

2014 American Snowmobiler/ DTR NY Shootout XXV.... *please no cutting and pasting and posting of this info!*

Year 25! That explains the gray whiskers on my chin. I wish I could retrieve Shootout I dyno data from my original 1986 \$3000 pre-288 computer (adding a computer to the SuperFlow dyno added \$5000 in 1986 dollars!), but that's stored on *real floppy* floppy discs that are now unreadable. I checked with Tim Bender, who was our original test rider for Shootout I, and he recalled that the 106 HP Wildcat 650 was fastest on radar that day. I'm hoping that the AmSnow editors Mark Boncher, Ross Halverson and Christie Green find that Shootout I newsprint issue in their archives for the upcoming AmSnow Shootout XXV issue coming out in a few weeks. Subscribe!

Dyno Results—A view from the controls...

This year, we had 120 HP, 150 HP, and Turbo Class sleds to run at the shootout. And once again my pals from Fun Unlimited Polaris in Gouverneur, NY, D&D Powersports Cat and Yamaha in Lowville, NY, and CJ Motorsports SkiDoo in Booneville, NY hauled their stockers 3-5 hours to Batavia NY to let us make sure the stockers were stock. All 2015 stockers were stock. Here are the test results of the three class groups. Fuel flow data and/ or LAMAF1 wideband A/F ratio are shown. Where significant differences from 2014 to 2015 model years were found, comparisons with last year's results are shown. Note that the file names in the graph of the 2015 sleds begin with "AS14..." meaning AmSnow 2014 Shootout. These are the best numbers from each sled's multiple tests with hot pipes and hot engines.

"120 CLASS SLEDS

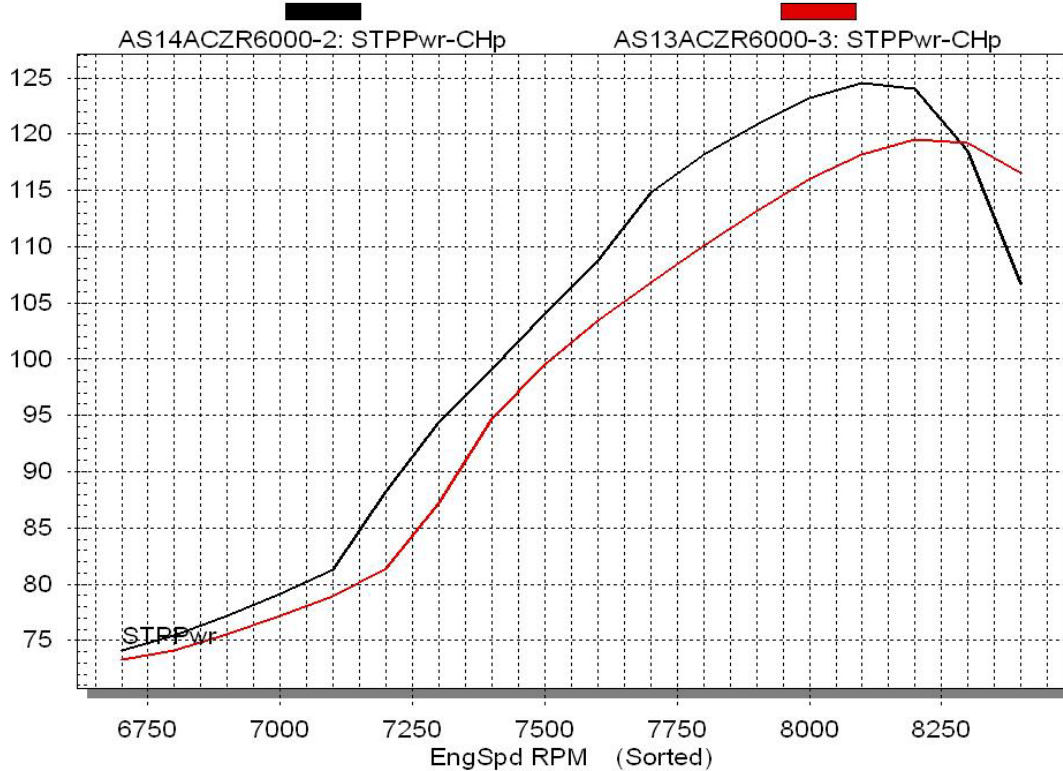
2015 Arctic Cat ZR6000

EngSpd RPM	STPPwr CHp	STPTRq Clb-ft	LamAF1 Ratio	ElpsTm Secnds	AirInT degF
6700	74.1	58.1	14.48	0.96	45.6
6800	75.5	58.3	14.50	1.51	45.6
6900	77.2	58.7	14.53	1.89	45.6
7000	79.1	59.3	14.52	2.22	45.6
7100	81.3	60.1	14.51	2.43	45.6
7200	88.2	64.3	14.47	2.96	45.6
7300	94.4	67.9	14.40	3.35	45.6
7400	99.2	70.4	14.29	3.73	45.6
7500	104.1	72.9	14.17	4.12	45.6
7600	108.8	75.2	14.09	4.49	45.6
7700	114.8	78.3	13.99	5.07	45.6
7800	118.2	79.6	13.93	5.46	45.6
7900	120.8	80.3	13.88	5.85	45.6
8000	123.2	80.9	13.78	6.35	45.7
8100	124.6	80.8	13.73	6.82	45.7
8200	124.0	79.4	13.69	7.26	45.7

8300	118.5	75.0	13.55	7.91	45.8
8400	106.7	66.7	13.31	8.81	46.0

Last year's ZR6000 appeared to have been calibrated much more conservatively, which is typical of first year of a new engine's release (remember the early Firecat F7's were fat and too safe, in the low 130 HP range!). One Cat tech I visited with at the Shootout told me that all 2014 ZR6000's can get their ECUs reflashed to 2015 spec, which looks like it has advanced timing and slightly earlier valve opening plus about 10 peak HP added on top and even more in the midrange!

ZR6000 Compare 2015 to 2014 model year calibration



12/15/14

SuperFlow WinDyn™ V3.2

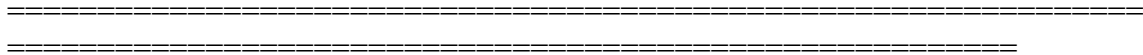
16:26:02

2015 POLARIS AXYS 600

The Axys' chassis has a different pipe configuration which makes a bit more more HP than last year's 600. 10% ethanol fuel was used, with the sled tuned for ethanol fuel. We did one cool engine test with it switched to non-eth mode (leaner) and it made just over 121 HP with .510 lb/ hphr.

EngSpd RPM	STPPwr CHp	STPTRq Clb-ft	BSFA_B lb/hph	FulA_B lbs/hr	AirInT degF	FulPrA psig
5500	55.7	53.2	0.487	26.5	39.1	64.9
5600	56.8	53.2	0.499	27.8	39.1	64.8
5700	58.6	54.0	0.515	29.5	39.1	64.6
5800	60.8	55.0	0.526	31.3	39.1	64.7
5900	62.6	55.7	0.510	31.3	39.1	64.8
6000	64.1	56.1	0.493	30.9	39.1	64.6

6100	65.6	56.5	0.490	31.5	39.1	64.5
6200	67.9	57.5	0.493	32.7	39.2	64.5
6300	69.6	58.0	0.487	33.1	39.2	64.4
6400	71.0	58.2	0.500	34.7	39.2	64.3
6500	72.7	58.8	0.525	37.4	39.2	64.3
6600	75.6	60.1	0.544	40.3	39.2	64.2
6700	79.6	62.4	0.545	42.4	39.2	64.1
6800	82.7	63.8	0.545	44.1	39.2	64.0
6900	85.8	65.3	0.539	45.2	39.2	64.0
7000	89.5	67.2	0.538	47.1	39.2	63.9
7100	92.3	68.2	0.551	49.8	39.2	63.9
7200	95.3	69.5	0.563	52.5	39.2	63.7
7300	98.7	71.0	0.563	54.4	39.2	63.6
7400	102.8	73.0	0.564	56.8	39.2	63.5
7500	108.5	76.0	0.557	59.1	39.2	63.4
7600	111.9	77.3	0.537	58.9	39.3	63.4
7700	114.1	77.8	0.525	58.6	39.3	63.4
7800	116.0	78.1	0.522	59.3	39.3	63.3
7900	117.6	78.2	0.527	60.7	39.3	63.3
8000	118.8	78.0	0.542	63.0	39.3	63.3
8100	119.7	77.6	0.543	63.6	39.3	63.3
8200	119.7	76.7	0.536	62.8	39.3	63.4
8300	118.9	75.3	0.526	61.2	39.3	63.3
8400	117.0	73.1	0.532	60.8	39.3	63.3



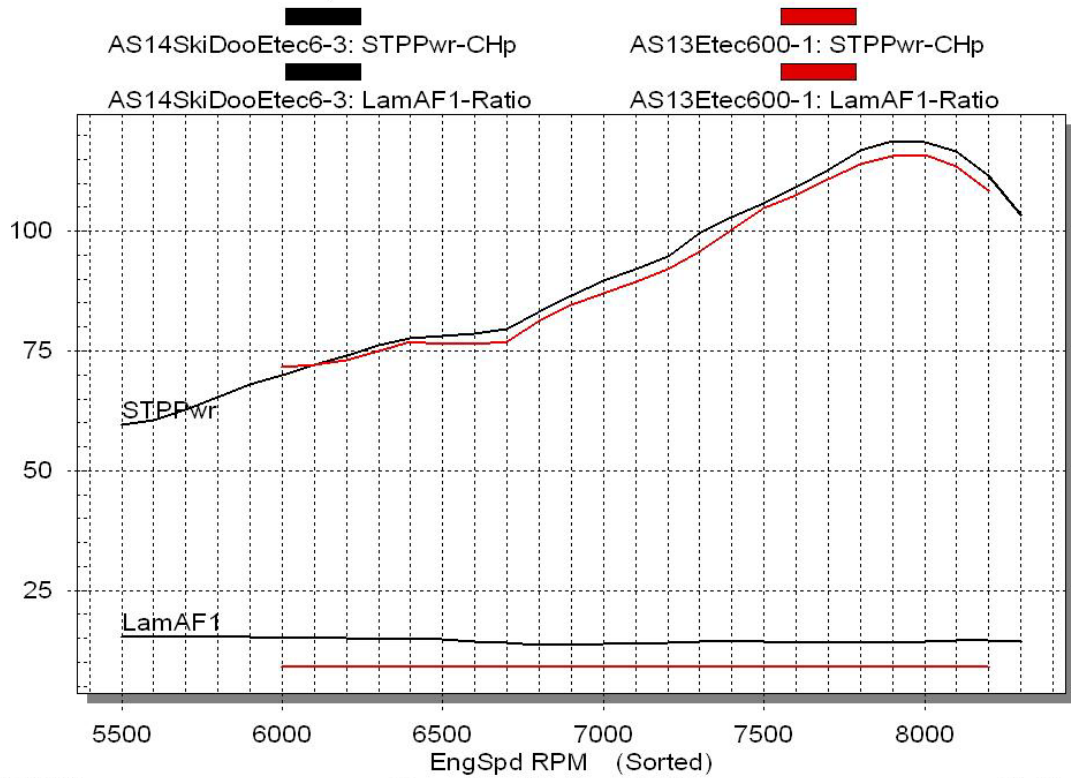
2015 SkiDoo Etec 600

The 2015 was more powerful than last year's Etec 600 from low RPM to peak revs. Probably due to leaner calibration—note the difference in LAMAF1 A/F ratio in the graph! Or, are they just opening the valves all the way creating more airflow with the same fuel flow? Shoulda hooked up the fuel flow and airflow meters!

EngSpd RPM	STPPwr CHp	STPTRq Clb-ft	LamAF1 Ratio	AirInT degF	ElpsTm Secnds	DenAlt Feet
5500	59.7	57.0	15.32	32.7	0.35	-337
5600	60.6	56.8	15.29	32.7	0.81	-336
5700	62.6	57.7	15.24	32.7	1.34	-336
5800	65.3	59.1	15.23	32.6	1.79	-337
5900	67.9	60.4	15.23	32.6	2.24	-338
6000	70.0	61.2	15.16	32.6	2.61	-338
6100	72.0	62.0	15.06	32.6	3.03	-338
6200	74.0	62.7	14.97	32.6	3.42	-339
6300	76.1	63.4	14.88	32.6	3.87	-340
6400	77.8	63.8	14.89	32.6	4.27	-338
6500	78.1	63.1	14.69	32.6	4.83	-336
6600	78.5	62.5	14.34	32.6	5.10	-335

6700	79.5	62.3	14.00	32.6	5.35	-336
6800	83.2	64.3	13.66	32.6	5.89	-335
6900	86.5	65.8	13.65	32.7	6.22	-335
7000	89.6	67.2	13.78	32.7	6.69	-336
7100	92.1	68.1	13.92	32.7	7.07	-336
7200	94.8	69.1	14.05	32.7	7.40	-335
7300	99.6	71.6	14.20	32.7	7.96	-332
7400	102.9	73.0	14.22	32.8	8.31	-329
7500	105.8	74.1	14.21	32.8	8.63	-329
7600	109.1	75.4	14.18	32.8	9.00	-326
7700	112.9	77.0	14.12	32.8	9.38	-325
7800	116.9	78.7	14.05	32.8	9.91	-324
7900	118.9	79.1	14.09	32.8	10.39	-324
8000	118.7	77.9	14.31	32.8	10.90	-324
8100	116.6	75.6	14.50	32.9	11.35	-324
8200	111.5	71.4	14.53	32.9	11.93	-324
8300	103.4	65.4	14.36	32.9	12.68	-323

Compare 2015 and 2014 Etec 600's



12/15/14

SuperFlow WinDyn™ V3.2

18:47:43

2015 Yamaha Viper

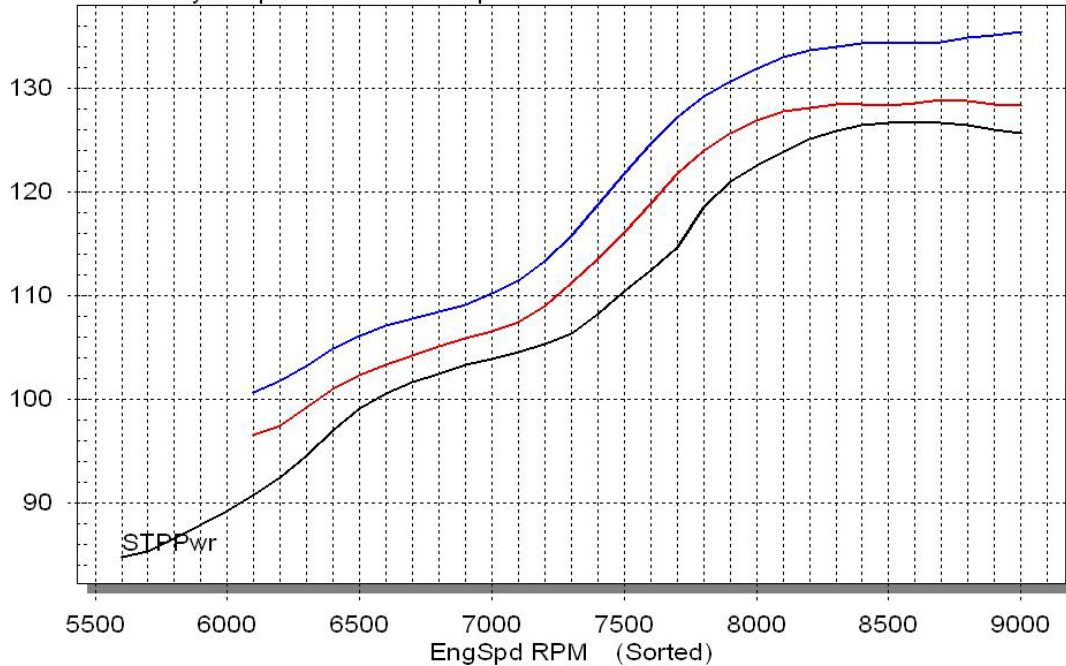
The tuning of this year's Viper seems much milder than the 2014 we tested last December—much closer to the 2014 ZR7000. Same dyno, perfectly calibrated—it's hard to figure why without just swapping ECU's which are buried deeply in the chassis, and

measuring fuel and spark. Was compression reduced this year so they can work reliably with the MPC turbo? The lower HP is probably why it was included in the “120” class this year.

EngSpd RPM	STPPwr CHp	STPTrq Clb-ft	LamAF1 Ratio	AirInT degF	ElpsTm Secnds
5600	84.8	79.5	11.53	45.3	0.88
5700	85.3	78.6	11.53	45.3	1.39
5800	86.5	78.4	11.52	45.3	1.84
5900	87.8	78.2	11.48	45.3	2.27
6000	89.2	78.1	11.45	45.3	2.64
6100	90.8	78.2	11.43	45.3	3.04
6200	92.5	78.3	11.44	45.3	3.38
6300	94.6	78.8	11.49	45.3	3.80
6400	97.0	79.6	11.57	45.3	4.24
6500	99.1	80.1	11.64	45.3	4.70
6600	100.6	80.1	11.68	45.3	5.11
6700	101.6	79.7	11.69	45.3	5.47
6800	102.4	79.1	11.66	45.3	5.89
6900	103.3	78.6	11.62	45.3	6.30
7000	103.9	78.0	11.57	45.2	6.76
7100	104.6	77.4	11.52	45.2	7.16
7200	105.3	76.8	11.49	45.2	7.53
7300	106.4	76.5	11.47	45.2	7.93
7400	108.2	76.8	11.48	45.3	8.32
7500	110.4	77.3	11.51	45.3	8.73
7600	112.4	77.7	11.56	45.3	9.06
7700	114.6	78.2	11.63	45.3	9.35
7800	118.5	79.8	11.79	45.3	9.95
7900	121.0	80.5	11.85	45.3	10.38
8000	122.5	80.4	11.86	45.3	10.76
8100	123.8	80.3	11.85	45.3	11.14
8200	125.0	80.1	11.81	45.4	11.56
8300	125.9	79.7	11.76	45.4	11.97
8400	126.4	79.0	11.71	45.4	12.35
8500	126.6	78.2	11.63	45.5	12.78
8600	126.6	77.3	11.52	45.5	13.27
8700	126.6	76.4	11.44	45.6	13.74
8800	126.4	75.4	11.36	45.6	14.23
8900	126.0	74.4	11.29	45.6	14.69
9000	125.7	73.3	11.24	45.6	15.06

Compare 2015 Viper to 2014 Viper and ZR7000

AS14ViperStock-1: STPPwr-CHp as13acZR7000-3: STPPwr-CHp
 as13yamviper-1: STPPwr-CHp



12/15/14

SuperFlow WinDyn™ V3.2

18:35:22

“150 CLASS” SLEDS

We expected the Polaris 800 and SkiDoo Etec 800 to be low on HP (especially the Polaris) due to their breakin modes (the Cat 800 does not have that feature), we had planned to use factory supplied ECUs with breakin mode removed. CJ got a “permission denied” note from Bomabardier. and Fun Unlimited never received a promised “broken in” ECU from Polaris, but had an 800 HO ECU with them with 280 minutes run time on it. The 280 minute ECU dyno tested about the same as the 10 minute ECU on their shootout sled. So we dyno tested and ran them all at the shootout with their brand new ECUs.

2015 Arctic Cat ZR8000

The Cat 800 was about identical to last year’s. One HP difference can be the result of what’s called “stacking tolerances”—slight differences in production engine and exhaust components. The air last year was 15 degrees colder, which might change calibration some. And the ECU’s can’t compensate for humidity—so if there’s more water in the air, oxygen is displaced and HP suffers.

EngSpd RPM	STPPwr CHp	STPTrq Clb-ft	LamAF1 Ratio	AirInT degF
6000	96.5	84.5	14.21	44.9
6100	98.6	84.9	14.19	44.9

6200	101.8	86.2	14.17	45.0
6300	105.4	87.9	14.17	45.0
6400	108.2	88.8	14.18	45.0
6500	110.0	88.9	14.20	45.0
6600	111.4	88.6	14.24	45.0
6700	112.7	88.4	14.27	45.1
6800	115.1	88.9	14.25	45.1
6900	118.5	90.2	14.10	45.1
7000	121.3	91.0	13.91	45.1
7100	123.5	91.3	13.78	45.1
7200	125.6	91.6	13.71	45.1
7300	129.7	93.3	13.53	45.1
7400	134.1	95.2	13.35	45.1
7500	138.4	96.9	13.14	45.2
7600	142.7	98.6	12.88	45.2
7700	146.6	100.0	12.71	45.2
7800	149.6	100.7	12.61	45.2
7900	152.3	101.2	12.50	45.2
8000	153.7	100.9	12.45	45.2
8100	152.8	99.1	12.40	45.3
8200	148.5	95.1	12.33	45.3
8300	142.2	90.0	12.31	45.3
8400	130.4	81.5	12.52	45.3

2015 SkiDoo Etec 800

Like the Cat 800, the new Etec 800 looks identical to last year's Shootout sled. The breakin mode is in effect, but we're not certain how performance will change once the ECU measures enough fuel having passed through it.

EngSpd RPM	STPPwr CHp	STPTRq Clb-ft	LamAF1 Ratio	AirInT degF	ElpsTm Secnds
5900	83.1	74.0	13.55	36.2	0.41
6000	84.3	73.8	13.57	36.2	0.54
6100	87.2	75.1	13.61	36.2	1.31
6200	89.3	75.7	13.60	36.2	1.41
6300	93.5	78.0	13.51	36.2	1.81
6400	98.3	80.7	13.43	36.2	2.14
6500	102.0	82.4	13.40	36.2	2.31
6600	108.6	86.5	13.37	36.2	2.87
6700	114.2	89.5	13.33	36.2	3.38
6800	118.7	91.6	13.24	36.2	3.77
6900	123.4	93.9	13.06	36.2	4.21
7000	127.5	95.6	12.87	36.2	4.63
7100	130.7	96.7	12.79	36.2	5.01
7200	133.8	97.6	12.82	36.2	5.47
7300	136.5	98.2	12.84	36.2	5.86
7400	139.5	99.0	12.84	36.3	6.23

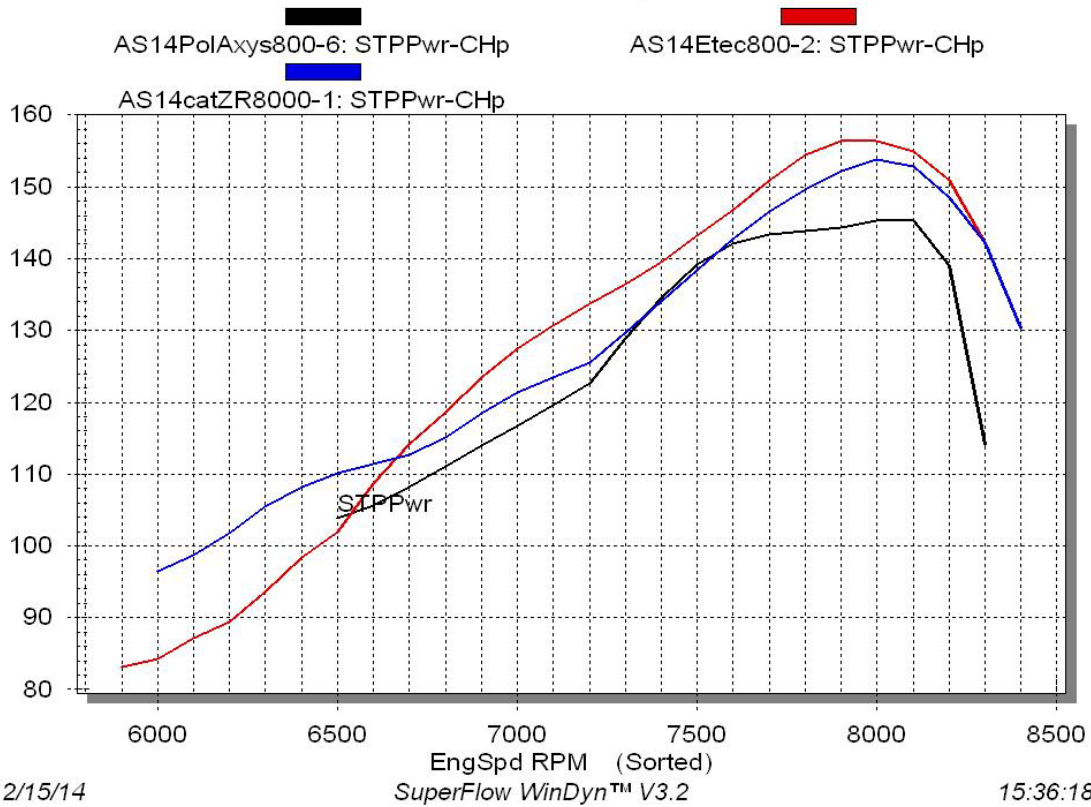
7500	143.2	100.3	12.85	36.3	6.67
7600	146.8	101.4	12.86	36.3	7.01
7700	150.9	102.9	12.78	36.3	7.45
7800	154.4	104.0	12.66	36.3	7.93
7900	156.3	103.9	12.66	36.3	8.29
8000	156.4	102.7	12.81	36.4	8.78
8100	154.9	100.4	12.84	36.4	9.28
8200	150.9	96.7	12.84	36.3	9.78
8300	142.2	90.0	13.00	36.3	10.34

POLARIS AXYS 800HO

As we saw in our first breakin session in November with the new 800HO engine, these tough new rings take time to seat. Here, the zero hour engine is getting extra oil and fuel, and plenty of blowby that will diminish with hours. But will the fuel flow lean out like the ECU loaned to us by Polaris for the November test? The owner of that sled plans to return for a follow-up test after he runs a few hundred miles on the trails.

EngSpd	STPPwr	STPTRq	BSFA_B	FulA_B	AirInT	FulPrA
RPM	CHp	C1b-ft	lb/hph	lbs/hr	degF	psig
6500	103.9	83.9	0.536	54.6	39.3	65.5
6600	105.6	84.1	0.543	56.2	39.3	65.4
6700	108.2	84.8	0.555	58.8	39.3	65.3
6800	111.1	85.8	0.564	61.4	39.3	65.3
6900	113.9	86.7	0.559	62.4	39.3	65.2
7000	116.7	87.5	0.552	63.1	39.3	65.2
7100	119.6	88.5	0.559	65.6	39.3	65.1
7200	122.7	89.5	0.573	68.9	39.3	64.8
7300	128.9	92.7	0.592	74.8	39.4	64.5
7400	134.6	95.5	0.591	78.0	39.4	64.4
7500	139.3	97.5	0.609	83.1	39.4	64.2
7600	142.1	98.2	0.631	87.9	39.4	64.1
7700	143.4	97.8	0.650	91.4	39.4	64.0
7800	143.9	96.9	0.645	91.0	39.4	64.0
7900	144.4	96.0	0.627	88.8	39.4	64.1
8000	145.3	95.4	0.606	86.3	39.5	64.2
8100	145.3	94.2	0.593	84.4	39.5	64.2
8200	139.0	89.1	0.610	83.1	39.5	64.3
8300	114.2	72.3	0.734	82.0	39.5	64.3

2015 "150" class sleds pre-breakin



“TURBO CLASS SLEDS”

Arctic Cat ZR9000

This 2015 was a bit lower on HP than most of the earlier Cat turbos tested here. Glenn Hall reminded me that the ECU measures outside barometer and tweaks boost to compensate. On this day, baro pressure was high so boost may be a bit lower, creating about the same observed HP regardless of baro. But the dyno correction is based on temperature and barometric pressure, and that may be why the HP is lower than the 178-180 HP we typically see. Note that the boost rides gradually, then tails off as revs climb. This is controlled by the ECU—the tiny ball bearing turbo can spool instantly when programmed to do so by Cat ECU tuners. D&D ran this same sled in the Trail Mod pump gas class by adding their “Slingshot Flash” and modified stock muffler with stock clutching. There was not much “gradual” about the boost rise with their reflash—it resulted in 3/10th quicker and nearly 10mph faster than stock in 660 ft.

EngSpd RPM	STPPwr CHp	STPTRq Clb-ft	LamAF1 Ratio	BoostP psig	AirInT degF	ElpsTm Secnds
6000	128.5	112.5	11.93	8.7	44.1	0.61
6100	130.4	112.3	11.90	8.7	44.1	1.13
6200	131.8	111.7	11.83	8.8	44.1	1.62
6300	133.5	111.3	11.77	8.8	44.1	2.01
6400	135.3	111.1	11.73	8.8	44.1	2.41
6500	137.8	111.3	11.73	8.8	44.0	2.88

6600	140.1	111.5	11.75	8.9	44.0	3.23
6700	142.4	111.7	11.77	9.1	44.0	3.63
6800	145.2	112.1	11.75	9.4	44.0	4.03
6900	148.9	113.3	11.67	9.9	44.0	4.43
7000	153.5	115.2	11.60	10.5	44.0	4.78
7100	157.4	116.4	11.57	10.7	44.0	4.97
7200	165.8	121.0	11.54	11.3	44.0	5.61
7300	170.0	122.3	11.54	11.3	44.0	5.80
7400	173.3	123.0	11.52	11.3	44.0	6.39
7500	173.5	121.5	11.45	11.4	44.0	6.86
7600	173.5	119.9	11.33	11.2	44.0	7.34
7700	174.1	118.7	11.27	11.0	44.0	7.72
7800	172.9	116.4	11.18	10.7	44.0	8.18
7900	170.8	113.5	11.10	10.3	44.0	8.61
8000	167.9	110.3	11.03	9.9	44.0	9.06
8100	164.8	106.9	10.95	9.4	44.0	9.43

YAMAHA VIPER W/ MPC TURBO

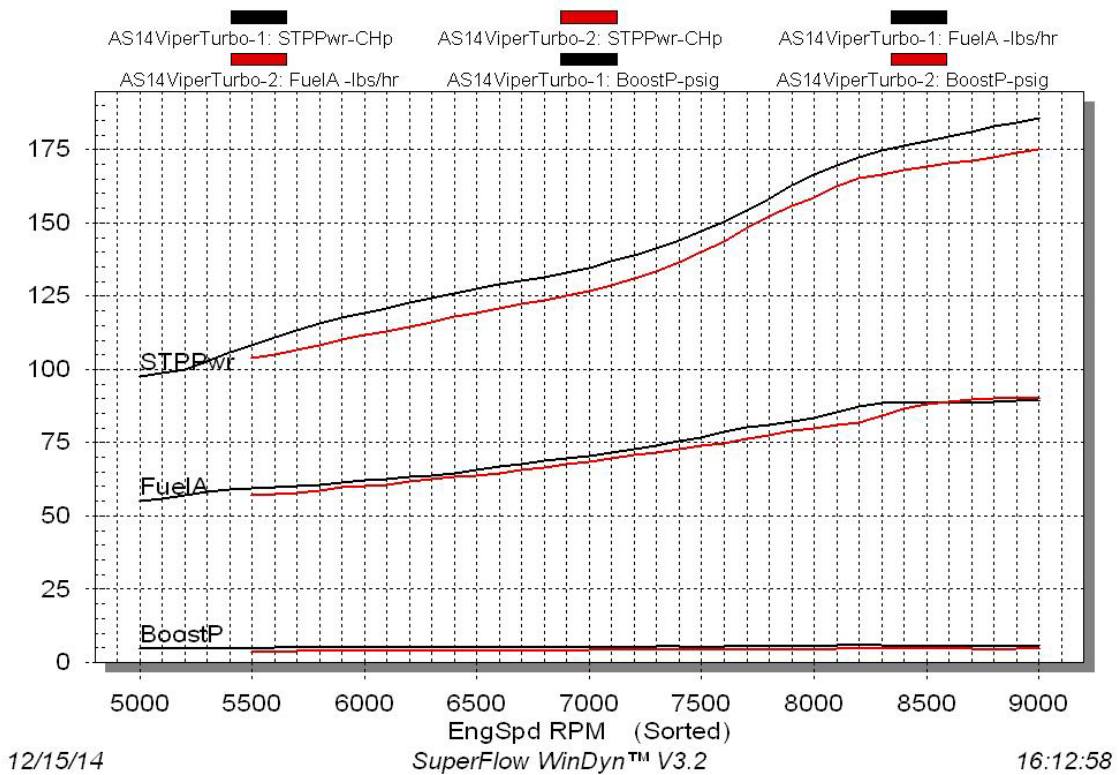
This is a non-intercooled base turbo kit designed to run on pump gas at sea level with 4.5psi boost. It has a plain bearing turbo which explains the gradual rise in boost pressure as revs climb. D&D had installed the kit and planned to fine-tune the boost control rod per instructions. Our first dyno test resulted in too much boost (5.8psi) and not quite enough fuel at peak revs. So Glen Hall tweaked the boost control rod and boost dropped down to 4.7psi—close enough! The 4.7psi dyno test resulted in the same peak fuel flow as the 5.8psi test—suggesting that the injectors are wide open delivering plenty of fuel for 4.5psi, but perhaps not enough for higher boost levels. Higher Viper fuel pressure is necessary if this system (or any other boost system) is to be run at higher boost levels on race gas.

EngSpd RPM	STPPwr CHp	STPTRq Clb-ft	FuelA lbs/hr	BSFA lb/hph	LamAF1 Ratio	BoostP psig	FuIPrA psig	ElpsTm Secnds
5500	104.0	99.4	57.2	0.567	10.86	3.6	45.2	0.01
5600	105.2	98.7	57.4	0.563	10.85	3.7	45.2	0.94
5700	106.5	98.1	57.8	0.560	10.86	3.7	45.2	1.38
5800	108.2	98.0	58.7	0.560	10.88	3.7	45.2	1.83
5900	110.2	98.1	59.7	0.559	10.89	3.8	45.2	2.28
6000	111.7	97.8	60.1	0.555	10.88	3.8	45.2	2.62
6100	113.0	97.3	60.7	0.554	10.86	3.8	45.1	2.98
6200	114.5	97.0	61.7	0.557	10.85	3.9	45.1	3.40
6300	116.2	96.9	62.6	0.556	10.85	4.0	45.1	3.81
6400	117.9	96.7	63.2	0.553	10.84	3.9	45.1	4.26
6500	119.3	96.4	63.7	0.551	10.83	4.0	45.1	4.61
6600	120.6	96.0	64.7	0.554	10.82	4.0	45.1	5.05
6700	122.2	95.8	65.8	0.556	10.81	4.0	45.0	5.45
6800	123.7	95.6	66.6	0.556	10.79	4.1	44.9	5.88
6900	125.1	95.2	67.5	0.557	10.78	4.1	44.9	6.28
7000	126.6	95.0	68.6	0.560	10.79	4.1	44.9	6.64

7100	128.7	95.2	69.8	0.560	10.80	4.1	44.9	7.05
7200	131.1	95.6	70.7	0.558	10.81	4.2	44.8	7.45
7300	133.6	96.1	71.6	0.554	10.84	4.2	44.8	7.82
7400	136.6	97.0	72.7	0.550	10.90	4.3	44.7	8.23
7500	140.1	98.1	73.9	0.544	10.97	4.4	44.7	8.62
7600	143.8	99.3	74.9	0.538	11.03	4.4	44.6	8.98
7700	148.3	101.1	76.3	0.531	11.12	4.5	44.6	9.44
7800	152.3	102.6	77.6	0.527	11.18	4.5	44.6	9.84
7900	155.8	103.6	79.0	0.524	11.24	4.5	44.5	10.24
8000	158.7	104.2	79.9	0.520	11.29	4.5	44.5	10.57
8100	162.7	105.5	81.1	0.515	11.33	4.6	44.4	11.19
8200	165.2	105.8	82.0	0.513	11.34	4.6	44.4	11.53
8300	166.7	105.5	84.1	0.521	11.31	4.6	44.3	11.90
8400	167.9	105.0	86.6	0.533	11.20	4.6	44.3	12.31
8500	169.2	104.5	88.2	0.539	11.08	4.6	44.2	12.73
8600	170.3	104.0	89.0	0.540	11.06	4.6	44.2	13.10
8700	171.1	103.3	89.6	0.541	11.09	4.6	44.2	13.55
8800	172.4	102.9	90.1	0.540	11.14	4.5	44.2	13.94
8900	173.9	102.6	90.5	0.538	11.19	4.6	44.2	14.28
9000	175.3	102.3	89.9	0.530	11.27	4.7	44.2	14.70

2015 Yamaha Viper MPC Turbo

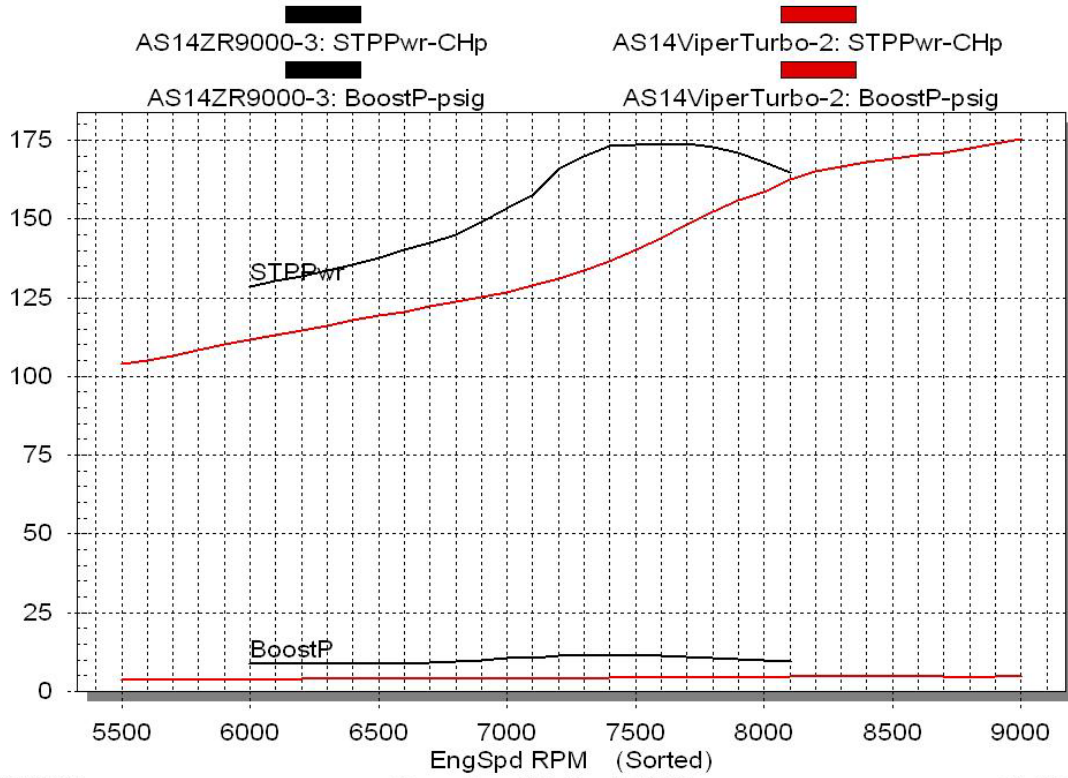
Black 5.8 psi peak boost, Red 4.7 psi peak boost



note the MPC system's nice craftsmanship and super-quiet turbo muffler. There's an extra O2 sensor bung there for an A/F ratio gauge.



2015 "Turbo Class" sleds



Here's the Fun Unlimited guys pretending to have fun after a long day of travel and thrashing. Billy, Ryan and Jeff.



CJ Motorsports crew Scuba (where did that name come from?) and Mark, pleased that the Etec 800 had top HP in the 150 class.



I forgot to take a pic of the D&D Powersports guys who did an all day and night Shootout dyno thrash with two brands. But here's a photo of D&D's boost maven Glenn Hall and mad Canadian Steve Zatorski who is going home 62 hours to Alberta with the D&D built sled that won the Shootout XXV Lake Mod class. Steve stopped by on his way home on Saturday after the Shootout to watch Glen tweak this insane 10+HP/ cubic inch Craig Campton turbo engine on the DTR dyno.



Shootout XXV Trail Mod Awards 12/12/14 660 FT

Pump Gas All Motor- ET 6.658 D&D Riot kitted Cat ZR8000

Pump Gas All Motor- MPH 99.12 Speedwerx stock ZR8000 Cat w/ SW exhaust,
Boyesen Reeds

Pump Gas All Motor- Best Bang for the Buck- D&D Riot Kitted Cat ZR8000

Pump Gas w/ boost – ET 6.955 D&D Slingshot Flash & mod muffler on the stock
ZR9000 (3/10 quicker than stock)

Pump Gas w/ boost- MPH 101.81 D&D “ “ “ “ “ “ “ “ “ “ “
(nearly 10 mph faster than stock)

Pump Gas w/ boost- Best Bang for the Buck- D&D “ “ “ “ “ “ “ “ “ “

Race Gas w/ boost- ET 6.017 BMP stock turbo ZR9000 with large intercooler, race
muffler & lots of boost

Race Gas w/ boost- MPH 113.9 BMP “ “ “ “ “ “ “ “ “ “ “ “ “ “
“ “ “ “

Race Gas w/ boost- Best Bang for the Buck-BMP “ “ “ “ “ “ “ “ “ “ “ “
“ “ “ “

Best Engineered Award- D&D Viper Improver fitted with stock Cat turbo

Lake Racer Award 500 FT

Unlimited Lakeracer Class- ET 4.384 - D&D/ Kevin Zatorski ZR9000

Unlimited Lakeracer Class- MPH 131.20 “ “ “ “ “ “
