

## **Boeing Strengthens Ties with Historically Black Colleges and Universities/Minority Institutions**

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Boeing [NYSE: BA] NASA Systems, a unit of Integrated Defense Systems, has established engineering services contracts with six historically black colleges and universities/minority institutions (HBCU/MI) to provide additional opportunities for those institutions in NASA's space program.

The contracts allow the Boeing Space Shuttle and International Space Station programs to bring students to its sites or have the work done on campus. Each contract is a one-year commitment with options for annual renewals for up to three years depending on available funding and performance. The contracts will give students and faculty valuable experience in the space program while benefiting Boeing, which gets to tap into the unique engineering "brainpower" of each college or university.

Each HBCU/MI was selected following a thorough evaluation of their capabilities. The following colleges were awarded contracts with Boeing NASA Systems:

- North Carolina A&T State University at Greensboro, N.C.
- Alabama A&M University at Normal, Ala.
- Tuskegee University at Albertville, Ala.
- Southern University and A&M College at Baton Rouge, La.
- California State University at San Bernardino, Calif.
- Tennessee State University at Nashville, Tenn.

"These students will fill an engineering need within Boeing and provide services for our programs," said Tom Henson, a Boeing procurement manager in Houston. Each of the Boeing engineering programs can employ students on a variety of special projects

One of the areas Boeing needs help in is three-dimensional (3D) Computer Aided Design (CAD) software. Patrick Swartzell, a Boeing lead engineer in ISS assembly analysis and validation in Houston, says Southern University was a natural choice to help his team with a variety of 3D CAD software programs.

"We work primarily with two CAD software packages and often have to move extremely large files between these two programs. The files get even larger when translating them from one program to another," said Swartzell. "We've got Southern University looking at how they can reduce file sizes, which will save our customers time and money."

Swartzell says Southern University also has four unique CAD labs, including the Boeing-sponsored Advanced Computing Laboratory, and a Computer Automated Virtual Environment (CAVE) lab that physically immerses students in a 3D environment and allows them to virtually manipulate models in three dimensions.

"Southern University is leading edge when it comes to CAD," said Swartzell. "Boeing has contributed significantly to their success in terms of financial support, donation of CAD workstations, and personal involvement of a Boeing Executive Champion."

A unit of The Boeing Company, Boeing Integrated Defense Systems is one of the world's largest space and defense businesses. Headquartered in St. Louis, Boeing Integrated Defense Systems is a \$30.5 billion business. It provides network-centric system solutions to its global military, government, and commercial customers. It is a leading provider of intelligence, surveillance and reconnaissance systems; the world's largest military aircraft manufacturer; the world's largest satellite manufacturer and a leading provider of space-based communications; the primary systems integrator for U.S. missile defense; NASA's largest contractor; and a global leader in sustainment solutions and launch services.

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