Maine Space Corporation
Established in 2021 by 5 MRSA c. 393.

Engaging Maine in the Growing Global New Space Economy

**Legislative Purpose**
The corporation shall leverage the State's geographic, rocketry, manufacturing and higher education assets and capabilities to establish the State as a national and international industry destination and an authority in launching small launch vehicles and small satellites into polar orbit.

**Governance**
The Board of Directors of the Maine Space Corporation consists of 17 directors, of whom 6 directors are ex officio. Non ex officio members are appointed by the Governor and subject to confirmation by the Senate.

**Vision**
By 2045, Maine will be an integral player in the emerging global network of suborbital and orbital space sector, providing a significant return on investment as an engine of workforce development and economic growth.

**Maine Space Complex**
To achieve this vision, 5 MRSA c. 393 authorizes the corporation to establish a geographically distributed shared resource-based Maine Space Complex, which is restricted to commercial, research and educational uses, and must include but is not limited to the following business units:

- **The Space Data & Advanced Analytics Center** will be a cloud-based, digital platform resourced to import/downlink, store, cleanse, manage, and analyze satellite data in concert with terrestrial data to solve local business public policy issues in innovative ways.

- **The New Space Innovation Hub**, to be located at Brunswick Landing, with a spoke at Loring Commerce Centre, is envisioned as a knowledge and innovation hub for new business incubation and acceleration, hardware and materials component development facilities, and satellite and launch vehicle manufacturing and testing.

- **The Launch Sites & Services** will include both vertical launches at one or more sites along the coast of Maine, as well as horizontal launch capabilities from aircrafts that leverage the long runways at Brunswick Landing and Loring Commerce Centre.

**The Vision Is Not Simply About Launching SmallSats and Rockets...**

... it is about engaging Mainers across the three segments of the new space economy value chain and the underlying infrastructure needed to support these segments.

- **Upstream segment**: Research, manufacturing, and ground systems; all include fundamental and applied research activities, scientific and engineering support activities, materials and components supply, manufacturing of space systems, subsystems, equipment, telemetry, tracking, and command stations.

- **Downstream segment**: Space operations for terrestrial use and products and services which rely on satellite technology, signal, data to function (e.g., selected GIS, Global navigation satellite system-enabled devices).

- **Space-related segment**: Space applications, products, and services from spin-offs or technology transfer from the space sector, which use satellite technology but do not depend on it.

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### New Space Economy Assets

**Geographic location for polar orbits**
Offers direct and sun-synchronous polar orbit access (inclination angle between 80° and 100° from equatorial plane) for full Earth coverage.

**Coastline for vertical launches**
Lower population density and risk; allowance for a southerly launch.

**Physical assets at Loring and Brunswick**
Buildings and resources; allowance for horizontal launches.

**Small but growing supply chain**
Directly and indirectly supplying the new space economy.

**Maine-based launch providers**
bluShift Aerospace and VALT Enterprises.

**Education and public and private R&D assets**
UMaine System, Community College System, Roux Institute, private colleges, non-profit research entities, CTEs, and Investment groups.

**Regional Assets**
Higher Education institutions, high tech industries

### Examples of SmallSats – Maine’s Focus

![Micro – NASA’s Mars Cube 1](image1)

![Nano - CubeSat](image2)

![Pico](image3)

![Femto](image4)

### Small Launch Vehicles – Maine’s Focus

**bluShift Red Warf**
- **Height**: 78 ft.
- **Max Alt**: polar low-Earth Orbit
- **Propulsion**: Green fuel powered hybrid engine
- **Fuel**: non-toxic, bio-derived solid fuel

**Statue of Liberty**
- 305 feet from the ground to tip of torch.

**NASA Artemus SLS**
- 322 feet

### Developing SmallSat Applications – Economic Opportunity for Maine

- Climate Change Monitoring
- Environmental Monitoring
- Food security
- Land use monitoring
- Natural resource management
- Search and Rescue
- Biological and physical sciences
- Asset tracking
- Air and maritime, AIS, ADS-8
- Agricultural monitoring
- Astronomy/Astrophysics
- Disaster monitoring/response
- Earth Imaging

### Major Customers

- Federal agencies
- Telecommunications
- Air & Maritime Transportation
- Research institutions
- Educational Institutions
- Consumer Services
- General public

### Outcomes – Talent and Innovation*

- Retain Maine’s students and Immigrants with STEM degrees.
- Attract highly skilled workers and their families from out of state.
- Encourage startups and spur development in all seven technology sectors.
- Develop globally based applications for research, commercial and consumer uses.
- Facilitate STEM learning opportunities for Maine high school and higher education students.
- Promote economic aspirations for All Mainers.
- Advance Maine to a new competitive level in a fast-growing Knowledge Economy.

*Contributes to the state’s Economic Development Strategy 2020-2029 TALENT and INNOVATION Goals*