



**Federal Aviation
Administration**

State Support for Commercial Space Activities

About the Office of Commercial Space Transportation

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FAA/AST's mission is to ensure public health and safety and the safety of property while protecting the national security and foreign policy interests of the United States during commercial launch and reentry operations.

In addition, FAA/AST is directed to encourage, facilitate, and promote commercial space launches and reentries. Additional information concerning commercial space transportation can be found on FAA/AST's web site at <http://ast.faa.gov>.

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INTRODUCTION

Every state in the union offers a range of incentives to encourage businesses to locate or increase their activities within that specific state. The vast majority of these incentives are financial, most commonly resulting in a lower tax burden or otherwise reducing the costs of conducting business critical activities. Sometimes these incentives target specific industries or even components of specific industries. Incentives of this kind are generally available at both the state and local level. Any business considering locating in a particular state would likely be eligible for benefits from the state, county, or local municipality. The motivation for most states and localities to offer these types of incentives is to promote job growth and development. Given this, there is often a substantial bias in the types of incentives offered towards industries that pay high salaries and employ large numbers of people.

This report lays out the different general types of incentives that states employ to try and guarantee that aerospace companies, particularly emerging commercial space transportation companies commit to locating within that state. To that end, the report includes an examination of the advent of regulatory incentives within Virginia and Florida, the different types of incentives that states have at their disposal, the incentive-like impact of certain types of infrastructure (such as spaceports and tracking facilities), and a state by state summary of the assets and incentives in place within each state.

The critical aspect of incentives is that they are designed to “close the deal” for a particular company considering either a relocation or an initial attempt at doing business in a particular state. There are, of course, a broad range of factors that influence a company’s decision to locate in a certain place. Geography, existing infrastructure, available workforce, and location relative to other critical suppliers or customers are often the driving forces behind such decisions for space transportation companies. It is only when a company’s decision is between two final locations that incentives have the most potential to affect a company’s plans. In very large deals, states will often create unique incentives for the company in question. This creates a competition between the states. Simply put, incentives are generally the last, not the first tool a state can use to encourage a space transportation company to locate within its borders.

As a large, high technology industry with good pay rates, the space transportation industry is an ideal fit for many states seeking to achieve their development goals. In many cases, this results in developing unique types of incentives and support networks all focused on “closing the deal” for companies considering doing business in a particular state. It also contributes to a degree of competition between states in the kinds and sizes of incentives offered.

Perhaps the biggest example of this kind of competition is the introduction of regulatory incentives in Virginia and Florida. One of the biggest challenges that space transportation operators intent on carrying people face is the current

ambiguity regarding how such operations will be regulated on both the federal and the state level. By removing this ambiguity, Virginia and Florida (with others likely to follow as the year progresses), have created regulatory incentives to lure space transportation companies. These incentives appear already to be bearing fruit.

The range of incentives that states offer the space transportation industry is both disparate and substantial. It includes traditional financial incentive packages as well as unique incentives extended to companies considering specific deals. In addition, there are several other factors that function as incentives, including spaceports, space authorities, development zones, and unique geography. Each of these factors commonly plays a role in a company's decision to locate in a particular state.

REGULATORY INCENTIVES AND VIRGINIA AS AN AGENT OF CHANGE

Virginia has recently taken the lead in the area of innovative incentives to lure space transportation companies to the state. In the last two years, the state passed two bills intended to boost the presence of the industry. The first, the Virginia Space Liability and Immunity Act, enacted in 2007, effectively made Virginia the most progressive state in the country in addressing the challenge that existing tort law posed to emerging human spaceflight transportation companies. The second, the Zero G Zero Tax Act of 2008, will provide an exemption from state income taxes to any space transportation company doing business in Virginia with the intent to either launch payloads from the Mid-Atlantic Regional Spaceport (MARS) or conduct spaceflight training. These two pieces of legislation, coupled with other, more traditional financial incentives, are largely credited with being the driving force behind Orbital Sciences' decision to locate the launch operations for its new Taurus II launch vehicle in Virginia.

These events have not gone unnoticed. Florida's state government, which was keeping a close eye on all of this, was quick to pass a nearly identical version of the Space Liability and Immunity Act and add spaceflight contractors to the list of companies eligible for tax refunds if they relocated or moved jobs to Florida. All of this took other states, and much of the industry, by surprise given the speed with which it was accomplished. Today, responses to Virginia's status as a change agent continue to accumulate. Efforts are underway in both California and New Mexico to adopt similar legislation and, while legislation has yet to be introduced, draft bills have been written and are circulating among stakeholders in both the industry and government. Other states are likely to follow suit as the legislative season begins across the country. While the none of these statutes have yet been tested in the real world, the efforts of states to be sure that they are in place speaks at least to their perceived effectiveness as incentives for attracting the emerging aerospace industry.

Space Liability and Immunity Act

Effective July 1, 2007, the Virginia Space Liability and Immunity act limits the liability of those providing human spaceflight services in the event of an incident. It is based on the legislation under which the FAA currently operates, creating an informed consent regime for spaceflight participants while stipulating language that participants must review and consent to the risks they are taking, thereby acknowledging the inherently risky nature of human spaceflight. This legislation is anticipated to be a particularly effective tool in luring human spaceflight companies once they progress from testing to regular operations. As referenced earlier, Florida has passed a nearly identical act titled the Informed Consent for Spaceflight Act. A critical difference between the Florida and Virginia versions of the legislation is that the Virginia law sunsets in 2013 while the Florida statute is permanent. Table 1 summarizes the key provisions in the Florida and Virginia legislation.

State	Virginia	Florida
Act Name	Space Liability and Immunity Act Effective Sunsets	Informed Consent for Spaceflight Act
Effective Date	July 1, 2007	October 1, 2008
Sunset	July 1, 2013	No Sunset
Applies to	All spaceflight entities	Suborbital flights only
Restrictions	Company in question must have been “reviewed by the FAA” during licensing	Company in question must hold an FAA launch license

Table 1: Space Liability and Immunity Laws in Florida and Virginia

Zero G Zero Tax Act

The concept of exempting companies from paying taxes on certain types of activities is not a new one; indeed, a bill of the same name was introduced at the federal level in 2003, but never passed. Virginia is the first to pass this kind of legislation at the state level to encourage the development of the space transportation industry. The Virginia bill grants an exemption from state income tax for either launch services or gains achieved from providing resupply services to the ISS. To mirror the advantages that companies could achieve under this bill, Florida added qualified space contractors to an existing list of companies that could qualify for an income tax deduction. The primary qualifying factor for this exemption is an increase in employees at a company’s Florida facilities. Table 2 summarizes the key provisions in the Florida and Virginia legislation.

State	Virginia	Florida
Act Name	ZeroG/Zero Tax	Qualified Spaceflight Contractor tax Refund Act
Benefits	State tax exemption on income launch services, simulated launch services for training, or gains resulting from ISS resupply contracts	Allows spaceflight contractors to receive refunds after entering into agreements with the state (refunds based on new jobs and wages paid to employees)
Limitations	Activities must be performed in Virginia or originate from Virginia	Activities must result in a net increase in spaceflight business employment in Florida

Table 2: Tax Incentive Laws in Florida and Virginia

TRADITIONAL FINANCIAL INCENTIVES

Perhaps one of the most common tools employed by states to encourage space transportation companies to locate within their borders are traditional financial incentives. These incentives can and do take many forms, but the most common are tax rebates or exemptions. Such exemptions are often tied to the specific industry that a particular company is engaged in, how much it pays its employees, and what kind of activity the company intends to conduct in the state. Each of these categories has an entire range incentives tied to them.

An example of an incentive intended to support a particular industry would be an aerospace tax credit program, or more commonly a high-technology tax credit program, under which aerospace usually qualifies. In some cases the incentives are extremely narrow and focus not only on a particular industry, but on an industry segment. The fact that aerospace jobs, like most other high-tech jobs, are generally high paying is the primary reason that states are interested in encouraging their propagation.

Beyond support of specific industry categories, the most common incentive packages reward companies for bringing high-paying jobs (at least relative to the local standard) to the area. Generally these types of incentives have specific metrics tied to pay rates for companies to qualify and they vary state by state. Such metrics are commonly grounded in the median income of the area. Jobs above the median are far more likely to be eligible for credit.

Another common incentive focuses on the kind of activity that the company will conduct within the state. This typically takes the form of a manufacturing incentive to encourage establishing large manufacturing facilities, but equally common are R&D tax credits to enable companies to grow locally.

Every state has a different mix of these types of incentives. If a particular deal is large enough or has some unique aspect to it, states sometimes create unique incentives for that particular deal. Otherwise, a company's first step in considering a move to a particular state is to contact the responsible entity for that state's incentive programs to learn more.

One final type of incentive, which is often realized at the same time as other state incentives, is the exemption or advantage zone. The most common types of these include foreign trade zones, enterprise zones, empowerment zones, redevelopment or renewal zones, and areas designated as rural or low population zones. States establish these zones, any one of which can have a laundry list of unique incentives associated with it, to accomplish various goals within a specific geographic area. Generally, these goals are related to raising the standard of living or increasing development in a specific area, increasing the population, generating further employment, or all of these. These zones can and often do overlap or otherwise are combined with other incentives adding up to substantial bonuses to companies that decide to locate within them.

MISCELLANEOUS INCENTIVES

University/Industry Development Zones

Though not technically an incentive, a major factor that commonly entices companies to locate in particular locations is the presence of state-designated university or industry development zones. These zones are commonly set up to encourage and support specific industries. Incentives are structured to encourage companies and universities to locate in a specific area, generally in close proximity to each other. Such zones carry advantages in themselves, by virtue of having a great deal of capability in the same area. They also often include their own set of local incentives that can be added to preexisting state incentives. The most common way this is implemented is through shared facilities or infrastructure, but it can include agreements that include personnel and other resources.

Space Authorities

One of the strongest tools available to states to encourage the further development of a local space transportation industry is the space authority. Generally set up and supported through the executive branch of state government, space authorities are staffed by personnel knowledgeable in the field. These people can serve as advocates with both state and federal authorities for companies already located within or considering a move to a specific state.

In addition to their role as advocates both within the state and nationally for their local industry, space authorities often have unique assets or powers, including bonding authority, which allow them to go to great lengths to support projects requiring large infrastructure investments.

Space authorities are commonly only set up in states with strong space transportation heritages, such as California and its California Space Authority (CSA). However, other states with an interest in developing the space transportation industry locally have seen the effectiveness of this model and set up their own space authorities, such as in Oklahoma with its Oklahoma Space Industry Development Authority (OSIDA).

Spaceports

Though not technically an incentive in the traditional sense, the presence of spaceports, much like space authorities, confers substantial advantages on the states where they are based. The most obvious advantage of spaceports is that they are often extremely expensive to develop in and of themselves. Construction of a spaceport from a “green field” facility can run into the billions of dollars. Similarly, the location of some spaceports can be a decisive factor. If a company uses an ELV or a system that drops components during its flight, then a coastal location is a

hard requirement. Sometimes spaceports are tied to a state's space authority and sometimes they operate entirely separately. These sorts of associations vary from state to state. Generally speaking, however, the presence of spaceports can have a substantial impact on companies' decisions to locate.

STATE INCENTIVE DETAILS

The following section provides details for the types of financial and related incentives provided to space transportation companies on a state-by-state basis. A listing of the states included in this study, as well as the main point of contact (if any) for that state, is provided in Table 3, while Table 4 summarizes the various incentives each state offers in several categories. The FAA selected the states for inclusion in this study based on the presence of an active space industry in the states or measures being taken by state government agencies to develop a space industry in their states. A few states not traditionally associated with aerospace, such as Maine and Montana, are included to demonstrate how more general incentives for high-technology or other companies can be used for space transportation and related ventures.

State	State Incentive Point of Contact	Contact Info
Alabama	Alabama Development Office	http://www.ado.state.al.us/
Alaska	Alaska Aerospace Development Corporation (AADC)	http://www.akaerospace.com
California	California Space Authority	http://www.californiaspaceauthority.org
Colorado	Metro Denver Economic Development Corporation	http://metrodenver.org/
Florida	Space Florida	http://www.spaceflorida.gov
Hawaii	Hawaii Dept. of Business Economic Development & Tourism	http://hawaii.gov/dbedt
Maine	Maine Dept. of Economic Development	http://maine.gov/portal/business/econ-bus-incentives.html
Maryland	Maryland Dept. of Business and Economic Development	http://www.choosemaryland.org
Montana	Montana Dept. of Revenue	http://www.MT.gov
New Mexico	New Mexico Dept. of Economic Development	http://www.edd.state.nm.us
Ohio	Ohio Dept. of Development	http://www.development.ohio.gov/
Oklahoma	Oklahoma Space Industry Development Authority (OSIDA)	http://www.okspaceport.ok.us
Virginia	Virginia Spaceflight Authority	http://www.marsspaceport.com
Washington	Washington State Department of Community, Trade, and Economic Development	http://www.choosewashington.com
Wisconsin	Wisconsin Department of Commerce	http://commerce.wi.gov/BD/
Wyoming	Wyoming business Council	http://www.whywyoing.org

Table 3: States Included in This Study and Points of Contact

State	Costal State	Space Authority	Spaceport	Legislative Incentives	Space Trans. Applicable Incentives
Alabama					✓
Alaska	✓	✓	✓		✓
California	✓	✓	✓	Pending	✓
Colorado					✓
Florida	✓	✓	✓	✓	✓
Hawaii	✓				
Maine	✓				
Maryland	✓				✓
Montana					
New Mexico		✓	✓	Pending	✓
Ohio					✓
Oklahoma		✓	✓		
Virginia	✓	✓	✓	✓	✓
Washington	✓				✓
Wisconsin					
Wyoming					

Table 4: Summary of State Space Incentives

Alabama

Alabama has long been one of the nation’s leaders in manufacturing space transportation technology. With Huntsville’s NASA Marshall Space Flight Center, Decatur’s manufacturing facility for United Launch Alliance’s Delta IV, and the state’s legacy of human spaceflight, it’s little surprise that Alabama has significant interest in space transportation.

Basic Demographic Data

State Population: 4.6M

Aerospace Industry Presence: 300+ companies, ~139,000 workers

Responsible Entities: Alabama Development Office

Incentives

STANDARD INCENTIVES

Alabama has a wide range of incentives it offers businesses that locate within the state. These can be found at both the state and local levels. They include:

- Income tax exemptions
- Property tax exemptions

- Sales and use tax exemptions
- Business privilege tax exemptions

These incentives can be combined with other local exemptions or incentives to create very large benefits if the company in question is bringing a sufficiently large economic impact to the area. These incentives taken collectively equate to one of the most competitive incentive systems in the US.

Recent Examples

Perhaps the largest recent example of state incentives effectively encouraging a space transportation company to locate within a state, the total incentive package that Boeing received for the Delta IV manufacturing facility from the state government, including both statewide and local incentives, is estimated to have totaled some \$150 million.

For More Information Contact:

Alabama Development Office
<http://www.ado.state.al.us/>

Alaska

Large in land area and small in population, Alaska has taken advantage of its unique location and makeup to host one of the handful of licensed, operational commercial spaceports in the country. The spaceport is the primary asset that attracts aerospace companies to Alaska to do business. Launches from the Kodiak Launch Complex (Alaska's spaceport) have been occurring since 1998.

Basic Demographic Data

State Population: 670K
Aerospace Industry Presence: ~45 companies
State Owned Infrastructure: Kodiak Launch Complex
Responsible Entities: Alaska Aerospace Development Corporation

Incentives

STANDARD INCENTIVES

Most of Alaska's traditional incentives are focused on encouraging and enabling small businesses. These include Small Business Innovation Research/Small Business Technology Transfer support, small grants and loans, and equity financing for small companies.

SPACE TRANSPORTATION INCENTIVES

N/A

State Agency or Nonprofit Support

The Alaska Aerospace Development Corporation (AADC) was chartered by the State of Alaska in 1991 and is responsible for operating the Kodiak Launch Center as well as encouraging companies to do business in Alaska.

For More Information Contact:

Alaska Aerospace Development Corporation (AADC)
<http://www.akaerospace.com>

California

As the most populous state and the one with the largest economy, examining the incentives that the State of California offers is a very large task. As elsewhere, state incentives can be mixed and matched with local incentives to create an extremely advantageous total incentive package. Also, given the size of California, there are a number of agencies playing different but relevant parts in coordinating industry incentives. In brief, the two primary agencies with responsibility for supporting the space transportation industry are the California Space Authority (CSA) and the Business Transportation and Housing Agency (BTH). These agencies in turn work closely with other state agencies to develop incentive packages for specific industries, companies, and localities. In addition, when the role of spaceports is also considered, such as the Mojave Air and Space Port, responsibilities become even more complex.

It is also important to note that the California legislature has just appropriated \$500,000 for infrastructure development and other work to support the space transportation industry in California.

Basic Demographic Data

State Population: 36.5M

Aerospace Industry Presence: 1.2 million workers

State Owned Infrastructure: Vandenberg AFB (Federal), Mojave Air and Space Port

Responsible Entities: California Space Authority, Business Transportation and Housing Agency (BTU), California Mojave Air and Space Port

Incentives

STANDARD INCENTIVES

- Income tax exemptions & credits
- Development zones
- Enterprise zones
- Property tax exemptions

AUTHORITY RELATED INCENTIVES

The California Space Authority has bonding authority for major infrastructure projects that support the space transportation industry. It also has personnel who can work as advocates for the industry at both the state and local level, promote the industry, and support the development of the industry and spaceports within the state.

For More Information Contact:

California Space Authority
<http://www.Californiaspaceauthority.org>

California Business Transportation and Housing Agency (BTU)
<http://www.bth.ca.gov/>

Mojave Air and Spaceport
<http://www.mojaveairport.com/>

Colorado

Basic Demographic Data

State Population: 4.7M

Aerospace Industry Presence: 25K jobs, 100+ companies

State Owned Infrastructure: N/A

Responsible Entities: Colorado Department of Economic Development,
Metro Denver Economic Development Corporation

Incentives

STANDARD INCENTIVES

Though not specifically aimed at the aerospace industry, Colorado does offer a very substantial mix of incentives for new and existing businesses including:

- Training assistance
- Project assistance
- Sales tax refunds and waivers
- Tax credits
- State-backed venture capital

For More Information Contact:

Colorado Department of Economic Development
<http://www.colorado.gov>

Metro Denver Economic Development Corporation
<http://metrodenver.org/>

Florida

Florida enjoys some of the most developed space transportation infrastructure in the nation. With one of the nation's oldest and best known spaceports, Florida is at a substantial advantage due to its location. It has further increased the size of the industry through a series of very aggressive incentives.

Basic Demographic Data

Aerospace Industry Size: 1,800 aviation and aerospace companies totaling some 83,000 workers

State Population: 18.3 million

State Owned Space Transportation Infrastructure:

SLC-46, CCAFS, Right of Entry and Site Operator's License (pending)

- Mobile Access Structure at SLC-46, owner
- SLC-36, Site Operator's License (pending)
- Cecil Field Spaceport, Site Operator's License (pending)
- Space Life Science Lab, owner
- RLV Hangar near Shuttle Landing Facility, owner
- Exploration Park, space-based research park, in early stages of development

Responsible Entities: Space Florida

Incentives

STANDARD INCENTIVES

Florida provides significant tax incentives to companies that commit to creating and maintaining quality jobs that pay at least 115% of the average annual wage for the state. The Qualified Defense Contractor Tax Refund (QDC) provides tax refunds of up to \$5,000 per job created; companies paying 200% of the average state wage receive the \$5,000 benefit; while those paying between 115 and 200% receive smaller tax refunds on a sliding scale, with the minimum being \$3,000. Spaceflight companies are now clearly defined by Florida Statute as eligible for these tax refunds (see below).

Florida offers a Targeted Industry Tax Refund of up to \$5,000 per new job created, or \$7,500 in an Enterprise Zone. The Florida Enterprise Zone Program provides sales or corporate income tax credits to businesses located within or hiring from enterprise zones.

The State of Florida's Quick Action Closing Fund provides cash grants to companies that agree to create a significant amount of high-value jobs in targeted industries; space qualifies as a subset of the overall aerospace sector. The Economic Development Transportation Fund (i.e., the "Road Fund") provides discretionary grants for development of transportation infrastructure for high-impact projects. Both of these programs are funded through annual appropriations, with funding awards made through a competitive application process. Formal application is made through Enterprise Florida Inc., the state's privatized economic development

partnership, with final approval and funding disbursement through the Office of Trade, Tourism and Economic Development.

Training funds are provided through Workforce Florida; additionally, Workforce Development Boards in individual counties have funding available for new and expanding companies. Assistance is typically in the range of several hundred dollars for each new job created.

A capital investment tax credit provides for up to 20 years of corporate income tax credits equal to 5% of capital costs for new or expanded space industry facilities, based on minimum investment of \$25 million and 100 jobs.

SPACE TRANSPORTATION INCENTIVES

Spaceflight Contractor's Tax Refunds Act of 2008: This economic development and space bill expands the existing Qualified Defense Contractor (QDC) tax refund program to include spaceflight businesses. The refunds are based on the number of workers employed and the amount paid.

Florida offers an exemption from its 6% sales tax on real estate rents for "Space flight businesses" – operations that include manufacturing, processing, assembly of a space facility, space propulsion system, space vehicle, satellite or station of any kind possessing capacity of space flight. Also included are launch facilities, flight operations, ground control, ground support, and all administrative activities related to space flight.

There is an exemption of 25% of the sales tax on machinery and equipment for space technology products and research. Additionally, there is a 100% tax exemption for rockets, satellites, payloads, space-related components, and rocket and satellite fuel. Electricity used in aerospace manufacturing is also exempt from sales tax.

Florida offers High Impact Industry Grants of \$1-12 million for new or expanding space-related manufacturers or R&D companies, based on new jobs and investment.

AUTHORITY RELATED INCENTIVES

Space Florida has the power to issue revenue bonds, assessment bonds, or any other bonds or obligations authorized by the provisions of the Space Florida Act.

Also in 2008, the Florida Legislature made a specific appropriation to Space Florida in the amount of \$14.5 million for launch complex infrastructure build-up.

REGULATORY INCENTIVES

Spaceflight Informed Consent Act of 2008: Very similar to legislation passed in Virginia during the same year, this bill provides that a spaceflight entity is not liable

for injury to or death of a spaceflight participant resulting from the inherent risks of spaceflight launch activities, so long as the federal warning is given to and signed by the participant. The immunity provided by this bill doesn't apply if the spaceflight entity:

- Commits gross negligence or willful or wanton disregard for the safety of the participant;
- Has actual knowledge or reasonably should have known of a dangerous condition; or
- Intentionally injures the participant.

The primary difference between this bill and the Virginia legislation is that this legislation has no sunset provision as opposed to Virginia's 5-year sunset provision.

Zero G Zero Tax Act: Also modeled after legislation recently passed in Virginia, this legislation provides for an exemption from state income tax on gross revenues generated from launching spacecraft or preparing or manufacturing them for launch.

Recent Examples

Brevard County provided a \$24.8-million (over 10 years) county-level tax abatement for Lockheed Martin to support their expanded Atlas V program. This was a substantial factor in the company's decision to locate within the State of Florida.

For More Information Contact:

Space Florida
<http://www.spaceflorida.gov>

Hawaii

Given its unique geography, the opportunity for the expansion of the space transportation industry in Hawaii is obvious. The aspects of the aerospace industry that are most visible in Hawaii are astronomy and technology development. Although there are limited incentives focused specifically on space transportation, incentives aimed at high technology business generally are some of the most competitive in the nation.

Basic Demographic Data

State Population: 1.3M
Aerospace Industry Presence: ~30 companies
Responsible Entities: Hawaii Dept. of Business, Economic Development, & Tourism, Enterprise Honolulu

Incentives

STANDARD INCENTIVES

Hawaii offers a range of very strong tax incentives to encourage the development of high-tech industry generally. Perhaps the strongest of these is its investment tax credit, which grants a 100% return on cash investments over a front-loaded five year period.

In addition, the state offers several core incentives to induce companies to set up shop including:

- No general excise tax for locally manufactured goods including computer software produced for export
- No personal property taxes
- No state tax for companies manufacturing capital goods for export
- No state taxes on furniture, equipment, inventory, or machinery
- No stock transfer tax
- No unincorporated business tax

For More Information Contact:

Hawaii Department of Business, Economic Development, & Tourism
<http://hawaii.gov/dbedt>

Enterprise Honolulu
<http://www.enterprishonolulu.com>

Maine

Being one of the most rural states in the nation, Maine features a number of incentives that are not aimed at the space transportation industry specifically, but more generally at the high-tech manufacturing sector. In addition, the state offers an extensive range of grants and other direct funding mechanisms aimed at supporting new and emerging small businesses.

Basic Demographic Data

State Population: 1.3M

Aerospace Industry Presence: ~50 companies

Responsible Entities: Maine Department of Economic Development

Incentives

STANDARD INCENTIVES

Maine has a range of incentives aimed at supporting businesses classified as high technology businesses. The result of these incentives is that businesses can effectively pay no property tax on machinery and other equipment and have up to 75% of their state income taxes reimbursed.

Additionally, Maine offers a range of tax credits to encourage new businesses in general. These include:

- Business equipment property tax reimbursement
- Employment tax increment financing
- Tax increment financing
- Technology tax credit
- Research expense tax credit
- Super R&D tax credit
- Jobs and investment tax credit
- Custom sales tax exemptions (includes high technology)

STATE AGENCIES OR NOT FOR PROFITS

In addition to traditional tax incentives, Maine also offers substantial incentives to high technology companies via the Maine Technology Institute (MTI), a state-funded nonprofit that supports technology development and commercialization efforts through matching grants and low interest loans.

For More Information Contact:

Maine Department of Economic Development
<http://maine.gov/portal/business/econ-bus-incentives.html>

Maryland

Maryland enjoys a substantial space transportation presence, including NASA's Goddard Space Flight Center, the Johns Hopkins University Applied Physics Lab, and several major space transportation companies. Given this range of companies, most of Maryland's incentives are aimed at aerospace companies generally rather than focused on space transportation companies. It is also important to note that much of Maryland's interest regarding space transportation companies relates to activity in Virginia at MARS. Given the proximity of the two states, much of Maryland's activity relates to encouraging companies intent on operating out of MARS to locate within the state of Maryland.

Basic Demographic Data

State Population: 5.6M

Aerospace Industry Presence: 300+ companies

Responsible Entities: Maryland Department of business and Economic Development

Incentives

STANDARD INCENTIVES

Maryland offers a number of tax breaks to high technology companies including:

- No gross receipts tax for manufacturers
- No sales tax on capital manufacturing machinery and equipment
- No sales tax on tangible personal property consumed in manufacturing
- No sales tax on equipment or materials used or consumed in R&D
- No sales tax on gas, electricity, steam, oil, or coal consumed directly or predominantly in a production activity
- No state business personal property tax
- No corporate franchise tax
- No income tax on foreign dividends (if corporation owns 50 percent or more of subsidiary)

The Maryland Technology Development Corporation provides assistance with technology transfer, commercialization, and technology development grants (in the form of state matching funds).

For More Information Contact:

Maryland Department of business and Economic Development
<http://www.choosemaryland.org>

Montana

Though not generally thought of as a “space state,” Montana has a surprisingly active industry involved in a range of private and federal projects.

Basic Demographic Data

State Population: 950K
Aerospace Industry Presence: ~60 companies
Responsible Entities: Montana Department of Revenue

Incentives

STANDARD INCENTIVES

Montana offers several traditional tax credits to businesses within the state. These include:

- Investment tax credit
- New/expanded industry tax credit
- Research and development tax credit

For More Information Contact:

Montana Department of Revenue
<http://www.MT.gov>

New Mexico

With its long-standing history of aerospace technology development, as well as the presence of White Sands Missile Range, New Mexico has a number of obvious location-related assets that make it an ideal location for space transportation companies. In addition, New Mexico also features an emerging spaceport, Spaceport America, which offers its own advantages. These two factors have been successful in luring operators to the state in recent years.

Basic Demographic Data

State Population: 2M

Aerospace Industry Presence: ~50 companies

State Owned Infrastructure: Spaceport America

Responsible Entities: New Mexico Economic Development Department,
Spaceport America

Incentives

STANDARD INCENTIVES

New Mexico offers a wide range of tax advantages to any business locating in the state including:

- High wage jobs tax credit
- Manufacturer's investment tax credit
- New markets tax credit
- Rural jobs tax credit
- Technology jobs tax credit
- Angel investment tax credit

STATE AGENCIES OR NONPROFITS

New Mexico Economic Development Department, Spaceport America

SPACE TRANSPORTATION INCENTIVES

New Mexico defines a number of aerospace-unique activities as tax deductible. These include:

- Space related R&D
- Launching spacecraft
- Operating spacecraft
- Recovering spacecraft or payloads
- Preparing a spacecraft or payload for launch from Spaceport America

Recent Examples

The investment that New Mexico has made in Spaceport America has been very effective. It was sufficient to lure Virgin Galactic, the Rocket Racing League, UP Aerospace, and Starchaser Industries to the state to set up operations. This is a major accomplishment for a state that has only recently put such strong support behind the space transportation industry. The last day of 2008 also marked a major milestone for the state of New Mexico when Virgin Galactic signed a 20 year lease to use the facility for their space tourism business.

For More Information Contact:

New Mexico Department of Economic Development
<http://www.edd.state.nm.us>

Spaceport America
<http://www.spaceportamerica.com>

Ohio

Ohio has a number of unique advantages to draw on to encourage space transportation companies to locate within its borders, the two biggest of which are NASA's Glenn Research Center and the Air Force Research Lab (AFRL). Combined with attractive incentive packages, Ohio has a great deal to offer space transportation companies.

Basic Demographic Data

State Population: 11.5M

Aerospace Industry Presence: 66,000 aerospace jobs, 600+ individual companies

Responsible Entities: Ohio Department of Development, Ohio Aerospace Institute (OAI)

Incentives

STANDARD INCENTIVES

Ohio's offerings for business incentives include:

- Job creation tax credit
- Job retention tax credit
- Research and development tax credit
- Training tax credit
- Manufacturing tax credit
- Technology investment tax credit

In addition, Ohio also offers tax exemptions including:

- Manufacturing equipment and machinery

- Research and development
- Warehouse machinery and equipment

FOR MORE INFORMATION CONTACT:

Ohio Department of Development
<http://ohiomeansbusiness.com>

Ohio Aerospace Institute (OAI)
<http://www.oai.org/>

Oklahoma

While it may seem an unlikely favorite among those not familiar with the space transportation industry, Oklahoma has made a substantial name for itself with the creation of the Oklahoma Space Industry Development Authority, the announcement that the former Air Force base in Burns Flat, Oklahoma, would be converted into a spaceport, and that the state would be introducing incentives to encourage space transportation companies to set up business within the state.

Basic Demographic Data

State Population: 3.6M

Aerospace Industry Presence: 300+ companies, 143,000 workers

State Owned Infrastructure: Burns Flat Spaceport

Responsible Entities: Oklahoma Department of Commerce, Oklahoma Space Industry Development Authority (OSIDA)

Incentives

STANDARD INCENTIVES

Oklahoma offers a substantial number of incentives including:

- Five-year *ad valorem* tax exemption
- No-cost or low-cost customized employee training
- Sales tax exemptions
- Freeport inventory benefits
- Industrial access road assistance
- Foreign Trade Zones
- American Indian Land tax credits
- Opportunity zones
- Opportunity fund
- State and local financing programs

AUTHORITY RELATED INCENTIVES

OSIDA has bonding authority as well as the ability to rent facilities to space transportation companies in the area.

Recent Examples

In 2004 Oklahoma awarded a \$10-million tax credit to Rocketplane Limited for the purposes of vehicle development and eventual operations at the Oklahoma Spaceport. While this was only a one-time incentive, it does serve as an example of Oklahoma's dedication to the further development of aerospace and particularly the NewSpace industry within the state.

For More Information Contact:

Oklahoma Space Industry Development Authority (OSIDA)
<http://www.okspaceport.ok.us>

Oklahoma Department of Commerce
<http://www.okcommerce.gov>

Virginia

Virginia is in a unique position compared to other states within the mid-Atlantic region due to the presence of MARS, which is co-located with NASA's Wallops Island facility. Though the state has only a small to medium space transportation industry presence, it has recently been quite successful in luring space transportation companies.

Basic Demographic Data

State Population: 7.6M

Aerospace Industry Presence: 350+ companies, 27,000 workers

State Owned Infrastructure: Mid Atlantic Regional Spaceport (MARS)

Responsible Entities: Virginia Commercial Space Flight Authority,
 Virginia Economic Development Partnership

Incentives

STANDARD INCENTIVES

Virginia offers a range of financial incentives to companies moving to or locating within the commonwealth. In addition to a large number of local and other location-based incentives, Virginia offers:

- Sales & use tax exemptions
- Property tax exemptions
- Small business financing
- Technology zones
- Foreign trade zones
- Development zones
- State-supported grant program

SPACE TRANSPORTATION INCENTIVES

The Zero G Zero Tax Act of 2008 grants an income tax exemption for income resulting from the sale of launch services to space flight participants or services intended to provide individuals the training or experience of a launch without performing an actual launch. The bill also grants an income tax exemption for any gain recognized from resupply services contracts for delivering payload entered into with the Commercial Orbital Transportation Services (COTS) division of NASA or another space flight entity.

AUTHORITY-RELATED INCENTIVES

The Virginia Commercial Space Flight Authority brings several key advantages to the space transportation industry within the Commonwealth of Virginia. One is that the MARS and Wallops Island facilities are situated within a foreign trade zone as designated by the commonwealth. In practice, this means that hardware or equipment imported for the purposes of launch (which is viewed as an export) is exempt from import/export duties.

A second incentive is that the Authority has the ability to exempt space transportation companies from sales tax on consumables, such as fuel, for a launch.

Finally, and most importantly, the authority is able to issue bonds for infrastructure development. This is a critical capability in that it allows the state to invest in infrastructure required by companies considering operations in Virginia.

LIABILITY INCENTIVES

The Spaceport Liability and Immunity Act of 2007 provides liability protection for space transportation companies and their subcontractors in the event of the injury or death of a spaceflight participant. Assuming that spaceflight participants have been appropriately informed of the risks associated with the flight they are taking, then it is not possible to litigate against the company or companies that provided the service, so long as the incident occurred as a result of the risks associated with spaceflight.

Pending Legislation

At this time there is no pending legislation focused on the space transportation industry. All of the bills considered in the last three years in this area have either passed or been incorporated into other legislation that passed.

Recent Examples

A major recent example of a company taking advantage of several of the above-mentioned incentives is Orbital Sciences Corporation's decision in 2008 to conduct its launches of the Taurus II launch vehicle, funded in part by NASA's COTS program, out of MARS. This decision took advantage of numerous traditional incentives as well as the Zero G Zero Tax legislation. In addition, the Virginia

Commercial Space Flight Authority took advantage of its aforementioned bonding authority and issued a \$16-million bond to refurbish the launch pad the Taurus II vehicle will use for these launches.

For More Information Contact:

Virginia Spaceflight Authority
<http://www.marsspaceport.com>

Virginia Economic Development Partnership
<http://www.yesvirginia.org>

Washington

The State of Washington has a very active aerospace industry with a thoroughly developed system of incentives in place to support it. While none of these incentives are so narrow as to differentiate the space transportation industry from the aerospace industry generally, the incentives are still in full effect.

Basic Demographic Data

State Population: 6.4M
Aerospace Industry Presence: ~100,000 workers, 600 companies
Responsible Entities: Department of Community, Trade, and
Economic Development

Incentives

STANDARD INCENTIVES

Perhaps the most substantial incentive Washington offers to space transportation companies is a decrease in the Business and Occupation (B&O) tax rate it charges other business. This rate decrease can be leveraged with additional aerospace-related B&O tax credits listed below.

In addition to a decreased tax rate, Washington companies can qualify for B&O tax credits for aerospace product development expenditures, preproduction development expenditures, and property and leasehold excise taxes (which apply for new construction as well).

Finally, space transportation companies are also eligible for other tax exemptions including:

- Manufacturing equipment and machinery purchases
- New job creation
- Sales and use tax exemption for computers used in offices located within the state
- Non production aerospace design and development

For More Information Contact:

Washington Department of Community, Trade, and Economic Development
<http://www.choosewashington.com>

Wisconsin

Though not focused specifically on space transportation, Wisconsin offers a wide range of incentives geared specifically towards high technology business. Many of these incentives are accessible to space transportation companies who locate within Wisconsin.

Basic Demographic Data

State Population: 5.5M
Space Transportation Industry Presence: ~50 companies
Responsible Entities: Wisconsin Department of Commerce,
Wisconsin Aerospace Authority

Incentives

STANDARD INCENTIVES

Wisconsin has a number of generic local development based incentives. In addition, it offers a technology commercialization program and a technology development fund for “high tech” companies within the state.

STATE AGENCIES OR NONPROFITS

The Wisconsin Aerospace Authority is tasked with encouraging the development of the aerospace industry within the state. Though part of the executive branch, the office is currently unfunded.

For More Information Contact:

Wisconsin Department of Commerce
<http://commerce.wi.gov/BD/>

Wyoming

With wide open spaces, no corporate income tax, and no personal income tax, there are a number of basic incentives that might draw a space transportation company to Wyoming on their own. However, the state also offers a wide range of local incentives based upon the specific location that a business chooses.

Basic Demographic Data

State Population: 515K

Aerospace Industry Presence: ~10 companies

Responsible Entities: Wyoming Business Council

Incentives

STANDARD INCENTIVES

State Bonding Authority: One of the biggest potential incentives that can be realized by companies establishing operations in Wyoming is the state's bonding authority, which can be used in support of companies employing state residents for the purposes of construction or major equipment purchases. Though capped at \$10 million, these bonds can provide substantial support.

STATE AGENCIES OR NONPROFITS

Given the relatively small population of Wyoming, the Wyoming Business Council (which, though technically a state agency, is run as a corporation with a corporate structure) can offer a wide range of assistance to businesses within the state going well beyond traditional incentives. This assistance can include support in the areas of:

- Business counseling
- Business permitting
- Business plan generation
- Securing of federal contracts
- HR consulting
- Intellectual property
- International business
- Manufacturing
- Marketing
- Product development

For More Information Contact:

Wyoming Business Council

<http://www.whywyo.org>

