

# Product showcase

## Portable aircraft counter

The SCA-PAC1 portable aircraft counter from **Scantek** consists of an environmental kit with a RION NL-21 Sound Level Meter and the Scantek ASNL21 software package.

Together, they allow for the counting of aircraft takeoffs at unattended general-aviation airports. The system monitors for two to three weeks the runways of the surveyed airport. Data are stored on the instrument's compact flash card. Following the measuring period, the memory card is exchanged if further measurements are required. Data are automatically categorized and counted, and seasonal reports are issued.



## Triaxial force sensors

The 261A Series Triaxial Force Link Sensors from the Force/Torque Division of **PCB Piezotronics** simultaneously measure dynamic and quasi-static forces in three orthogonal directions. The sensors are used during vibration testing of aerospace structures to match the mechanical impedance of shaker inputs and may be used to force-limit the shaker controller to prevent damage to expensive structures. Series 261A comes preloaded between two plates, with a four-screw mounting pattern to allow easy installation and features monitoring ranges from 500 to 4000 lb in the x and y directions and from 1000 to 10,000 lb in the z direction.



## Image analysis

**Sensors Unlimited's** enhanced imaging software for shortwave infrared windowing (SWIR) cameras includes full control of four preset regions of interest, or windows, in the center of the frame. Variable windows can also be established by the user. The user may select the position, size, and shape as well as perform image enhancements on captured images and save them in a movie format. The software includes line profiles, region histograms, and spot meter ROI display features. It is suited for near-infrared imaging applications such as image capture of fast-moving objects, SWIR motion analysis, and thermal imaging of combustion or rocket plumes.



## Structural testing

**MTS Systems' AeroPro 5.0** control and data acquisition software for aerospace structural testing features expanded data acquisition functionality, controller compatibility, and other performance-enhancing capabilities to streamline and improve the setup and operation of complex structural testing programs. The software integrates the operation and analysis of up to 360 control channels and 6000 data acquisition channels into a single interface, eliminating the need to support separate software applications for each testing task. Originally designed for use with Aero ST system controllers, the software now integrates with legacy Aero-90 controllers. Control loop optimization capabilities include static and dynamic null pacing, forward loop optimization, and calculations-in-the-loop functionality.



## Thermosetting adhesive films

Two thermosetting, modified epoxy adhesive films from **3M Aerospace**—the Scotch-Weld AF 555 and AF 500—bond composites and metals in aerospace manufacturing. The films cure at 350°F and 250°F, respectively. The low-VOC films are conformable to complex geometric surfaces, can be repositioned during the application process, and can stay in place on vertical substrates. Additionally, before it is bonded, AF 555 can resist humidity. This feature allows the film to bond to composite substrates that have absorbed moisture from the environment. A corrosion-inhibiting primer can be used with the films to obtain maximum durability in moist, corrosive environments.



## Torque motors

**H2W Technologies' limited-angle torque motors**—commonly referred to as torquers—meet high-torque, high-acceleration, and high-precision application needs. These single-phase, brushless, low-profile motors have applications from below sea level to outer space. The devices are suited for operating valves, control surfaces on submersible watercraft, aerospace fin actuation, precision ball screw rotation, and positioning laser reflecting mirrors.

