



## **NASA Moving Towards Privatization**

The National Aeronautical and Space Administration (NASA) has adopted a strategic plan to guide its operations and investments from 2011 – 2021 and beyond. NASA Administrator Charles Bolden summarized the strategy by stating the “new direction extends the life of the International Space Station, supports the growing commercial space industry, and addresses important scientific challenges while continuing our commitment to robust human space exploration, science, and aeronautics programs.” (2011 Strategic Plan, NASA 2011, p. i) Two key initiatives in the strategic plan include: (Ibid, p. 5)

- Developing competitive opportunities for the commercial community to provide best value products and services to low Earth orbit and beyond.
- Facilitating the transfer of NASA technology and engage in partnerships with other government agencies, industry, and international entities to generate U.S. commercial activity and other public benefits.

As a result of this new direction, NASA has discontinued the shuttle program and have begun outsourcing low earth orbit activities to an emerging commercial space industry. As a result, a booming multi-billion dollar commercial space industry has been birthed. Georgia has an opportunity to tap into this growing sector of the aerospace market and attract commercial space companies to the state.

All low earth orbit rocket launches currently occur at federal ranges. The commercial space industry is seeking independent commercial launch sites away from federal ranges to facilitate their corporate activities.

## **Why Develop a Spaceport in Camden?**

### **Large, Rural Site on the Atlantic Ocean Offers Safety, Security and the Ability to House Multiple Launch Operators in Efficient Flights to a Wide Range of Orbits**

The Camden County site can support the integration, test and launch operations of several vertical launch systems. The ready support of multiple launch operators on this site provides flexibility for a rapid succession of launches. The site, previously owned by Thiokol Chemical Corporation, was the former testing facility where the world’s most powerful rocket motor was test fired in the 1960’s.

Located on the Atlantic Ocean and surrounded by a large undeveloped buffer zone, this location provides a nearly unrestricted launch range for the launch of spacecraft to a wide range of orbits. With a range of launch azimuths five times that of the proposed Texas site, Camden County provides direct access to an orbital inclination range as large as any launch site in the United States. Orbital inclinations between 31° and 58° can be reached without the addition of costly propulsive maneuvers to change the orbital plane.

### **Southerly Location and Favorable Launch Azimuths Enable More Payload to Orbit**

Launches from Camden County have the capability to fly due east, maximizing the velocity boost from the rotation of the Earth and enabling more payload to reach orbit. The Camden County’s southerly location provides launch vehicles with an extra boost from the rotation of the Earth when reaching orbit. The Camden County latitude provides an 8% velocity advantage due to the Earth’s rotation relative to the Wallops Flight Facility and a 4% advantage relative to Vandenberg Air Force Base.

Combined with the wide range of favorable launch azimuths, this velocity advantage enables launch operators to deliver more payload mass to orbit. For example, for flights to the International Space Station, Camden County’s southerly location and favorable launch azimuth range allows rockets to deliver 1.8 times the payload to the International Space

Station than launches from the proposed Texas site. Launches from Camden County to the International Space Station provide 2% more payload relative to flights from the Wallops Flight Facility. Located on the Georgia-Florida border, the latitude of the Camden County site provides an eastward velocity boost similar to (within 2%) that at the Kennedy Space Center.

### **Commercial Efficiency**

As a commercial property, the Camden County launch site eliminates the need for commercial space companies to sequence alongside governmental payloads or be saddled with the federal government regulation that exists at other launch sites. This gives launch operators the flexibility to launch when they want with little worry of conflicting launch range needs.

### **Nearby Rail, Barge and I-95 Access Simplifies Logistics and Reduces Cost**

As a former rocket test facility with roads, security fences, and supporting utilities, the Camden County site has significant existing infrastructure. Logistical support and supply chain costs are favorable through advantageous geographic features, including a location between Florida and Alabama, both with large existing space industries, on an ocean and near a major interstate freeway, I-95. Support for barge and train access is available at the site. Those elements arriving by ship can do so through the nearby ports of Brunswick and Savannah. A right to work state, Georgia is an ideal location for space-related companies seeking to hire skilled workers in manufacturing, operations, technology development and research. Georgia currently has more than 80,000 aerospace workers with continued growth provided by the state's extensive set of technology-oriented colleges and universities.

### **Proximity to Cutting-Edge Space Technology and Research**

Located on the Georgia-Florida border, Camden County provides ready access to cutting-edge space research and technology. The Georgia Institute of Technology is a top tier research university with established space technology programs. Each year, Georgia Tech graduates more than 200 students with interests in space systems engineering and space science. Georgia Tech's Center for Space Technology and Research brings together a wide range of space science, space technology and space research activities including efforts on the frontiers of astrophysics, Earth science, planetary science, robotics, space policy, space technology and space systems engineering.

Camden County Board of Commissioners  
Steve L. Howard, County Administrator  
912-510-0464  
[showard@co.camden.ga.us](mailto:showard@co.camden.ga.us)