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# Change Under Way in UAV Marketplace

**Scott L. Spencer**
**Publisher**

The Association of Unmanned Vehicle Systems International's North America (AUVSI) trade show held in Las Vegas last month showcased an increasingly diverse collection of unmanned vehicular technology. The event kicked off just as NASA's Curiosity Rover landed on Mars, highlighting an alternate use of unmanned vehicles in stark contrast to the Predator strikes we are used to hearing about. In the past this event was all about the latest in wartime technology. It was where aerospace companies met with weapons buyers, and where the newest robotic tools for combat missions were on display. With combat operations in Iraq and Afghanistan winding down, accompanied by a trimming of the Pentagon's budget, much of that is changing. After a decade of explosive growth, largely tied to the post-Sept. 11 demand from the military for unmanned vehicles, the industry is eagerly awaiting the opening of a new frontier. The domestic drone market will likely provide it.

Earlier this year Congress passed and the President signed into law the Federal Aviation Administration Reauthorization Act that would open the domestic skies by 2015 to private, military and commercial drones for activities as diverse as law enforcement activities, monitoring of oil, gas and water pipelines by utility companies, and agricultural applications such spraying of pesticides and crop monitoring. Use of these vehicles is envisioned for just about every scenario where the environment is too dirty, too dangerous, or just too dull for human activity.

The keynote address was delivered by Michael Huerta, acting administrator for the Federal Aviation Administration. His agency is tasked with integrating unmanned aircraft into U.S. airspace and issuing regulations to ensure public safety and personal privacy. So far the FAA has granted 42 public entities Certificates of Authorization (COAs).

Many companies from the RF and microwave industry were in attendance at the event knowing that exponential growth in the commercial unmanned vehicle market could be a boon to suppliers by offsetting declining revenue from defense sales. Demand for Analog, Encrypted, and COFDM Video/Data Transmitters and Receivers is likely to increase.

Next year the event will be held August 12 – 15 at the Walter E. Washington Convention Center, Washington, DC.

## NI Week

If targeted industry summits; hands-on workshops; exhibitions on the latest advancements in design, research, and test; and keynote presentations from leading technology thought leaders is of interest, then National Instruments' NIWeek in Austin Tex., August 6 – 9, was the place to be. The

annual global conference on graphical system design brings together more than 3,000 engineers and scientists across a spectrum of industries, from automotive to telecommunications, robotics, and energy. They gather each year to learn about new technology that provides competitive advantages when developing software-defined systems for measurement and control.

One of the highlights of this year's event was the unveiling of the NI PXIe-5644R RF vector signal transceiver (VST), the first software-designed instrument that combines a vector signal generator and vector signal analyzer with a user-programmable FPGA into a single PXI modular instrument. The new VST looks to be ideal for testing the latest wireless and cellular standards such as 802.11ac and LTE. With up to 6 GHz frequency coverage and 80 MHz instantaneous bandwidth, the VST is claimed to be capable of making measurements 10 times faster than comparable solutions at a fraction of the size and cost of traditional instruments. Because the new VST is built on FPGA technology, engineers can transform it into a new instrument or enhance its existing functionality using NI LabVIEW system design software. The instrument can be easily reconfigured to support multiple input, multiple output (MIMO) configurations or parallel testing in a single PXI chassis, for example.

### EuMW, MILCOM

Next month the staff of *High Frequency Electronics* will be on the move, covering both the European Microwave Week in Amsterdam and MILCOM 2012 in Orlando. The two events overlap this year, with EuMW2102 running October 28 to November 2, while MILCOM runs October 29 to November 1.

EuMW2012 again looks to be the premier event of its kind in Europe. Combining three conferences, The European Microwave Conference (EuMC), the European Microwave Integrated Circuits Conference (EuMIC), and the European Radar Conference (EuRAD), this year's show will also feature a special event on Space/Defense dual-use Microwave Technology.

MILCOM continues to attract decision-makers from government, military, academia, and industry and is billed as "The Premier International Conference for Military Communications."

I look forward to meeting with our readers and advertisers at these events.

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