

## What we learned this year...

Posted by Sterling Doc - 18 Oct 2011 20:39

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Some observations from the past year.

1. Ram air works. We saw this some at Nationals with Dave Dirks setup. Based on this, I tested this at Road America, a 4 mile track that puts us in 5th gear 3 times a lap, with speeds up around 120 MPH. To optimize the effect I ran a "duct from a high pressure area (left fog light), directly to the AFM. For the test, only a window screen was used for a filter, and compared it to my baseline cold air intake (an efficient set up that had dyno'd 137HP/141TQ on a previous car). Leaving the filter on or off that set up made no difference on the dyno. The TM data is fascinating. low speed acceleration is no different, but above about 90 MPH, the curves separate fairly dramatically, as the ram air effect starts to show up. It was worth about 4MPH at the end of the straight. Look at the graph below. The green is the ram air. There are 2 laps from my car without ram air (red), and 2 laps from another car with very similar HP, but no ram air. All the "control laps are similar, but the ram air test lap stands out. Conditions were similar throughout.