

INDUSTRY AND THE PROFESSION

DOE REPORT ANALYZES US WIND RESOURCES

The US Department of Energy (DOE) recently released a new report that examines the technical feasibility of using wind power to generate up to 20 percent of our energy needs. Entitled "20 Percent Wind Energy by 2030," the report identifies the hurdles, including reducing the cost of associated technologies, creating a new transmission infrastructure, and enhancing domestic manufacturing capability. The report also identifies opportunities for avoiding 7.6 cumulative gigatons of CO₂ emissions by 2030, saving 825 million metric tons in 2030 and every year thereafter. According to a DOE representative,

"DOE's wind report is a thorough look at America's wind resource, its industrial capabilities, and future energy prices, and confirms the viability and commercial maturity of wind as a major contributor to America's energy needs, now and in the future." To download your own copy of the 248-page document, just go to www.jkeckert.com/downloads.html.

BETA TESTERS NEEDED

At least as of this writing, SchmartBoard, Inc., is looking for people to beta test a new website called Solder By Numbers. Scheduled to launch in late summer, it is billed as a "social network for electronics enthusiasts." Details have not been revealed, but it is essentially web 2.0 and a place to "design and build your electronic circuits while you create a worldwide network of peers ... It will be a place to collaborate, create, communicate and learn." To sign up, visit www.solderbynumbers.com.

CIRCUITS AND DEVICES

WORLD'S SMALLEST SAR

It's not something that will be on the average N&V reader's shopping list, but it's intriguing nonetheless. Whereas most synthetic aperture radars (SARs) weigh somewhere between 50 and 200 lbs (23 to 91 kg), Boeing (www.boeing.com), in partnership with ImSAR and Insitu, Inc., has successfully tested NanoSAR, billed as the world's smallest unit. The 2 lb (0.9 kg) device proved itself during a 1.5 hr test flight aboard a ScanEagle unmanned aircraft. It completed several passes at various altitudes and ranges over a test area, detecting vehicles, structures, and corner reflectors.

This incarnation of the SAR collects data that is later used to create imagery, but future versions will be able to do that in real time. According to Chief Engineer Carol Wilke, "The NanoSAR technology's ability to see in hazy, cloudy, rainy, or foggy conditions is ideally suited for the maritime environment." A prime

mission will be to locate small vessels on the ocean from aboard the ScanEagle, which can operate autonomously at altitudes of 16,000+ ft.

RF FILTERS INTRODUCED

If you need a small, wide frequency range RF filter, either standard or custom, the μ FILTER™ from NuWAVES (www.nuwaves-ltd.com) may be of interest. The custom frequency (CF) modules offer multiple pole configurations in the four usual types: band pass, low pass, high pass, and band reject; designed for a typical 20 percent or greater bandwidth. Typical frequency ranges are 70 MHz to 1 GHz.

The standard frequency (SF) modules come in a frequency range up to 2.4 GHz. All are packaged in a 1.0 x 0.75 x 0.5 in (25.4 x 19 x 12.7 mm) ruggedized aluminum housing and feature SMA connectors. These aren't your standard RadioShack components, though. In small quantities, they will run you at least \$250.

PHOTO COURTESY OF NUWAVES LTD.



■ FILTERS are offered in both standard and custom models for RF applications.

that someone should have thought of long ago. Such is Socket Sense™ from IDEATIVE Product Ventures (www.ideativeinc.com). You will be noticed by now that the average surge protector isn't equipped to handle bulky AC adapters, so perhaps half of your outlets go unused. But the Socket Sense version not only sets the sockets at a 45° angle to provide extra clearance, it expands from 13 to 18 in (33 to 46 cm) so that every one is actually usable. Well, duh! No more daisy-chaining under your desk! The units offer six sockets, 2160 J of surge protection and six or 12 ft (1.8 to 3.6 m) power cords. The list price is \$29.99. **NU**

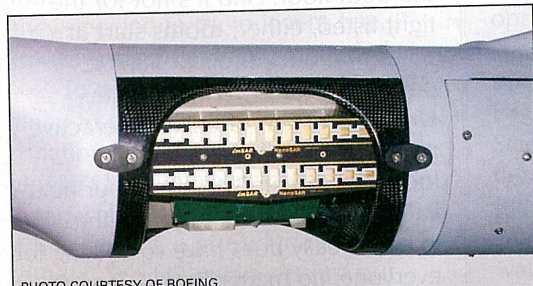


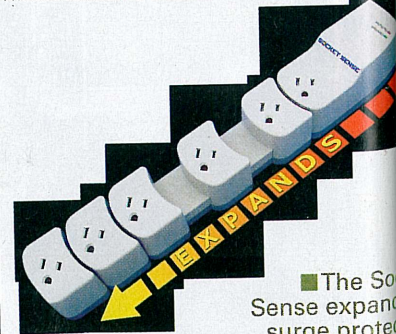
PHOTO COURTESY OF BOEING.

SURGE PROTECTOR FOR AC ADAPTERS

Every once in a while, someone comes up with a good idea that's so bonehead simple

■ The NanoSAR synthetic aperture radar, designed for use aboard the ScanEagle aircraft.

PHOTO COURTESY OF IDEATIVE.



■ The Socket Sense expands surge protection.