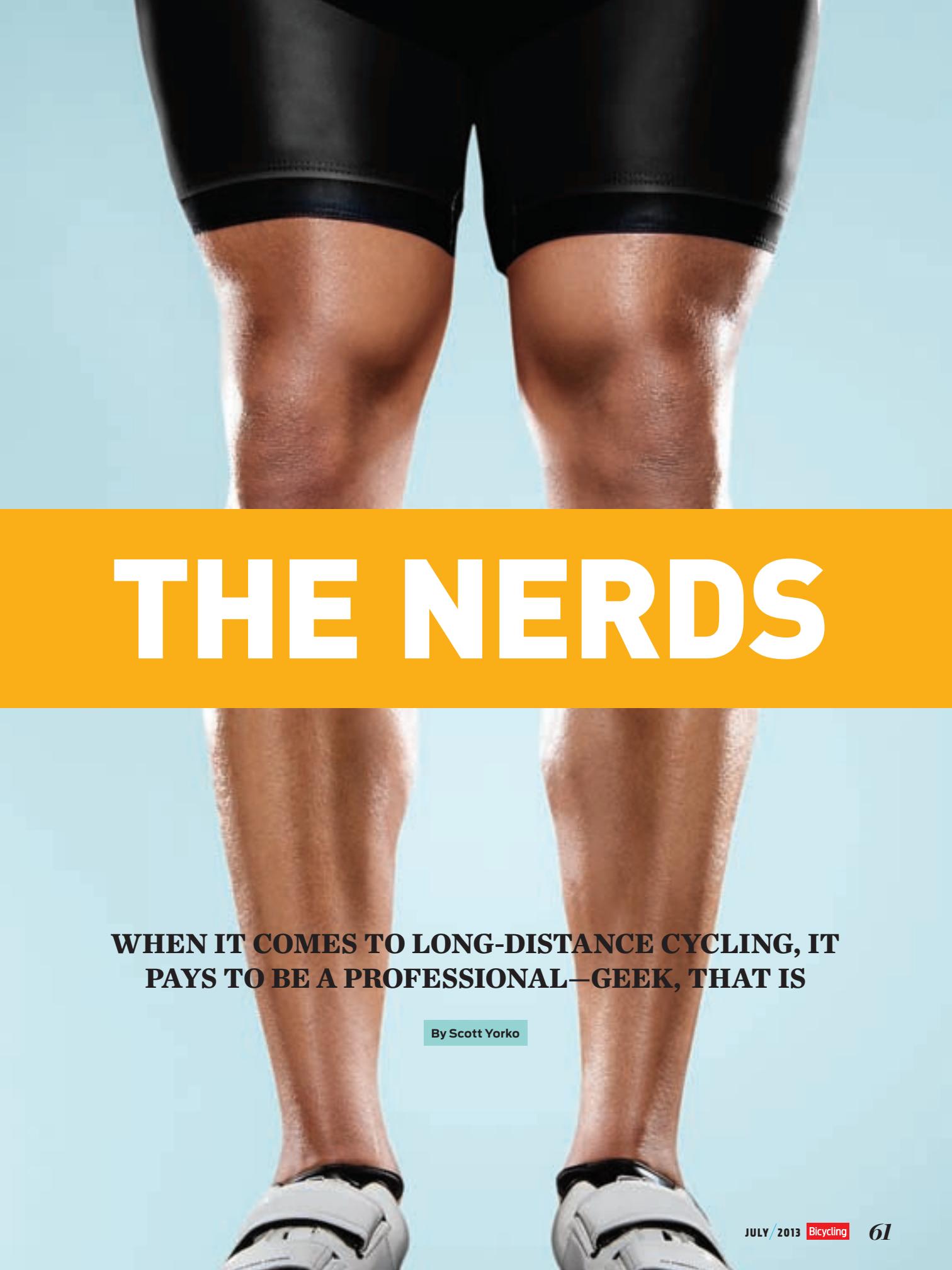




REVENGE OF



THE NERDS

**WHEN IT COMES TO LONG-DISTANCE CYCLING, IT
PAYS TO BE A PROFESSIONAL—GEEK, THAT IS**

By Scott Yorko

At last year's Race Across America (RAAM)—a 2,993.24-mile grindfest from Oceanside, California, to Annapolis, Maryland—a team of eight amateur riders averaged 24 mph coast to coast, setting a record of five days, five hours, and five minutes that shattered by four hours the previous best time, which had been logged by pros. The secret: The riders, half of whom work as tech engineers, unleashed their brainiac power on the race (in addition to thousands of training hours) and used everything from mobile satellite technology to auto-updating pace charts to pull off the most calculated cross-country time trial RAAM has ever seen. Here's an unapologetic breakdown of Team ViaSat's geek-fueled victory.

Team ViaSat Dossier

ANIMAL
AKA: Ryan Denner



Team's most aero (CdA: 0.229).

Team ViaSat

CROSSFIRE
AKA: Eric Cross



Father of six.

Team ViaSat

HAMMER
AKA: Airey Baringer



Former Cat 4 state crit champ.

Team ViaSat

HAZARD
AKA: Rich Walsh



All-around good guy—just don't ride too close.

Team ViaSat

METAL
AKA: Andrew Danly



Over the top in training (10,000-plus miles a year for the past 20 years)—and hair.

Team ViaSat

SLAYER
AKA: Kevin Hunter



Elder statesman. Corporate executive. Team cheerleader.

Team ViaSat

TORO
AKA: Jeremy Gustin



Team leader. Mountain goat.

Team ViaSat

WILDEBEAST
AKA: Adam Bickett



Ridiculous thighs. Expert number cruncher.

Team ViaSat

COURTESY (X5); PINK SHORTS PHOTOGRAPHY (X3)

Running the Numbers

TEAM VIASAT'S COLOR-CODED, CAREFULLY CALCULATED ROAD TO VICTORY

All Hail the Spreadsheet

Crew chief Barrie Adsett's Google Drive contained 82 files of color-coded rider-rotation schedules, scouting reports of other teams' strategies, weekly meeting agendas, checklists, diagrams, and more. The apogee was an auto-updating spreadsheet that provided hour-by-hour estimates of what each of the 13 crew members would be doing and where they'd be. "Having done the race six times before, we were able to leverage historical data to make educated guesses on how long it would take us to get between time stations," says rider Ryan Denner. Two team wives, Dede Poorman and Sarah Cross, updated the data remotely during the race, reducing the number of calls and texts required between crews.

Algorithms Galore

To create the most efficient lineup, Jeremy Gustin, Adam Bickett, and Andrew Danly spent time in the San Diego Velodrome evaluating wheel configurations and calculating drag coefficients (CdA). They plugged the numbers into data charts with training wattages to evaluate fitness levels and determine who was a Plains pursuitist versus a Continental Divide climber.

No Corner Unturned

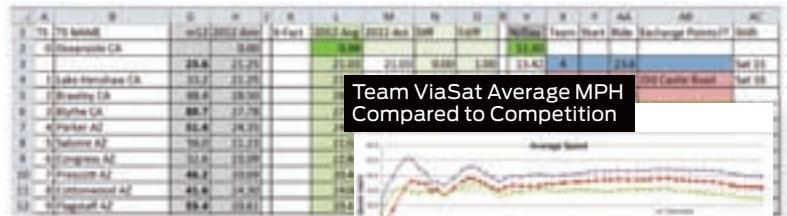
Using RAAM's .kmz file of the route, Danly photographed every one of the 343 turns on the course using Google Street View. He numbered each image, noting locations where RAAM's instructions were incorrect or confusing. Then, Bickett used the mapping tool Ride with GPS to make the team's own routing guide, which Adsett reviewed numerous times, collaborating closely with Bickett to get every last corner correct before the riders uploaded the route to their GPS devices.

MPH Analysis

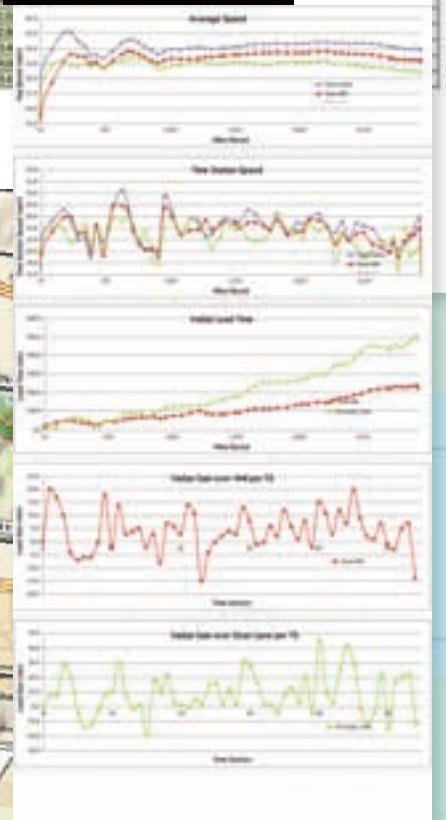
Crew Rotation Schedules



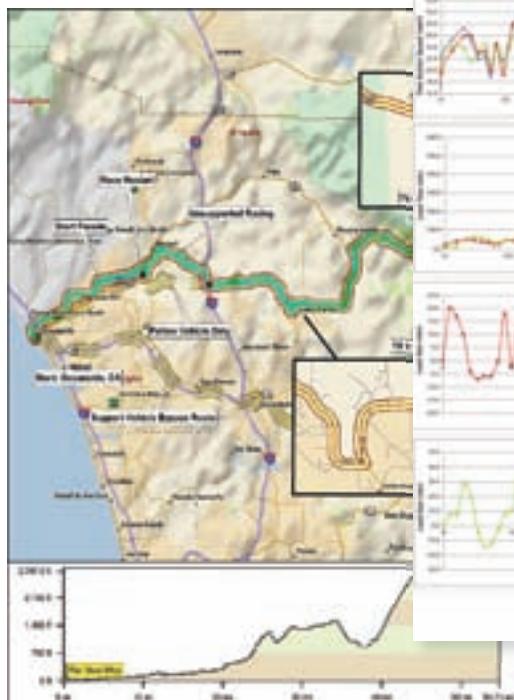
Progress Estimates



Team ViaSat Average MPH Compared to Competition



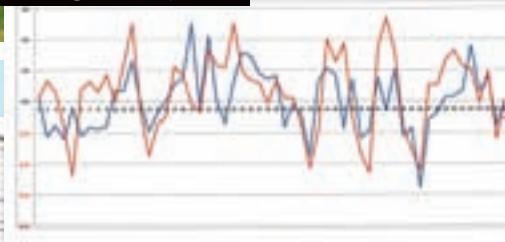
RAAM Route Map



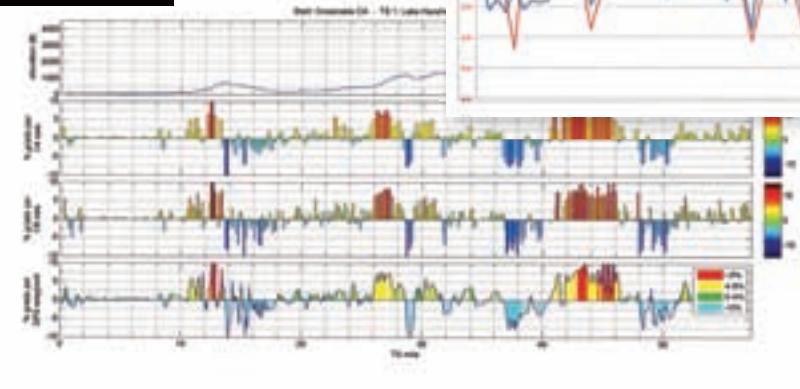


TWENTY-MPH SUSTAINED CROSSWINDS ARE NO MATCH FOR THE HAMMER.

Tracking the Competition



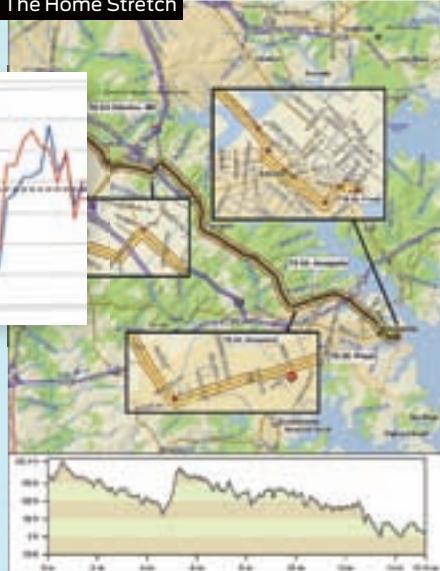
Elevation Profiles



ViaSat Cue Sheet

10.3	LEFT	Warning: Bridge No.
10.4	RIGHT	Warning: Bridge No.
10.5	RIGHT	Warning: Bridge No.
10.6	LEFT	Warning: Bridge No.
10.7	RIGHT	Warning: Bridge No.
10.8	LEFT	Warning: Bridge No.
10.9	RIGHT	Warning: Bridge No.
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13.9	RIGHT	Warning: Bridge No.
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19.6	LEFT	Warning: Bridge No.
19.7	RIGHT	Warning: Bridge No.
19.8	LEFT	Warning: Bridge No.
19.9	RIGHT	Warning: Bridge No.
20.0	LEFT	Warning: Bridge No.

The Home Stretch



Go Farther *Endurance tips even nongeeks can use*

Track Your Performance

ViaSat's desk jockeys couldn't always train together—so they engaged in (mostly) friendly competition via the mobile ride tracker Strava. "When I was suffering through a seven-hour ride to the desert," says Kevin Hunter, "a key motivator for me was being able to get home, post the ride, and gloat when I saw that I outworked my brothers that day."

Drink Lots

Denner's first three shifts took place in 100-degree weather. He estimates that each rider went through at least 10 bottles of water

and/or sports drink during a five-hour stretch. "We supplemented electrolytes with Nuun and salt tablets, especially on the hottest sections," he says.

Vary Your Chow

Midride, the team relied heavily on drinks, bars, and gels from sponsor Clif Bar, but off-shift they gobbled prepared foods from home, including pasta, quinoa, chicken, and sweet potatoes. "The Hammer and I made more than 100 of Allen Lim's famous rice cakes," says Denner. (Visit BICYCLING.com/ricecakes for the sports physiologist's recipe.) "But we stopped at

least three times for burgers and fries."

Train on Your Commute

Rich Walsh squeezed in more training hours by driving 20 miles to the office, riding home, and pedaling to work the next day. "Once or twice a week I'd ride both directions," he says. "I would get in 100-plus miles a week just by commuting."

Lighten Up

After dark, riders relied on small, lightweight, USB-chargable LED lights such as Blackburn's Flea. For ideal aerodynamics, "most guys rigged them under the bars," says Danly. Naturally,

Living Out Loud

Despite all the tech tools and data at the team's disposal, they instructed support vehicles to use a primitive horn-honking system to help riders find their way in the dark: one honk for left, two honks for right, three for straight. "It's the RAAM equivalent of smoke signals," says Danly.

Genius but not Humorless

To keep riders and support staff entertained through the grueling test, crew member Chuck Pateros rigged two speakers to the roof of the media vehicle, powered them with a 100-watt amp through the cigarette-lighter inverter, and played appropriate tunes. "There is nothing more fun than driving through West Virginia in the middle of the night with a rider in your headlights while blasting the theme from *Deliverance*," he says. ☐