

| Exhibit R-2, RDT&E Budget Item Justification    |         |         |         |  |         |         | Date: February 2005 |         |
|---|---------|---------|---------|--|---------|---------|---------------------|---------|
| Appropriation/Budget Activity<br>RDT&E, DW BA 2 |         |         |         | R-1 Item Nomenclature:<br>Historically Black Colleges and Universities and<br>Minority Institutions (HBCU/MI) 0602228D8Z |         |         |                     |         |
| Cost (\$ in millions)                           | FY 2004 | FY 2005 | FY 2006 | FY 2007  | FY 2008 | FY 2009 | FY 2010             | FY 2011 |
| HBCU/MI   | 19.533  | 20.767  | 13.887  | 14.199   | 15.325  | 15.307  | 15.591              | 16.000  |

**A. Mission Description and Budget Item Justification:**

The Historically Black Colleges and Universities and Minority Institutions (HBCU/MI) program provides infrastructure support in fields of science and engineering that are important to national defense. The DoD Infrastructure Support Program is the only program that encourages participation of small minority schools as well as research institutions. This competitive program provides support through grants or contracts for research, collaborative research, education assistance, instrumentation purchases, and technical assistance. This project competitively supports programs at minority institutions nationwide in following areas:

- Research. The research grants are to further the knowledge in the basic scientific disciplines through theoretical and empirical activities. Collaborative research allows university professors to work directly with military laboratories or other universities.
- Education. Education assistance funds are used by the selected institutions to strengthen their academic programs in science, mathematics, and engineering thereby increasing the number of under-represented minorities obtaining undergraduate and graduate degrees in these fields. These grants provide equipment, scholarships, cooperative work/study opportunities, visiting faculty programs, summer programs, and a variety of other enhancements designed to support students and to encourage them to pursue careers in science, mathematics, and engineering.
- Infrastructure. This program allows the university to purchase from basic laboratory equipment for education program enhancements to highly sophisticated research instruments, such as lasers and spectrometers.
- Technical assistance. These funds are used to design programs to enhance the ability of minority institutions to successfully compete for future Defense funding. The objective is to assist the HBCU/MI community in areas such as proposal writing and administration of grants and contracts.

**B. Program Change Summary:**

|   | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> |
|---|----------------|----------------|----------------|----------------|
| Previous President's Budget:                  | 20.651         | 14.192         | 14.440         | 14.710         |
| Current FY2006 President's Budget Submission: | 19.533         | 20.767         | 13.887         | 14.119         |
| Adjustments to Appropriated Value:            | -1.118         | +6.575         | -0.553         | -0.591         |
| Congressional Program Reductions:             | -0.594         | -0.425         |                |                |
| Congressional Rescissions:                    |                |                |                |                |
| Congressional Increases:                      |                | +7.000         |                |                |
| Reprogrammings:                               |                |                |                |                |
| SBIR/STTR Transfers:                          | -0.524         |                |                |                |
| Other:  |                |                | -0.553         | -0.591         |

**C. Other Program Funding Summary:** N/A**D. Performance Metrics:**

- Percent of students graduating with undergraduate degrees in Science, Mathematics, Engineering, and Technology fields.
- Percent of students pursuing graduate and Ph.D. degrees
- Number of undergraduate students achieving specified GPA average.
- Number of students participating in the Centers of Excellence for Research and Engineering.
- Number of students working in Defense Laboratories.

| Exhibit R-2a RDT&E Budget Item Justification     |         |         |   |         |         |         | February 2005 |         |
|--|---------|---------|---|---------|---------|---------|---------------|---------|
| Appropriation/Budget Activity<br>RDT&E, DW / BA2 |         |         | Project Name and Number<br>Historically Black Colleges and Universities and Minority Institutions<br>(HBCU/MI) 0602228D8Z |         |         |         |               |         |
| Cost (\$ in millions)                            | FY 2004 | FY 2005 | FY 2006   | FY 2007 | FY 2008 | FY 2009 | FY 2010       | FY 2011 |
| HBCU/MI  | 19.533  | 20.767  | 13.887  | 14.199  | 15.325  | 15.307  | 15.591        | 16.000  |

**A. Mission Description and Budget Item Justification:**(U) BRIEF DESCRIPTION OF ELEMENT

(U) The Historically Black Colleges and Universities and Minority Institutions (HBCU/MI) program provides infrastructure support in fields of science and engineering that are important to national defense. The DoD Infrastructure Support Program is the only program that encourages participation of small minority schools as well as research institutions. This project competitively supports programs at minority institutions nationwide in following areas:

- Research. The research grants are to further the knowledge in the basic scientific disciplines through theoretical and empirical activities.
- Education. Education assistance funds are used by the selected institutions to strengthen their academic programs in science, mathematics, and engineering thereby increasing the number of under-represented minorities obtaining undergraduate and graduate degrees in these fields.
- Infrastructure. This program allows the university to purchase from basic laboratory equipment for education program enhancements to highly sophisticated research instruments, such as lasers and spectrometers.
- Technical assistance. These funds are used to design programs to enhance the ability of minority institutions to successfully compete for future Defense funding.

**B. Accomplishments/Planned Program**

## (U) HISTORICALLY BLACK COLLEGES AND UNIVERSITIES AND MINORITY INSTITUTIONS PROGRAM

|         | FY 2004 | FY 2005 | FY 2006 | FY 2007 |
|---------|---------|---------|---------|---------|
| HBCU/MI | 19.533  | 20.767  | 13.887  | 14.199  |

(U) FY 2004 Accomplishments:

Continued evaluation of the awards made with prior year funds. Developed and released the third electronic broad agency announcement (BAA) for the HBCU/MI FY 2004 solicitation. The solicitation closed on December 18, 2003. The program received its largest number of proposals totaling 233 eligible proposals. These included 178 proposals for research and 55 for instrumentation/equipment. Based on Orders of Merit, 25 grants were awarded. The solicitation afforded the HBCU/MI community an opportunity to acquire 13 research grants and 12 equipment grants to enhance science, mathematics, and engineering (SME) programs and to facilitate the education of students in research areas important to the DoD. The research grants will be supported for one year ranging from \$300,000 to \$500,000. The equipment grants are for a twelve-month performance period and will range from \$50,000 to \$200,000. The Army Research Office and the Air Force Office of Scientific Research will execute the awards.

The FY 2004 program also contains two congressional adds which resulted in two separate BAAs. The FY 2004 DoD Appropriations Act added an additional \$2.6 million in the HBCU/MI Program for Tribal Colleges and Universities (TCUs). The Army Research Office was designated manager for the special solicitation and allocated \$2.400 million after taxes. The BAA closed on April 30, 2004. Sixteen proposals were received. Eight proposals were judged to be worthy of support and eight equipment grants to the TCUs were made ranging from \$141,000 to \$393,000 and will have a 12 month performance period. Also, in FY 2004 the DoD Appropriations Act added an additional \$4.200 million in the HBCU/MI Program for Hispanic Serving Institutions (HSIs). The Army Research Office issued a separate solicitation in April 2004 for HSIs to compete. The BAA closed on July 8, 2004. The Army Research Office received 71 proposals. DoD awarded fifteen grants to HSIs totaling \$3.969 million after taxes. Seven equipment grants (ranging from \$37,000 to \$200,000) and eight research grants (ranging from \$240,000 to \$499,000) with performance periods of 12 and 36 months respectively.

(U) FY 2005/ FY 2006 Plans:

Continue evaluation of the awards made with prior year funds. In FY 2005/ FY 2006, the HBCU/MI Infrastructure Program will continue to build infrastructure through instrumentation and equipment awards by issuing three separate solicitations; the first one for the Infrastructure Support Program; the second announcement for HSIs, and the third solicitation for TCUs. The objective is to increase the quality of education provided in SME and build HBCU/MIs that currently offer advanced degrees in SME. In FY 2005 a review of the four new Centers of Excellence started in FY 2003 will be conducted to assess the number of students participating in

the Centers for science, mathematics, and engineering (SME) the performance of the centers, and the business process used by the centers to ensure the education of students in research and education areas important to the DoD. The FY 2005 and FY 2006 competitions will be for new minority research, education, equipment, and infrastructure building awards.

(U) FY 2007 Plans:

Continue evaluation of awards made with prior year funds. FY 2007 competitions for instrumentation/research equipment, three-five year research projects, undergraduate scholarships and graduate fellowships awards.

**C. Other Program Funding Summary:** Not Applicable