

Storm Chaser Catches up to AMSOIL

When Tim Samaras and his team of researchers are chasing a potentially violent storm across the Midwest's "Tornado Alley" region, stopping to change oil is not an option. So five years ago, Samaras, the principal investigator of the Tactical Weather Instrumented Sampling in Tornadoes EXperiment (TWISTEX), began researching ways to keep his vehicles on the road and out of the shop. That's when he discovered AMSOIL synthetic lubricants.

"I found that the AMSOIL products are far superior and are rated far better than any of the competing products I've found on the market," Samaras said. The scientist and engineer has authored numerous papers based on his research and is considered a preeminent voice in the area of tornado investigation. He first developed his fascination with tornadoes after seeing *The Wizard of Oz* when he was six years old. Since then, Samaras has become the only person to collect video from inside a tornado and has logged hundreds of thousands of miles across the Midwest in pursuit of one of nature's most destructive forces.

"It's very important to keep our vehicles in top condition for our mission in the field," he said. The TWISTEX crew commonly amasses 35,000 miles on each of their four research vehicles during the spring storm chasing season, during which they race to position themselves in the paths of oncoming tornadoes minutes before they arrive. Samaras then deploys small pyramid-shaped research probes that take numerous measurements as the tornado passes over.

Because every second matters, Samaras is very particular about vehicle maintenance. Of every 10 storms the team sets its sights on, only two will develop a tornado. And of every 10 tornadoes they encounter, only two are candidates for deploying research probes. A vehicle breakdown can literally prevent TWISTEX

from collecting valuable data and ruin the entire storm chasing season. Since switching to AMSOIL synthetic motor oil, that has not happened.

"We push our research vehicles to well over 250,000 miles, and with AMSOIL in our engine blocks, we have had no engine failures," Samaras said. AMSOIL Signature Series 0W-30 Synthetic Motor Oil operates in their three Chevy Cobalts, while the GMC Sierra deployment truck takes AMSOIL Synthetic Premium API CJ-4 Diesel Oil. "This year, we switched all of the vehicle fluids to AMSOIL synthetic products, including the automatic transmission, differentials and transfer case," Samaras added. The GMC Sierra is filled with Torque-Drive Synthetic Automatic Transmission Fluid and the Chevy Cobalts use Synthetic Fuel Efficient Automatic Transmission Fluid. All four vehicles also use AMSOIL Synthetic Brake Fluid and Synthetic Power Steering Fluid.

This spring, TWISTEX covered ground in Kansas, Southern Illinois, Arkansas and practically every state in between, with periodic returns to their home base in Denver, Colo. to regroup. Samaras hopes analyzing the data collected will translate into a deeper understanding of tornado development, which could allow meteorologists to increase tornado warning lead time and help people evacuate potentially deadly areas sooner.

The four TWISTEX vehicles, all outfitted with sophisticated monitoring instruments on their exteriors, attract a lot of attention, which is why AMSOIL recently agreed to sponsor the team. The vehicles bear AMSOIL decals, and the GMC Sierra deployment truck is an annual feature at the SEMA auto show. To add to their exposure, TWISTEX receives prominent coverage from the Discovery Channel TV show *Storm Chasers*, scheduled to air this fall.



The TWISTEX crew stops along a rural Kansas road to monitor a potential storm. Using AMSOIL synthetic motor oil, the crew logs 35,000 miles in two months while chasing storms throughout the Midwest.



Tim Samaras holds the tornado research probe he designed. Due to its pyramid shape, wind forces it to the ground and keeps it in place as a tornado passes over.