Assuring the Viability of the U.S. Aerospace and Defense Industrial Base
An AIAA Information Paper

ABSTRACT
The continued stability of the U.S. aerospace and defense (A&D) industrial base is critical to our economy, national security, infrastructure, and future workforce. The A&D industry is facing one of its greatest challenges as Congress and the Administration deal with mounting national debt and the need to balance the federal budget. All federal agencies face significant budget reductions, with the Department of Defense (DoD) potentially bearing the biggest burden. While all areas must be examined to identify unnecessary spending that can be reduced or eliminated to help lower the federal budget deficit and national debt, we must make sure that the nation’s future is not mortgaged to address today’s crisis.

ISSUE BACKGROUND
The aerospace and defense industry supports 3.5 million jobs. It is the nation’s largest manufacturing exporter and contributes 2.23 percent of the Gross Domestic Product (GDP). Small businesses generate almost half of private sector jobs, 64% of net new private sector jobs, and 43% of high-tech employment, and are responsible for 33% of exports. The industry’s workforce is highly skilled and leads our nation in global competitiveness, providing current and future opportunities for young people to have high-paying careers that will keep the industry strong for the future while advancing our national and economic security.

The Budget Control Act of 2011 (BCA) provided for two major categories of federal spending reductions: (1) discretionary spending caps that became effective in FY 2012; and (2) automatic spending reductions that became effective on March 1, 2013.

The Congressional Research Service has analyzed the federal spending reductions mandated by the BCA. This analysis confirms that these cutbacks result in a significant reduction in federal spending beginning in FY 2013. Under the BCA, the federal budget reductions reduce spending levels from a “baseline” trajectory as shown in this figure.

In July 2012, Dr. Stephen Fuller, a noted economist at George Mason University, reported in “The Economic Impact of the Budget Control Act of 2011 on DOD and non-DOD Agencies” that sequestration would have the following impact on the national economy:

- 2.14 million American jobs at risk;
- $109.4 billion total loss of workers’ wages and salaries;
- 1.5 percent U.S. unemployment rate increase; and
- $215 billion reduction in growth of GDP in 2013

The study also included detail on the thousands of jobs across the economy that would be lost from sequestration, including:

- 473,000 manufacturing workers;
- 98,000 construction workers;
- 82,000 in the retail trades;
- 47,000 in education and health care;
over 15,000 in state and local government; and
510,229 federal jobs from food inspectors to patent clerks, and from FBI agents to diplomats

The A&D industrial base possesses unique capabilities and expertise needed to address the unique and diverse missions required by both their civil and military customers. Small business is the backbone of the American economy and technology innovation. Many of these businesses are sole suppliers of critical components that go into major weapons, aircraft, spacecraft and satellite systems. Federal policy is specifically directed toward fostering small businesses as an important part of the supply chain. In 2011, 20 percent of DOD prime contracts and 35 percent of DOD subcontracts (measured in dollars) were awarded to small businesses. Similarly, in 2011, 18 percent of NASA prime contracts went to small businesses and 38 percent of its subcontracts were awarded to small firms.

The domino effect of reduced federal budgets will undoubtedly force some companies out of business and still others to significantly scale back, resulting in single-source suppliers, or perhaps no domestic supplier for items on the critical development path. If those capabilities are allowed to erode in this lean budget environment, this nation could become technologically bankrupt and unable to address future threats to our national security or economic stability when they arise.

While the largest budget cuts are expected to impact the DOD, both NASA and the National Oceanic and Atmospheric Administration (NOAA) will be severely impacted as well. Under sequestration, NASA will experience an 8.2 percent cut for fiscal 2013 and further cuts over the next eight years. In a July 2012 AIA report on the effects of the Budget Control Act, George Mason University economist Dr. Stephen Fuller estimated that the 8.2 percent cut would amount to a loss of more than 20,500 jobs in 2013 – all of which would come from the private sector, since the NASA Authorization Action of 2010 prohibits any cuts to the civil servant work force through FY 2013. This impact would also be a major blow to those geographic regions with high concentrations of aerospace activity where space companies that directly support NASA missions are located.

In the case of NOAA, an 8.2 percent cut to that agency’s budget would result in the loss of more than 2,500 jobs in 2013 – 1,000 of which are held by people who design, build and operate weather satellites. The importance of maintaining satellite vigilance of weather conditions cannot be overemphasized. Over 90 percent of all observation data used in three to seven day weather forecasting is acquired by these satellites.

1 AIA Second to None, 9/19/12
2, 5, 6 The Economic Impact of the Budget Control Act of 2011 on DOD and non-DOD Agencies, Stephen S. Fuller, Ph.D., George Mason University, July 17, 2012 – AIA Second to None