

S-6S, which will remain in production. The S-20 has a lot to offer high-wing enthusiasts. According to Randy Schlitter, RANS president, the side-by-side S-20 Raven can equal or exceed the performance of the S-6S.

The S-20 Raven uses the S-7 wing and tail but has a new, all-welded steel fuselage. The new aluminum 7075 landing gear is CNC machined, heat treated, and shot peened for long life. The S-20 also can be switched from a tailwheel to a tricycle gear. Sliding, adjustable, and quickly removable seats together with large, wide-opening doors allow easy ingress and egress. The seat backrests recline for easy baggage compartment access, and the removable seats offer the uncommon possibility to sleep in the aircraft, if needed.

The Raven wings are the same as on the S-7S, featuring one-piece, fully CNC-machined stamped ribs, CNC-machined spars, aero servo ailerons, and 26-gallon fuel tanks. RANS said the aircraft is still in development, but it is accepting pre-orders; four aircraft were sold during AirVenture. [www.RANS.com](http://www.RANS.com)



### AvMap Announces the Ultra EFIS

AvMap, the Italian manufacturer of GPS equipment since 1994, presented the Ultra EFIS, a standalone unit providing air data, attitude, heading, and altitude reference (ADAHR) during AirVenture 2013.

The AvMap Ultra EFIS is a standalone device with a 3.5-inch, ultrabright, sunlight-readable LCD display. The unit is compact, 49.5 millimeters deep, and ultralight—only 145 grams. The AvMap Ultra EFIS can be easily installed in a panel fitting a standard 84-millimeter (3.3-inch) panel hole and connected to the GPS receiver and the aircraft's pitot-static system to provide reliable ADAHRS data.

The AvMap Ultra EFIS is designed for light-sport, ultralight, and experimental aircraft. It contains solid-state gyros, accelerometers, magnetic field sensors, air data sensors, and a UAV navigation motion processor.

The Ultra EFIS 3.5-inch PFD screen displays attitude (roll, pitch, and heading), airspeed and altitude (pitot-static system based), wind sideslip, and vertical speed. AvMap now gives the pilot the possibility to choose the EFIS solution: standalone or integrated with EKP V. Depending on space availability, either two displays or one unique device can be chosen. The Ultra EFIS is the standalone solution for panel mounting; owners of EKP V may consider buying the A2 ADAHRS module to be used together with the cockpit docking station to complete the AvMap EFIS set.

The Ultra EFIS will be on sale starting this fall at \$1,200, while the complete AvMap EFIS set (EKP V plus Cockpit Docking Station and A2 ADAHRS) retails in the United States at \$2,750. [www.AvMap.us/avionics/instruments/UltraEFIS](http://www.AvMap.us/avionics/instruments/UltraEFIS)



### Beringer Introduces 'No Ground Loop' Tail Wheel

The well-known French wheel and brake manufacturer Beringer introduced a new, patented, tail wheel assembly featuring a double pivot that does not allow a tail wheel aircraft to ground loop.

Beringer technicians noted that taildragger aircraft instability increases with the square of speed. Thus, at certain speeds, even a skilled pilot is not able to master the conventional tail wheel. Fast airplanes (such as the P-51 Mustang) have a locking system that maintains the tail wheel in line with the aircraft longitudinal axis. This solves the instability problem but does not allow almost any path correction required in crosswind conditions or to counter the engine torque.

According to Beringer, it has found the solution, developing a tail wheel with a double pivot mechanism. Pivot 1 (the "rear" one, in line with the wheel axis) allows precise guidance of

the aircraft on takeoff and landing; Pivot 2 (the “forward” one) allows sharp turns when unlocked. In spite of having the tail wheel locked, the Beringer assembly allows taxi operation and steering; when sharp turns are required the tail wheel can be unlocked from the cockpit. [www.Beringer-Aero.com](http://www.Beringer-Aero.com)



### A New Composite Kit-Built Helicopter

Innovator Technologies, manufacturer of the Mosquito helicopter and Composite FX, have partnered to build a new two-place, side-by-side helicopter called the Swift that was on display in the Ultralight area.

The Swift will have an empty weight of 900 pounds, a payload of 700 pounds, a 100-mph cruise speed, and a 120-mph maximum speed. Range of the 185-hp helicopter is 3.5 hours or 350 miles. The tail rotor is an enclosed Fenestron; the main rotor diameter is 26 feet. It will have a full-suspension rotor system, two composite rotor blades, an all-composite fuselage (74 inches wide), and 35-gallon fuel tanks.

The engine is expected to be a Lycoming-based, fuel-injected IO-360. Test flying is expected to begin by the end of 2013. [www.Composite-FX.com](http://www.Composite-FX.com)



EAA Homebuilding Community Manager Charlie Becker (right) presents the Raspet Award to Rotax's Christian Mundigler.

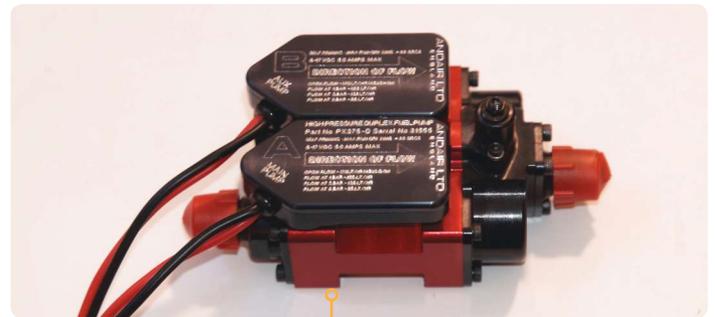
### Rotax Earns Dr. August Raspet Award

Christian Mundigler, manager of BRP Rotax Aircraft Engines Sales, accepted the Dr. August Raspet Memorial Award from Charlie Becker, EAA's Homebuilders Com-

munity manager, during an AirVenture press conference. The award recognizes Rotax for its outstanding contributions to the advancement of light aircraft design.

During AirVenture, Rotax revealed that real-life flight tests are showing a fuel economy improvement of up to 36 percent with the fuel-injected 912iS engine compared to the carbureted Rotax 912 ULS engine. The digital engine control unit (ECU) and the redundant electronic fuel-injection system ensure optimal fuel and air mixture at any altitude for a longer flight range, fewer CO2 emissions, and lower operating costs. The 912iS engine works with throttle settings below 97 percent in an “ECO Mode” with a Lambda 1.05 setting, which results in low fuel consumption. In a “Power Mode” above 97 percent throttle up to WOT, the Lambda is 0.88. The Rotax 912iS engine is currently available on 26 different aircraft types; 24 other OEM installations are in progress.

BRP Rotax also announced it will offer new Rotax Extended Service Terms (REST) programs for owners of a 912 engine, starting October 1, 2013. Two warranty extension programs will exist. A “One Year Plus” program includes a one-year warranty extension or 200 additional flight hours, whichever comes first. A “Full TBO” program offers three years additional warranty or up to TBO (2,000 flight hours), or whichever comes first. This program will be offered to all customers who have a four-stroke Rotax engine that is already covered by a warranty. Further details about the REST program will be released on October 1, 2013, and it will be effective starting from that date. [www.FlyRotax.com](http://www.FlyRotax.com)



### Andair Dual Fuel Pump

Andair is one of the premier manufacturers of aircraft-related fuel components such as pumps, filters, and valves. During AirVenture 2013, Andair introduced a new, duplex fuel pump for the Rotax four-stroke engine family. Two independently controlled fuel pumps are built into one aerospace aluminum body, called the PX375D-PR. It is self-priming, lightweight, and compact; it weighs just over one pound (18.2 ounces). The price is approximately \$1,200. [www.Andair.co.uk](http://www.Andair.co.uk) EAA