Army tech site opened by ASU

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Arizona State University and the U.S. Army dedicated their Flexible Display Center on Friday, eager for the day when soldiers can glance at computers on their wrists and get up-to-the-minute battlefield intelligence.

ASU won a five-year, $43.7 million award from the Army a year ago to develop the technology. The deal includes an option for another five years and $50 million.

Claude Bolton Jr., assistant secretary of the Army for acquisition, logistics and technology, said Friday that the new displays will help soldiers cut through the fog of war.

"The better we understand where the enemy is, the easier it will be for future military folks to do their jobs," he said.

Bolton and about 300 others attended the dedication at the ASU Research Park in Tempe. Attendees ranged from ASU officials to the Army's top scientist and representatives from companies worldwide that are collaborating with ASU researchers on the project.

The ASU center aims to solve the problems inherent in the glass screens, or displays, used on computers and hand-held devices today, center director Gregory Raupp said.

Glass is usually heavy, bulky and breaks when it is dropped, and those are not attractive attributes to soldiers seeking to minimize their loads in the field.

Flexible displays would allow soldiers to roll up their computers or wear their two-way radios on their sleeves, making it easier to use and carry devices that can communicate life-saving information.

The flexible displays could revolutionize the commercial world too, officials said, perhaps leading to cellphones that survive being run over by cars and to screens lightweight enough to incorporate in clothing.

Or, as U.S. Rep. J.D. Hayworth told Friday's crowd, "Imagine taking a Blackberry and giving it the consistency of one of those fruit roll-ups in the pantry."

The collaboration with the Army and industry should help ASU compress the development process into three to six years, ASU President Michael Crow said.

In the year since the award was announced, the center has grown from a full-time staff of two to more than 23. It has acquired a 250,000-square-foot building in the Tempe research park formerly occupied by Motorola Inc.'s display business and research lab.

The center also has made progress on the technical side, where researchers' challenge is basically to pull together electronics, communications and displays and print them onto thin sheets of plastic.

To speed development and make commercialization of flexible displays more likely, the ASU-Army center is using the same manufacturing equipment and techniques used to make computer chips.

A pilot production line is now running. This year the center aims to make the displays on 6-inch-diameter silicon wafers, and in 2006 it plans to make them as big as 15 by 17 inches, said David Allee, associate professor of electrical engineering and technical area leader at the center.