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SPECIAL SECTION

AEROSPACE & DEFENSE

'PDAs on steroids' growing critical to military

By Jean Gossman

Technological advancements of the late 20th century that we now take for granted, such as voice-recognition software, global positioning systems (GPS) and, of course, the Internet, were first developed under military auspices. During the Iraq War, the modern digital battlefield came into its own and a comprehensive information network, rather than weaponry, became the critical component of warfare. In Iraq, Army special forces, the Marines and the Air Force relied on rugged personal digital assistants (PDAs) and reinforced portable computers and peripherals.

The U.S. armed forces claim they need a "family" of flexible common portable and handheld computer components that can take advantage of continued technology and that can be expanded and upgraded. Military tactical computer systems support personnel worldwide in information management for intelligence, maneuver control, combat artillery, combat support and air defense, allowing vital instantaneous communication in real time. Stateside municipal and regional offices are also beginning to use PDAs for operational support, particularly in emergency response.



THOMAS BUTLER

PDAs are becoming combat staples.

The Tacter R-PDA, manufactured by Talla-Tech, a small company in Tallahassee, Fla., is "basically a Compaq iPAQ on steroids," according to Talla-Tech spokesman Jim English. It includes an internal GPS receiver, which provides mapping ability, and an internal tactical modem. With the PDAs' modular design, hardware and software can be reconfigured for specific missions.

Besides their internal battery, these rugged PDAs feature external military or commercial battery capability to provide over 30 hours of operation, which is quite an enviable standard for the civilian PDA user. The devices run Microsoft's Pocket PC 2002 operating system and feature commercial off-the-shelf technology for easy availability and cost containment.

Unlike conventional PDAs, however, they can survive a drop of up to six feet and resist water leakage down to one meter — very attractive specs for the everyday PDA devotee who has to protect her device from the children or a rambunctious family pet. And the tethered stylus won't get away, as opposed to its rather petite commercial counterpart, which turns up missing just when you need it.

But the military devices allow even gloved soldiers in chemical or biological warfare suits to easily handle the units, and if capture is imminent, sensitive data can be quickly deleted. The Pocket-Sized Forward Entry Device is a PDA created specifically for forward observers, who take up positions near enemy lines to coordinate air strikes. It performs the calculations necessary to determine the exact position of a target and then transmit the information to artillery on the ground or overhead aircraft. Civilians read e-books on their PDAs, while soldiers pull theirs out of a cargo pocket to read vehicle maintenance manuals and personnel information.

Unlike night-vision goggles and other military odds and ends, the rugged PDAs are not available on eBay — yet. But, at \$2,300 per PDA from Talla-Tech, perhaps we envious civilian users would do a bit better to get a hard sports case and a multi-pack of extra styli.