

Hypersonics Industry Team

US National Hypersonics Industry Team

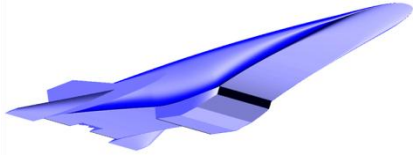
Presented to FastForward Study Group

by

Leon McKinney

HIT Executive Director

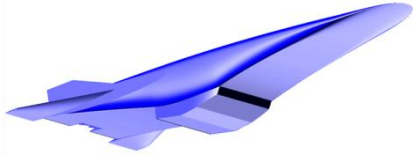
November 13 2009



What is the US Hypersonics Industry Team?

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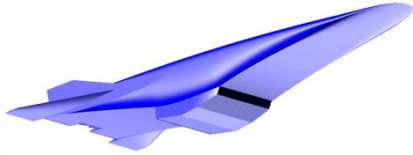
- The Hypersonics Industry Team (HIT) was established in January 2009 as a result of discussions in Fall 2008 with Congressional staff and Members
- Industry was encouraged to form an organization to complement the DoD Joint Technology Office on Hypersonics (JTOH)
- The current members of the HIT are:
 - Aerojet
 - ATK
 - Boeing
 - Lockheed Martin
 - McKinney Associates
 - Northrop-Grumman
 - Pratt & Whitney Rocketdyne
 - Raytheon
 - Rolls-Royce
 - The University of Maryland



HIT Conducts Outreach, Education and Advocacy Activities

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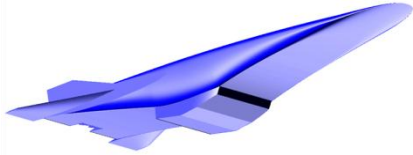
- The HIT will act as a conduit for dialogue between the federal government and the hypersonics segment of the aerospace industry
- The HIT will provide informational briefings to federal government officials in the executive branch agencies and the Congress
- The HIT will sponsor informational events in the Washington, DC area and elsewhere (e.g. aerospace industry conferences)
 - The HIT will invite to these events representatives of the aerospace industry, trade associations, various federal agencies, the media, academia, Members of Congress and Congressional staffers
 - HIT-sponsored events will satisfy the requirements of a "widely attended gathering" as defined in 5 C.F.R. § 2635.204(g)



The HIT Is Not A Lobbying Organization

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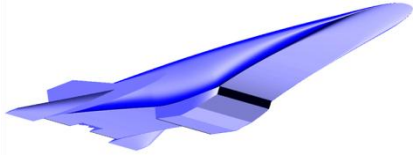
- The Hypersonics Industry Team (HIT) is a Business & Trade Association funded by annual membership dues
- The HIT will, as stated earlier, provide informational briefings to federal government officials in the executive agencies and the Congress, including congressional testimony, and also serve as a conduit for federal government officials in the executive branch agencies and the Congress to provide information to the hypersonics segment of the aerospace industry
- The informational briefings will focus on hypersonics systems and technologies, not specific programs



Hypersonics Enables Future Capabilities

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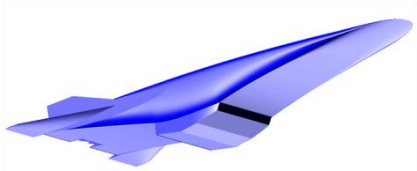
- The HIT believes there are three capability areas in which hypersonic systems and technologies can enable unique, “game-changing” capabilities vital to US national security and aerospace dominance:
 - Near-Term: High-Speed Time-Critical Strike (HSTCS) Weapons
 - Fly short-distances too fast for adversaries to defend against
 - Fly longer-distances fast enough to be effective, while providing safe “stand-off” range for US assets (e.g. US Navy carrier task forces)
 - Mid-Term: High-Speed Intelligence, Surveillance, Reconnaissance (HSISR)
 - Envisioned as Mach 5+ successor aircraft to SR-71
 - HSISR will provide responsive, unannounced, highly-survivable ISR capability
 - Addresses “Day Without Space” scenario
 - Larger aircraft could also conduct strike missions
 - Long-Term: Hypersonic Air-Breathing Space Access
 - The “Holy Grail” of hypersonics since long before NASP
 - Would provide routine, responsive assured space access
 - Would assure US aerospace leadership: Building a TSTO system with a Mach 7+ aircraft first stage will also support long-range, high-speed strike and ISR applications



HIT Advocates US Investment to Deliver Critical Capabilities

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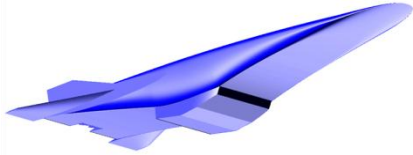
- The HIT believes that the three capabilities described on the previous page are indeed critical to the US
- Technological advances in other nations, some potentially adversarial, indicate a desire by those nations to develop similar capabilities
- The HIT believes notional systems which would provide capabilities for HSTCS, HSISR, and Space Access can be defined & necessary technologies identified
- The HIT will advocate for US research, development and acquisition activities which will deliver those capabilities
 - System-level concept and mission analysis studies
 - Technology research projects
 - Ground-test projects and infrastructure
 - Flight-test projects
 - Demonstrator vehicle programs
 - Transition technology to applications



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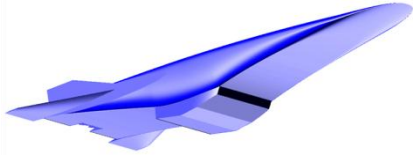
BACK-UP CHARTS



HIT Need Statement

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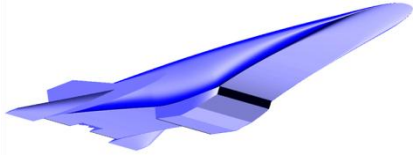
- Current high-speed (Mach 3+) research and development programs will produce a sound technology basis for future operational vehicle programs
- Follow-on programs are needed to bridge the gap between technology development efforts and transformational U.S. capabilities, a gap traditionally bridged by demonstrator vehicles with direct traceability to operational systems



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HIT Charter

- The Charter of the HIT is to publicize and support current U.S. high-speed (Mach 3+) research and development programs to their successful completion while advocating to accelerate new high-speed research and development programs, ground-test capabilities and flight demonstration programs that will lead directly to capabilities important to U.S. national security and aerospace leadership
- The HIT is a non-contractual industry consortium operating separately from, but complementary to, government initiatives to advance the state of the art of high-speed flight



HIT Mission Statement

Hypersonics Industry Team

- Develop and promote the HIT message stating the compelling case and "Value Proposition" for high-speed flight
- To promote, sustain and communicate goals and objectives of the HIT
- To establish and foster a partnership between members of U.S. industry, academia, and government whose functions relate to the development of capabilities achievable via high-speed flight.
- Advocate for a sustainable technical and industrial base with high-speed development programs that build on past and current programs, with continuity to ensure maximum benefit
- Develop and promote a unified community perspective on current and recommended future programs along with solid rationales for the policies, funding, and infrastructure to successfully execute those programs