



## **Aerospace Advisory Committee Final Report**

### **Introduction**

During the 2007 Interim the Aerospace Advisory Committee held four meetings to discuss options for promoting the growth of the aerospace industry in the Commonwealth. Although the title "aerospace" includes references to both aeronautics and space, there was a deliberate concentration on studying the policies associated with the development of commercial space opportunities in Virginia. The advisory committee chose specifically to focus on developing recommendations that would encourage greater development and utilization of the Mid-Atlantic Regional Spaceport (MARS), located on Wallop's Island.

### **Legislative Members:**

Delegate John Cosgrove, Chairman  
Delegate Ken Plum  
Delegate Lynwood Lewis

### **Other Members**

Herb Bachner, Aerospace Consultant  
Randall Burdette, Department of Aviation  
H. Hollister Cantus, The ILEX Group  
James Dunstan, Garvey Schubert Barer  
Tayloe Gwathmey, JCOTS Intern  
Christopher Hall, Virginia Tech  
H. Milton Holt, Technology Commercialization Center  
Jack Kennedy, Jr.  
Billie Reed, Virginia Commercial Space Flight Authority  
Guillermo Söhnlein, International Association of Space Entrepreneurs  
Bruce E. Underwood, NASA/Goddard Space Flight Center  
Ron Wolff, Accomack County Board of Supervisors  
Long Yip, NASA Langley Research Center

### **Meetings**

At the first meeting of the Interim Dr. Billie Reed, Director of the Virginia Commercial Space Flight Authority, provided an overview of activities currently underway at MARS.

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**Delegate Joe T. May, Chair**

**Senator John C. Watkins, Vice Chair**

Dr. Reed explained that MARS is a joint collaborative effort of the Virginia Commercial Spaceflight Authority and the Maryland Department of Economic Development that leverages NASA's Wallop's Flight Facility to provide launch support services and facilities to NASA, DARPA, Air Force, and commercial and academic users.<sup>1</sup> As one of only five non-federal licensed spaceports in the country, MARS is uniquely situated at the center of the eastern seaboard, which allows for prime launch inclinations targeting the International Space Station. Quoting directly from the MARS mission statement:

"MARS is a full-service spaceport, offering two FAA licensed launch pads for low earth orbit (LEO) access as well as access to three suborbital rail launchers, vehicle/payload storage, processing and launch facilities, a federal launch range and a cadre of experienced space technicians and engineers. MARS features new infrastructure, including a vehicle service tower, state-of-the-art processing facility and mobile liquid fueling facility to provide better service to its customers."<sup>2</sup>

During the four meetings of the Interim, the advisory committee members identified land use planning, taxation, funding, federal/state relations, and infrastructure capabilities as challenges or barriers to future development and utilization of MARS.

Members discussed encroachments to the MARS facility, such as offshore wind mills, Commonwealth residents wishing to reside near the ocean, and offshore oil exploration. With regards to encroachment, public education of blast zones and land use regulations were identified as essential elements to addressing the problem.

Educating the public about MARS and space exploration in general emerged as a central theme of the advisory committee. All members agreed that the Commonwealth needs to educate its citizens, as well as citizens across the nation on the importance of maintaining commercial access to space. During its course of study, the advisory committee had the opportunity to visit the Wallop's Island Flight Facility and the MARS launch pad. During the visit, the advisory committee heard presentations from the Virginia Space Flight Academy, which offers summer camp programs for students to learn more about spaceflight. Additionally, the advisory committee heard from Dr. Burton Lee, from the Space Angels Network, who reviewed the Space Florida model as an example of a leading state organization focusing on the development of the commercial space industry.

### Commercial Spaceflight and the Future of MARS

In addition to public education, the advisory committee focused heavily on discussing the commercial opportunities for aerospace companies in the Commonwealth. Members cited the Futron Study of New Mexico, which suggests up to 10,000 commercial space passengers per year in the next ten to twenty years. There was some debate among the

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<sup>1</sup> <http://marsspaceport.com>. Last accessed on 12/3/07.

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members as to the accuracy of launch market predictions, but the consensus was that it will continue to increase.

Funding was a key issue for many members. With the future of investment of \$200 million in New Mexico there is a great divide in capital investment among the states competing for launch business. Members of the advisory committee encourage the state to devote more financial resources to support the operation of MARS as it begins to compete for commercial launch business, which is seen as vital to the long term viability of the spaceport. Additionally, the advisory committee makes the formal recommendation that JCOTS support reestablishing a formal relationship with the state of Maryland for the joint operation and joint funding of the Mid-Atlantic Regional Spaceport.

Recognizing the need to engage the commercial sector, the advisory committee organized presentations from three commercial space companies: Orbital Sciences, SpaceX, and t/Space during the New Space 2007 Conference hosted by the Space Frontier Foundation in July. During the presentations, the advisory committee asked the representatives from all three companies about their potential interest in future activities at MARS. Of the items discussed, it appears launch pad capacity and runway length were two of the main infrastructure shortfalls. During the same meeting the advisory committee reviewed legislation providing tax exemptions for gain realized from the sale of launch services in Virginia. Over the course of the Interim staff worked with advisory committee members to develop a final legislative proposal, which was formally adopted during the final meeting of the Interim.

### **Final Recommendations**

The Aerospace Advisory Committee recommends JCOTS endorse legislation providing an income tax exemption from the gain recognized on the sale of certain launch services in Virginia and support reestablishing a formal relationship with the state of Maryland for the joint operation and joint funding of the Mid-Atlantic Regional Spaceport. A copy of the draft legislation providing for the tax exemption accompanies the materials for the 12/10/07 meeting of the Joint Commission on Technology and Science.