

Tech Briefs

Communicator Allows Hands-Free Operation

VERO BEACH, FL—Allen Sports' Communicator is a walkie-talkie with a two-mile range that is small enough to clip onto a hydration pack shoulder strap. Unlike traditional walkie-talkies, which require users to press a button to talk, the Communicator is voice activated for hands-free operation. "One of the most difficult things to do in an outdoor sport is trying to converse with someone while on the move and the Communicator is a convenient, easy-to-use solution for that," said Alex Allen, Allen Sports' president. The voice-activated technology offers four levels of sensitivity, allowing users to converse while cycling, skiing or hiking. A \$150 Communicator package includes two radios with rechargeable lithium batteries, two arm bands, two belt clips, two neck lanyards, two wired earphones and two chargers. The Communicator has multiple channels with 38 sub codes for privacy.



Silica Reduces Tire Rolling Resistance, Wear

CLERMONT-FERRAND, France—The rise in fuel prices is pushing tire makers to lower rolling resistance, and the technology will make its way to bikes. Michelin has unexpectedly stumbled upon a new type of silica. Its patent, received at the end of July, notes its novel silica preparation process, which makes it possible to obtain highly dispersible silicas. These improve wear resistance and reduce rolling resistance. Fillers like silica and carbon black are added to rubber to reinforce tire treads and increase wear resistance. Ideally, these fillers should be small and evenly distributed in the rubber. Carbon black is easy to mix into rubber, but silicas tend to bunch up. Silica adds many desirable properties to rubber compounds, but some of the magic is lost because of this clumping, which Michelin hopes is a thing of the past.

Bladders Keep Drinks Cold, Eliminate Mold

BOISE, ID—Polar Pak's first product, Bi-Polar, was a freezable or heatable hydration reservoir. That product is no longer in the line, but the company continues to think outside the box with its Moflow and Polar Pak. Polar Pak, available in a 70-ounce (\$30) or 100-ounce size (\$31) includes a non-toxic thermal gel welded into the reservoir. "Getting a cold drink when you are 10 miles in on some hot trail, well, what could be better?" said Paul Fleming, Polar Pak's sales manager. "Adding ice is okay, but it melts quickly and dilutes your drink. With Polar Pak you throw it in the freezer and it's ready for your next ride," he added. Fleming noted that storing Polar Pak in the freezer eliminates mold or bacteria. The company's 70-ounce Moflow (\$32) has antimicrobial film and hardware by Microban, but adds internal baffling. This allows inflation to extreme pressure so one bite delivers a solid stream. Both bags use quick-release drink hoses and bite valves so users can switch reservoirs between packs without rethreading drink hoses.



Formula to Bring Hydraulic Brakes to Road

PRATO, Italy—Hydraulic disc brakes will eventually make their way onto road bikes, but one challenge has been where to place the bulky master cylinders. Formula's got some clever ideas and designs. The company recently received a patent for one of its designs, which hides front and rear master cylinders inside the stem. This allows a bike to still have traditional handlebars and levers. The road brake cable has a short run to the stem, where it activates the master cylinder. Another of its designs hides the master cylinder within the handlebar, allowing use with a traditional stem. However, it's not clear how proprietary shifting systems from Campagnolo, Shimano or SRAM would interface. One design is reminiscent of Ritchey's Bull Moose handlebars. It's a one-piece bar-and-stem combo, where the Y-shaped stem hides the hydraulics within each stem extension. As with any patent, whether these designs make it to market is anyone's guess.