

Exhibit R-2a, RDT&E Project Justification							February 2003	
Appropriation/Budget Activity RDT&E.DW / BA2			Project Name and Number <b>*Historically Black Colleges and Universities and Minority Institutions (HBCU/MI) 0602228D8Z</b>					
Cost (\$ in millions)	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
HBCU/MI	23.784	25.980	0	0	0	0	0	0
<b>A. Mission Description and Budget Item Justification:</b>								
<b>(U) <u>BRIEF DESCRIPTION OF ELEMENT</u></b>								
* <b>Beginning in FY2004, the Historically Black Colleges and Universities and Minority Institutions (HBCU/MI) program management and execution responsibilities will be transferred to the Army under PE-0601128A and will result in a more appropriate policy-level role for OSD.</b>								
<p>(U) P489, 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:</p> <ul style="list-style-type: none"> <li>• <u>Research</u>. 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.</li> <li>• <u>Education</u>. 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.</li> <li>• <u>Infrastructure</u>. 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.</li> <li>• <u>Technical assistance</u>. 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.</li> </ul>								
<b>B. Accomplishments/Planned Program</b>								
<b>(U) <u>HISTORICALLY BLACK COLLEGES AND UNIVERSITIES AND MINORITY INSTITUTIONS PROGRAM</u></b>								
	FY 2002	FY 2003	FY 2004	FY 2005				
Accomplishment/ Effort/Subtotal Cost	23.784	25.980	0	0				
<b>(U) <u>FY 2002 Accomplishments:</u></b>								
Continued evaluation of the awards made with prior year funds. Developed and released the first electronic broad agency announcement (BAA) for the HBCU/MI FY 2002 solicitation. Previous years had been hardcopies only, although hardcopies of the announcement were available upon request. The solicitation closed on January 31, 2002. Receipts totaled 83 instrumentation proposals, 19 for undergraduate scholarships, and 6 proposals that were for graduate fellowships. The FY 2002 DoD HBCU/MI Infrastructure Support Program BAA is ninth series of solicitation s designed to enhance participation of minority institutions in defense research activities and to increase the number of graduate students, including underrepresented minorities, in science, mathematics, and engineering. The solicitation afforded the HBCU/MI community an opportunity to acquire instrumentation to enhance science, mathematics, and engineering programs and to facilitate the education of students in research areas important to the DoD. Fifty nine grants were awarded. The Services will execute 34 instrumentation and equipment grants ranging from \$50,000 to \$180,000 to enhance science, mathematics, and engineering education and/or research. Also								

supported are 19 undergraduate scholarships, and 6 graduate fellowships of \$15,000 per student for up to four years. The six graduate fellowships will augment research projects initiated under the Infrastructure Program in fiscal 2001.

The FY 2002 program also contains three congressional adds which resulted in three separate BAAs that are currently still open for competition due to Comptroller withhold and late release of the funds. The TCUs and HSI awards will be made for instrumentation for research and education programs, undergraduate fellowships. As well as establish partnerships between Defense laboratories and TCUs and HSIs.

The Business/Tech Manuals Research and Development project will support the conversion of technical manuals associated with the U.S. Army Communications and Electronic Command Mobile Subscriber radio system to extensible Markup Language (XML) Document Type Definition (DTD) schema and convert all illustrations to vector format per the web Computer Graphics Metafile (CGF) profile of the International Standards Organization (ISO) format. Further, the project will develop a graphics-driven approach to navigate the technical manual from the system end item to the lowest replaceable unit; develop modular functional processes which can be embedded in an XML instance and provide the capability to provide parts ordering, wire tracing, full test document search, and troubleshooting; and finally, research leading edge technology solutions to current data management and development issues as it relates to Electronic Technical Manuals.

(U) FY 2003 Plans:

Continue evaluation of the awards made with prior year funds. In FY 2003, the HBCU/MI Infrastructure Program will establish 4 new Centers of Excellence in Science, Mathematics, and Engineering (SME) Education and Research. The objective is to increase the quality of education provided in SME and build HBCU/MIs that currently offer advanced degrees in SME. These awards will be for a period up to five years. Continue to build infrastructure through instrumentation and equipment awards.

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

**D. Acquisition Strategy:** Not Applicable