

THE ONE GALLON CHALLENGE

FOR IMMEDIATE RELEASE: Aug 26, 2009

Contact: Jory Squibb, One Gallon Challenge 207-236-8962
Nancy Hazard, Greening Greenfield Energy Committee 413-774-5667

HIGH-MPG CAR RACE RESULTS ARE IN THE ONE GALLON CHALLENGE A GREAT SUCCESS

CAMDEN, ME - Ten!...Nine!...Eight!...the spectators shouted the count-down to dropping the checkered flag in Greenfield, MA, for six unusual cars competing in the One Gallon Challenge. Without the screech of tires, the entrants set out in stately, fuel-conserving style, to drive the 100 miles to Boston, MA on one gallon of fuel.

By the time they drove into the Boston GreenFest later that day, in blisteringly hot weather, each had proven some aspect of our evolution toward ultra-efficient and economic personal transportation.

“The One Gallon Challenge was an excellent showcase of the comparative advantages of four of the nine possible fuels for future cars - electricity, gasoline, diesel, and wood,” said Jory Squibb, organizer and event entrant. “While we are all prejudiced against fossil fuels, we showed how we can sip that fuel if we use smaller, lighter vehicles, and we also demonstrated the advantages of wood and electricity which could lead to energy self-sufficiency.” The fuel used by each vehicle was converted to gasoline miles per gallon equivalent (MPGe) so that the efficiency of the various vehicles could be compared. Other possible fuels for cars include ethanol, natural gas, hydrogen, biodiesel, and compressed air.

Dripping with sweat, Jory Squibb, drove his gas-powered three-wheel Moonbeam across the finish line demonstrating 93 MPGe for a cost of only 2.7 cents per mile for fuel. Built as a grocery-getter, it had never been driven far from its hometown of Camden, ME, but finished the race without incident, running its heater to cool its engine, but fry its driver, in the 90 degree heat.

Dirigo--a sleek diesel 3 wheeler clocked in at 88MPGe with a running cost of 2.9 cents per mile--showed the importance of good aerodynamics. Bill Buchholz not only drove the Dirigo the 100 mile segment without a chase vehicle, he also drove 450 mile round-trip from his home in Camden, Maine.

Ricker Truck, a 900cc diesel-powered vehicle built by boat-builder Harry Ricker of Turner, ME, clocked in at 70 MPGe. It demonstrated the advantages of using laminated foam construction for safe and light weight body. Although this car was finished only hours before the race, it made it to Boston in fine form.

The wood-powered Ford pick-up truck built by David Nicholas, from 21st Century Motor Works in Dayville, CT, breezed in at 27.7 MPG. David demonstrated that we can fine-tune an old technology to gasify wood and use it in new ways so that we can use a local, carbon-sequestering fuel source: ordinary wood, leaves or grasses.

MIT's electric vehicle team from Cambridge, MA drove their electric Porche with amazing 164 MPGe plug-to-wheels efficiency. But we know this is only half of the story since the loss of efficiency is when fuel is burned. For a gas car, that is in the vehicle. But for an electric car, that is at the power plant. Looked at from a wells-to-wheels perspective, with today's mix of fossil-fuel-powered electric plants, that would translate to 75MPGe (wells-to-wheels), which is still very respectable! In the future, as our electricity increasingly comes from wind and solar, this technology may surpass all others.

Many spectators, familiar with electric vehicles using lead-acid batteries that can drive only 50-miles on a charge, were awed as these students drove their Porche, which had 18 automotive-sized lithium-ion batteries donated by Valence Technology, the 100 miles from Cambridge to the starting line in Greenfield on a single charge. They then charged up at the Ford dealership, and merrily drove the race route back to Boston. Without a doubt, the miracle battery we all dreamed of for decades has arrived.

The Roopod, poster-child of the event, was not completed in time for the race, but was on display both in Greenfield and in Boston. This ultra sleek and light, 14 HP diesel-powered wonder built by Roo Trimble from Shutesbury, MA, will be a car to be reckoned with next year.

"It is great to see that Yankee Ingenuity is alive and well," said Nancy Hazard, former director of the Tour de Sol and now co-chair of the Greening Greenfield Energy Committee, host of the event in Greenfield. "With reports from scientists around the world that climate change is happening faster than they thought, the need for ultra-efficient vehicles that do not emit carbon dioxide, the major cause of climate change, is more urgent than ever."

Though the participants were hot and weary after talking with the thousands of people in Greenfield and at the Boston GreenFest, all agreed to return next year with new developments, to demonstrate to consumers that we can have vehicles that do not use fossil fuels or emit climate-change emissions - but only if we ask for them.

For more information on the *One Gallon Challenge* see moonbeamplans.com and click on "summer 2009, One Gallon Challenge," and BostonGreenFest.org for more details.

#

The *One Gallon Challenge* aims to challenge people to build very fuel-efficient cars that get 100 mpg or better, demonstrate that fuel-efficient vehicles are possible, and to educate the public about the true energy use and environmental impact of our cars.

The Greening Greenfield Energy Committee (GGEC) is a citizen committee that works closely with the Town of Greenfield to build a more sustainable future, so that current and future generations can enjoy live in this beautiful abundant valley. www.GreeningGreenfield.org

Photo Credit: Dan Brown, Greenfield, MA. Photo Captions:

The Start - Moonbeam --- Moonbeam, at the starting line of the One Gallon Challenge in Greenfield, got 93 mpg while driving to Boston.

MIT EVPorsche ---- MIT students drove 100 miles from Cambridge to Greenfield, MA and back home with a Porche they converted to run on lithium-ion batteries from Valence Technology, stopping only in Greenfield to recharge.

Bio-Truck --- David Nichols, of 21st Century Motor Works, used 18th century technology in a new way to demonstrate how we could use wood to achieve energy self-sufficiency.