

Connections

Warfighter Interface Division

Wright –Patterson Air Force Base

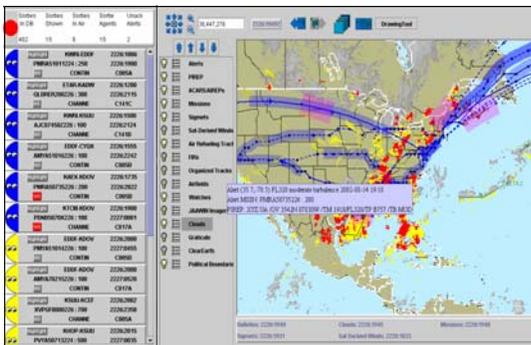
March 2004

HE Technology Influences JEFX Spiral 1 '04 Evaluation

The Human Effectiveness (HE) Directorate's Work-Centered Support System for the Global Mission Management (WCSS-GMM) interface client technology application is playing a key role in the Global CONOPS Synchronization (GCS).

The WCSS-GMM is an extension of the Work-Centered Support System for Global Weather Management (WCSS-GWM) to support the GCS initiative. The GCS initiative is a demonstration of a technology suite, enabling air and ground Combat Air Force and Mobility Air Force interoperability and rapid re-planning necessary to adapt to unexpected events while maintaining integrated and synchronized forces.

The influence of this technology is expanding. The WCSS-



The Human Effectiveness Directorate Makes Important Contributions to the Work-Centered Support System for Global Mission Management (WCSS-GMM). Developed under Global Air Mobility Advanced Technologies advanced technology demonstration (ATD), those contributions include a work-centered design and intelligent agents that monitor flight paths. The WCSS-GMM technology also aids individual and team situation awareness and even supports rapid resolution.

GWM has been used operationally in the Tanker Airlift Control Center since August 2002 as a demonstration capability. HE also installed the WCSS-GMM in 2003 as the first spiral, or incremental deployment of GCS.

Those efforts are paying off. An Air Force Experimentation Office team evaluated GCS at Hanscom Air Force Base, Massachusetts, in January 2004 as a part of the Joint Expeditionary Forces Experiment (JEFX) Spiral 1 '04 initiative. GCS earned positive technical results. In fact, operational comments included that GCS has "the potential to solve many problems highlighted under CENTAF OIF [Central Command Air Forces Lessons

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News Briefs

WIDE Gets Early Nod from AMC

The Work-centered Distributed Environment (WIDE) program, a Cognitive Systems Branch (HECS) effort, was commissioned a category (CAT) I Advanced Technology Demonstration (ATD) at the Air Mobility Command (AMC) Advanced Technology Council (ATC).

ASTM To Honor Research Psychologist With Award of Merit

The American Society for Testing and Materials (ASTM) selected a research psychologist from the Battlespace Visualization (HECV) branch to receive the Award of Merit. The ASTM Chairman will make the award presentation in November 2004 in Washington DC.

Division To Draft Human Machine Interface Style Guide

The Warfighter Interface Division (HEC) is chartered to lead the drafting and coordination of a Human Machine Interface style guide for future tactical-level Battle Management Command and Control workstations. HEC plans to complete the guide by the end of the calendar year.

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Headliners: Check Out These Articles Highlighting News Around The Division

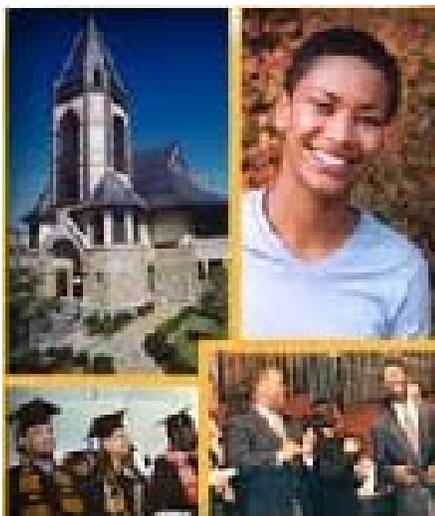
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Human Effectiveness Directorate and Warfighter Interface Division Look to Historically Black Colleges and Universities for Help

Political scientist and Nobel Peace prize winner Ralph Bunche. Inventor and educator George Washington Carver. Supreme Court justice Thurgood Marshall. Renown talk show host Oprah Winfrey.

What do these inspiring, talented individuals have in common? They're all graduates from historically black colleges and universities, also known as HBCUs.

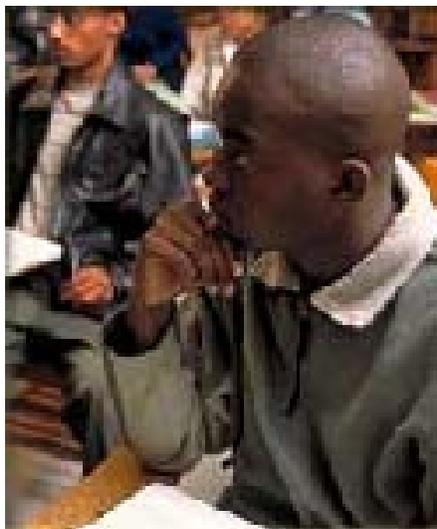
Throughout their history, HBCUs have made tremendous contributions to the arts, culture, science and social change. These insti-



tutions have also been largely ignored as a viable and valuable source of talent, intellect, and leadership in addressing issues throughout society as a whole.

The Human Effectiveness Directorate (HE) and its Warfighter Interface Division (HEC) know such ignorance cannot continue. The future of the nation depends on it. One

statistic forecasts that within the next five to ten years, 40% of America's workers will retire, taking years of specialized skills and intuitive know-how with them. Their impending departure challenges employers right now to find intelligent, talented individuals necessary



to compete effectively in the increasingly diverse global market of today and tomorrow.

HE has been gearing up to find such top-notch talent. In February 2004, HE sponsored the HBCU/Minority Institution (MI) Conference. The one-day event was a first for the directorate and may play a key role in the years to come as HE strengthens its commitment to a diverse workforce.

According to an HEC representative who's also an HBCU grad from North Carolina A&T State University, the conference is a critical first step in establishing a mutually beneficial relationship between HE and HBCUS.



“HE and HEC are attempting to reaffirm relationships with HBCU/MI that will enhance HE and HEC's ability to recruit and hire competitive minority students,” he said. “These students will become an important part of AFRL's diverse workforce of the future.”

Several discussions about the HE HBCU/MI program kicked-off the event. Afterwards, participants enjoyed a tour and demonstrations of HE technologies, including night-vision goggles, a vibration chair simulator, and 3-D audio.

Post-conference discussions indicate HE's first HBCU/MI event was a huge success. Having several school representatives attend the conference now gives the HE HBCU/MI High Performance Team (HPT) a head start in securing points of contact for many of those institutions. That's a critical piece in building relationships with HBCUs

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Check out these articles highlighting news around the Division

- CART Transitions Advanced Human Modeling Architecture, *AFRL Technology Horizons*, February 2004, page 20.
- Air Force Medics Improve Navigation Time with 3-D Audio: http://www.afrl.af.mil/successstories/2004/emerging_tec/04-he-02.pdf
- Technology Showcased at Winter Olympics Leads to AFMC Public Affairs Director's Excellence Award for Noted Researcher: <http://www.afrl.af.mil/accomprpt/dec03/accompdec03.htm>
- HE Transitions Technology To Nellis AFB: http://www.afrl.af.mil/news/feb04/features/nellis_afb.pdf
- Active Acoustic Detector Maximizes Perimeter Protection And Solicits SBIR Phase III Proposal: http://www.afrl.af.mil/successstories/2004/tech_trans/04-he-08.pdf
- Head-Mounted Photometer System For Airborne Luminance Measurement: http://www.afrl.af.mil/successstories/2004/support_war/04-he-11.pdf

(JEFX Spiral 1 '04, Continued from page 1)

Learned Operation Iraqi Freedom]" and "outstanding potential in so many operational areas."

One thing is for sure—the JEFX '04 evaluation of GCS isn't fluff or empty praise. JEFX '04 sets the stage for showcasing technologies, especially those aligned with spiral development. This methodology is an essential component of the US military's transformation agenda to transition technologies to the Warfighter more rapidly and with increased flexibility and efficiency.

The evaluation is a testimony to the technical expertise within HE required to align technologies with transformation objectives and to help warfighters get those technologies when and how they need them.

(HBCUs, Continued from page 2)

Why? Well, just do the math.

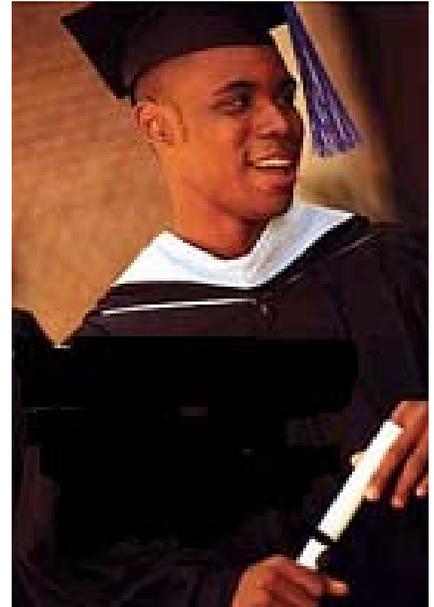
Currently, only 102 HBCUs exist throughout the United States, and most of them are located in the Southeast. In general, HBCUs have



smaller staff and student populations compared to that of traditional white colleges and universities, where adequate resources to support collaborations with the government or business and industry are more

the norm. That distinction means establishing a point of contact for building and maintaining relationships with HBCUs may require more than a one-time effort.

The good news is, a little extra effort could have enormous benefits for HE and HBCUs. For example, one study by a leading



educational testing organization supports the claim that historically black colleges and universities graduate more students in the science and engineering fields and in postgraduate studies than most traditionally white institutions.

An HBCU/HE partnership presents a "win-win." Students could gain valuable experience through summer co-ops or internships which could lead to regular employment or the start of a promising career. Tapping into these students' abilities could help HE maintain a competitive edge as it assembles a knowledgeable, diverse workforce representative of today's changing world.