



At the Speed of Sounds

World-champion drag racer finds a new vision and a new world record with help from a Boeing engineer

On March 31, 2012, during a race at Alabama International Dragway, world-champion drag racer Dan Parker was nearing the end of the track when his modified 1963 Chevrolet Corvette veered into a concrete retaining wall at about 180 mph (290 kph).

The car burst into flames. Parker narrowly survived.

HUGS ALL 'ROUND

Just after setting the new record, driver Dan Parker (left) embraces his fiancée Jennifer Stegall. Behind is friend Kevin Peckham.

PHOTO: RICK HEAD

PLAYING IT BY EAR

Dan Parker beat the previous record by 10 mph (16 kph) in his 2008 Chevy Corvette at Spaceport America in New Mexico. The car was equipped with an audio guidance system designed by Boeing engineer Patrick Johnson.

PHOTO: RICK HEAD



Parker wanted to keep driving fast — on his own.

SALTY START

In August 2013, just 16 months after losing his eyesight during a racing accident, Dan Parker (aboard the motorcycle) arrived at the Bonneville Salt Flats in Utah. The custom-built motorcycle was equipped with an early version of an audio guidance system created by Boeing engineer and friend Patrick Johnson (right).

PHOTO: PATRICK JOHNSON



Two weeks later, he awoke from a medically induced coma with no memory of the accident and no vision. He was told that swelling in his brain had damaged his optic nerve.

But he hasn't let blindness slow him down. Previous land-speed racers with vision loss had relied on steering instructions conveyed via two-way radios.

Parker wanted to keep driving fast — on his own.

“I thought, ‘Well, who’s the smartest person I know?’” he said. “It was Patrick Johnson. I called him and he said, ‘That’s easy. I can do it.’”

An electrical engineer who now works in the Boeing AvionX division, Johnson spends his spare time inventing custom electronics for dragsters. A car with his controller for an electronic fuel injection system won the very first race in which the controller was used. Parker helped prep that car and came away impressed. That's how the two met.

Now Johnson's friend needed help.

Johnson went to work designing an audio guidance system that pairs GPS with tones to let Parker know in his ears if he's drifting off-center.

Parker used that system recently to achieve the “fastest speed for a car driven blindfolded,” according to Guinness World Records. (No category exists

for drivers with blindness or low vision.) The average of his two top speeds — 211.043 mph (339.64 kph) — on a runway at Spaceport America in New Mexico set the new mark.

“I was bawling like a baby,” Parker said. “Everything was emotional. It hit me all at once.” **IQ**

WIRED FOR SPEED

The audio guidance system Boeing engineer Patrick Johnson created for Dan Parker's race car includes a standard two-person intercom connected to a custom system that tracks Parker's real-time position against a virtual centerline. If the car veers to the left or right, an audio tone plays in the corresponding earbud that Parker wears under his helmet. The louder the tone, the farther from the centerline. It is still up to Parker to make necessary corrections.

PHOTO: PATRICK JOHNSON

