



**For Immediate Release  
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**WV Firm Picked to Develop Spray-On Corrosion-Proof Aircraft Skin Technology**

WHEELING – Touchstone Research Laboratory of Triadelphia, WV has been notified that it has been chosen by the Air Force to investigate developing both the materials and methods to help extend the life of America’s aircraft fleet. Touchstone will develop solutions to on-going corrosion issues helping to save billions of dollars in the process. Touchstone President Brian Joseph explained that the \$100,000 contract will enable the laboratory to develop new materials that can be sprayed on existing aircraft to protect against corrosion problems.

“Aging aircraft in all the U.S. military branches have a common problem,” he said. “That problem is corrosion. The nation’s fleet is aging with many planes having been in service up to 25 years in some cases. That creates an economic burden when maintenance and flight safety becomes cost prohibitive. The Air Force needs a new technology that can economically treat existing aircraft assets to preserve airworthiness.”

Touchstone experts know that current corrosion protection methods involve application of cladding, or patches, of aluminum alloy onto the base alloy of the aircraft through roll bonding prior to the final heat treatment of the skin material during the original manufacture of the air frame.

“That is suitable for the fabrication of new air frames but it doesn’t work as well for repairs of already corroded layers on airplanes,” Joseph said. “Touchstone has been working with aluminum alloys for automotive heat exchangers for years. We want to explore the possibility of finding a way to spray coat air frames with new material alloys to provide corrosion protection on existing aircraft.”

The Air Force funding comes through the Small Business Technology Transfer (STTR) program of the Department of Defense. The \$100,000 award is a Phase I STTR contract and will allow Touchstone and its research partner, Florida International University, to work together on initiating the corrosion protection spray project.

“If this project is ultimately successful, it could lead to a new procedure and product that would provide longer life for military and commercial aircraft,” Joseph said. “Of course, that would result in a savings of billions of dollars for the Department of Defense.”

Touchstone Research Laboratory was founded in 1980 to focus on development of new products for use in a wide spectrum of applications and to provide cost effective, applied research and industrial problem-solving services to U.S. customers. In both 1992 and 1993, Touchstone was ranked by *Inc.* magazine as one of the fastest growing private companies in America. In 1994, the company earned the top national business honor bestowed by the U.S. Chamber of Commerce. This award -- the "National Blue Chip Enterprise" -- is known as "the Malcolm Baldrige award for small business." Touchstone was the first research laboratory to earn this national quality award.

Touchstone won the prestigious Tibbetts Award from the U.S. Small Business Administration in 1998 and 2001. The award specifically recognizes companies for development of new products. In 1995 and 1996, Touchstone was named "NASA Subcontractor of the Year" by United Technologies-USBI in recognition of its work on the Space Shuttle Solid Rocket Boosters. Touchstone was also named "Small Business Subcontractor of the Year" by 3M Corporation for its work on a six-year Defense Advanced Research Projects Agency (DARPA) sponsored program. In 2004 and 2005 Touchstone won the R&D 100 Award for its work on CFOAM<sup>®</sup> and MetPreg<sup>®</sup> -- two new material products offering wide ranges of applications for aerospace projects.