Hands Off The Wheel

Cars that drive themselves are hitting the streets. Last week, while Google revealed that its not-quite-driverless cars have clocked about 225,000 kilometers, an Italian team announced that an autonomous car driving from Parma, Italy, to Shanghai, China, had crossed the Chinese border. "We thought about doing some crazy thing," says University of Parma engineer Alberto Broggi, the project's leader. "[It's] the first time in history something like this has been tried."

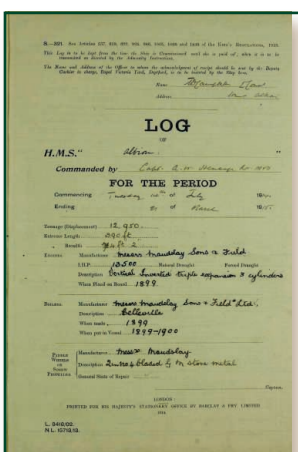
The 3-month, 13,000-kilometer journey began in July. A convoy of four modified Piaggio electric vans are making the trip; two drive while two recharge in a giant truck. A human guides the lead van for the most part, while a second van tracks the first using its cameras, lasers, and navigation system. A human driver sits inside as a precaution because the system isn't perfect: The van failed to stop for a toll near Belgrade, and it had trouble when Russian drivers abruptly turned two lanes into three. Broggi expects his vans to reach Shanghai by 28 October, just in time to catch the end of the World Expo being held there.

When driverless vehicles will become widespread is anyone's guess. "Since 1939 the answer has been, 'In 20 years,' " says Sven Beiker, Stanford University's resident car expert. "It's a question of nines," says Defense Advanced Research Projects Agency electrical engineer Norman Whitaker, who oversaw a 2007 urban marathon for driverless cars. "How many nines do you need to show that it's safe? 99.999% of the time it's safe?"

Candidate Crib Sheet

As midterm elections in the United States draw near, do you know where your local House of Representatives and Senate hopefuls stand on science? Check out www.YourCandidatesYourHealth.org, where you can find candidates' responses to 15 questions on issues that include government funding of embryonic stem cell research and whether the Food and Drug Administration takes too long to approve new drugs.

As *Science* went to press, the site had up-to-date responses from 232 candidates, about 15% of the total, and responses from another 163 who answered similar questions in previous election years. But in some states, no candidates have responded, says Stacie Propst, vice president of science policy and outreach at the nonprofit Research!America, which runs the project. If your candidates are among the no-shows, the site lets you nudge them via e-mail.



All Hands on Deck

Take a look inside the stained and yellowed covers of a logbook of the *HMS Albion*, and you'll find a trove of information. Every 4 hours between 14 July 1914 and 22 March 1915, one of the battleship's sailors scribbled down the air and water temperatures, the direction of the wind, the barometric pressure, and whether skies were blue or cloudy.

"Sailors care desperately about the weather," says Philip Brohan, a climate scientist at the Met Office, the United Kingdom's national weather service. That makes the British Royal Navy's 3 centuries of meticulous logbooks the perfect source for historical weather data, which climate scientists need to vet their predictive models, Brohan says (*Science*, 12 December 2008, p. 1629). But translating hundreds of thousands of handwritten observations into data points is a prohibitively onerous task.

So the team turned to Chris Lintott, a University of Oxford astronomer and the director of www.zooniverse.org, a Web site that recruits "citizen scientists" to comb through huge data sets, like galaxy surveys. On 12 October, the collaboration launched www.oldweather.org, where users can work their way up through the ranks from cadet to captain on any of 238 British vessels as they digitize ships' logs dating from 1905 to 1929. If you're lucky, you might even stumble on a record of a World War I gun battle or a sailor's personal musings—tidbits that will go into the hands of marine historians.

"It's fascinating to look at these entries," Brohan says. "You never know what's going to appear on the next page."

BEAUTIFUL MACHINES

The gorgeous geometries captured here are not the work of avant-garde sculptors. The photos were taken this summer during an international event where five particle physics laboratories—CERN near Geneva, Switzerland; DESY in Hamburg, Germany; KEK in Tsukuba, Japan; Fermilab in Batavia, Illinois; and TRIUMF in Vancouver, Canada—opened their doors to more than 200 photographers. Last week, the labs announced the winners of a subsequent photo competition. The judges' first pick was Mikey Enriquez's close-up of crystal sensors within the 8Pi nuclear physics experiment at TRIUMF (top). Hans-Peter Hildebrandt's bright detail of a detector within a retired accelerator (bottom), shot at DESY, won the public online vote. For more images, visit www.scim.ag/photo-walk.

CREDITS (TOP TO BOTTOM): VIAC/VISLAB; MIKEY ENRIQUEZ; HANS-PETER HILDEBRANDT; U.K. NATIONAL ARCHIVES; MICHAEL W. POCOCK/MARITIMEQUEST.COM