, 115th Cong. (2017).

3. The FAA, for instance, acknowledges local authorities' "police powers" in five areas: land use, zoning, privacy, trespass, and law enforcement operations. Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42064, 42194 (June 28, 2016) (codified at 14 C.F.R. pts. 21, 43, 61, 91, 101, 107, et al.).

determining whether approved flight paths amount to an unconstitutional taking of property.<sup>4</sup> For practical and legal reasons, then, state and city authorities will play a key role in demarcating drone highways, as well as in creating time, place, and manner restrictions such as time-of-day rules, noise maximums, and privacy protections.

To jump-start this new industry and bring new drone services to residents, state and local leaders should create “drone highways”—aerial corridors above public rights-of-way—that operators could use for parcel delivery, inspections, search-and-rescue, and other drone services. By demarcating drone highways above roadways, regulators can avoid nuisance, trespass, and takings lawsuits from landowners.<sup>5</sup>

Leasing the aerial corridors above public roads would allow state and local authorities to manage drone highways for safe and efficient drone services. Exercising this power would also allow many authorities to receive passive income, via leasing or auction, from a currently unused public resource—the public right-of-way between 50 feet and 200 feet above the ground.

## ASSESSING STATE POLICY

State laws need to accommodate drone flights from large and small operators and need to clarify who—whether state, local, or federal officials—can make low-altitude airspace available to operators. This report card scores all 50 states based on their existing laws and policies. The report identifies which states have laws and policies that show promise in creating drone highways and a statewide drone industry.

## METHODOLOGY

We score states based on five factors that signal a state’s readiness for drone services. Given the legal obstacles to creating drone highways above private property, we give the most weight to the two factors that make drone highways over public roads feasible—an airspace lease law and an avigation easement law. That said, the other factors are economically important and weighted accordingly. There is necessarily some subjectivity in how to weight these

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4. *United States v. Causby*, 328 U.S. 256, 266 (1946).

5. For a discussion of the imprecise nature of landowners’ air rights and interaction with aerial nuisance laws, see Lindsey P. Gustafson, *Arkansas Airspace Ownership and the Challenge of Drones*, 39 U. ARK. LITTLE ROCK L. REV. 245, 258–77 (2017).

factors. Other relevant legal issues, such as state-based insurance and liability rules, will also affect the drone industry; but in our estimation the following five factors should be the top state priorities.

## 1. Airspace Lease Law (30 points)

To have a widespread and safe drone delivery economy, drones will in most places need “drone highways” demarcated by regulators and safely separated from airports, homes, schools, and other sensitive locations. Leasing airspace above public property would accelerate drone services because creating flight paths over backyards and private lands raises difficult questions about taking of private property.<sup>6</sup>

Over one-third of states currently allow state or local authorities to lease airspace above public roads and public property. There are many variations of these road airspace leasing provisions, but Oregon’s law is a good, clear example:

Any political subdivision holding the easement or fee title to a street or highway may lease the space above or below that street or highway for private purposes.<sup>7</sup>

Although these laws were passed decades ago with real estate development in mind, they allow the creation of statewide or citywide drone delivery networks.

A state law allowing authorities to lease airspace above state *and* local roads receives a full 30 points. Only eight states authorize airspace leasing above both state and local roads.<sup>8</sup> A state law allowing authorities to lease airspace above state roads but not local roads, or vice versa, receives 10 points. Thirteen states fall into this category. The remaining states that are silent on the matter receive zero points.

## 2. Law Vesting Air Rights with Landowners (10 points)

Air rights laws serve a few purposes. First, they clarify that the state is exercising its police powers and defining property rights within the state. Second, where state or local authorities own public rights-of-way, air rights laws recognize their

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6. United States v. Causby, 32 U.S. 256, 265 (1946) (holding that landowners have “a claim to [low-altitude airspace] and that invasions of it are in the same category as invasions of the surface”).

7. Or. Rev. Stat. § 271.430 (2017).

8. These are Arkansas, Connecticut, New Hampshire, Oklahoma, Oregon, Texas, Virginia, and Washington.

property interest in the aerial corridors above public roads. Third, these laws put drone operators and residents on notice about the extent of homeowners' property rights, which reduces litigation risk for operators and homeowners alike.

Wisconsin's law is a good example:

The ownership of the space above the lands and waters of this state is declared to be vested in the several owners of the surface beneath, subject to the right of flight.<sup>9</sup>

Nearly half of states have laws vesting air rights with homeowners; these states receive 10 points. States that are silent on the matter receive zero points.

### 3. Avigation Easement Law (25 points)

Though many states recognize landowners' property rights in the air, they often condition those rights and would allow drone (and airplane) flights over land, so long as flights did not invade the land and people on the ground were not disturbed. Again, Wisconsin's law is typical:

Flight in aircraft over the lands and waters of this state is lawful, unless at such a low altitude as to interfere with the then existing use to which the land or water . . . is put by the owner, or unless so conducted as to be imminently dangerous or damaging to persons or property lawfully on the land or water beneath.<sup>10</sup>

These avigation easement laws mean that drone operators can fly, so long as they are high enough not to bother landowners and passersby. These laws also mean that if the state or municipality doesn't own the aerial corridors above public roads, drones would still generally be able to access the aerial easements if state officials demarcated drone highways above public roads.

Nearly half of states have avigation easement laws and receive 25 points. The states that are silent on the matter receive zero points.

### 4. Aviation Advisory Committee (20 points total)

Widespread commercial drone services will raise novel issues for state and local authorities related to zoning rules, noise limits, time-of-day restrictions, job training and education, insurance, and privacy for private dwellings within

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9. Wis. Stat. § 114.03 (2012).

10. Wis. Stat. § 114.04 (2012).

drone camera-shot range. Most of these issues require extensive evaluation and discussion by regulators, residents, researchers, and operators. States that have a dedicated drone advisory committee or task force will be ahead of the curve and can anticipate future issues before they become problems for industry and residents.

States that have a statewide committee, task force, or Department of Transportation team dedicated to drones long-term receive 20 points. States that don't have a dedicated group for drone issues but have done some work, such as a report, receive 10 points. States that have so far been silent on the issue receive zero points.

## 5. Drone Jobs Estimate (15 points total)

The final factor that contributes to a state's score is the estimated number of drone jobs listed in the state in 2019. We rank states based on the number of drone jobs per 100,000 residents, so that populous states aren't unduly favored. We grant one point (maximum of 15) for every two drone-related jobs per 100,000 residents. The number of drone jobs serves as a proxy for soft factors that benefit a state, such as a university or community college system with drone programs or workers in the aerospace industry. These soft factors can position states for future jobs and services growth, much like the automotive supplies industry revolving around Detroit and the information technology industry revolving around Silicon Valley.

## SOURCES

The three relevant airspace laws were found in state codes. The existence of aviation advisory committees and task forces was compiled by consulting drone experts, state law databases, and news reports. The authors derived all drone job-listing data from Axios analysis of drone-related job postings between January 2019 and October 2019.<sup>11</sup>

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11. Kaveh Waddell, *Where the Drone Jobs Will Land*, AXIOS (Nov. 9, 2019), <https://www.axios.com/drone-jobs-future-a407fe07-262f-4c11-9336-40c8a9ca7b69.html>. Axios records listings in metropolitan areas, not states, so jobs in metropolitan areas that straddle state lines count for the state in which the majority of the metropolitan area resides (metro New York City drone jobs, for instance, count as New York jobs, which may undercount drone jobs in Connecticut and New Jersey somewhat). Drone jobs in the Washington, DC, metro area are counted as Virginia jobs given the prevalence of military and aerospace contractors in Virginia.

# ALABAMA

RANK  
**46**

Score: 6/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 6/15

## Factors Helping the State Score

- *Drone Jobs Estimate*: Alabama has 12 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Airspace Lease Law*: Alabama law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: Alabama law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Alabama law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make Alabama the 46th most drone-friendly state in the country.

# ALASKA

RANK  
**26**  
TIED

Score: 35/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 20/20
- Drone Jobs Estimate: 15/15

## Factors Helping the State Score

- *Aviation Advisory Committee*: Alaska has a joint committee on unmanned aircraft systems (UAS), consisting of members from the UAS industry, various state agencies, and universities.<sup>12</sup> Furthermore, the University of Alaska Fairbanks is home to the Alaska Center for Unmanned Aircraft Systems Integration (ACUASI), whose mission is to be a world-class research center for UAS, with a special emphasis on the Arctic and sub-Arctic regions.<sup>13</sup>
- *Drone Jobs Estimate*: Alaska scores well on drone jobs, leading the country with 44 per 100,000 people.

## Factors Hindering the State Score

- *Airspace Lease Law*: Alaska law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: Alaska law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Alaska law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.

These factors make Alaska tied for the 26th most drone-friendly state in the country.

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12. A list of members of this joint committee can be viewed online. See *Task Force on Unmanned Aircraft Systems*, ALASKA STATE LEGISLATURE, <http://www.akleg.gov/basis/Committee/Details/31?code=SUNM>, accessed March 4, 2020.

13. University of Alaska Fairbanks, *About Us*, ACUASI, <https://acuasi.alaska.edu/about>, accessed March 4, 2020.

# ARIZONA

RANK  
**15**  
TIED

Score: 48/100

- Airspace Lease Law: 10/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 3/15

## Factors Helping the State Score

- *Airspace Lease Law*: Arizona law allows local officials to lease airspace, and therefore create drone highways, above local roads.<sup>14</sup> However, the state did not receive full points because the law is silent as to whether state officials can lease airspace above state roads and state property.
- *Law Vesting Air Rights with Landowners*: Arizona law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>15</sup>
- *Avigation Easement Law*: Arizona law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>16</sup>

## Factors Hindering the State Score

- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: Arizona has 5.8 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Arizona tied for the 15th most drone-friendly state in the country.

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14. Ariz. Rev. Stat. Ann. § 28-7048 (2015).

15. Ariz. Rev. Stat. Ann. § 28-8207 (2018).

16. Ariz. Rev. Stat. Ann. § 28-8277 (2018).

# ARKANSAS

RANK  
**2**

Score: 69/100

- Airspace Lease Law: 30/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 4/15

## Factors Helping the State Score

- *Airspace Lease Law*: Arkansas law allows state and local authorities to lease low-altitude airspace above state roads and local roads.<sup>17</sup> Such a law allows state and local authorities to create drone highways above state and local roadways.
- *Law Vesting Air Rights with Landowners*: Arkansas law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>18</sup>
- *Avigation Easement Law*: Arkansas law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>19</sup>

## Factors Hindering the State Score

- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: Arkansas has 8.5 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Arkansas the 2nd most drone-friendly state in the country.

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17. Ark. Code Ann. § 27-64-101 (2017).

18. Ark. Code Ann. § 27-116-102 (2017).

19. Ark. Code Ann. § 27-116-102 (2017).

# CALIFORNIA

RANK  
**7**  
TIED

Score: 58/100

- Airspace Lease Law: 10/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 10/20
- Drone Jobs Estimate: 3/15

## Factors Helping the State Score

- *Airspace Lease Law*: California law allows state authorities to lease low-altitude airspace above state highways.<sup>20</sup> Such a law allows state officials to create drone highways above these roadways. However, the state did not receive full points because the law is silent as to whether local officials can lease airspace above local roads.
- *Law Vesting Air Rights with Landowners*: California law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>21</sup>
- *Avigation Easement Law*: California law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>22</sup>
- *Aviation Advisory Committee*: California has a state Senate Committee on Technology and the New Economy.<sup>23</sup> While it has sponsored no legislation to date, it would serve as a natural place for the state to examine and promulgate statewide drone policies.

## Factors Hindering the State Score

- *Drone Jobs Estimate*: California has 6.6 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make California tied for the 7th most drone-friendly state in the country.

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20. Cal. Sts. & High. Code § 104.12 (Deering 2020).

21. Cal. Pub. Util. Code § 21402 (Deering 2020)

22. Cal. Pub. Util. Code § 21403 (Deering 2020).

23. A list of members of this committee can be viewed online. See *Select Committee on Career Technology and the New Economy*, CAL. STATE SENATE, <https://www.senate.ca.gov/careertechnologyneweconomy>, accessed March 4, 2020.

# COLORADO

RANK  
**7**  
TIED

Score: 58/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 20/20
- Drone Jobs Estimate: 3/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: Colorado law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>24</sup>
- *Avigation Easement Law*: Colorado law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>25</sup>
- *Aviation Advisory Committee*: The Colorado legislature passed a law in 2017 creating a center within the Division of Fire Prevention and Control that studies the integration of UAS as they relate to public safety functions.<sup>26</sup>

## Factors Hindering the State Score

- *Airspace Lease Law*: Colorado law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Drone Jobs Estimate*: Colorado has 6.6 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Colorado tied for the 7th most drone-friendly state in the country.

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24. Colo. Rev. Stat. § 41-1-107 (2016).

25. Colo. Rev. Stat. § 13-21-118 (2016).

26. H.B. 17-1070, 72nd Gen. Assemb., Reg. Sess. (Colo. 2017), <http://leg.colorado.gov/bills/hb17-1070>.

# CONNECTICUT

RANK  
**23**  
TIED

Score: 38/100

- Airspace Lease Law: 30/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 8/15

## Factors Helping the State Score

- *Airspace Lease Law*: Connecticut law allows state and local authorities to lease low-altitude airspace above state and local roads.<sup>27</sup> Such a law allows state or local authorities to create drone highways above local roadways.
- *Drone Jobs Estimate*: Connecticut has 16.8 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: Connecticut law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Connecticut law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make Connecticut tied for the 23rd most drone-friendly state in the country.

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27. Conn. Gen. Stat. Ann. § 13a-80g (West 2018).

# DELAWARE

RANK  
17

Score: 44/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 9/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: Delaware law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>28</sup>
- *Avigation Easement Law*: Delaware law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>29</sup>
- *Drone Jobs Estimate*: Delaware has 18 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Airspace Lease Law*: Delaware law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make Delaware the 17th most drone-friendly state in the country.

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28. Del. Code tit. 2 § 303 (Deering 2020).

29. Del. Code tit. 2 § 304 (Deering 2020).

# FLORIDA

RANK  
41

Score: 13/100

- *Airspace Lease Law*: 10/30
- *Law Vesting Air Rights with Landowners*: 0/10
- *Avigation Easement Law*: 0/25
- *Aviation Advisory Committee*: 0/20
- *Drone Jobs Estimate*: 3/15

## Factors Helping the State Score

- *Airspace Lease Law*: Florida law allows state authorities to lease low-altitude airspace above state highways.<sup>30</sup> Such a law allows state or local authorities to create drone high-ways above these roadways. However, the state did not receive full points because the law is silent as to whether local officials can lease airspace above local roads.

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: Florida law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Florida law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: Florida has 5.6 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Florida the 41st most drone-friendly state in the country.

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30. Fla. Stat. Ann. § 337.251 (2019).

# GEORGIA

RANK  
**13**  
TIED

Score: 49/100

- Airspace Lease Law: 10/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 4/15

## Factors Helping the State Score

- *Airspace Lease Law*: Georgia law allows state authorities to lease low-altitude airspace above limited-access highways. Such a law allows state authorities to create drone highways above these roadways.<sup>31</sup> However, the state did not receive full points because the law is silent as to whether officials can lease airspace above local roadways and state highways that are not limited access.
- *Law Vesting Air Rights with Landowners*: Georgia law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>32</sup>
- *Avigation Easement Law*: Georgia law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>33</sup>

## Factors Hindering the State Score

- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: Georgia has 7.4 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Georgia tied for the 13th most drone-friendly state in the country.

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31. Ga. Code Ann. § 32-6-117 (2018).

32. Ga. Code Ann. § 44-1-2 (2019).

33. Ga. Code Ann. § 6-2-5 (2010).

# HAWAII

RANK  
**26**  
TIED

Score: 35/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 0/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: Hawaii law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>34</sup>
- *Avigation Easement Law*: Hawaii law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>35</sup>

## Factors Hindering the State Score

- *Airspace Lease Law*: Hawaii law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: Hawaii has 0 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Hawaii tied for the 26th most drone-friendly state in the country.

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34. Haw. Rev. Stat. § 263-3 (2012).

35. Haw. Rev. Stat. § 263-4 (2012).

# IDAHO

RANK  
**18**  
TIED

Score: 40/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 5/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: Idaho law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>36</sup>
- *Avigation Easement Law*: Idaho law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>37</sup>
- *Drone Jobs Estimate*: Idaho has 9.3 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Airspace Lease Law*: Idaho law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make Idaho tied for the 18th most drone-friendly state in the country.

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36. Idaho Code § 21-203 (2016).

37. Idaho Code § 21-204 (2019).

# ILLINOIS

RANK  
**33**  
TIED

Score: 23/100

- Airspace Lease Law: 10/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 10/20
- Drone Jobs Estimate: 3/15

## Factors Helping the State Score

- *Airspace Lease Law*: Illinois law allows Chicago authorities to lease low-altitude airspace above city streets,<sup>38</sup> enabling them to create drone highways above these roadways. However, the state did not receive full points because the law is silent as to whether state officials can lease airspace above state roads and whether local officials outside Chicago can lease airspace above local roads.
- *Aviation Advisory Committee*: The state created a drone task force under a bill passed in 2016 called the Illinois Unmanned Aerial System Oversight Task Force Act. This was a task force that met monthly from January of 2016 until June of 2016 on issues related to UAS. Upon conclusion, the task force submitted its proposals to the governor.<sup>39</sup>

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: Illinois law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Illinois law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Drone Jobs Estimate*: Illinois has 6.0 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Illinois tied for the 33rd most drone-friendly state in the country.

38. 65 Ill. Comp. Stat. 20/21-17 (2019).

39. See *Illinois Unmanned Aerial System Oversight Task Force*, ILL. DEP'T OF TRANSP., <https://idot.illinois.gov/transportation-system/transportation-management/planning/IUASOTF/Index>, accessed March 4, 2020.

# INDIANA

RANK  
**25**

Score: 37/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 2/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: Indiana law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>40</sup>
- *Avigation Easement Law*: Indiana law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>41</sup>

## Factors Hindering the State Score

- *Airspace Lease Law*: Indiana law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: Indiana has 4.7 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Indiana the 25th most drone-friendly state in the country.

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40. Ind. Code § 8-21-4-3 (2018).

41. Ind. Code § 8-21-4-4 (2018).

# IOWA

RANK  
**47**  
TIED

Score: 4/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 4/15

## Factors Hindering the State Score

- *Airspace Lease Law*: Iowa law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: Iowa law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Iowa law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: Iowa has 8.5 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Iowa tied for the 47th most drone-friendly state in the country.

# KANSAS

RANK  
**32**

Score: 26/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 20/20
- Drone Jobs Estimate: 6/15

## Factors Helping the State Score

- *Aviation Advisory Committee*: The state created a task force in their Department of Transportation consisting of members from the university system, various state governmental agencies, and the Kansas Farm Bureau.<sup>42</sup> The Kansas UAS program has a specific focus on long-line linear infrastructure such as highways, railroads, and energy distribution lines.
- *Drone Jobs Estimate*: Kansas has 11.5 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Airspace Lease Law*: Kansas law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: Kansas law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Kansas law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.

These factors make Kansas the 32nd most drone-friendly state in the country.

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<sup>42</sup>.*About Us*, KANSAS UAS INTEGRATION PILOT PROGRAM, <https://www.ippkansas.org/>, accessed March 4, 2020.

# KENTUCKY

RANK  
**49**

Score: 3/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 3/15

## Factors Hindering the State Score

- *Airspace Lease Law*: Kentucky law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: Kentucky law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Kentucky law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: Kentucky has 5.5 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Kentucky the 49th most drone-friendly state in the country.

# LOUISIANA

RANK  
**37**  
TIED

Score: 15/100

- Airspace Lease Law: 10/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 5/15

## Factors Helping the State Score

- *Airspace Lease Law*: Louisiana law allows local authorities to lease low-altitude airspace above state highways. Such a law allows local authorities to create drone highways above these roadways.<sup>43</sup> However, the state did not receive full points because the law is silent as to whether state officials can lease airspace above state roads and state property.

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: Louisiana law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Louisiana law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: Louisiana has 9.2 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Louisiana tied for the 37th most drone-friendly state in the country.

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43. La. Rev. Stat. § 33:4712.1 (2019).

# MAINE

RANK  
**35**

## Score: 17/100

- Airspace Lease Law: 10/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 7/15

## Factors Helping the State Score

- *Airspace Lease Law*: Maine law allows local authorities to lease low-altitude airspace above state highways. Such a law allows local authorities to create drone highways above these roadways.<sup>44</sup> However, the state did not receive full points because the law is silent as to whether state officials can lease airspace above state roads and state property.
- *Drone Jobs Estimate*: Maine has 13.2 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: Maine law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Maine law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make Maine the 35th most drone-friendly state in the country.

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44. Me. Rev. Stat. tit. 30-A, § 3551 (2019).

# MARYLAND

RANK  
**22**

Score: 39/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 10/20
- Drone Jobs Estimate: 4/15

## Factors Helping the State Score

- *Avigation Easement Law*: Maryland law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>45</sup>
- *Aviation Advisory Committee*: The legislature instructed the Department of Commerce to draft a state drone report, which was released in 2015.<sup>46</sup> State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

## Factors Hindering the State Score

- *Airspace Lease Law*: Maryland law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: Maryland law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Drone Jobs Estimate*: Maryland has 8.2 drone-related jobs per 100,000 people, ranking it in the bottom half of states.<sup>47</sup>

These factors make Maryland the 22nd most drone-friendly state in the country.

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45. Md. Code Ann., Transp. § 5-1001 (2019).

46. MD. DEP'T OF COM., UAS AND MARYLAND: OPPORTUNITY AND ACCOUNTABILITY (2015), <https://commerce.maryland.gov/Documents/ProgramReport/Maryland-UAS-report.pdf>.

47. As mentioned in the report, our drone jobs data source collects job information at the metropolitan level. We assigned Washington, DC-area drone jobs to Virginia given the prevalence of defense and aerospace firms in northern Virginia. As a result, Maryland drone jobs are undercounted somewhat. This is a limitation of the data available that we hope to improve in later reports.

# MASSACHUSETTS

RANK  
**18**  
TIED

Score: 40/100

- Airspace Lease Law: 10/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 5/15

## Factors Helping the State Score

- *Airspace Lease Law*: Massachusetts law allows state authorities to lease low-altitude airspace over Boston’s metropolitan highways and above state highways.<sup>48</sup> Such a law allows state authorities to create drone highways above these roadways. However, the state did not receive full points because the law is silent as to whether local officials outside of Boston can lease airspace above local roads.
- *Avigation Easement Law*: Massachusetts law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don’t disturb people on the ground.<sup>49</sup>
- *Drone Jobs Estimate*: Massachusetts has 9.7 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: Massachusetts law doesn’t expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don’t know the extent of their property rights and may sue to protect their interests.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make Massachusetts tied for the 18th most drone-friendly state in the country.

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48. Mass. Gen. Laws Ann. ch. 6C, § 46 (2020); Mass. Gen. Laws Ann. ch. 81, § 7L (2019).

49. Mass. Gen. Laws Ann. ch. 90, § 46 (2019).

# MICHIGAN

RANK  
**33**  
TIED

Score: 23/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 20/20
- Drone Jobs Estimate: 3/15

## Factors Helping the State Score

- *Aviation Advisory Committee*: The Michigan Department of Transportation created a robust task force, called the Unmanned Aircraft Systems (UAS) Task Force. This 27-member coalition develops statewide policy recommendations on the operation, use, and regulation of UAS in Michigan.<sup>50</sup>

## Factors Hindering the State Score

- *Airspace Lease Law*: Michigan law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: Michigan law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Michigan law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Drone Jobs Estimate*: Michigan has 5.8 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Michigan tied for the 33rd most drone-friendly state in the country.

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50. MDOT Office of Aeronautics, *Unmanned Aircraft Systems Task Force*, MICH. DEP'T OF TRANSP., [https://www.michigan.gov/aero/0,4533,7-352-79155\\_79157\\_84492---,00.html](https://www.michigan.gov/aero/0,4533,7-352-79155_79157_84492---,00.html), accessed March 4, 2020.

# MINNESOTA

RANK  
12

Score: 50/100

- Airspace Lease Law: 10/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 5/15

## Factors Helping the State Score

- *Airspace Lease Law*: Minnesota law allows state authorities to lease low-altitude airspace over “trunk highways.”<sup>51</sup> Such a law allows state authorities to create drone highways above these roadways. However, the state did not receive full points because the law is silent as to whether local officials can lease airspace above local roads and whether airspace above non-trunk highways can be leased.
- *Law Vesting Air Rights with Landowners*: Minnesota law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>52</sup>
- *Avigation Easement Law*: Minnesota law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don’t disturb people on the ground.<sup>53</sup>
- *Drone Jobs Estimate*: Minnesota has 10.0 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make Minnesota the 12th most drone-friendly state in the country.

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51. Minn. Stat. § 161.433 (2019).

52. Minn. Stat. § 360.012 (2019), Subd. 2.

53. Minn. Stat. § 360.012 (2019).

# MISSISSIPPI

RANK  
**47**  
TIED

Score: 4/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 4/15

## Factors Hindering the State Score

- *Airspace Lease Law*: Mississippi law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: Mississippi law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Mississippi law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: Mississippi has 7.2 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Mississippi tied for the 47th most drone-friendly state in the country.

# MISSOURI

RANK  
**23**  
TIED

Score: 38/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 3/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: Missouri law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>54</sup>
- *Avigation Easement Law*: Missouri law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>55</sup>

## Factors Hindering the State Score

- *Airspace Lease Law*: Missouri law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: Missouri has 6.7 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Missouri tied for the 23rd most drone-friendly state in the country.

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54. Mo. Rev. Stat. § 305.020 (2012).

55. Mo. Rev. Stat. § 305.030 (2018).

# MONTANA

RANK  
**11**

Score: 52/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 10/20
- Drone Jobs Estimate: 7/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: Montana law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>56</sup>
- *Avigation Easement Law*: Montana law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>57</sup>
- *Aviation Advisory Committee*: Montana created an unmanned aerial vehicle forum, which is a listserv for distributing drone-related information to residents of Montana.<sup>58</sup>
- *Drone Jobs Estimate*: Montana has 13.5 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Airspace Lease Law*: Montana law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.

These factors make Montana the 11th most drone-friendly state in the country.

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56. Mont. Code Ann. § 67-1-203 (2019).

57. Mont. Code Ann. § 67-1-204 (2019).

58. *Unmanned Aerial Vehicles Forum*, MDT, <https://www.mdt.mt.gov/mdt/uav-forum.shtml>, accessed March 4, 2020.

# NEBRASKA

RANK  
**44**  
TIED

Score: 9/100

- *Airspace Lease Law*: 0/30
- *Law Vesting Air Rights with Landowners*: 0/10
- *Avigation Easement Law*: 0/25
- *Aviation Advisory Committee*: 0/20
- *Drone Jobs Estimate*: 9/15

## Factors Helping the State Score

- *Drone Jobs Estimate*: Nebraska has 18.1 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Airspace Lease Law*: Nebraska law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: Nebraska law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Nebraska law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make Nebraska tied for the 44th most drone-friendly state in the country.

# NEVADA

RANK  
**5**

Score: 63/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 20/20
- Drone Jobs Estimate: 8/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: Nevada law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>59</sup>
- *Avigation Easement Law*: Nevada law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>60</sup>
- *Aviation Advisory Committee*: Within the Governor's Office of Economic Development, the state created the Nevada Institute for Autonomous Systems, which leads the drone industry through business relations and collaboration with research institutions and develops state drone policy.<sup>61</sup>
- *Drone Jobs Estimate*: Nevada has 15.6 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Airspace Lease Law*: Nevada law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.

These factors make Nevada the 5th most drone-friendly state in the country.

59. Nev. Rev. Stat. Ann. § 493.040 (2013).

60. Nev. Rev. Stat. Ann. § 493.050(1) (2017).

61. *About*, NEVADA INSTITUTE FOR AUTONOMOUS SYSTEMS, <https://nias-uas.com/about/>, accessed March 4, 2020.

# NEW HAMPSHIRE

RANK  
**26**  
TIED

Score: 35/100

- Airspace Lease Law: 30/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 5/15

## Factors Helping the State Score

- *Airspace Lease Law*: New Hampshire law allows state and local authorities to lease low-altitude airspace above state and local roads. Such a law allows state and local authorities to create drone highways above state and local roadways.<sup>62</sup>
- *Drone Jobs Estimate*: New Hampshire has 10.8 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: New Hampshire law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: New Hampshire law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make New Hampshire tied for the 26th most drone-friendly state in the country.

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62. N.H. Rev. Stat. Ann. § 236:18 (2017); N.H. Rev. Stat. Ann. § 48-B:2 (2018).

# NEW JERSEY

RANK  
9

Score: 55/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 20/20
- Drone Jobs Estimate: 0/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: New Jersey law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>63</sup>
- *Avigation Easement Law*: New Jersey law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>64</sup>
- *Aviation Advisory Committee*: New Jersey created a drone program within the Bureau of Aeronautics in the New Jersey Department of Transportation.<sup>65</sup> The state has hired professionals to lead the program and intends to use UAS technology for initiatives related to traffic management, structural inspections, and aerial corridor 3D mapping.

## Factors Hindering the State Score

- *Airspace Lease Law*: New Jersey law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Drone Jobs Estimate*: New Jersey has 0.1 drone-related jobs per 100,000 people, ranking it in the bottom half of states.<sup>66</sup>

These factors make New Jersey the 9th most drone-friendly state in the country.

63. N.J. Rev. Stat. § 6:2-5 (2013).

64. N.J. Rev. Stat. § 6:2-6 (2013).

65. *Drone Program Takes Off in Bureau of Aeronautics*, NJDOT TECHNOLOGY TRANSFER (Jan. 24, 2018), <https://www.njdottechtransfer.net/2018/01/24/drone-program-takes-off-bureau-aeronautics/>.

66. As mentioned in the report, our drone jobs data source collects job information at the metropolitan level. For metropolitan areas that straddle state lines, such as New York City, we generally assign jobs to the state where the largest city is located. As a result, New Jersey drone jobs are undercounted somewhat. This is a limitation of the data available that we hope to improve in later reports.

# NEW MEXICO

RANK  
42

Score: 11/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 11/15

## Factors Helping the State Score

- *Drone Jobs Estimate*: New Mexico has 21.4 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Airspace Lease Law*: New Mexico law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: New Mexico law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: New Mexico law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make New Mexico the 42nd most drone-friendly state in the country.

# NEW YORK

RANK  
**36**

## Score: 16/100

- Airspace Lease Law: 10/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 6/15

## Factors Helping the State Score

- *Airspace Lease Law*: New York law allows local authorities to lease low-altitude airspace above local roads.<sup>67</sup> Such a law allows state and local authorities to create drone highways above state and local roadways. However, the state did not receive full points because the law is silent as to whether state officials can lease airspace above state roads and property.
- *Drone Jobs Estimate*: New York has 12.9 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: New York law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: New York law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make New York the 36th most drone-friendly state in the country.

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67. N.Y. Gen. Mun. Law § 72-N (Consol. 2020).

# NORTH CAROLINA

RANK  
**6**

Score: 59/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 20/20
- Drone Jobs Estimate: 4/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: North Carolina law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>68</sup>
- *Avigation Easement Law*: North Carolina law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>69</sup>
- *Aviation Advisory Committee*: North Carolina created a UAS program office in its division of aviation with the goal of "promoting the economic wellbeing of North Carolina through air transportation system development and improved aviation safety and education."<sup>70</sup>

## Factors Hindering the State Score

- *Airspace Lease Law*: North Carolina law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Drone Jobs Estimate*: North Carolina has 9.0 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make North Carolina the 6th most drone-friendly state in the country.

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68. N.C. Gen. Stat. § 63-12 (2019).

69. N.C. Gen. Stat. § 63-13 (2019).

70. *Unmanned Aircraft Systems*, N.C. DEP'T OF TRANSP. (Dec. 6, 2019), <https://www.ncdot.gov/divisions/aviation/uas/Pages/default.aspx>.

# NORTH DAKOTA

RANK  
**1**

Score: 70/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 20/20
- Drone Jobs Estimate: 15/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: North Dakota law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>71</sup>
- *Avigation Easement Law*: North Dakota law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>72</sup>
- *Aviation Advisory Committee*: North Dakota is a part of the FAA's UAS Integration Pilot Program, an initiative aimed at shaping the future of drones in America. As a result, the North Dakota Department of Transportation and other agencies work on policies that advance UAS operations, including beyond visual line of sight, flights over people, and night operations.<sup>73</sup>
- *Drone Jobs Estimate*: North Dakota has 40.0 drone-related jobs per 100,000 people, ranking it second among all states.

## Factors Hindering the State Score

- *Airspace Lease Law*: North Dakota law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.

These factors make North Dakota the most drone-friendly state in the country.

71. N.D. Cent. Code § 2-03-03 (2019).

72. N.D. Cent. Code § 2-03-04 (2019).

73. *Unmanned Aircraft Systems Integration Pilot Program*, N.D. DEP'T OF TRANSP., <https://www.dot.nd.gov/uas/>, accessed March 4, 2020.

# OHIO

RANK  
**30**  
TIED

Score: 32/100

- Airspace Lease Law: 10/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 20/20
- Drone Jobs Estimate: 2/15

## Factors Helping the State Score

- *Airspace Lease Law*: Ohio law allows state authorities to lease low-altitude airspace above state roads.<sup>74</sup> Such a law allows state authorities to create drone highways above state roadways. However, the state did not receive full points because the law is silent as to whether state or local officials can lease airspace above local roads.
- *Aviation Advisory Committee*: Ohio has a UAS Center, which serves as a one-stop shop for unmanned aircraft and advanced aviation technologies. This center was created by the Ohio Department of Transportation in recognition that UAS technologies are “advancing rapidly and disrupting their respective industries by developing remote and automated operation for transportation applications.”<sup>75</sup>

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: Ohio law doesn’t expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don’t know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Ohio law doesn’t create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don’t disturb people on the ground.
- *Drone Jobs Estimate*: Ohio has 4.2 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Ohio tied for the 30th most drone-friendly state in the country.

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74. Ohio Rev. Code § 5501.45 (2003).

75. *Ohio Unmanned Aircraft Systems Center*, <https://uas.ohio.gov/wps/portal/gov/uas>, accessed March 4, 2020.

# OKLAHOMA

RANK  
**4**

Score: 64/100

- Airspace Lease Law: 30/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 20/20
- Drone Jobs Estimate: 4/15

## Factors Helping the State Score

- *Airspace Lease Law*: Oklahoma law allows airspace leasing above local roads, state roads, and state property.<sup>76</sup> This law allows state authorities to create drone highways above state and local roadways.
- *Law Vesting Air Rights with Landowners*: Oklahoma law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>77</sup>
- *Aviation Advisory Committee*: Oklahoma commissioned a report to the governor in 2015 on UASs, a positive signal. This report devised a strategic plan for the development of UAS in the state, but the state has not created any agencies specifically focused on UAS. The state also created the Aerospace Commerce Economic Services committee, which has a subsection dedicated to UAS technology.<sup>78</sup> Furthermore, Oklahoma State University and the University of Oklahoma are leaders in the UAS field—the first universities to offer graduate degrees related to UAS and unmanned aerial vehicle technology.<sup>79</sup>

## Factors Hindering the State Score

- *Avigation Easement Law*: Oklahoma law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Drone Jobs Estimate*: Oklahoma has 7.3 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Oklahoma the 4th most drone-friendly state in the country.

76. Okla. Stat. tit. 60, § 812 (2019).

77. Okla. Stat. tit. 60, § 802 (2016).

78. *About Us*, OKLAHOMA ACES, <https://okaces.org/about-us>, accessed March 4, 2020.

79. *Industry*, OKLAHOMA ACES, <https://okaces.org/industry>, accessed March 4, 2020.

# OREGON

RANK  
**30**  
TIED

Score: 32/100

- Airspace Lease Law: 30/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 2/15

## Factors Helping the State Score

- *Airspace Lease Law*: Oregon law allows airspace leasing above local roads, state roads, and state property.<sup>80</sup> This law allows state authorities to create drone highways above state and local roadways.

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: Oregon law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Oregon law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: Oregon has 4.9 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Oregon tied for the 30th most drone-friendly state in the country.

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80. Or. Rev. Stat. § 271.430 (2019).

# PENNSYLVANIA

RANK  
**37**  
TIED

Score: 15/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 10/20
- Drone Jobs Estimate: 5/15

## Factors Helping the State Score

- *Aviation Advisory Committee*: Pennsylvania created a joint state government commission to report on UAS in the state in 2017. This commission consisted of 14 members of the Pennsylvania state legislature.<sup>81</sup>
- *Drone Jobs Estimate*: Pennsylvania has 10.3 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: Pennsylvania law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Airspace Lease Law*: Pennsylvania law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Avigation Easement Law*: Pennsylvania law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.

These factors make Pennsylvania tied for the 37th most drone-friendly state in the country.

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81. GEN. ASSEMB. OF THE COMMONWEALTH OF PA., J. STATE GOV'T COMM'N, REPORT ON UNMANNED AIRCRAFT SYSTEMS IN PENNSYLVANIA (Jan. 2017), [http://jsg.legis.state.pa.us/resources/documents/ftp/publications/2017-01-27%20WEBSITE%20PDF%20UAS%20\(DRONES\)%201.27.17%20at%20250%20WB.pdf](http://jsg.legis.state.pa.us/resources/documents/ftp/publications/2017-01-27%20WEBSITE%20PDF%20UAS%20(DRONES)%201.27.17%20at%20250%20WB.pdf).

# RHODE ISLAND

RANK  
**44**  
TIED

Score: 9/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 9/15

## Factors Helping the State Score

- *Drone Jobs Estimate*: Rhode Island has 18.1 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Airspace Lease Law*: Rhode Island law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: Rhode Island law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Rhode Island law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make Rhode Island tied for the 44th most drone-friendly state in the country.

# SOUTH CAROLINA

RANK  
**50**

Score: 2/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 2/15

## Factors Hindering the State Score

- *Airspace Lease Law*: South Carolina law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: South Carolina law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: South Carolina law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: South Carolina has 4.9 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make South Carolina the least drone-friendly state in the country.

# SOUTH DAKOTA

RANK  
**43**

Score: 10/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 10/15

## Factors Helping the State Score

- *Drone Jobs Estimate*: South Dakota has 20.0 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Airspace Lease Law*: South Dakota law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: South Dakota law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: South Dakota law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make South Dakota the 43rd most drone-friendly state in the country.

# TENNESSEE

RANK  
**18**  
TIED

Score: 40/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 5/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: Tennessee law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>82</sup>
- *Avigation Easement Law*: Tennessee law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>83</sup>
- *Drone Jobs Estimate*: Tennessee has 10.3 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Airspace Lease Law*: Tennessee law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make Tennessee tied for the 18th most drone-friendly state in the country.

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82. Tenn. Code Ann. § 42-1-103 (2014).

83. Tenn. Code Ann. § 42-1-104(a) (2018).

# TEXAS

RANK  
**10**

Score: 54/100

- Airspace Lease Law: 30/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 20/20
- Drone Jobs Estimate: 4/15

## Factors Helping the State Score

- *Airspace Lease Law*: Texas law allows airspace leasing above local roads, state roads, and state property.<sup>84</sup> This law allows state authorities to create drone highways above state and local roadways and reduces the risk of litigation.
- *Aviation Advisory Committee*: In 2019, Governor Abbott created a Connected and Autonomous Vehicle Task Force within the Department of Transportation.<sup>85</sup> The task force has representatives from the drone industry, and part of the task force's mission is to stimulate drone jobs and services in Texas.

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: Texas law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Texas law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Drone Jobs Estimate*: Texas has 7.2 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Texas the 10th most drone-friendly state in the country.

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84. Tex. Transp. Code Ann. § 202.052 (2019); Tex. Loc. Gov't Code § 373.005 (2019).

85. Press Release, TxDOT Media Center, Texas to Form Connected and Automated Vehicle Task Force (Jan. 22, 2019), <https://www.txdot.gov/inside-txdot/media-center/statewide-news/020-2019.html>.

# UTAH

RANK  
40

## Score: 14/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 10/20
- Drone Jobs Estimate: 4/15

## Factors Helping the State Score

- *Aviation Advisory Committee*: Utah commissioned a report on the evaluation and development of unmanned aerial vehicles in 2012 and the Department of Transportation created a policy document in 2017,<sup>86</sup> but current drone policy in Utah seems limited to Utah Department of Transportation uses.<sup>87</sup> While the report and policy document are good steps, the state did not receive full points because the drone advisory committee was limited in scope.

## Factors Hindering the State Score

- *Airspace Lease Law*: Utah law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Law Vesting Air Rights with Landowners*: Utah law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Utah law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Drone Jobs Estimate*: Utah has 7.3 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Utah the 40th most drone-friendly state in the country.

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86. UTAH DEP'T OF TRANSP., RESEARCH DIV., REPORT NO. UT-12.08, EVALUATION AND DEVELOPMENT OF UAV FOR UDOT NEEDS (July 2012), <https://www.udot.utah.gov/main/uconowner.gf?n=10710706202834543>.

87. *Id.*

# VERMONT

RANK  
**3**

Score: 67/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 20/20
- Drone Jobs Estimate: 12/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: Vermont law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>88</sup>
- *Avigation Easement Law*: Vermont law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>89</sup>
- *Aviation Advisory Committee*: Vermont created a UAS program within its Agency of Transportation. The program's main usage in this capacity is aiding that agency in emergency operations, infrastructure inspection, and construction site monitoring.<sup>90</sup>
- *Drone Jobs Estimate*: Vermont has 24.6 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Airspace Lease Law*: Vermont law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.

These factors make Vermont the 3rd most drone-friendly state in the country.

88. Vt. Stat. Ann. tit. 5, § 402 (1985).

89. Vt. Stat. Ann. tit. 5, § 403 (1985).

90. Dan Delabruere, Vt. Rail and Aviation Bureau Dir., *VTrans UAS Unmanned Aircraft Systems* (Presentation to the Vt. S. Comm. on Transp., Mar. 14, 2019), [https://legislature.vermont.gov/Documents/2020/WorkGroups/Senate%20Transportation/VTrans%20Testimony/VTrans%20Aviation%20Testimony/W-Dan%20Delabruere-VTrans%20Unmanned%20Aircraft%20Systems%20\(UAS\)-3-14-2019.pdf](https://legislature.vermont.gov/Documents/2020/WorkGroups/Senate%20Transportation/VTrans%20Testimony/VTrans%20Aviation%20Testimony/W-Dan%20Delabruere-VTrans%20Unmanned%20Aircraft%20Systems%20(UAS)-3-14-2019.pdf).

# VIRGINIA

RANK  
**18**  
TIED

Score: 40/100

- Airspace Lease Law: 30/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 10/15

## Factors Helping the State Score

- *Airspace Lease Law*: Virginia law allows state and local authorities to lease low-altitude airspace above state and local roads.<sup>91</sup> Such a law allows state or local authorities to create drone highways above state and local roadways.
- *Drone Jobs Estimate*: Virginia has 20.2 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: Virginia law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Virginia law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make Virginia tied for the 18th most drone-friendly state in the country.

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91. Va. Code Ann. § 33.2-226 (2015).

# WASHINGTON

RANK  
**26**  
TIED

Score: 35/100

- Airspace Lease Law: 30/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 5/15

## Factors Helping the State Score

- *Airspace Lease Law*: Washington law allows state and local authorities to lease low-altitude airspace above state and local roads.<sup>92</sup> Such a law allows authorities to create drone highways above state and local roadways.
- *Drone Jobs Estimate*: Washington has 10.5 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: Washington law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: Washington law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make Washington tied for the 26th most drone-friendly state in the country.

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92. Wash. Rev. Code Ann. § 35.22.302 (2019); Wash. Rev. Code Ann. § 47.12.120 (2019).

# WEST VIRGINIA

RANK  
**37**  
TIED

Score: 15/100

- Airspace Lease Law: 10/30
- Law Vesting Air Rights with Landowners: 0/10
- Avigation Easement Law: 0/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 5/15

## Factors Helping the State Score

- *Airspace Lease Law*: West Virginia law allows state authorities to lease low-altitude airspace above state roads.<sup>93</sup> Such a law allows authorities to create drone highways above state roadways. However, the state did not receive full points because the law is silent as to whether local officials can lease airspace above local roads.
- *Drone Jobs Estimate*: West Virginia has 10.1 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Law Vesting Air Rights with Landowners*: West Virginia law doesn't expressly provide air rights to landowners, which raises litigation risk for drone operators because landowners don't know the extent of their property rights and may sue to protect their interests.
- *Avigation Easement Law*: West Virginia law doesn't create an avigation easement, which means drone operators may be subject to nuisance and trespass laws, even if their drones don't disturb people on the ground.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make West Virginia tied for the 37th most drone-friendly state in the country.

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93. W. Va. Code § 17-2A-19a (2019).

# WISCONSIN

RANK  
**13**  
TIED

Score: 49/100

- Airspace Lease Law: 10/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 4/15

## Factors Helping the State Score

- *Airspace Lease Law*: Wisconsin law allows local authorities to lease low-altitude airspace above local roads.<sup>94</sup> Such a law allows authorities to create drone highways above local roadways. However, the state did not receive full points because the law is silent as to whether state officials can lease airspace above state roads and state property.
- *Law Vesting Air Rights with Landowners*: Wisconsin law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>95</sup>
- *Avigation Easement Law*: Wisconsin law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>96</sup>

## Factors Hindering the State Score

- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.
- *Drone Jobs Estimate*: Wisconsin has 8.3 drone-related jobs per 100,000 people, ranking it in the bottom half of states.

These factors make Wisconsin tied for the 13th most drone-friendly state in the country.

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94. Wis. Stat. § 66.0915 (2019).

95. Wis. Stat. § 114.03 (2019).

96. Wis. Stat. § 114.04 (2019).

# WYOMING

RANK  
**15**  
TIED

Score: 48/100

- Airspace Lease Law: 0/30
- Law Vesting Air Rights with Landowners: 10/10
- Avigation Easement Law: 25/25
- Aviation Advisory Committee: 0/20
- Drone Jobs Estimate: 13/15

## Factors Helping the State Score

- *Law Vesting Air Rights with Landowners*: Wyoming law expressly provides air rights to landowners, which reduces litigation risk for drone operators because landowners know the extent of their property rights.<sup>97</sup>
- *Avigation Easement Law*: Wyoming law creates an avigation easement, which means drone operators are protected from nuisance and trespass laws so long as their drones don't disturb people on the ground.<sup>98</sup>
- *Drone Jobs Estimate*: Wyoming has 25.3 drone-related jobs per 100,000 people, ranking it in the top half of states.

## Factors Hindering the State Score

- *Airspace Lease Law*: Wyoming law doesn't allow public authorities to lease low-altitude airspace above public roads and public property. Such a law would allow state or local authorities to create drone highways above roadways.
- *Aviation Advisory Committee*: State leaders should consider convening a statewide task force, committee, or research group to study drone issues and advise lawmakers.

These factors make Wyoming tied for the 15th most drone-friendly state in the country.

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97. Wyo. Stat. § 10-4-302 (2018).

98. Wyo. Stat. § 10-4-303 (2018).

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