

ARMY ENGAGEMENT W/HBCUS



HBCU Diversity

A Critical Link in Achieving the Army Innovation Challenge

Presented to 2017 NASA HBCU/MSI Technology Infusion Road Show @ Tennessee State University Tommy L. Marks Director Army Small Business Programs 4 April 2017

TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.



Benefit of Diversity at National Level



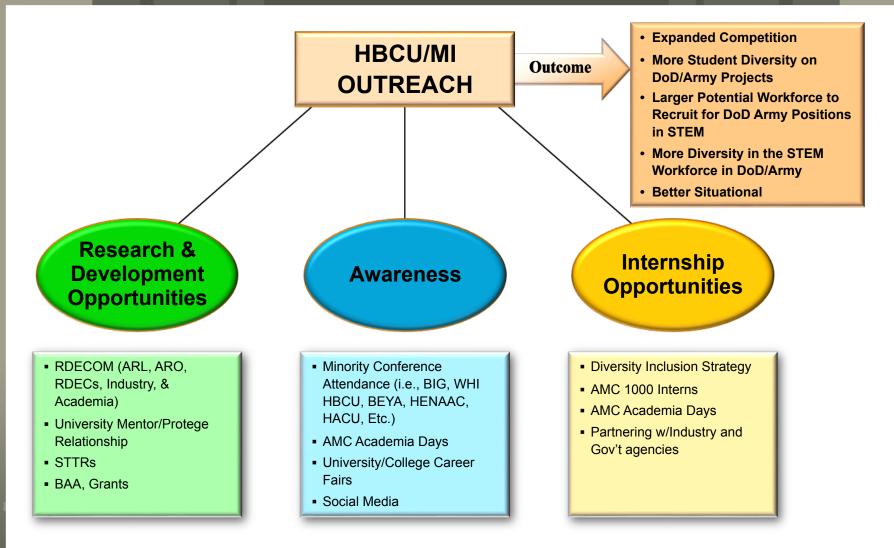
"Our greatest asset in protecting the homeland and advancing our interests abroad is the talent and diversity of our national security workforce.... Research has shown that diverse groups are more effective at problem solving than homogeneous groups".

Excerpt from Presidential Memorandum -- Promoting Diversity and Inclusion in the National Workforce, October 5, 2016



Army Materiel Command Strategic Plan





Taken from U.S. AMC 2015-2020 Strategic Plan



HBCU Diversity - Meeting Innovation's Challenge



- ❖ Army Commitment: We must work together at the leadership levels to engage with HBCUS to find aligned opportunities for research
 - Includes SBIR/STTR opportunities
- HBCU Commitment: Emphasize effective messaging of your core competencies
 - No longer effective to simply state you bring diversity
 - Must capitalize on the Army/DoD Needs
 - Must actively engage on all available opportunities and partnerships



Partnership Example



- ❖ GTRI is the identified University Affiliated Research Center (UARC) for DoD.
 - Growing from a \$48M 5yr vehicle to a \$850+M 5yr vehicle.
 - Customer base: AMRDEC, PEO IEWS, PEO STRI, NASA, CECOM, Army SMDC, Army NGIC, Army REF, etc.
- GTRI can exercise subcontract efforts up to 10-15% of the ceiling must align with the competencies on this vehicle







GTRI UARC Core Competencies



- RF, MMW, IR, EO missile sensors, ultraviolet and acoustical airborne and ground sensors, and guidance and control systems (including simulation and modeling).*
- 2. Phenomenology analysis tools, measurement methodologies, and instrumentation implementation techniques.
- 3. Materials and electronics manufacturing technology for portable, air, and ground-launched applications.
- 4. Advanced electronics design and packaging for very compact, high performance signal processing, automatic target recognition, and guidance and control subsystems.
- 5. Next generation photonics components and subsystems for radar control.
- 6. Computer and physical modeling and analysis of threat systems/subsystems based on sensor spectrum, missile-target geometry, and natural and man-made environmental features.
- 7. Performance analysis, simulation, and modeling of weapon and sensor interactions.
- 8. System accessibility, susceptibility, and vulnerability analysis, modeling, and counter-countermeasure development.
- 9. Missile endgame modeling and analysis.

- 10. Hardware-in-the-loop, hybrid, and real-time simulation and analysis of major Army missile systems.
- 11. Independent evaluation, modeling, and testing of ballistic missile defense phased-array radar systems at the system, subsystem, and component levels.
- 12. Analysis, modeling, and development of adaptive digital beamforming techniques and technologies for missile defense applications.
- 13. Prototype and proof-of-principle hardware design and development, including component test fixtures and advanced technology subsystems and systems for missile defense systems.
- 14. Generic databases, networks, software engineering, telecommunications, and information infrastructure.*
- 15. Technical and software developmental activities associated with the Digital Infrared Seeker and Missile Simulation/Georgia Tech Synthetic Imaging simulations (DISAMS/GTSIMS) family of IR missile and systems models.
- 16. Technologies affecting sustainment decision processes, secure communications, and communication systems.*
- 17. Analysis, systems engineering, integration, and rapid cyber tool development to address defensive/offensive cyber operations and cyber mission assurance requirements.

^{*} Basic and applied research and advanced development



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Questions?



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