Boeing Donates Pollution Control Technology To Florida A&M

The Boeing Company [NYSE: BA] has donated two patents and related technology for reducing pollution in internal combustion engines to Florida A&M University for further research and commercialization.

Based on rocket engine development, the patented technologies have potential commercial applications in internal combustion engines, particularly heavy diesel engines subject to new Environmental Protection Agency regulations in 2007. The technologies improve internal combustion engine performance and reduce pollution using a vortex tube air separator. A vortex tube has no moving parts and converts a stream of compressed gas into two streams -- one hot and one cold.

One of the patents covers use of the vortex tube to extract cooled nitrogen, which reduces the combustion temperature, thereby reducing pollution, particularly nitrogen oxides. The other patent covers use of the vortex tube to extract cooled oxygen when introduced into the combustion chamber, which improves performance while also reducing pollution.

Boeing also donated research documents and an undisclosed amount of funds to be used by the university for further research and patent maintenance fees.

"Boeing is pleased to donate technology and proprietary information that could have a positive impact on our future," said Gene Partlow, Boeing Intellectual Property Business vice president. "Florida A&M was chosen for this donation because it has the resources and capabilities to develop these pollution control techniques and bring them to the marketplace."

Boeing originally developed these technologies in the 1990s to extract oxygen from the atmosphere as a way to reduce or avoid carrying liquid oxygen in rockets. Liquid oxygen is typically used as an oxidizer in liquid-fueled rockets.

At Florida A& M, one of the historically Black colleges and universities (HBCUs), the College of Engineering, Sciences, Technology and Agriculture (CESTA) program plans to continue commercialization activities.

"Boeing is a good partner," said Reginald Parker, Ph.D, who will direct research and commercialization efforts. "Not only does this donation provide great exposure for the students to product commercialization activities, but also it should provide potential revenue streams for the university in the future."

FAMU President Fred Gainous said: "We couldn't be more pleased about this donation from The Boeing Company. Certainly our students are much richer from this type of experience and exposure to the industry. The potential for profits for our university and those who might benefit from this donation and product development is enormous. This is a great partnership."

The Boeing Company ranks first among corporations and U.S. government agencies in its support of HBCUs in the United States, according to a recent independent survey of the deans of those schools.

In the survey, conducted last month by Career Communications Group, publisher of U.S. Black Engineer & Information Technology magazine, the deans of the country's 10 accredited engineering programs at HBCUs were asked to identify corporate or government sponsors they feel contribute most to their institutional missions.

Based in Tallahassee, Fla., the Florida A&M University is a four-year, public, co-educational and fully accredited institution of higher learning. FAMU, which was founded in 1887, is the largest single-campus historically black college or university. Florida A&M University offers 108 undergraduate degrees in 64 undergraduate programs and 60 graduate degrees in 32 graduate programs (includes one professional and eight doctoral degrees) within its 13 Schools and Colleges.

Based in Irvine, Calif., the Boeing Intellectual Property Business leverages Boeing's vast amount of intellectual property -- including technology, patents and innovative talent -- to enhance economic profit through a variety of licensing, donations, and IP generation and protection initiatives.

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