USACA Newsletter

Washington Operations Report

April 23, 2007

FY 07 REPROGRAMMING

While Congress and the President work to reconcile the $123 billion-plus supplemental bill for the wars in Iraq and Afghanistan, the Pentagon is moving to reprogram FY '07 funding to cover war costs. The Democrats' goal in the budget negotiations is to craft a delicate compromise of Iraq withdrawal language that will garner enough support in both chambers; the House seeks a required withdrawal date of August 2008 and the Senate seeks a non-binding goal of March 31, 2008.

Any further delay in the negotiations is likely to be more fodder for President Bush and congressional Republicans. Senator Byrd (D-WV) noted the non-partisan Congressional Research Service estimates the Pentagon has $52 billion remaining (*cont. on p. 3*)

JOINT STRIKE FIGHTER ENGINE TESTIMONY

A joint hearing of the Air and Land Forces and the Seapower and Expeditionary Forces subcommittees took place on Thursday March 22, 2007 to discuss Department of Defense (DOD) aviation programs. One of the two panels involved witness testimony of the Joint Strike Fighter (JSF) alternate engine development program. Witnesses reported on studies required in the Fiscal Year 2007 National Defense Authorization Act with respect to the JSF alternate engine program.

The JSF is an expansive program under the Department of Defense (DOD) that aims to produce modern tactical aircraft by replacing those involved in the Air Force, Navy and Marine Corps. Implemented in 1996, the JSF alternate engine development program set out to provide competition between two engine manufacturers, the F135 and the F136, and attain cost savings and improve performance, among other benefits.

The witnesses were Mr. David G. Ahern, Director for Portfolio Systems Acquisition in the Office of the Undersecretary of Defense for Acquisition, Technology and Logistics; Mr. James Woolsey, Assistant Director of the Cost and Analysis Research Division at the Institute for Defense Analyses; and Mr. Michael Sullivan, Director for Acquisition and Sourcing Management in the Government Accountability Office (GAO).

Mr. Ahern commented on the Cost Analysis Improvement Group's (CAIG) analysis of JSF engine alternatives. This analysis, asserted Mr. Ahern, "… showed relatively modest additional life-cycle or savings associated with the competition scenario relative to a sole-source scenario." http://armedservices.house.gov/pdfs/JointALSPEF032207/Ahern_Testimony032207.pdf

Mr. Woolsey spoke of the benefits that competition allows, which requires investments throughout all phases of the program. "Competition," as the Assistant Director testifies, "can be expected to bring non-financial benefits in the form of fleet readiness, (*cont. on p. 2*)

Steve Atmur, with ATK-COI selected USACA Chairman

Special Points of Interest:

- *NASA's FY 07 Budget*
- *Hypersonics Budget Environment*
- *USACA's New Chairman*
- *Upcoming Technical Conference*

Inside This Issue:

STEVE ATMUR ELECTED USACA'S NEW CHAIR

On April 17, 2007 the Board of Directors elected Steve Atmur to serve as USACA's new Chairman. Mr. Atmur replaces Paul Walsh, who for many years served USACA in various capacities, including one year as Vice Chairman and one year as Chairman. Mr. Walsh stepped down in order to pursue other job opportunities with Coast Composites, based in Irvine, CA. We are extremely appreciative of Mr. Walsh's hard work and dedication to USACA over the years.

Prior to being elected Chairman, Mr. Atmur served USACA as Vice Chairman. Mr. Atmur (B.S. ME/ Thermal Systems, UCLA) is currently a Business Development Representative for COI Ceramics Inc. Before joining COIC in September of 2005, Mr. Atmur led Government and commercial based development and production programs at Starfire Systems Inc., from 2002 to 2005, working to advance pre-ceramic polymer technology for a broad range of industry and government applications. Mr. Atmur went to Starfire Systems from Composite Factory Inc., a company he formed in 1999 to produce CMC and PMC based composites for commercial and DOD applications. Previously at Northrop Grumman, from 1986 to 1999, he led efforts to develop and demonstrate a range of CMC technologies for DOD and commercial applications. Mr. Atmur supported and managed aircraft propulsion design and integration projects, as well as commercialization of CMC technology for 12 years while at Northrop Grumman. He has over 20 years of DOD program management and contract management experience. Mr. Atmur has been awarded over 40 US Patents related to ceramic matrix composites.

JSF ENGINE TESTIMONY (CONT.)

contractor responsiveness and industrial robustness." http://armedservices.hous e.gov/pdfs/JointALSPEF 032207/Woolsey_Testimony032207.pdf

Another analysis of the JSF engine program is the GAO's findings. Mr. Sullivan stated that continuing the program would result in higher costs than a sole-source program. In the long run, however, it could reduce costs and give rise to other benefits. An additional investment may be required to ensure competition by continuing to implement the Program; however, a competitive strategy could result in savings of equal or greater value. Furthermore, non-financial benefits in terms of better engine performance and reliability, improved industrial-based stability and more responsive contractors are more likely under a competitive setting than a sole-source strategy.

http://www.globalsecurity.org/military/library/congress/2006_hr/060328-sullivan.pdf

Contact Information

SMI, Inc.
1020 19th Street, NW
Suite 375
Washington, DC 20036
www.advancedceramics.org
USACA@strategicmi.com
202-467-5459
Ted Lynch, Executive Director

HYPERSONICS BUDGET ENVIRONMENT

The National Aeronautics and Space Administration President's FY 2007 Budget Request

NASA's Aeronautics Program is dedicated to the mastery of critical core competencies of Aeronautics in subsonics (rotary and fixed wing), supersonics and hypersonics flight. Under the Aeronautics Research Mission Directorate in NASA's FY 2007 budget, the Agency has outlined a restructured Aeronautics Program with a new budget structure.

The FY 2007 request is $724.4 million, an 18 percent decrease from the FY 2006 Budget. Among this allocation, $447.2M is for Fundamental Aeronautics projects including subsonics (rotary and fixed wing), supersonics and hypersonics; $102.2M is for Aviation Safety to increase aircraft safety technologies; $120.0M is for Airspace Systems to research and develop innovative solutions for a safe, efficient, high capacity airspace system in the air and on the ground; and $55.0M is for the Aeronautics Test Program to ensure availability of critical Aeronautics research center wind tunnel infrastructure.

One major activity planned for FY 2007 in the Aeronautics field is baseline state-of-the-art analysis methods and tools to address aeronautics challenges within hypersonics, subsonics (rotary and fixed wing) and supersonics.

Included in the $447.2 million allocation for the Fundamental Aeronautics Program are various research projects. Areas of research will be conducted in broad fields such as materials and structures, tribology, power and combustion, dynamics and control, aeroacoustics, aerodynamics, aerothermodynamics and experimental methods.

- Subsonics Fixed Wing research includes technologies for propulsion and power systems, engine and airframe noise, metallic, composite and hybrid structures and materials, advanced guidance and control and aeroelastic control.
- Subsonics Rotary Wing research includes technologies for drive systems and alternative propulsion, simulations and flight tests, active-control, aeromechanics and aeroacoustics, and integrated diagnostic instrumentation.
- Supersonics research includes tools to predict propulsion system noise, efficiency and high altitude emissions, propulsion system performance, vehicle performance, noise and sonic boom, lift-drag, flight dynamics, stability and handling qualities, gust and maneuver loads, ride quality, and flutter suppression.
- Hypersonics research includes technologies for airbreathing hypersonic flight including high-speed turbines, mode transition between low- and high-speed flow paths, combustion physics, advanced materials and structures, cryogenic tanks and hot structures, thermal protection systems, and advanced communication and control.

FY 07 REPROGRAMMING (CONT.)

in its coffers to last through the end of May. However, the Army is moving to temporarily reprogram $1.6 billion from Air Force and Navy personnel budgets to cover Army operating expenses until a spending measure is completed.

USACA is aware of the move

on the part of the Air Force and the Army to put a "hold" on SBIR funding as a "bill payer" for war costs. We understand that a primary reason for doing this is to put pressure on Congress to settle up with the President. The diverted SBIR funds will be paid back once the War Supplemental Appropriation is approved. SBIR contract approvals for pending awards may be delayed several weeks as a result of the hold on SBIR funds, but the contracts should ultimately still come through once the funds are restored to the SBIR program.

USACA TECHNICAL CONFERENCE—MAY 15, 2007

Please RSVP if you haven't done so already for the USACA Technical Conference on May 15 in Arlington, VA. The Conference will feather federal program managers and in industry representatives discussing the federal program outlook for advanced ceramics. The conference will be held at Zimmerman Associates at 1401 Wilson Blvd, Suite 100 in Arlington, VA. The conference is free for USACA members and presenters, and attendees that are not members of USACA will be charged a $250 conference fee. The fee can be applied to USACA dues if a company chooses to join USACA after the conference. The agenda for the conference is as follows:

USACA Executive Committee Meeting

9:30 – 11:00

Technical Meeting

- 11:30: Ted Lynch, Executive Director, USACA

  Welcome
- 11:45: Lunch Break
- 12:00: Kai Koizumi, AAAS

  Overview of the 2008 Federal Budget Request
- 12:45: Jenness Simler – Professional Staff Member, (Invited)

  Hill Perspective on Advanced Materials
- 1:15: TBD, DOC

  NIST ATP
- 1:45: Jeff Abboud, GTA

  GTA Agenda for 2008
- 2:15: Break
- 2:30: Lew Sloter, DDR&E Weapons Systems

  Weapon Materials RDT&E
- 3:00: Adele Ratcliff, OSD Manufacturing Technology

  Mantech Initiatives
- 3:30: Jim Alper – JSF

  JSF SBIR Cluster
- 4:00: Joan Fuller, AFOSR

  Air Force Ceramics Program
- 4:30: Ted Lynch

  Closing Remarks

NATIONAL MATERIALS ADVISORY BOARD MAY RECOMMEND STUDIES ON HIGH TEMPERATURE PROPULSION MATERIALS DEVELOPMENT

The National Materials Advisory Board (NMAB) Spring Meeting April 25 and 26 focused on the status of high-temperature materials for propulsion. Leaders of Department of Defense and industry propulsion materials programs made presentations to the NMAB about the need for high temperature materials in propulsion, the status of materials development, transition of materials into systems, and the near-term and long-term outlook for high temperature propulsion materials. Propulsion materials was one of three materials topics covered on the first day of the Spring Meeting. Other topics included Materials for Power and Energy and Lightweighting Materials for Fuel Conservation.

The NMAB heard from materials experts from industry, government, and academia about key issues and concerns related to high temperature propulsion materials. A group of about two dozen propulsion materials experts outlined issues and possible National Academies study topics in five areas: Systems Design and Materials, National Imperative for Propulsion Materials Development, Mechanisms and Strategies for Materials Development and Transition, Manufacturing and Supply Base, and Workforce and Education. The CMC/Ceramics Affordability and Producibility (CCAP) Initiative supported by USACA fit into the discussion very well and the $300 million ten-year investment profile proposed in the Initiative would address many of the issues and concerns identified in the NAMB discussions on Manufacturing (*cont. on p. 5*)

NATIONAL MATERIALS ADVISORY BOARD MAY RECOMMEND HIGH TEMPERATURE MATERIALS STUDIES (CONT.)

and Supply Base.

The NMAB will consider the results of the Spring Meeting and determine whether to recommend and pursue a National Academies study to address key issues or questions in an effort to guide federal and industry materials programs. Consensus from the high-temperature propulsion materials discussion was that advanced materials are needed by many current and planned DoD and commercial systems, materials development programs are under-funded to respond to the needs, and manufacturing and producibility investments are critical to acceptance of new materials.

Dr. Katharine Frase, Vice President, Technical and Business Strategy, IBM Software Group, is the Chair of the NMAB and Dr. Lyle H Schwarz, Consultant and former Director of Northwestern University's Materials Research Center and Director of the Materials Science and Engineering Laboratory at the National Institute of Standards and Technology, is the Vice Chair of the NMAB. Please contact Gary Fischman, the National Materials Advisory Board Director, for additional information about the NMAB and the Spring Meeting. Gary can be reached at 202-334-3505.