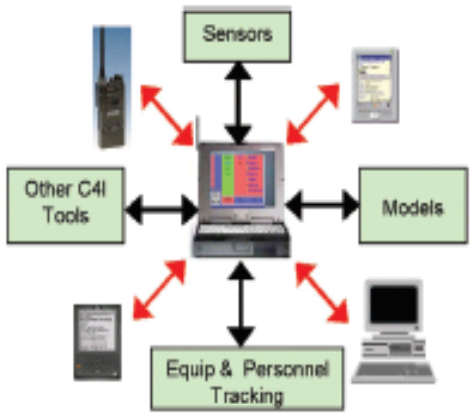
Connections

Warfighter Interface Division | Wright –Patterson Air Force Base | February 2004

Department of Homeland Security Wants Phase III Small Business Innovative Research Contract for FASAT Technologies

The Department of Homeland Security (DHS) is rapidly acquiring technologies to provide a solution to a homeland security issue. Consequently, DHS wants a Phase III Small Business Innovative Research contract with the Air Force Research Laboratory's (AFRL) Human Effectiveness Directorate (HE) and a contractor to use Fast Access Situational Awareness Toolkit (FASAT) Technologies.

FASAT is a web-based enterprise solution for monitoring, managing, and mitigating incidents through a unique two-way alert notification, response and graphical tracking capability. FASAT allows organizations to monitor, track, and communicate information that directly affects operations by providing the means to deliver the right data to the right people at the right time, anywhere, and on any device.



FASAT's software development combines state-of-the-art advanced automation, situational awareness tools, collaboration tools, and wireless technologies into a seamless environment.

The capstone of FASAT technologies is the commercialized product called "IncidentPortal." IncidentPortal met the requirements of the Pentagon Security System and is slated for deployment to that system in fiscal year 2004.

IncidentPortal was used for all wireless alert notification for part of a homeland security exercise to develop emergency preparedness and

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News Briefs

Flare Testing Supports Survivability

In January 2004, a C-5 was hit with a shoulder-fired missile in Baghdad, forcing it to land. The good news is, the Battlespace Visualization (HECV) Branch already has efforts underway to help improve the survivability of airlifter-aircraft.

HECV recently supported flare tests held in Saint Joseph, Missouri, to evaluate the effects of defensive aerial flare dispersals in the field-of-view of Integrated Panoramic Night-Vision Goggles versus the effects observed through conventional night-vision devices. These measures will allow the pilots to fly and land at night with night-vision goggles, making pilots less visible on the ground.

HEC Helps Improve Foam Spraying Operation Used On Space Shuttle Columbia

On February 1, 2003, the Space Shuttle Columbia and its crew were lost when a piece of hand-sprayed insulating foam separated from the external tank and made a hole in the left wing of the Columbia, which was traveling at multi-mach speed. NASA needed a government expert to analyze the foam system, so a Certified Professional Ergonomist from the Systems Control Interface Branch (HECI) supported the project. He recommended several near-term improvements as well as productive areas for further study.

Inside This Issue

HEC Success Stories: They Keep Growing, And Growing, And Growing

The Energizer bunny did not visit last year, but scientists and engineers (S&Es) from the Warfighter Interface Division (HEC) were certainly energized in 2003. They submitted 21 Air Force Research Laboratory (AFRL) Success Stories.

Now 2004 promises to be even better. Many stories from the branches—mainly Battlespace Acoustics (HECB), Collaborative Interfaces (HECP), and Battlespace Visualization (HECV)—have been approved for publication. Their efforts are getting HEC off to an impressive start. In fact, HEC could have its best showing of published Success Stories to date.

The number of Success Stories published each year is important. AFRL Success Stories are hand-picked by the AFRL Commander and are available to the general public. Each Success Story also brings more visibility to the HEC. More visibility promotes HEC programs and potential partnerships, not to mention research and development efforts.

In times like these, it is even more important to show how the work throughout HEC really makes a difference. All the research, testing, demonstrations, and collaborations in which the division is a part go to show that "human effectiveness" is not an abstract concept, but rather a daily occurrence that touches the lives of real people—from pilots in the cockpit and warfighters on the battlefield to babies in car seats.

Success Stories are a way to do just that—they convey how HEC supports the warfighter by improving human capabilities and decision making. With categories such as technology transitions and emerging technologies, Success Stories capture revolutionary, life-changing work from award-winning researchers throughout HEC.

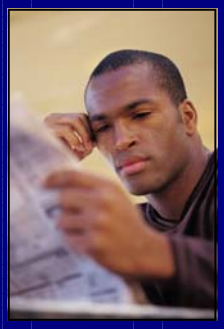
With that kind of talent and dedication, looks like the Warfighter Interface Division won't need any help to stay energized and to keep the number of Success Stories growing, and growing, and growing.

Memorable Quote

"There are no secrets to success. Don't waste time looking for them. Success is the result of perfection, hard work, learning from failure, loyalty to those for whom you work, and persistence."

—Colin Powell

Unlikely Periodicals Pique Curiosity, Promote Publicity



Imagine yourself in a restroom and lo and behold—there's reading material! You thumb through the stack of tabloids, mail order catalogs, magazines, and other periodicals, which, under normal circumstances you wouldn't be caught reading in public. To your surprise, you've stumbled across a well-written, informative piece on a scientific or technological discovery in the most unlikely magazine (not to mention some really great pictures).

The point of this scenario is, most people don't seek technological and scientific information on their own. They do, however, often acquire information "by accident."

The Warfighter Interface Division (HEC) can use such situations to increase awareness about human effectiveness and decision making. After all, human effectiveness isn't something that can be felt, smelled, or seen, and that makes it more difficult for people to understand what HEC does.

So in the months to come, look for examples of HEC research and development efforts in unlikely magazines. HEC is going on a mission—to tap into a hidden audience and enlighten folks about how science and technology within the Warfighter Interface Division is improving human capabilities like thought, perception, interaction, and performance to meet the needs of 21st century warfighting and beyond.

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first response procedures for critical infrastructure in the Northern Shenandoah Valley (VA) area.

According to contractor involved in this effort, the City of Falls Church, Virginia, has procured IncidentPortal. Although the initial focus is on homeland security and public safety functions, the ultimate goal will be to address day-to-day operations, such as monitoring and maintaining the City's utilities and infrastructure.

For additional information on FASAT, check out the 2003 FASAT Success Story: http://www.afrl.af.mil/successstories/2003/technology_transfer/03-he-08.pdf.

> ***"FASAT allows organizations to monitor, track, and communicate information that directly affects operations by providing the means to deliver the right data to the right people at the right time, anywhere, and on any device."***

February Events

Feb. 10: "Uncertainty Awareness for Battle Space Visualization Systems" Phase I SBIR kickoff: 1330–1500

11: 4th Quarter 03 Military Awards Luncheon: WPAFB Club and Banquet Center: 1130

13: Social Events Luncheon: 1100–1230. Balloon bouquet pick-up: 1200–1400.

14: Valentine's Day

16: President's Day

17: Sugarcreek Reserve Three-Mile Hike and Chili Party: 1500.

21: HE Colloquium on Human Behavioral Modeling Research at the Virginia Modeling, Analysis & Simulation Center: Auditorium, Building 146, Area B, WPAFB

25: Ash Wednesday

26: AFRL 2003 Annual Awards Banquet: WPAFB Club and Banquet Center: 1800

Learn More about Human Effectiveness with these Success Stories from the Warfighter Interface Division

Support to the Warfighter:
New Visor Offers Clear Improvement

Human Effectiveness Study Helps Improve USAF Warfare Flights

HMD Visor Transmissivity Modeling Promotes Target Recognition

Cockpit Accommodation Research Changes USAF Pilot Assignment Policy

Non-Distributed Flight Reference Off-Boresight Symbology Advances

IPNVGs Increase View, Situational Awareness, and Protection

Active Synchrophaser Lowers C-130 Interior Noise Levels

Spatial Audio Technology Reduces Risk for AWACS Transition

New Microdisplay Transitions to USAF and Industry

Emerging Technologies:
Evaluation Reduces Risk for AWACS Interface

Human Effectiveness Research Sparks Industry Milestone

Technology Transfer:
Microlasers Helmet-Mounted Display Provides Color Symbology

FASAT Technologies Support Homeland Defense

Human Effectiveness Directorate Transitions Revolutionary Display Technology to Industry