

Testimony of CAPT Wilbur C. Trafton, USN (Ret)
Chairman, Commercial Space Transportation Advisory Committee (COMSTAC)
To: House Science Committee, Subcommittee on Space and Aeronautics
Topic: FAA/AST 2013 Budget Request
March 20, 2012

Statement

I am here to testify in my role as Chairman of the Commercial Space Transportation Advisory Committee (COMSTAC). Established in 1984, COMSTAC provides information, advice, and recommendations to the Administrator of the Federal Aviation Administration (FAA) within the Department of Transportation (DOT) on critical matters concerning the U.S. commercial space transportation industry. The economic, technical, and institutional expertise provided by COMSTAC members has been invaluable to FAA/AST's work in developing effective regulations that ensure safety during commercial launch operations and policies that support international competitiveness for the industry.

COMSTAC membership is made up of senior executives from the commercial space transportation industry; representatives from the satellite industry, both manufacturers and users; state and local government officials; representatives from firms providing insurance, financial and legal services for commercial space activities; and representatives from academia, space advocacy organizations, and industry associations. COMSTAC meets twice per year, in May and October, in Washington DC, in a public forum.

COMSTAC is governed by the Federal Advisory Committee Act, P.L. 92-463; implemented through 41 CFR Parts 101-6 and 102-3, Federal Advisory Committee Management; Final Rule; DOT Federal Aviation Administration Order 1110.30C, Committee Management; and the COMSTAC Charter, DOT/FAA Order 1110.124F.

The primary goals of COMSTAC are to:

- Evaluate economic, technological and institutional developments relating to the U.S. commercial space transportation industry.
- Provide a forum for the discussion of problems involving the relationship between industry activities and government requirements.
- Make recommendations to the Administrator on issues and approaches for Federal policies and programs regarding the industry.

The commercial space industry represents the spirit and roots of America: exploration and entrepreneurship. The commercial industry plays an important role in stimulating investment in infrastructure and creating opportunity, jobs, and ultimately a U.S. capability, increasing value to the U.S. taxpayer. This role is increasingly important as commercial space passenger travel emerges as a new business.

My responses to the committee's questions are attached.

Responses to Questions

- 1) *How would you rate FAA/AST's effectiveness as a regulator of the commercial launch industry, and do you believe they have sufficient resources to carry out their role?*

The Federal Aviation Administration (FAA) Office of Commercial Space Transportation (AST) is the U.S. government organization responsible for regulating the safe operations of the U.S. commercial space transportation industry and facilitating its international competitiveness. FAA/AST has effectively regulated the commercial space industry for 28 years. FAA/AST, through its charter, is designated to exercise this regulatory authority, having licensed or permitted over 200 launches since 1989 and, as of 2010 licensed eight spaceports in seven states. No bodily injury or property damage to third parties has occurred as a result of these licensed and permitted activities. Its licensing responsibilities include expendable and reusable orbital launch vehicles and suborbital launch vehicles.

FAA/AST is also an effective advocate for the commercial space industry. Its unique charter allows them to facilitate and promote the advancement of the industry. For example, the office just held the 15th annual Commercial Space Transportation Conference, an annual event that brings together diverse stakeholders in the space community to discuss and collaborate on important issues facing the industry and government agencies.

FAA/AST synthesizes the best practices of NASA, the Air Force, the aviation industry, and the space industry and is the most capable and well-staffed organization to fulfill its regulatory and advocacy roles. FAA/AST should remain funded and resourced accordingly.

- 2) *Looking forward the next five years, what do you consider to be the biggest challenges FAA/AST must confront in order to adapt to a changing industry? How confident are you that AST will be able to meet them?*

The biggest challenge, and opportunity, facing FAA/AST is continuing to fulfill its regulatory and promotion role as the industry evolves to include commercial passenger space travel. This requires an open and ongoing dialogue with industry players as well as with NASA (see question 3).

To ensure an open dialogue on safety, especially passenger safety, there needs to be a transparent exchange of data between industry and government, such that industry can be as aware as possible of lessons learned that can help it be safer. COMSTAC has encouraged the FAA to develop a process for disclosing pertinent data from reported safety-critical anomalies, mishaps, incidents, and precursors, where relevant to current and future operations. Such a process needs to protect proprietary data and comply with relevant export control policies while still fostering the continuous safety improvement of the industry. This is an important step in the dialogue between industry and government prior to any rule-making. FAA/AST has accepted this recommendation.

Another challenge is continuing to ensuring stability of the space launch industry via support of indemnification. The current space launch indemnification regime expires on December 31, 2012. As previously stated in reports by COMSTAC and The Aerospace Corporation, indemnification provides critical support for the U.S. launch industry. As an example, foreign launch operators have benefit of indemnification and this affords them a competitive advantage. COMSTAC has consistently recommended renewal and extension of this regime and again encourages the regime to continue. This issue needs to be addressed prior to the end of this year.

Counterproductive export control regulations continue to damage the U.S.'s ability to compete internationally and are resulting in thousands of jobs being sent overseas. Moreover, these obsolete regulations are actually making America less safe by eliminating critical domestic aerospace capabilities and preventing the government from focusing scarce resources on technologies that really do require enhanced protection. COMSTAC has consistently expressed its views that export control reform is needed.

FAA/AST is positioned to meet these challenges and will continue to have input from industry through COMSTAC.

- 3) *NASA is implementing a program to stand up a new commercial crew launch industry to serve agency needs, as well as foster development of a purely commercial market. In your view, how well are FAA/AST and NASA working together to ensure a workable regulatory framework?*

FAA/AST and NASA have been actively collaborating for many years to ensure U.S. government coordination and communication on space launches and to incorporate best practices in the industry. NASA is not a regulatory agency, nor does it want to be a regulatory agency. FAA/AST's charter assigns this role to FAA/AST, and they have effectively and safely executed this mandate for 28 years.

Collaborative discussions between NASA and FAA/AST, specifically on commercial crew, have been taking place for over a year, and include activities such as rotational assignments between the two agencies and support of definitions for crew and participant safety and for safety certification requirements development. Both agencies are working to ensure compatibility between NASA requirements and FAA regulations.

Commercial crew is new territory for the entire industry, and the most important point is for FAA/AST and NASA to continue the dialogue on creating a workable regulatory framework. This will take time and input from many stakeholders, including industry.

In July 2010, COMSTAC submitted two recommendations to FAA/AST on this subject, as a result of input and deliberations from the May 2010 COMSTAC public meeting:

1) Support for “Commercial Crew”

The COMSTAC strongly supports the proposed Commercial Crew Development Program as contained in the FY2011 President’s Budget Request for the National Aeronautics and Space Administration (NASA) to accelerate the development of commercial human spaceflight capabilities for access to low Earth orbit and to transition to private industry the transport of crew and logistics to the International Space Station. Working with the private sector, NASA can enable the development of safe, reliable commercial human spaceflight capabilities that will meet U.S. government needs, allow NASA to focus on exploration beyond low Earth orbit, and reap significant economic and other benefits to the nation’s space industrial base.

2) FAA Licensing of Commercial Human Spaceflight Activities

A single, consistent regulatory and licensing regime for both government and non-government customers is critical to the long-term success of commercial human spaceflight providers and to enable the development of new customers and markets for private human spaceflight capabilities. The COMSTAC strongly supports FAA licensing of commercial human spaceflight activities, including those commercial activities conducted for the National Aeronautics and Space Administration (NASA), as consistent with current practice under the Commercial Orbital Transportation System (COTS) and Commercial Resupply Services (CRS) programs. Any customer, including NASA, can impose additional safety requirements and approval processes by contract.

These recommendations remain valid.

About COMSTAC

COMSTAC provides information, advice, and recommendations to the Administrator of the Federal Aviation Administration (FAA) within the Department of Transportation (DOT) on matters concerning the U.S. commercial space transportation industry.

http://www.faa.gov/about/office_org/headquarters_offices/ast/advisory_committee/

The Commercial Space Transportation Advisory Committee (COMSTAC) was established in 1984. Since that time, COMSTAC has provided information, advice, and recommendations to the Department of Transportation and the Administrator of the Federal Aviation Administration on the critical matters facing the U.S. commercial space transportation industry. This has allowed the FAA/AST to play a key role in the development of US aerospace programs. The economic, technical, and institutional expertise provided by COMSTAC members has been invaluable to the FAA/AST's work in developing effective regulations that ensure safety during commercial launch operations and policies that support international competitiveness for the industry.

COMSTAC utilizes working groups, which provide information, reports, and recommendations to the full Committee for adoption. COMSTAC has four working groups: Operations, Systems, Business/Legal, and Export Control. The Committee also establishes ad hoc working groups and special task groups to address specific issues as needed.

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Biography of CAPT Wilbur C. Trafton, USN (Ret)

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Mr. Trafton is President of Will Trafton & Associates LLC, an aerospace consulting firm. Previously he served as Executive Vice President of Rocketplane Kistler after the merger of Rocketplane and Kistler Aerospace Corporation. At Kistler Aerospace Corporation he held the position of President and Chief Operating Officer. Prior to joining Kistler, Mr. Trafton was Vice President / General Manager of Boeing Expendable Launch Systems and President of Boeing Launch Services. He served as Chairman of the Board and President of Sea Launch Company, LLC. He was also President of International Launch Services. Mr. Trafton is a former Associate Administrator for Space Flight at NASA Headquarters in Washington DC, where he was responsible for planning, budgeting and execution of the Space Shuttle Program, and the Deep Space Network. He was also responsible for four NASA centers; Johnson Space Center in Houston, Texas, Kennedy Space Center, Florida, Marshall Space Flight Center in Huntsville, Alabama, and Stennis Space Center in Mississippi. In 1997 Mr. Trafton was selected for Presidential Rank of Meritorious Executive. He was also awarded two NASA Outstanding Leadership Medals. Prior to joining NASA Mr. Trafton was President of Micro Research Industries, a software development company.

Mr. Trafton retired from the United States Navy as a Captain after 26 years of service. He is a decorated combat veteran, having flown 85 combat missions from the aircraft carrier Shangri-la in the Vietnam War. He also served as Commanding Officer of the fast combat support ship Seattle in Desert Storm. He was awarded the Bronze Star for his duty in Desert Storm. He held a number of high level positions in the areas of operations, acquisition of weapons systems, and international affairs, including Squadron Commanding Officer, and advisor to the Chairman, Joint Chiefs of Staff. He has over 3000 flight hours and 700 carrier landings.

A graduate of the U.S. Naval Academy, he received a Master's Degree in Operations Research and Systems Analysis from the U.S. Naval Postgraduate School in Monterey, California. He is also a graduate of the Defense Systems Management College in Ft. Belvoir, Virginia.