

Aerospace Issues by State

Alabama Lt Governor Jim Folsom

1. How important are the following issues to aerospace/defense/space interest in your state - and why?

Energy and environmental considerations –

Research universities, federal agencies and defense and aerospace companies based in Alabama have a number of technology applications – derived from our defense and space programs – that can be used to address current energy and environmental concerns. Opportunities to use these technology assets to address national energy and environmental issues are very important to Alabama.

In this vein, comments have mostly focused on environmental issues inhibiting research and development especially with new materials – exotic metals, composites, etc. This R&D is essential for reducing weight, saving energy, and helping Alabama & U.S. companies compete with other companies in other parts of the world. Energy is always a concern but for most of Alabama's aerospace industry (read defense) it has not been mentioned as a major challenge. With \$4 per gallon gasoline, it has certainly become a problem in accessing the workforce.

Trade regulations and controls on technology exports

ITAR restrictions have a negative impact on technology exports, however, national security concerns may warrant such restrictions. Most comments in this area have been along two lines: One, foreign military sales of U.S. equipment continue to suffer due to the extended time required to process the authorizations. Two, the limit on and time required to get a work visa for talent that is needed by companies has been a problem for a long time especially since 2001. This is directly related to the workforce issues described below.

Education, especially science, math and engineering

Alabama has created an excellent program to help encourage more students to enter challenging math and science classes. The Alabama Math, Science and Technology Initiative (AMSTI <http://www.amsti.org/>) is improving student's scores in these challenging disciplines.

It is a near universal fact within the industry that Aerospace related companies need more technically educated and trained employees and many are facing the loss of significant talents in the near future due to retirements. Aerospace workers, in Alabama at least, tend to work past 70 years of age while the general retirement average is 65-66 years of age. Aerospace executives lament the lack of STEM program enrollment. Few

take any action to positively affect enrollment and the ones that do are focusing on their local schools. It is inevitable that in order to maximize this initiative, there will have to be some action taken at the state governmental level.

Aerospace workforce

The hub of the Alabama aerospace industry in the Huntsville/Madison County area has a comprehensive and aggressive effort underway to provide for the aerospace workforce in the region. The first part of this effort is focused on recruiting aerospace workers to the area, promoting the region's favorable quality of life and high demand for skilled and educated workers. The effort is also focused on the long-term development of the workforce needed to sustain and grow aerospace activity in the region.

Experts in the industry are looking beyond the cries of the company spokespeople. It appears that, yes, aerospace companies are definitely in need of talent now and over the next decade. However, when compared to other industries, aerospace is no better or worse than others. The long-term crisis will be in finding employees with the technical foundation on which to build the skills that companies will need. Alabama does have some really good STEM programs but at a macro level, we are not doing enough to move the needle. Again aerospace is not alone in this STEM talent need but given the relative high dependence on STEM trained employees, aerospace is probably in the top group of U.S. industries struggling with this future workforce issue.

Defense funding

Defense funding is very important to the State of Alabama. In the Huntsville region alone, Redstone Arsenal has an annual economic impact of over \$5.6 billion.

The cyclical nature of the defense funding has made the surviving companies cautious about what lies beyond the end of the current contract. The overall consensus seems to be that, regardless of who is elected President, U.S. defense spending will fall but how much and when are still debatable.

Manned Space flight

Manned space flight is likewise very important to the State of Alabama. As the home of the Marshall Space Flight Center, Alabama has led the development of all U.S. crewed launch vehicles. MSFC is developing the Ares I and V rockets that will carry people and cargo into space, back to the moon and beyond.

The opinions that I hear are split precisely down the line between defense/aviation and aerospace firms. Defense/aviation companies rate this as a low priority while those in the space business say that President Bush's vision to return to the Moon and Mars is a mandate. Alabama certainly has much at stake with NASA here in at Redstone Arsenal and all of the support contractors close by. The United Launch Alliance plant in Decatur, is hoping for a strong space program – manned, satellite, defense market. If

for no other reason, these programs are essential for pushing technological advancements to keep the U.S. competitive in advanced manufacturing.

2. Are there any other issues in aerospace/defense/space that is of concern to you and your state? Have any of the candidates addressed them?

We would hope that the candidates would more clearly articulate their plans for space exploration and defense research and development investments. Additionally, the other major issue is transportation infrastructure. Specifically, the address of bottlenecks, maintenance of roads, bridges, dams, airports, rail track, etc., are important to most of the aerospace companies at least for access to workforce. Those companies engaged in manufacturing and maintenance-repair-&-overhaul are especially conscious of transportation challenges. The current MRO business in the southern part of the state plus the Air Force Tanker project in Mobile combines with the Redstone BRAC growth in the northern part of the state to make this a statewide economic issue.