

# 47 Augusta Systems

a very outstanding group of individuals," Esposito said. "You can't do it without the team that you build."

Recently, employees were busy on a project to design equipment for unmanned military aircraft, which will be used for surveillance operations, Dobbs said. The "brain" of the unmanned aircraft is a small metal box, with ports for connecting wires into it. It communicates with another small box with antennas — the flight control system, which remains on the ground. "That's the stuff that goes into the plane ... that makes it unmanned," said John Moody, director of systems engineering.

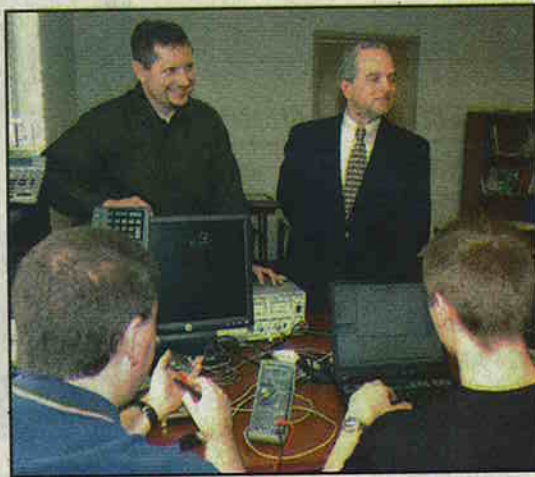
Employees were working to develop an "intelligent algorithm" to allow the two pieces of the puzzle to communicate with one another," Moody said.

"Short of the plane sitting here, you're seeing all the components that go in it," he said.

Unmanned aerial vehicles "provide the opportunity to get troops out of harm's way," Dobbs said, while still providing the same intelligence and surveillance information to the military.

Some other projects have energy applications, such as work their doing with electric transmission grids, Esposito said.

"Some of our products deal with compliance, regulatory issues," he said, such as carbon



Ron Rittenhouse/The Dominion Post

**Augusta Systems'** John Moody (left), director of systems engineering, and Pat Esposito, CEO and founder, watch employees work on the "brains" of unmanned aerial vehicles.

dioxide and emissions technology.

Esposito said the business has eight to 12 projects going at one time, focusing on its core capabilities as a research and development firm.

"We don't try to be all things to all people," Esposito said.

And the projects are ongoing. As they are developed, the capabilities improve and potential uses of the new technology grows, he said.

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**Bruce Sparks'** vision, patience and effort help protect WVU's intellectual property.

## Bruce Sparks is conduit for technology transfer at WVU

BY JUDITH BALLANGEE  
The Dominion Post

As a businessman who knows how to navigate the sometimes treacherous ground between research and the real-world application of that research, Bruce Sparks heads the WVU Office of Technology Transfer.

Part of the WVU Office of Research and Economic Development, OTT's charge is to protect and commercialize WVU intellectual property, which includes patents, trademarks, copyrights and the like. It may seem a straightforward directive but, as Sparks and any number of researchers can testify, it is a challenge that requires vision, patience and often many months, even years, of meticulous effort.

One project that demonstrates the complexity of technology transfer, and the importance the research-business link, is a sensor array now being tested for use in C-130 aircraft. Designed to capture ground-level data, the project was developed by Oculus Development LCC (one of several successful companies founded by Sparks during his career in the public sector) using technology created at, and licensed from, WVU.

A pod system with sensors created by WVU and others, the array is deployed beneath the aircraft, Sparks said.

"It can detect anything from people moving on the ground, to radar and microwave signals," he continued.

That data is captured by onboard computers, analyzed, and the information transmitted to earth where it can be applied. And it all happens in seconds, not days or weeks.

The implications of the technology are far-reaching, Sparks said. For example, had it been in use in the aftermath of Hurricane Katrina, it could have quickly spotted survivors and pinpointed their locations or even helped assess property and other damage.

The implications for the military, Homeland Security and drug enforcement are just as impressive.

The final in-flight test will take place this year and, if the sensor array passes as it is expected to, this marriage of research and business ingenuity will contribute not only to the state's economy but also to its rep-

### Bruce Sparks

- **POSITION:** director, WVU Office of Technology Transfer
- **EDUCATION:** bachelor of science degree in business, Concord University, Athens
- **FAMILY:** wife, Patricia; son, Philip Bruce Sparks III; daughter, Kristie
- **QUOTE:** "We work with faculty and staff researchers to translate their research into products that can be used in economies around the world."

utation as a leader in technology.

In addition to projects that meld technology and economic endeavor, Sparks also is guiding OTT's efforts to build stronger ties between the office and WVU faculty and staff researchers. Under his direction, OTT has created two presentations to help researchers better understand the whys and hows of technology transfer and the importance of patents, copyrights, etc.

OTT's job "is to work with each of those researchers to ensure that their work is protected," to help them assess their project's economic potential and, where appropriate, develop ways to realize that potential, Sparks said.

It helps, too, that he knows West Virginia and its business community. The son of a Baptist minister who was transferred on several occasions, Sparks can call more than one West Virginia community home.

Born in Grantsville in Calhoun County, he graduated from Oceana High School and lived in a few other towns in-between. After high school, he attended Concord University in Athens, where he received a bachelor's degree in business. Among his many community and charitable activities, he has since served as president of the Concord University Foundation.

Today Morgantown is home for this busy man. And he is busy, especially for someone who was contemplating an early retirement not so long ago. Instead, he ended up putting his research-to-business acumen to work at OTT.

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he said getting this much cash would be easy -

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