

Data of Figure 3 is cited from AirfoilTools.com. Available online: <http://airfoiltools.com/airfoil/details?airfoil=n0012-il>.(Reference 30)

$Re=50,000$		$Re=100,000$		$Re=200,000$	
$\alpha (^{\circ})$	$Cl$	$\alpha (^{\circ})$	$Cl$	$\alpha (^{\circ})$	$Cl$
-10	-0.8195	-12.75	-0.5002	-14	-0.9628
-9.75	-0.8355	-12.5	-0.5184	-13.75	-0.9895
-9.5	-0.8519	-12.25	-0.7724	-13.5	-1.0148
-9.25	-0.8654	-12	-0.7713	-13.25	-1.0382
-9	-0.8743	-11.75	-0.7896	-13	-1.0594
-8.75	-0.8723	-11.5	-0.8377	-12.75	-1.0784
-8.5	-0.8537	-11.25	-0.9695	-12.5	-1.0955
-8.25	-0.8499	-11	-0.9842	-12	-1.1063
-8	-0.8371	-10.75	-0.9915	-11.75	-1.0964
-7.75	-0.8225	-10.5	-0.9911	-11.5	-1.0857
-7.5	-0.8044	-10.25	-0.9765	-11.25	-1.077
-7.25	-0.7876	-10	-0.9659	-11	-1.0679
-7	-0.7691	-9.75	-0.9597	-10.75	-1.0569
-6.75	-0.7491	-9.5	-0.9523	-10.5	-1.0443
-6.5	-0.7296	-9.25	-0.943	-10.25	-1.0249
-6.25	-0.7105	-9	-0.9245	-10	-1.0066
-6	-0.6919	-8.75	-0.9056	-9.75	-0.9881
-5.75	-0.673	-8.5	-0.8883	-9.5	-0.9692
-5.5	-0.6548	-8.25	-0.8673	-9.25	-0.9491
-5.25	-0.6369	-8	-0.8471	-9	-0.929
-5	-0.6195	-7.75	-0.8256	-8.75	-0.9087
-4.75	-0.6002	-7.5	-0.805	-8.5	-0.889
-4.5	-0.5816	-7.25	-0.7836	-8.25	-0.8689
-4.25	-0.5628	-7	-0.7631	-8	-0.8481
-4	-0.5431	-6.75	-0.743	-7.75	-0.83
-3.75	-0.5227	-6.5	-0.7235	-7.5	-0.8096
-3.5	-0.503	-6.25	-0.7047	-7.25	-0.7919
-3.25	-0.4793	-6	-0.6862	-7	-0.7726
-3	-0.4493	-5.75	-0.6682	-6.75	-0.7535
-2.75	-0.4085	-5.5	-0.6504	-6.5	-0.7351
-2.5	-0.35	-5.25	-0.6324	-6.25	-0.7162
-2.25	-0.2694	-5	-0.6141	-6	-0.6971
-2	-0.1829	-4.75	-0.5953	-5.75	-0.6785
-1.75	-0.1037	-4.5	-0.5761	-5.5	-0.6592
-1.5	-0.0223	-4.25	-0.5565	-5.25	-0.6396
-1.25	0.0255	-4	-0.5366	-5	-0.6195
-1	0.0285	-3.75	-0.5162	-4.75	-0.599
-0.75	0.0275	-3.5	-0.4957	-4.5	-0.5783
-0.5	0.0225	-3.25	-0.4751	-4.25	-0.5572
-0.25	0.0128	-3	-0.4545	-4	-0.5358
0	0	-2.75	-0.434	-3.75	-0.5139
0.25	-0.0128	-2.5	-0.4137	-3.5	-0.4915
0.5	-0.0225	-2.25	-0.3935	-3.25	-0.4689
0.75	-0.0275	-2	-0.3737	-3	-0.4463
1	-0.0285	-1.75	-0.3539	-2.75	-0.4236
1.25	-0.0255	-1.5	-0.332	-2.5	-0.3942
1.5	0.0223	-1.25	-0.3021	-2.25	-0.3513
1.75	0.1036	-1	-0.2578	-2	-0.3085
2	0.1829	-0.75	-0.2041	-1.75	-0.2684
2.25	0.2694	-0.5	-0.1345	-1.5	-0.2255
2.5	0.3499	-0.25	-0.0651	-1.25	-0.1861
2.75	0.4085	0	0	-1	-0.1454
3	0.4492	0.25	0.0651	-0.75	-0.1048

3.25	0.4792	0.5	0.1344	-0.5	-0.07
3.5	0.503	0.75	0.204	-0.25	-0.035
3.75	0.5227	1	0.2578	0	0
4	0.5431	1.25	0.302	0.25	0.035
4.25	0.5627	1.5	0.332	0.5	0.07
4.5	0.5816	1.75	0.3538	0.75	0.1048
4.75	0.6001	2	0.3737	1	0.1454
5	0.6194	2.25	0.3934	1.25	0.1861
5.25	0.6368	2.5	0.4136	1.5	0.2255
5.5	0.6547	2.75	0.4339	1.75	0.2684
5.75	0.673	3	0.4544	2	0.3085
6	0.6919	3.25	0.475	2.25	0.3513
6.25	0.7105	3.5	0.4957	2.5	0.3942
6.5	0.7295	3.75	0.5162	2.75	0.4235
6.75	0.7491	4	0.5365	3	0.4462
7	0.7691	4.25	0.5565	3.25	0.4689
7.25	0.7876	4.5	0.5761	3.5	0.4915
7.5	0.8044	4.75	0.5953	3.75	0.5138
7.75	0.8226	5	0.6141	4	0.5357
8	0.8372	5.25	0.6323	4.25	0.5571
8.25	0.8499	5.5	0.6503	4.5	0.5782
8.5	0.8538	5.75	0.6681	4.75	0.599
8.75	0.8727	6	0.6862	5	0.6195
9	0.8743	6.25	0.7046	5.25	0.6395
9.25	0.8655	6.5	0.7235	5.5	0.6591
9.5	0.852	6.75	0.743	5.75	0.6784
9.75	0.8357	7	0.7631	6	0.6971
10	0.8198	7.25	0.7836	6.25	0.7161
10.25	0.6499	7.5	0.805	6.5	0.7351
10.5	0.6743	7.75	0.8256	6.75	0.7535
		8	0.8471	7	0.7725
		8.25	0.8673	7.25	0.7919
		8.5	0.8884	7.5	0.8096
		8.75	0.9057	7.75	0.83
		9	0.9246	8	0.8481
		9.25	0.9431	8.25	0.869
		9.5	0.9524	8.5	0.889
		9.75	0.9598	8.75	0.9087
		10	0.9661	9	0.9291
		10.25	0.9768	9.25	0.9492
		10.5	0.9913	9.5	0.9693
		10.75	0.9917	9.75	0.9882
		11	0.9845	10	1.0067
		11.25	0.9697	10.25	1.0251
		11.5	0.8378	10.5	1.0445
		11.75	0.7898	10.75	1.0571
				11	1.0681
				11.25	1.0773
				11.5	1.086
				11.75	1.0969
				12	1.1068
				12.25	1.1101
				12.5	1.0959
				12.75	1.079
				13	1.0599
				13.25	1.0385

				13.5	1.015
				13.75	0.9898
				14	0.9632

Data of Figure 10a

Experiment 1		Experiment 2		Experiment 3		Experiment 4		Experiment 5	
Speed(r/min)	Thrust(N)	Speed(r/min)	Thrust(N)	Speed(r/min)	Thrust(N)	Speed(r/min)	Thrust(N)	Speed(r/min)	Thrust(N)
1350.648	-0.12056	1697.19	-0.62494	1142.862	-0.50893	1220.28	-0.55667	1607.148	-0.45287
1708.158	-0.09752	1926.66	-0.622	2110.17	-0.45746	1794.186	-0.4895	1912.266	-0.38571
2085.69	-0.09311	2221.326	-0.59749	2338.776	-0.26381	2367.87	-0.24046	2268.276	-0.31953
2267.352	-0.09164	2420.676	-0.58964	2727.186	-0.18832	2736.714	-0.16742	2468.466	-0.15138
2412.192	-0.09213	2568.87	-0.55827	2894.37	-0.11674	2927.67	-0.08359	2604.618	-0.07637
2533.632	-0.05291	2659.374	-0.5264	3021.762	-0.09566	3021.378	-0.06103	2707.332	-0.02391
2649.174	-0.06223	2746.41	-0.51169	3095.976	-0.02507	3058.014	-0.01838	2818.44	0.01776
2715.906	-0.05242	2786.94	-0.46953	3147.642	0.03621	3108.444	0.02231	2919.921	0.04423
2765.64	-0.0485	2828.634	-0.45385	3200.88	0.04896	3134.166	0.03603	3021.402	0.05502
2796.432	-0.05046	2850.078	-0.45041	3228.318	0.072	3147.228	0.06103	3070.482	0.10747
2827.812	-0.0436	2871.804	-0.39551	3284.544	0.10289	3173.664	0.07476	3160.392	0.13689
2838.516	-0.03722	2882.64	-0.40041	3387.57	0.15681	3214.14	0.07917	3228.006	0.15699
2881.764	-0.02987	2916.432	-0.36315	3426.42	0.17691	3214.128	0.07868	3255.732	0.1462
2892.858	-0.04703	2950.224	-0.35923	3465.27	0.21956	3200.598	0.09241	3284.07	0.17561
2892.87	-0.03232	3008.922	-0.3656	3497.448	0.28084	3200.562	0.09927	3342.138	0.24425
2926.482	-0.03085	3033.174	-0.36315	3513.666	0.3083	3241.734	0.08702	3417.798	0.29229
2915.256	-0.01761	3057.78	-0.3509	3513.684	0.33281	3255.708	0.08996	3464.922	0.33985
2926.518	-0.01516	3095.292	-0.32638	3546.6	0.36958	3255.726	0.09241	3480.792	0.39377
2915.238	-0.02055	3160.092	-0.31462	3649.41	0.41566	3269.784	0.09437	3513.144	0.44083
2903.964	-0.00536	3200.316	-0.31903	3667.116	0.47792	3284.064	0.12084	3546.24	0.49819
2909.58	-0.01222	3227.676	-0.3004	3703.062	0.46468	3298.404	0.12673	3579.804	0.54329
2915.196	-0.00487	3241.386	-0.30628	3721.308	0.49557	3342.234	0.1532	3631.458	0.57075
2960.952	0.0118	3298.08	-0.27785	3796.164	0.55538	3387.18	0.21301	3649.002	0.59771
2960.964	-0.00683	3312.57	-0.27099	3934.422	0.68137	3448.998	0.26448	3684.696	0.59624
2996.148	0.01866	3372.804	-0.21706	4061.346	0.88727	3480.792	0.33361	3720.972	0.61634
3032.316	0.00641	3433.038	-0.19108	4243.926	1.13239	3513.162	0.3694	3757.974	0.66487
3076.152	0.00102	3464.574	-0.1298	4366.59	1.31378	3513.114	0.40469	3853.812	0.76832
3119.988	0.05102	3512.898	-0.11411	4443.768	1.34172	3529.656	0.40469	4017.72	0.99971
3185.838	0.08436	3545.838	-0.07097	4550.778	1.39712	3529.536	0.43509	4219.752	1.24973
3212.916	0.08926	3545.922	-0.05185	4578.264	1.53831	3596.772	0.43019	4316.166	1.36494
3240.564	0.07651	3579.456	0.00257	4606.29	1.69813	3613.95	0.47284	4391.604	1.52083
3240.504	0.09269	3613.716	0.01629	4678.701	1.82559	3631.326	0.47627	4469.562	1.53799
3254.49	0.09318	3684.252	0.01727	4751.112	1.89962	3648.918	0.49931	4551.762	1.67232
3268.578	0.09465	3702.282	0.0212	4842.546	1.95991	3684.456	0.48705	4633.962	1.87037

3297.234	0.08828	3720.624	0.03002	4873.632	1.95158	3721.125	0.49833	4691.478	1.97627
3355.776	0.09367	3739.008	0.03933	4905.39	2.00257	3757.794	0.54392	4750.446	2.01696
3416.58	0.09122	3795.408	0.0712	4905.228	2.04816	3933.978	0.68609	4750.518	2.02725
3495.66	0.12112	3885.225	0.16533	4937.394	2.08787	3996.438	0.84934	4750.422	2.04882
3561.606	0.1623	3975.042	0.31583	4937.412	2.10503	4150.194	1.20673	4780.71	2.14001
3595.59	0.19417	4038.774	0.46486	4970.04	2.19033	4340.97	1.43763	4810.956	2.14393
3630.144	0.2079	4104.732	0.53987	5036.202	2.28936	4417.212	1.54597	4841.772	2.1704
3665.34	0.23045	4127.1	0.61635	5035.98	2.3727	4443.018	1.60725	4904.976	2.2008
3701.412	0.23976	4242.984	0.86049	5069.742	2.49526	4442.958	1.62	4904.664	2.15864
3756.576	0.2579	4391.034	1.00511	5138.862	2.59821	4443.06	1.64255	4937.1	2.20178
3832.926	0.30791	4522.758	1.06933	5174.142	2.66733	4495.95	1.63078	4936.896	2.28757
3892.062	0.45106	4662.246	1.29533	5209.908	2.71685	4550.202	1.6955	4936.896	2.36258
3995.166	0.61284	4720.53	1.41054	5246.232	2.90069	4605.516	1.82296	4969.284	2.41601
4081.494	0.8609	4780.206	1.43358	5282.49	3.41446	4633.854	1.91463	5002.374	2.44788
4241.946	1.14916	4810.686	1.45515	5396.112	3.92136	4662.666	1.96611	5002.17	2.48514
4339.518	1.2928	4872.906	1.48799	5554.494	4.29591	4691.478	2.01758	5002.392	2.4871
4441.758	1.43105	4872.708	1.49927	5637.552	4.6028	4691.442	2.06563	5002.242	2.50916
4494.534	1.46585	4904.382	1.50515	5680.02	4.47583	4691.442	2.04209	5002.182	2.58809
4521.24	1.4634	4904.364	1.55663	5679.762	4.92636	4691.322	2.0416	5069.346	2.68172
4548.546	1.4938	4936.548	1.60516	5810.868	5.32247	4691.496	2.05533	5138.586	2.91851
4604.208	1.54037	4904.202	1.65517	5947.8	5.64211	4691.304	2.097	5173.566	3.01607
4632.438	1.62763	4936.482	1.69929	6043.65	5.77202	4780.518	2.14063	5173.5	3.15333
4660.962	1.69921	4936.47	1.73704	6092.412	5.77937	4810.908	2.18966	5209.29	3.25187
4689.984	1.74921	4968.87	1.80714	6092.424	5.748	4841.766	2.20878	5209.362	3.27687
4719.294	1.7747	4968.936	1.81253	6092.346	5.75094	4904.832	2.23868	5245.554	3.75339
4719.366	1.74872	5001.624	1.86107	6092.262	5.77447	4904.688	2.30143	5395.236	4.15195
4719.234	1.76343	5035.224	1.93509	6092.508	5.81516	4904.76	2.28329	5473.284	4.37354
4809.45	1.73745	5069.1	1.98265	6092.37	5.83379	4904.526	2.34261	5513.46	4.50492
4840.35	1.78157	5103.114	2.12187	6043.038	5.88282	4936.746	2.44997	5513.244	4.57454
4871.568	1.835	5173.218	2.20374	6043.062	5.85438	4969.008	2.53773	5637.234	4.8726
4935.15	1.95609	5173.164	2.22973	6043.002	5.84065	4968.936	2.5745	5810.742	5.531
5034.066	2.00904	5173.11	2.27287	6043.182	5.78869	5035.398	2.6093	5901.06	5.83151
5000.55	2.01884	5245.068	2.34837	6092.358	5.75339	5035.296	2.67843	5947.506	5.90652
5034.072	2.03992	5281.848	2.65771	6092.136	5.82938	5103.57	2.76961	5995.122	5.97221
5101.986	2.13111	5356.56	3.18864	6091.728	5.97988	5138.298	2.97992	5994.846	5.99967
5171.94	2.27034	5433.492	3.3112	6141.474	6.12695	5245.212	3.79323	5994.654	6.02369
5207.382	2.42819	5433.72	3.35238	6141.372	6.01812	5395.17	4.3021	6043.05	6.05212

5317.662	2.68949	5433.642	3.36463	6141.234	5.94802	5433.798	4.51732	6042.99	6.10703
5432.28	2.95226	5473.116	3.39993	6192.042	6.21324	5513.346	4.61634	6042.93	6.10556
5471.526	3.37338	5513.076	3.67103	6191.82	6.31766	5513.154	4.69233	6042.648	6.14576
5552.286	3.83763	5553.222	4.01175	6294.888	6.3505	5512.812	5.17179	6091.74	6.16733
5593.194	4.02834	5721.666	4.26422	6347.946	6.50934	5721.786	5.85861	6042.42	6.15507
5593.572	4.09403	5809.428	4.35688	6347.502	6.76525	5947.152	6.34395	6042.684	6.19282
5634.996	4.60045	5854.572	4.5417	6402.156	6.1549	6042.696	6.46896	6042.342	6.24037
5764.008	4.82008	5900.526	4.70789	6347.382	6.59268	6042.354	6.54936	6042.294	6.28695
5853.522	5.1049	5947.092	4.82212	6347.166	6.65151	6042.342	6.56848	6091.566	6.42617
5945.88	5.43435	5946.516	4.88487	6401.472	6.15049	6091.494	6.56897	6191.454	6.5252
5992.488	5.60789	6042.456	4.94958	6400.986	6.48336	6042.03	6.54789	6294.558	6.91887
6040.884	5.68339	6042.516	4.95301	6456.402	6.59955	6042.09	6.50769	6293.982	6.72228
6040.788	5.70643	6042.078	5.02459	6512.934	6.40835	6042.018	6.50818	6347.622	7.26596
6089.85	5.72849	6091.134	5.09371	6511.362	6.58925	6091.296	6.50818	6347.232	6.81543
6040.518	5.69809	6091.11	5.16675	6745.938	6.82457	6042.198	6.52975	6347.484	7.3189
6040.518	5.68976	6091.146	5.17362	6744.486	6.47552	6091.332	6.57387	6347.298	6.90612
6089.922	5.67407	6090.606	5.21186	6806.118	6.83682	6091.026	6.62878	6346.626	6.97622
6089.892	5.64956	6140.292	5.2148	6805.944	7.4305	6090.96	6.80085	6400.602	7.2037
6089.862	5.68584	6242.16	5.61091	6805.206	6.97017	6191.424	6.78762	6511.32	6.98946
6089.838	5.70839	6241.692	5.53394	6867.048	7.63542	6190.674	6.87145	6626.16	7.08457
6089.502	5.83732	6347.256	5.79622	6930.888	7.60503	6216.318	7.19207	6624.372	7.00711
6089.208	5.83536	6346.182	5.50796	6929.892	8.04772	6241.962	6.88125	6744.786	6.79484
6139.566	5.89027	6400.572	5.89182	6930.036	7.65356	6241.626	7.28815	6744.408	6.83356
6138.984	5.91135	6400.314	5.70161	6995.418	8.42765	6347.31	7.04205	6683.556	7.17477
6241.278	6.20893	6456.138	5.40207	6994.44	8.07027	6400.698	7.57053	6683.85	7.34636
6240.822	6.30501	6455.364	5.60356	6994.542	7.98349	6455.61	7.20432	6684	7.28409
6240.222	6.17853	6567.87	5.72808	6994.212	8.49138	6455.4	7.00087	6683.184	7.12967
6240.156	6.42806	6567.324	5.76877	6994.116	8.09968	6511.548	7.02882	6742.86	7.07819
6292.752	6.17853	6684.27	5.8428	6994.26	8.00457	6567.354	7.22932	6865.914	8.5293
6292.446	6.48346	6743.784	6.46344	7060.602	8.66493	6625.47	7.36316	6928.902	8.21751
6239.886	6.23197	6867.096	6.90956	7058.826	8.88259	6685.014	7.55092	6928.164	8.66216
6292.146	6.71485	6993.708	7.83562	7126.38	9.03457	6683.166	7.77202	6993.642	8.77933
6399.834	6.56043	7058.526	7.75963	7125.348	9.19194	6742.692	7.52935	6993.642	8.31948
6454.722	6.66142	7058.61	7.69345	7194.402	9.28704	6865.962	8.33531	6993.216	8.77393
6398.856	6.82957	7058.742	7.97044	7264.872	9.46206	6864.894	8.48091	6993.498	8.80286
6398.922	6.71632	7058.544	8.01456	7193.142	9.55667	6994.866	8.71573	6993.282	8.40282
6398.892	7.01831	7058.19	7.86111	7263.498	9.71111	6928.518	8.30442	6993.564	8.86169

6398.622	7.32324	7057.908	7.78219	7262.322	9.83317	6994.086	8.92555	7058.874	9.29114
6454.29	7.11587	7057.86	7.92534	7406.988	10.30037	6928.548	8.24314	7125.414	9.62205
6453.276	6.90114	7058.472	8.11653	7405.524	10.45479	6928.488	8.91526	7193.04	9.93188
6452.904	7.02076	7125.366	8.32145	7405.068	10.19742	6993.396	8.83682	7262.97	9.98287
6623.19	7.16342	7193.988	8.50333	7404.72	10.57539	6993.156	8.69612	7263.06	10.01032
6682.17	7.36638	7193.04	8.69452	7479	10.51117	7059.822	9.27313	7263.168	10.02061
6681.204	7.5213	7263.396	8.97151	7554.258	10.94307	6992.16	9.10302	7262.376	10.20053
6741.738	7.38795	7333.728	9.12691	7631.646	10.81904	7059.354	8.8829	7261.548	10.23387
6866.028	7.64239	7261.284	9.26173	7630.5	11.22643	7058.544	9.27117	7261.71	10.32996
6927.576	8.67287	7260.828	9.4642	7708.038	11.51763	7058.256	9.62758	7334.262	10.44957
6991.686	8.71013	7406.22	9.57156	7706.556	11.5995	7125.792	9.68396	7260.882	10.42457
6990.66	8.7317	7404.738	9.53381	7706.814	11.58823	7194.708	9.7722	7332.666	10.41036
7057.746	9.05232	7404.192	9.91718	7788.99	11.61225	7194.21	9.90996	7332.348	10.63881
6990.348	9.05183	7478.874	9.78678	7787.796	11.65441	7123.47	10.01732	7405.65	10.80255
7057.08	8.99055	7403.916	9.76815	7787.598	11.65931	7192.212	10.27715	7404.666	10.68097
7056.198	9.05085	7477.956	10.27555	7788.018	11.76668	7263.006	10.43549	7478.91	11.06237
7055.85	9.2489	7630.848	10.53537	7786.482	11.84217	7261.776	10.56688	7478.148	11.12267
7123.626	9.52736	7628.64	10.64519	7869.33	11.8358	7333.944	10.57325	7552.716	11.684
7191.246	9.81611	7706.814	10.83099	7869.696	11.83776	7333.26	10.74876	7628.796	11.63694
7190.364	9.89259	7706.634	10.97022	7870.296	11.83776	7332.702	11.03408	7628.484	11.57173
7260.738	10.01221	7787.574	11.08542	7869.246	11.84217	7331.646	11.07281	7628.97	11.74626
7331.592	10.23576	7786.866	11.16778	7869.018	11.91081	7403.73	11.21105	7628.388	11.77469
7330.896	10.55	7786.062	11.25848	7952.118	12.38683	7476.06	11.85915	7627.98	11.96834
7403.64	10.67256	7868.418	11.32221	8124.156	12.75304	7551.786	11.75228	7787.634	12.11835
7403.55	10.5549	7867.698	11.3379	8123.478	12.60597	7629.666	11.74542	7787.19	12.18404
7402.146	11.06377	7867.53	11.37123	8123.19	12.94864	7629.936	12.05574	7786.746	12.27866
7551.312	11.16966	7952.394	11.54331	8119.872	13.10013	7628.946	12.04397	7785.978	12.36935
7626.852	11.63931	7951.086	11.77813	8209.8	13.19573	7708.32	12.12486	7868.562	12.39975
7706.454	11.59617	8034.024	12.03502	8301.192	13.43447	7706.496	12.41067	7784.808	12.47966
7705.623	11.49077	8120.112	12.46398	8299.812	13.50507	7704.24	12.65334	7867.674	12.50172
7704.792	11.67608	8209.482	12.70419	8394.804	13.50752	7785.432	12.68521	7952.352	12.56496
7704.318	11.93591	8300.478	12.74538	8298.204	13.57664	7868.706	12.68324	7950.198	12.98166
7783.596	12.06484	8298.918	12.82872	8392.734	13.63498	7868.358	12.69991	8122.968	13.27385
7866.048	12.13544	8299.236	12.86695	8391.516	13.72175	7784.748	12.70236	8121.324	13.3817
7865.922	12.19328	8393.862	12.92529	8487.882	13.90902	7868.814	12.70629	8210.922	13.62486
7865.388	12.19083	8392.314	13.05227	8584.278	14.21591	7784.442	12.84846	8301.582	13.95332
7865.448	12.21437	8391.654	13.14639	8685.03	14.20807	7951.698	13.32693	8300.25	14.01656

7865.202	12.20113	8486.418	13.36063	8683.344	14.32916	8122.902	13.47792	8299.464	14.02097
7865.448	12.14328	8484.738	13.47338	8786.37	14.5331	8120.904	13.83678	8298.276	14.08863
7865.43	12.14818	8484.498	13.3768	8784.93	14.58997	8119.08	13.8054	8391.846	14.19599
7864.914	12.1977	8485.146	13.28562	8783.85	14.51692	8209.734	13.93385	8389.542	14.26021
7948.494	12.66146	8485.794	13.26356	8783.718	14.67331	8206.854	14.30153	8389.518	14.37051
8118.462	13.17867	8485.818	13.31209	8782.59	14.62281	8298.546	14.36085	8582.706	14.79408
8207.778	13.28554	8485.986	13.40083	8889.468	14.67086	8297.79	14.35496	8678.976	15.08234
8207.622	13.1669	8584.062	13.5881	8781.87	14.7591	8297.22	14.41869	8782.716	15.14068
8207.778	13.36937	8581.284	13.56113	8780.76	14.69488	8391.702	14.5388	8782.05	15.06322
8206.296	13.47673	8683.02	13.7136	8780.634	14.63066	8486.97	14.67166	8781.33	15.17598
8298.342	13.43604	8682.69	13.74792	8781.276	14.76106	8484.786	14.72558	8780.862	15.27158
8297.448	13.55321	8680.656	13.92881	8887.362	14.80911	8584.404	14.79079	8887.254	15.2103
8294.742	13.75666	8782.074	13.93764	8885.676	14.84489	8582.904	14.9962	8779.554	15.24608
8389.194	13.84294	8781.33	14.0803	8885.28	14.82577	8581.65	15.05552	8886.702	15.3559
8485.842	13.89295	8781.252	13.9999	8885.1	14.80371	8680.38	15.42957	8884.938	15.48532
8387.832	13.95864	8781.354	13.93176	8885.388	14.80861	8780.916	15.50507	8993.046	15.50003
8483.562	14.06747	8781.018	14.07687	8994.342	14.94245	8779.938	15.59184	8883.258	15.49905
8581.896	14.18856	8887.728	14.05285	8992.566	15.0003	8780.196	15.57076	8992.104	15.55003
8579.862	14.19641	8780.658	13.99353	8990.598	15.09197	8779.452	15.54821	8992.026	15.58778
8579.736	14.31504	8887.044	14.0901	9101.886	15.16257	8885.232	15.69724	8990.598	15.66867
8681.16	14.3974	8886.57	14.1504	8988.414	15.19149	8883.648	15.80215	8989.17	15.74662
8680.806	14.40084	8779.068	14.10236	8988.762	15.16551	8883.336	15.82715	9100.782	15.9888
8780.61	14.81215	8885.016	14.19158	8988.738	15.21012	8881.89	15.89186	9207.366	16.56973
8778.192	14.76753	8883.57	14.28081	9100.23	15.27777	8990.514	15.96148	9441.594	16.67513
8777.808	14.80136	8883.15	14.3112	9156.216	15.49446	8989.14	16.01982	9439.722	16.85456
8883.834	14.93029	8882.862	14.32248	9212.202	15.59398	9098.88	16.35171	9438.828	16.95898
8777.142	14.89353	8992.776	14.35679	9210.108	15.769	9326.01	16.7238	9562.548	16.9732
8777.19	14.78322	8991.27	14.42641	9444.684	16.22688			9437.406	17.11978
8777.244	14.90921	8989.974	14.46808	9563.214	16.43866			9559.44	17.1639
8777.19	15.03423	8989.626	14.50779					9559.47	17.15998
8882.07	15.12639	8988.738	14.48769					9559.71	17.17126
8989.41	15.24944	8988.954	14.53426						
8988.198	15.26366	8988.012	14.60878						
8988.066	15.20336	9100.038	14.66957						
8988.252	15.26268	9098.85	14.72496						
9099.234	15.41024	9100.2	14.7083						
8985.024	15.44652	9098.214	14.89998						



9096.918	15.48966	9207.144	15.41326						
9096.312	15.45534	9441.414	15.51327						
9210.846	15.57104	9440.526	15.57259						
9209.292	16.08285	9440.55	15.67554						
9319.404	16.32846	9439.128	15.79467						
9316.452	16.52112	9561.39	15.87997						
9437.67	16.56132	9561.144	15.86918						
9437.256	16.58878	9561.219	15.8937						
9434.466	16.76968	9561.294	15.89223						
9558.312	16.82017	9561.6	15.88291						
		9561.69	15.95988						

Data of Figure 10b

Experiment 1		Experiment 2		Experiment 3		Experiment 4		Experiment 5	
Speed(r/min)	Torque(N·m)	Speed(r/min)	Torque(N·m)	Speed(r/min)	Torque(N·m)	Speed(r/min)	Torque(N·m)	Speed(r/min)	Torque(N·m)
1350.648	0.01017	1697.19	0.00933	1142.862	0.01507	1220.28	0.01505	1607.148	0.01064
1708.158	0.00846	1926.66	0.00852	2110.17	0.01198	1794.186	0.0127	1912.266	0.00979
2085.69	0.00838	2221.326	0.00891	2338.776	0.01106	2367.87	0.01138	2268.276	0.00922
2267.352	0.00791	2420.676	0.00849	2727.186	0.01148	2736.714	0.01048	2468.466	0.00894
2412.192	0.00831	2568.87	0.00849	2894.37	0.01069	2927.67	0.01016	2604.618	0.00937
2533.632	0.00741	2659.374	0.00806	3021.762	0.0108	3021.378	0.01009	2707.332	0.00952
2649.174	0.00814	2746.41	0.00824	3095.976	0.0105	3058.014	0.00959	2818.44	0.01055
2715.906	0.008	2786.94	0.00838	3147.642	0.01053	3108.444	0.00966	2919.921	0.01028
2765.64	0.00786	2828.634	0.0081	3200.88	0.01088	3134.166	0.01032	3021.402	0.01083
2796.432	0.00817	2850.078	0.00808	3228.318	0.01145	3147.228	0.01002	3070.482	0.01141
2827.812	0.00842	2871.804	0.00833	3284.544	0.01305	3173.664	0.01033	3160.392	0.01138
2838.516	0.00831	2882.64	0.00868	3387.57	0.01256	3214.14	0.00988	3228.006	0.01094
2881.764	0.00828	2916.432	0.00932	3426.42	0.01245	3214.128	0.00991	3255.732	0.01155
2892.858	0.0089	2950.224	0.00974	3465.27	0.01247	3200.598	0.00965	3284.07	0.01205
2892.87	0.00838	3008.922	0.00909	3497.448	0.01268	3200.562	0.01088	3342.138	0.01304
2926.482	0.00808	3033.174	0.01004	3513.666	0.01235	3241.734	0.01039	3417.798	0.01302
2915.256	0.00833	3057.78	0.00969	3513.684	0.01351	3255.708	0.01044	3464.922	0.01256
2926.518	0.00798	3095.292	0.01052	3546.6	0.01448	3255.726	0.01048	3480.792	0.01233
2915.238	0.00796	3160.092	0.0109	3649.41	0.01394	3269.784	0.01046	3513.144	0.01314
2903.964	0.00786	3200.316	0.01062	3667.116	0.01399	3284.064	0.01143	3546.24	0.01378
2909.58	0.00879	3227.676	0.0102	3703.062	0.01401	3298.404	0.01146	3579.804	0.0139
2915.196	0.00877	3241.386	0.01179	3721.308	0.01598	3342.234	0.01224	3631.458	0.0135
2960.952	0.00886	3298.08	0.01048	3796.164	0.01768	3387.18	0.01238	3649.002	0.01367
2960.964	0.00941	3312.57	0.01281	3934.422	0.01845	3448.998	0.01189	3684.696	0.01441
2996.148	0.00937	3372.804	0.01226	4061.346	0.02117	3480.792	0.01217	3720.972	0.01441
3032.316	0.00992	3433.038	0.0127	4243.926	0.02048	3513.162	0.01231	3757.974	0.01743
3076.152	0.01001	3464.574	0.01242	4366.59	0.02068	3513.114	0.01236	3853.812	0.01995
3119.988	0.01056	3512.898	0.01288	4443.768	0.02255	3529.656	0.01272	4017.72	0.01969
3185.838	0.01064	3545.838	0.01272	4550.778	0.02108	3529.536	0.01335	4219.752	0.02015
3212.916	0.01041	3545.922	0.01348	4578.264	0.02175	3596.772	0.01339	4316.166	0.02068
3240.564	0.01059	3579.456	0.01304	4606.29	0.02326	3613.95	0.01318	4391.604	0.02131
3240.504	0.01041	3613.716	0.01403	4678.701	0.02408	3631.326	0.01289	4469.562	0.02175
3254.49	0.01011	3684.252	0.01376	4751.112	0.0243	3648.918	0.01371	4551.762	0.0229
3268.578	0.01149	3702.282	0.01419	4842.546	0.02408	3684.456	0.01348	4633.962	0.02329

3297.234	0.01181	3720.624	0.01405	4873.632	0.024	3721.125	0.01584	4691.478	0.02373
3355.776	0.01218	3739.008	0.0148	4905.39	0.02387	3757.794	0.01748	4750.446	0.02274
3416.58	0.01377	3795.408	0.01609	4905.228	0.02454	3933.978	0.01676	4750.518	0.02243
3495.66	0.01334	3885.225	0.0172	4937.394	0.02491	3996.438	0.02031	4750.422	0.02294
3561.606	0.01327	3975.042	0.01754	4937.412	0.02476	4150.194	0.02144	4780.71	0.02408
3595.59	0.01343	4038.774	0.01728	4970.04	0.02557	4340.97	0.02002	4810.956	0.02431
3630.144	0.01377	4104.732	0.01728	5036.202	0.02603	4417.212	0.02017	4841.772	0.02451
3665.34	0.01364	4127.1	0.01982	5035.98	0.02671	4443.018	0.02015	4904.976	0.02419
3701.412	0.01483	4242.984	0.02107	5069.742	0.02735	4442.958	0.01949	4904.664	0.02428
3756.576	0.0152	4391.034	0.02156	5138.862	0.02693	4443.06	0.02103	4937.1	0.02445
3832.926	0.01613	4522.758	0.02301	5174.142	0.02723	4495.95	0.02101	4936.896	0.02474
3892.062	0.01721	4662.246	0.02351	5209.908	0.0273	4550.202	0.02219	4936.896	0.02539
3995.166	0.01862	4720.53	0.02273	5246.232	0.02881	4605.516	0.02156	4969.284	0.02537
4081.494	0.02	4780.206	0.02351	5282.49	0.03051	4633.854	0.02182	5002.374	0.02493
4241.946	0.02016	4810.686	0.02451	5396.112	0.03296	4662.666	0.02189	5002.17	0.0253
4339.518	0.02102	4872.906	0.02372	5554.494	0.03326	4691.478	0.02264	5002.392	0.02518
4441.758	0.02042	4872.708	0.02441	5637.552	0.03268	4691.442	0.02144	5002.242	0.02465
4494.534	0.02032	4904.382	0.02386	5680.02	0.03279	4691.442	0.02191	5002.182	0.02678
4521.24	0.02153	4904.364	0.02382	5679.762	0.03602	4691.322	0.02158	5069.346	0.02754
4548.546	0.02134	4936.548	0.02377	5810.868	0.03801	4691.496	0.02209	5138.586	0.02733
4604.208	0.02203	4904.202	0.02449	5947.8	0.03723	4691.304	0.02361	5173.566	0.02686
4632.438	0.02166	4936.482	0.02411	6043.65	0.03729	4780.518	0.02428	5173.5	0.02719
4660.962	0.02222	4936.47	0.02442	6092.412	0.03713	4810.908	0.02384	5209.29	0.02731
4689.984	0.02247	4968.87	0.02481	6092.424	0.03692	4841.766	0.02407	5209.362	0.02737
4719.294	0.02118	4968.936	0.02615	6092.346	0.03676	4904.832	0.02424	5245.554	0.0319
4719.366	0.02242	5001.624	0.02555	6092.262	0.03778	4904.688	0.02414	5395.236	0.03104
4719.234	0.02372	5035.224	0.02511	6092.508	0.03723	4904.76	0.02403	5473.284	0.03104
4809.45	0.02422	5069.1	0.02668	6092.37	0.03744	4904.526	0.02474	5513.46	0.03084
4840.35	0.02407	5103.114	0.02689	6043.038	0.03753	4936.746	0.02461	5513.244	0.03277
4871.568	0.02554	5173.218	0.02711	6043.062	0.03692	4969.008	0.02544	5637.234	0.03593
4935.15	0.02566	5173.164	0.02735	6043.002	0.03711	4968.936	0.02553	5810.742	0.03639
5034.066	0.02466	5173.11	0.02749	6043.182	0.03695	5035.398	0.02583	5901.06	0.0363
5000.55	0.02543	5245.068	0.0276	6092.358	0.03727	5035.296	0.02707	5947.506	0.0364
5034.072	0.02612	5281.848	0.02998	6092.136	0.03852	5103.57	0.02655	5995.122	0.03656
5101.986	0.0276	5356.56	0.02981	6091.728	0.03845	5138.298	0.02929	5994.846	0.03624
5171.94	0.0278	5433.492	0.02908	6141.474	0.0385	5245.212	0.03081	5994.654	0.03676
5207.382	0.02974	5433.72	0.02938	6141.372	0.03782	5395.17	0.0306	6043.05	0.03619

5317.662	0.03066	5433.642	0.02963	6141.234	0.0387	5433.798	0.03065	6042.99	0.03681
5432.28	0.03083	5473.116	0.03104	6192.042	0.0397	5513.346	0.0306	6042.93	0.0369
5471.526	0.0312	5513.076	0.03288	6191.82	0.04076	5513.154	0.03148	6042.648	0.03684
5552.286	0.03152	5553.222	0.03459	6294.888	0.04115	5512.812	0.0367	6091.74	0.03707
5593.194	0.03006	5721.666	0.03547	6347.946	0.04013	5721.786	0.03818	6042.42	0.03651
5593.572	0.03299	5809.428	0.03471	6347.502	0.04082	5947.152	0.03709	6042.684	0.03736
5634.996	0.03563	5854.572	0.03439	6402.156	0.04147	6042.696	0.03714	6042.342	0.03734
5764.008	0.03518	5900.526	0.03579	6347.382	0.03969	6042.354	0.03688	6042.294	0.0376
5853.522	0.03632	5947.092	0.03642	6347.166	0.04103	6042.342	0.03702	6091.566	0.03921
5945.88	0.03729	5946.516	0.03672	6401.472	0.04244	6091.494	0.03698	6191.454	0.04115
5992.488	0.0368	6042.456	0.03679	6400.986	0.04104	6042.03	0.03704	6294.558	0.04119
6040.884	0.0365	6042.516	0.03679	6456.402	0.04216	6042.09	0.037	6293.982	0.0402
6040.788	0.03715	6042.078	0.03724	6512.934	0.04339	6042.018	0.03739	6347.622	0.0402
6089.85	0.03673	6091.134	0.0369	6511.362	0.0463	6091.296	0.03709	6347.232	0.03988
6040.518	0.0368	6091.11	0.03715	6745.938	0.04535	6042.198	0.03737	6347.484	0.03958
6040.518	0.03676	6091.146	0.03738	6744.486	0.04735	6091.332	0.03766	6347.298	0.04205
6089.922	0.03657	6090.606	0.03784	6806.118	0.04627	6091.026	0.03771	6346.626	0.0406
6089.892	0.03691	6140.292	0.03983	6805.944	0.04632	6090.96	0.03882	6400.602	0.0433
6089.862	0.03685	6242.16	0.04015	6805.206	0.04964	6191.424	0.0391	6511.32	0.04429
6089.838	0.03719	6241.692	0.03999	6867.048	0.0481	6190.674	0.04018	6626.16	0.04459
6089.502	0.03758	6347.256	0.04179	6930.888	0.05008	6216.318	0.03991	6624.372	0.0436
6089.208	0.03724	6346.182	0.04078	6929.892	0.04869	6241.962	0.03993	6744.786	0.0456
6139.566	0.03825	6400.572	0.04022	6930.036	0.051	6241.626	0.04131	6744.408	0.04383
6138.984	0.03908	6400.314	0.04075	6995.418	0.04959	6347.31	0.04208	6683.556	0.04472
6241.278	0.03957	6456.138	0.04324	6994.44	0.0501	6400.698	0.04156	6683.85	0.04265
6240.822	0.03962	6455.364	0.04301	6994.542	0.05098	6455.61	0.04168	6684	0.04445
6240.222	0.03961	6567.87	0.04283	6994.212	0.0492	6455.4	0.04291	6683.184	0.04542
6240.156	0.03959	6567.324	0.04474	6994.116	0.05026	6511.548	0.0445	6742.86	0.04987
6292.752	0.03976	6684.27	0.04537	6994.26	0.05133	6567.354	0.04367	6865.914	0.04966
6292.446	0.03927	6743.784	0.0474	7060.602	0.05208	6625.47	0.0439	6928.902	0.05063
6239.886	0.04146	6867.096	0.05083	7058.826	0.05153	6685.014	0.04466	6928.164	0.05036
6292.146	0.04142	6993.708	0.0516	7126.38	0.05373	6683.166	0.04498	6993.642	0.04922
6399.834	0.04156	7058.526	0.0503	7125.348	0.05322	6742.692	0.04936	6993.642	0.05045
6454.722	0.04125	7058.61	0.05151	7194.402	0.05352	6865.962	0.0481	6993.216	0.0502
6398.856	0.04142	7058.742	0.05015	7264.872	0.05407	6864.894	0.04932	6993.498	0.04941
6398.922	0.04128	7058.544	0.05074	7193.142	0.05375	6994.866	0.04817	6993.282	0.05022
6398.892	0.04038	7058.19	0.05079	7263.498	0.0549	6928.518	0.04951	6993.564	0.05169

6398.622	0.04186	7057.908	0.05125	7262.322	0.05728	6994.086	0.0483	7058.874	0.05213
6454.29	0.04209	7057.86	0.05144	7406.988	0.05573	6928.548	0.05004	7125.414	0.05455
6453.276	0.0431	7058.472	0.05132	7405.524	0.05795	6928.488	0.04946	7193.04	0.05398
6452.904	0.04554	7125.366	0.05236	7405.068	0.0573	6993.396	0.0495	7262.97	0.05435
6623.19	0.04548	7193.988	0.05315	7404.72	0.05672	6993.156	0.05073	7263.06	0.05428
6682.17	0.04478	7193.04	0.05342	7479	0.0597	7059.822	0.04997	7263.168	0.0549
6681.204	0.04548	7263.396	0.05541	7554.258	0.05989	6992.16	0.04973	7262.376	0.05529
6741.738	0.04776	7333.728	0.05524	7631.646	0.06097	7059.354	0.05116	7261.548	0.05347
6866.028	0.05011	7261.284	0.05478	7630.5	0.06233	7058.544	0.05126	7261.71	0.05419
6927.576	0.04921	7260.828	0.05457	7708.038	0.06265	7058.256	0.05149	7334.262	0.05575
6991.686	0.05007	7406.22	0.05736	7706.556	0.06268	7125.792	0.05222	7260.882	0.05553
6990.66	0.05124	7404.738	0.05704	7706.814	0.06233	7194.708	0.05297	7332.666	0.05642
7057.746	0.05002	7404.192	0.05608	7788.99	0.06198	7194.21	0.05299	7332.348	0.05555
6990.348	0.05108	7478.874	0.05818	7787.796	0.06261	7123.47	0.05299	7405.65	0.05763
7057.08	0.05064	7403.916	0.0585	7787.598	0.06275	7192.212	0.0541	7404.666	0.05733
7056.198	0.05178	7477.956	0.06043	7788.018	0.06397	7263.006	0.05474	7478.91	0.05809
7055.85	0.05152	7630.848	0.06115	7786.482	0.06394	7261.776	0.05462	7478.148	0.06116
7123.626	0.05297	7628.64	0.06177	7869.33	0.06418	7333.944	0.05543	7552.716	0.06212
7191.246	0.05424	7706.814	0.06314	7869.696	0.06408	7333.26	0.05606	7628.796	0.05921
7190.364	0.05365	7706.634	0.06113	7870.296	0.06443	7332.702	0.05454	7628.484	0.06233
7260.738	0.05429	7787.574	0.06327	7869.246	0.06425	7331.646	0.0582	7628.97	0.05966
7331.592	0.05584	7786.866	0.0641	7869.018	0.06584	7403.73	0.06032	7628.388	0.06152
7330.896	0.05457	7786.062	0.0644	7952.118	0.07036	7476.06	0.05984	7627.98	0.06201
7403.64	0.05729	7868.418	0.0644	8124.156	0.06911	7551.786	0.05942	7787.634	0.06321
7403.55	0.05653	7867.698	0.06517	8123.478	0.06893	7629.666	0.06072	7787.19	0.06326
7402.146	0.05925	7867.53	0.06445	8123.19	0.07135	7629.936	0.06067	7786.746	0.06422
7551.312	0.06227	7952.394	0.06526	8119.872	0.07069	7628.946	0.06063	7785.978	0.06376
7626.852	0.06082	7951.086	0.0698	8209.8	0.07371	7708.32	0.06247	7868.562	0.06441
7706.454	0.0605	8034.024	0.07059	8301.192	0.07306	7706.496	0.06473	7784.808	0.06508
7705.623	0.06084	8120.112	0.07165	8299.812	0.07405	7704.24	0.06388	7867.674	0.06611
7704.792	0.06373	8209.482	0.07223	8394.804	0.07366	7785.432	0.06379	7952.352	0.06679
7704.318	0.06373	8300.478	0.07223	8298.204	0.07477	7868.706	0.06362	7950.198	0.06941
7783.596	0.06437	8298.918	0.07377	8392.734	0.0752	7868.358	0.06369	8122.968	0.07039
7866.048	0.06447	8299.236	0.07306	8391.516	0.07604	7784.748	0.06349	8121.324	0.06995
7865.922	0.06393	8393.862	0.07364	8487.882	0.07857	7868.814	0.06348	8210.922	0.07327
7865.388	0.06378	8392.314	0.07495	8584.278	0.07911	7784.442	0.06589	8301.582	0.07343
7865.448	0.06389	8391.654	0.07647	8685.03	0.08105	7951.698	0.07041	8300.25	0.07271

7865.202	0.06433	8486.418	0.07687	8683.344	0.0804	8122.902	0.06963	8299.464	0.07327
7865.448	0.06447	8484.738	0.07679	8786.37	0.08257	8120.904	0.07073	8298.276	0.07433
7865.43	0.06504	8484.498	0.07728	8784.93	0.08102	8119.08	0.06965	8391.846	0.07622
7864.914	0.06603	8485.146	0.0765	8783.85	0.08203	8209.734	0.07276	8389.542	0.07617
7948.494	0.0709	8485.794	0.07622	8783.718	0.083	8206.854	0.07396	8389.518	0.07885
8118.462	0.07118	8485.818	0.07594	8782.59	0.08206	8298.546	0.07244	8582.706	0.08202
8207.778	0.06964	8485.986	0.07797	8889.468	0.08335	8297.79	0.07362	8678.976	0.08257
8207.622	0.07046	8584.062	0.08002	8781.87	0.08425	8297.22	0.07424	8782.716	0.08188
8207.778	0.07176	8581.284	0.07968	8780.76	0.08231	8391.702	0.07606	8782.05	0.08289
8206.296	0.0709	8683.02	0.07931	8780.634	0.08372	8486.97	0.07687	8781.33	0.0833
8298.342	0.07158	8682.69	0.08141	8781.276	0.0839	8484.786	0.07694	8780.862	0.08255
8297.448	0.0746	8680.656	0.08222	8887.362	0.08555	8584.404	0.07685	8887.254	0.08333
8294.742	0.07453	8782.074	0.08277	8885.676	0.08448	8582.904	0.07761	8779.554	0.08384
8389.194	0.07483	8781.33	0.08268	8885.28	0.08393	8581.65	0.08204	8886.702	0.08559
8485.842	0.07501	8781.252	0.08138	8885.1	0.08483	8680.38	0.08259	8884.938	0.08527
8387.832	0.07554	8781.354	0.08302	8885.388	0.08571	8780.916	0.08303	8993.046	0.08515
8483.562	0.07684	8781.018	0.08321	8994.342	0.08654	8779.938	0.08319	8883.258	0.08633
8581.896	0.07891	8887.728	0.08229	8992.566	0.08758	8780.196	0.08231	8992.104	0.08591
8579.862	0.07856	8780.658	0.08351	8990.598	0.08771	8779.452	0.08361	8992.026	0.08681
8579.736	0.07822	8887.044	0.08369	9101.886	0.08781	8885.232	0.08557	8990.598	0.08824
8681.16	0.07917	8886.57	0.08316	8988.414	0.08831	8883.648	0.08532	8989.17	0.08877
8680.806	0.08226	8779.068	0.08356	8988.762	0.08923	8883.336	0.08608	9100.782	0.09606
8780.61	0.08344	8885.016	0.08568	8988.738	0.09034	8881.89	0.08712	9207.366	0.09454
8778.192	0.08239	8883.57	0.08568	9100.23	0.09013	8990.514	0.08707	9441.594	0.09814
8777.808	0.08383	8883.15	0.08522	9156.216	0.08974	8989.14	0.08877	9439.722	0.09861
8883.834	0.08382	8882.862	0.08554	9212.202	0.09297	9098.88	0.09245	9438.828	0.09692
8777.142	0.08237	8992.776	0.08695	9210.108	0.09618	9326.01	0.09282	9562.548	0.09867
8777.19	0.08286	8991.27	0.0872	9444.684	0.09994			9437.406	0.09923
8777.244	0.08362	8989.974	0.08686	9563.214	0.09757			9559.44	0.09909
8777.19	0.08542	8989.626	0.08723					9559.47	0.09967
8882.07	0.08602	8988.738	0.08729					9559.71	0.09985
8989.41	0.08671	8988.954	0.08753						
8988.198	0.08652	8988.012	0.08798						
8988.066	0.08634	9100.038	0.08833						
8988.252	0.08779	9098.85	0.08895						
9099.234	0.08884	9100.2	0.09052						
8985.024	0.0889	9098.214	0.09433						

9096.918	0.09006	9207.144	0.09662						
9096.312	0.089	9441.414	0.09558						
9210.846	0.09029	9440.526	0.09715						
9209.292	0.09636	9440.55	0.09719						
9319.404	0.09659	9439.128	0.0986						
9316.452	0.09793	9561.39	0.09668						
9437.67	0.09529	9561.144	0.09814						
9437.256	0.0979	9561.219	0.0989						
9434.466	0.0992	9561.294	0.0983						
9558.312	0.0995	9561.6	0.09908						
		9561.69	0.09821						

Data of Figure 11

APC 8045		APC 9045		APC 1145		APC 1245	
Speed(r/min)	Thrust(N)	Speed(r/min)	Thrust(N)	Speed(r/min)	Thrust(N)	Speed(r/min)	Thrust(N)
1174.512	-0.0785	2095.59	-0.05788	1350.648	-0.12056	1105.638	-0.43103
2954.652	-0.02262	2711.484	0.02203	1708.158	-0.09752	1756.194	-0.39426
3898.908	0.13083	3026.028	0.0735	2085.69	-0.09311	1926.462	-0.32023
4556.55	0.21123	3260.79	0.10096	2267.352	-0.09164	2170.008	-0.30307
4848.762	0.25633	3392.346	0.11223	2412.192	-0.09213	2316.45	-0.25405
4976.256	0.28133	3518.568	0.15488	2533.632	-0.05291	2443.926	-0.19522
5110.926	0.30388	3602.322	0.18626	2649.174	-0.06223	2508.87	-0.1408
5216.502	0.34653	3672.318	0.20489	2715.906	-0.05242	2577.354	-0.09717
5252.718	0.34604	3708.402	0.22989	2765.64	-0.0485	2631.18	-0.06188
5364.45	0.37742	3801.498	0.30097	2796.432	-0.05046	2659.014	-0.05844
5441.37	0.38918	3919.578	0.30833	2827.812	-0.0436	2716.344	-0.0457
5481.006	0.39948	4045.47	0.34166	2838.516	-0.03722	2756.028	-0.00697
5521.05	0.41762	4089.21	0.37108	2881.764	-0.02987	2766.066	0.00431
5561.682	0.42791	4111.344	0.36961	2892.858	-0.04703	2807.28	0.00872
5561.562	0.4235	4133.892	0.39559	2892.87	-0.03232	2828.28	0.00186
5561.496	0.42889	4156.626	0.41765	2926.482	-0.03085	2828.316	-5.95E-04
5644.74	0.45684	4226.268	0.43775	2915.256	-0.01761	2849.676	0.00529
5730.528	0.46615	4250.046	0.44216	2926.518	-0.01516	2860.398	0.01215
5729.994	0.46958	4298.274	0.4554	2915.238	-0.02055	2893.272	0.04009
5773.992	0.48037	4372.83	0.48775	2903.964	-0.00536	2984.796	0.09696
5818.398	0.47939	4398.3	0.48334	2909.58	-0.01222	3032.79	0.11902
5863.29	0.48429	4398.144	0.47305	2915.196	-0.00487	3082.266	0.13667
5863.212	0.50978	4398.192	0.50687	2960.952	0.0118	3094.926	0.18275
5863.476	0.52841	4449.954	0.50785	2960.964	-0.00683	3133.404	0.19305
6051.132	0.60734	4476.336	0.53629	2996.148	0.01866	3159.666	0.22001
6199.86	0.70098	4476.21	0.53286	3032.316	0.00641	3227.154	0.26855
6303.366	0.69804	4503.06	0.54609	3076.152	0.00102	3297.588	0.28865
6356.388	0.69706	4529.982	0.56717	3119.988	0.05102	3341.448	0.32296
6409.83	0.69313	4584.894	0.59512	3185.838	0.08436	3371.208	0.37052
6464.586	0.68235	4612.818	0.6108	3212.916	0.08926	3386.34	0.38669
6520.902	0.70147	4612.866	0.62551	3240.564	0.07651	3401.628	0.39111
6693.846	0.78236	4669.704	0.61669	3240.504	0.09269	3417.012	0.42886
6876.852	0.83972	4787.982	0.66277	3254.49	0.09318	3480.03	0.52004
6939.642	0.88237	4866.228	0.70836	3268.578	0.09465	3528.744	0.58475



7004.19	0.92551	4944.474	0.79023	3297.234	0.08828	3578.952	0.62348
7002.03	0.9407	4944.3	0.80886	3355.776	0.09367	3596.016	0.62299
7068.552	0.98238	5043.396	0.89318	3416.58	0.09122	3613.254	0.68525
7271.598	0.9809	5146.404	1.03437	3495.66	0.12112	3648	0.74163
7489.104	1.05346	5181.582	1.07408	3561.606	0.1623	3701.742	0.82154
7563.684	1.07748	5181.492	1.14811	3595.59	0.19417	3880.866	1.08578
7641.09	1.12209	5327.706	1.35303	3630.144	0.2079	4059.99	1.26275
7639.614	1.13925	5365.188	1.4751	3665.34	0.23045	4126.59	1.31374
7640.256	1.13778	5521.812	1.83199	3701.412	0.23976	4172.226	1.3809
7640.256	1.14513	5687.886	1.79817	3756.576	0.2579	4242.486	1.54415
7640.004	1.15788	5819.682	2.108	3832.926	0.30791	4290.72	1.68485
7640.118	1.16818	5819.298	2.0026	3892.062	0.45106	4315.188	1.75054
7719.348	1.16523	5864.448	1.94279	3995.166	0.61284	4365.12	1.77554
7799.214	1.22308	5819.298	2.09574	4081.494	0.8609	4390.542	1.84908
7879.746	1.30201	5864.976	2.11535	4241.946	1.14916	4416.024	1.88928
7878.174	1.32554	5819.268	1.94279	4339.518	1.2928	4442.112	1.93634
7961.7	1.33731	5864.622	2.04525	4441.758	1.43105	4494.858	2.00988
7961.34	1.37016	5910.246	2.1482	4494.534	1.46585	4576.794	2.07753
7961.274	1.3677	5910.564	2.2031	4521.24	1.4634	4632.87	2.17019
8048.658	1.36574	5910.408	2.24036	4548.546	1.4938	4661.394	2.24716
7960.476	1.39173	5956.728	2.37077	4604.208	1.54037	4690.59	2.31138
8046.456	1.41771	6052.182	2.46097	4632.438	1.62763	4690.404	2.33393
8134.404	1.41232	6051.936	2.5095	4660.962	1.69921	4690.41	2.36824
8133.408	1.41232	6150.576	2.60265	4689.984	1.74921	4719.816	2.46237
8132.592	1.44124	6151.134	2.84091	4719.294	1.7747	4749.438	2.58248
8221.86	1.44271	6150.288	3.05416	4719.366	1.74872	4809.996	2.65454
8312.094	1.48634	6201.024	2.79531	4719.234	1.76343	4840.692	2.69474
8404.776	1.5535	6252.126	4.03905	4809.45	1.73745	4871.916	2.74328
8403.834	1.5535	6411.048	4.34741	4840.35	1.78157	4935.864	2.89966
8403.15	1.6138	6465.642	4.79353	4871.568	1.835	5001.324	2.98938
8403.03	1.61184	6521.496	5.08768	4935.15	1.95609	5034.42	3.13792
8499.834	1.63488	6521.724	5.25534	5034.066	2.00904	5102.664	3.27225
8496.948	1.71381	6521.76	5.31662	5000.55	2.01884	5102.328	3.34578
8593.38	1.77264	6521.796	5.2725	5034.072	2.03992	5136.996	3.42128
8692.752	1.82902	6521.61	5.19406	5101.986	2.13111	5244.162	3.67277
8691.372	1.85304	6521.526	5.06807	5171.94	2.27034	5317.998	3.92476
8795.28	1.86383	6521.568	5.02296	5207.382	2.42819	5472.198	4.22625

8900.784	1.90108	6578.916	4.9911	5317.662	2.68949	5511.756	4.59001
8898.804	1.94325	6521.538	5.08817	5432.28	2.95226	5594.196	4.98564
9004.68	2.02119	6521.202	5.12788	5471.526	3.37338	5635.536	5.30968
9112.17	2.19768	6578.514	5.18376	5552.286	3.83763	5677.794	5.62932
9336.978	2.30014	6578.616	5.22298	5593.194	4.02834	5720.724	5.75139
9577.872	2.3977	6578.286	5.3024	5593.572	4.09403	5764.644	5.95386
9451.59	2.4379	6578.556	5.33672	5634.996	4.60045	5809.11	5.9014
9574.446	2.49526	6578.502	5.34015	5764.008	4.82008	5764.344	5.98131
9701.106	2.56193	6636.138	5.28818	5853.522	5.1049	5764.362	6.04603
9700.542	2.5786	6695.25	5.32642	5945.88	5.43435	5809.104	6.01269
9699.726	2.6286	6635.712	5.50193	5992.488	5.60789	5854.254	6.14407
9699.948	2.62272	6635.736	5.64116	6040.884	5.68339	5853.672	6.44312
9699.132	2.65654	6635.76	5.71911	6040.788	5.70643	5945.928	6.59853
9698.508	2.68302	6635.598	5.74362	6089.85	5.72849	5993.334	6.6299
9697.128	2.74675	6694.71	5.76421	6040.518	5.69809	5993.118	6.65588
9695.844	2.77273	6754.704	5.17494	6040.518	5.68976	6041.334	6.71814
9825.534	2.86196	6754.26	5.24112	6089.922	5.67407	6041.202	6.83776
9823.794	2.90804	6753.972	6.24955	6089.892	5.64956	6090.306	6.89463
9822.282	2.94481	6815.688	5.67204	6089.862	5.68584	6041.07	6.95199
9953.682	3.08894	6784.929	4.96561	6089.838	5.70839	6040.824	7.07259
10085.862	3.17522	6754.17	6.17307	6089.502	5.83732	6139.668	7.29025
10224.984	3.27621	6877.578	5.71028	6089.208	5.83536	6189.612	7.55057
10221.324	3.36102	6940.848	5.8902	6139.566	5.89027	6346.128	7.97071
10219.794	3.4174	7005.108	5.36368	6138.984	5.91135	6345.03	7.98345
10362.444	3.47819	7004.814	6.0961	6241.278	6.20893	6399.618	8.07611
10360.62	3.53996	7004.598	5.74019	6240.822	6.30501	6399.576	8.17857
10506.264	3.6282	7004.388	5.35437	6240.222	6.17853	6454.692	8.35113
10652.424	3.86106	7004.682	6.03139	6240.156	6.42806	6509.808	8.50703
10806.564	4.00765	7004.664	5.88088	6292.752	6.17853	6566.46	8.67175
10964.634	4.25424	7070.07	5.5789	6292.446	6.48346	6566.439	9.20023
10961.148	4.35768	7136.076	5.59851	6239.886	6.23197	6566.418	9.22327
11124.54	4.5827	7136.976	5.60733	6292.146	6.71485	6566.106	9.26788
11121.576	4.64055	7205.01	5.63871	6399.834	6.56043	6624.888	9.25955
11293.482	4.7582	7205.028	5.67057	6454.722	6.66142	6565.83	9.26249
11292.756	4.78517	7204.506	5.74607	6398.856	6.82957	6624.27	9.2973
11293.44	4.844	7344.588	5.5333	6398.922	6.71632	6624.156	9.29337
11293.014	4.90135	7489.494	6.02747	6398.892	7.01831	6624.156	9.29288

11206.077	4.93763	7642.26	5.8	6398.622	7.32324	6624.126	9.27671
11119.14	4.99058	7641.66	5.89755	6454.29	7.11587	6624.228	9.30661
11466.924	5.07343	7640.706	6.14807	6453.276	6.90114	6623.526	9.36397
11465.478	5.13814	7718.61	6.18483	6452.904	7.02076	6682.794	9.42623
11287.404	5.15873	7799.136	6.18728	6623.19	7.16342	6682.212	9.37328
11285.028	5.26021	7798.464	6.18728	6682.17	7.36638	6742.116	9.29632
11460.18	5.30776	7798.368	6.2064	6681.204	7.5213	6803.646	9.53261
11460.27	5.34551	7881.69	6.20689	6741.738	7.38795	6803.154	9.53899
11459.874	5.38522	7799.094	6.23484	6866.028	7.64239	6803.076	9.24925
11460.444	5.38473	7881.942	6.24317	6927.576	8.67287	6803.094	9.60566
11459.916	5.44013	7881.132	6.3471	6991.686	8.71013	6802.644	9.63115
11644.2	5.43523	7880.448	6.43976	6990.66	8.7317	6865.14	9.69488
11460.222	5.48131	7879.941	6.40593	7057.746	9.05232	6927.636	10.2817
11459.526	5.46611	7879.434	6.34759	6990.348	9.05183	6991.704	10.44887
11459.832	5.50386	7880.094	6.29563	7057.08	8.99055	7057.596	10.30572
11460.048	5.49552	7879.23	6.3672	7056.198	9.05085	6990.84	10.45769
11459.742	5.52298	7879.632	6.44172	7055.85	9.2489	6991.524	10.65575
11460.138	5.50925	7880.034	6.41868	7123.626	9.52736	7056.684	10.94646
11460.444	5.51366	7964.682	6.4123	7191.246	9.81611	7191.918	11.26806
11460.528	5.51464	7963.242	6.38828	7190.364	9.89259	7261.476	11.39896
11460.222	5.50386	8049.24	6.80646	7260.738	10.01221	7260.51	11.44259
11643.75	5.52347	8135.106	6.75302	7331.592	10.23576	7332.9	11.44406
11460.138	5.48768	8133.522	7.03785	7330.896	10.55	7332.078	11.53132
11459.874	5.53769	8314.326	6.89911	7403.64	10.67256	7259.508	11.68231
11823.03	5.82987	8406.396	6.9251	7403.55	10.5549	7331.094	11.83184
12005.232	6.0897	8404.68	6.99471	7402.146	11.06377	7404.318	11.77791
12002.256	6.2402	8500.248	7.0756	7551.312	11.16966	7403.772	11.7132
11999.616	6.33285	8498.802	7.12119	7626.852	11.63931	7330.428	11.87106
12201.468	6.38384	8498.268	7.12462	7706.454	11.59617	7404.132	11.8838
12199.536	6.4814	8498.268	7.00304	7705.623	11.49077	7330.086	11.75928
12402.432	6.66965	8598.282	7.01481	7704.792	11.67608	7330.428	11.76369
12400.386	6.82604	8597.022	7.53005	7704.318	11.93591	7403.184	12.04215
12399.156	6.94075	8794.2	7.83694	7783.596	12.06484	7329.21	11.97352
12399.768	7.00154	9007.818	7.9747	7866.048	12.13544	7401.594	12.38385
12400.638	7.07018	9005.898	8.04088	7865.922	12.19328	7549.56	12.6373
12400.386	7.12949	9117.042	8.11589	7865.388	12.19083	7626.522	12.85938
12399.87	7.16332	9115.854	8.08942	7865.448	12.21437	7705.464	12.91233

12400.026	7.17018	9116.022	8.10657	7865.202	12.20113	7705.842	12.92115
12400.176	7.22754	9004.008	8.09726	7865.448	12.14328	7704.636	13.16774
12397.77	7.24911	9116.13	8.19188	7865.43	12.14818	7866.48	13.37511
12613.416	7.31481	9114.882	8.33552	7864.914	12.1977	7864.686	13.40992
12604.302	7.57022	9114.138	8.29287	7948.494	12.66146	7949.862	13.4261
12822.048	7.78887	9113.97	8.2409	8118.462	13.17867	7863.984	13.54817
13048.752	7.88544	9113.862	8.31591	8207.778	13.28554	7949.274	13.63102
13046.256	7.94084	9113.64	8.44435	8207.622	13.1669	7948.218	13.71534
12817.338	7.98545	9228.33	8.39827	8207.778	13.36937	8034.6	13.7124
13044.558	8.04036	9227.022	8.32326	8206.296	13.47673	7946.85	13.86143
13044.78	8.11929	9227.814	8.51494	8298.342	13.43604	8033.076	13.90261
13039.962	8.22077	9225.09	8.50122	8297.448	13.55321	8121.126	14.14528
13276.392	8.26097	9223.728	8.56838	8294.742	13.75666	8209.71	14.32765
13037.076	8.27666	9224.016	8.61348	8389.194	13.84294	8300.202	14.65856
13039.626	8.31293	9223.02	8.6326	8485.842	13.89295	8298.318	14.70415
13276.566	8.34725	9222.822	8.69437	8387.832	13.95864	8297.976	14.71886
13274.16	8.44971	9339.072	8.87331	8483.562	14.06747	8297.538	14.68405
13270.224	8.63012	9458.472	8.77428	8581.896	14.18856	8297.472	14.81985
13513.998	8.74631	9458.946	8.90861	8579.862	14.19641	8295.702	14.91349
13268.64	8.77327	9457.248	8.97136	8579.736	14.31504	8389.59	15.30176
13270.05	8.81053	9336.516	8.86203	8681.16	14.3974	8482.602	15.45863
13269.402	8.85465	9456.174	8.91057	8680.806	14.40084	8580.84	15.45667
13268.874	8.8973	9457.488	8.96547	8780.61	14.81215	8580.696	15.45275
13266.588	9.03212	9335.7	9.02136	8778.192	14.76753	8580.768	15.50472
13508.1	9.28508	9454.836	9.12431	8777.808	14.80136	8580.624	15.50226
13758.126	9.43558	9577.686	9.21942	8883.834	14.93029	8579.91	15.51207
13756.986	9.50422	9574.662	9.31698	8777.142	14.89353	8579.52	15.60178
13505.604	9.52285	9574.446	9.36796	8777.19	14.78322	8579.196	15.60914
13504.026	9.60374	9700.578	9.38708	8777.244	14.90921	8579.736	15.56354
13503.966	9.64197	9699.228	9.39247	8777.19	15.03423	8579.37	15.63561
13504.692	9.68953	9699.324	9.39051	8882.07	15.12639	8578.98	15.63904
13755.918	9.75228	9697.848	9.50082	8989.41	15.24944	8679.252	15.86014
13752.762	9.83954	9697.062	9.66554	8988.198	15.26366	8677.014	15.98515
13751.628	9.89494	9825.078	9.58563	8988.066	15.20336	8676.012	16.09447
14012.01	9.95524	9822.408	9.80133	8988.252	15.26268	8780.556	16.09987
13746.774	9.98563	9822.408	9.69397	9099.234	15.41024	8780.454	16.22047
13747.656	10.00426	9956.688	9.8131	8985.024	15.44652		

14013.582	10.02436	9956.16	9.75966	9096.918	15.48966		
14010.834	10.04446	9954.576	10.03469	9096.312	15.45534		
13748.604	10.0577	10088.478	10.16754	9210.846	15.57104		
14012.73	10.09888	10086.342	10.11607	9209.292	16.08285		
14010.246	10.118	10086.846	10.13225	9319.404	16.32846		
14008.806	10.12388	10084.812	10.23569	9316.452	16.52112		
14008.35	10.15379	10084.95	10.29304	9437.67	16.56132		
14006.388	10.20624	10084.812	10.28765	9437.256	16.58878		
14005.278	10.29988	10226.898	10.29746	9434.466	16.76968		
14005.47	10.34547	10084.506	10.29599	9558.312	16.82017		
14001.09	10.34253	10226.55	10.31609				
14000.898	10.38028	10224.324	10.39943				
14274.906	10.48274	10223.976	10.47541				
14269.002	10.6803	10222.824	10.51267				
14555.97	10.83522	10222.86	10.52983				
14549.478	11.06563	10222.65	10.60043				
14546.298	11.15535	10364.34	10.80535				
14547.006	11.25535	10362.48	10.96761				
14546.442	11.35242	10362.048	11.02546				
14546.16	11.36909	10507.182	11.30294				
14545.596	11.41762	10655.868	11.33824				
14545.806	11.41174	10655.226	11.54414				
14543.058	11.42057	10809.564	11.8074				
14545.734	11.43282	10806.84	11.90937				
14546.586	11.42645	10805.982	11.97212				
14546.442	11.47253	10806.564	12.00055				
14547.15	11.47498	10967.88	12.06673				
14547.36	11.48283	10967.076	12.08291				
14546.934	11.4789	10805.478	12.05595				
14549.196	11.34948	10968	12.18341				

Data of Figure 12

APC 9045		APC 9060		APC 9075	
Speed(r/min)	Thrust(N)	Speed(r/min)	Thrust(N)	Speed(r/min)	Thrust(N)
2095.59	-0.05788	1731.306	-0.10388	1870.776	-0.2636
2711.484	0.02203	2159.22	-4.40E-04	2220.804	-0.14251
3026.028	0.0735	2763.84	0.06966	2782.128	-0.07976
3260.79	0.10096	2980.596	0.10447	2966.904	-0.07388
3392.346	0.11223	3166.884	0.10251	3138.564	-0.0023
3518.568	0.15488	3262.074	0.19516	3218.388	0.00848
3602.322	0.18626	3408.336	0.23585	3316.836	0.03692
3672.318	0.20489	3518.814	0.24909	3421.338	0.08055
3708.402	0.22989	3585.18	0.2839	3516.354	0.11682
3801.498	0.30097	3725.766	0.29664	3651.63	0.18742
3919.578	0.30833	3838.728	0.37312	3797.766	0.27517
4045.47	0.34166	3958.584	0.43244	3894.948	0.30753
4089.21	0.37108	4086.246	0.47313	3955.872	0.35312
4111.344	0.36961	4245.996	0.54667	4018.692	0.36734
4133.892	0.39559	4418.82	0.64471	4061.682	0.40018
4156.626	0.41765	4691.586	0.82022	4173.222	0.43058
4226.268	0.43775	4903.5	0.88787	4315.68	0.49186
4250.046	0.44216	5170.362	1.07219	4494.27	0.54922
4298.274	0.4554	5278.17	1.28397	4659.774	0.63893
4372.83	0.48775	5352.51	1.42515	4807.23	0.77178
4398.3	0.48334	5352.576	1.52368	5030.172	1.0169
4398.144	0.47305	5352.462	1.65898	5097.414	1.17524
4398.192	0.50687	5352.486	1.77074	5202.444	1.3826
4449.954	0.50785	5390.466	1.90604	5238.234	1.47133
4476.336	0.53629	5468.166	2.08791	5202.138	1.55712
4476.21	0.53286	5547.894	2.33547	5238.072	1.72281
4503.06	0.54609	5630.04	2.73207	5238.054	1.77526
4529.982	0.56717	5714.7	2.95855	5238.228	1.80222
4584.894	0.59512	5846.766	3.28504	5274.588	1.93702
4612.818	0.6108	5846.472	3.49829	5274.57	2.14929
4612.866	0.62551	5984.706	3.64045	5348.892	2.35519
4669.704	0.61669	6080.58	3.73701	5425.248	2.48705
4787.982	0.66277	6229.908	4.17626	5464.302	2.65275
4866.228	0.70836	6281.304	4.27822	5503.8	2.80717
4944.474	0.79023	6333.882	4.50863	5544.006	3.12876
4944.3	0.80886	6333.792	4.90081	5626.398	3.48221
5043.396	0.89318	6552.324	4.91355	5797.944	3.90528
5146.404	1.03437	6609.282	4.98903	5887.758	4.02146
5181.582	1.07408	6667.212	4.9351	5933.766	4.23618
5181.492	1.14811	6726.168	4.99735	6028.032	4.42639
5327.706	1.35303	6786.18	5.13804	6027.9	4.52835
5365.188	1.4751	6847.422	5.37776	6028.164	4.61169
5521.812	1.83199	6847.656	5.41795	6076.158	4.76365
5687.886	1.79817	6847.236	5.71601	6175.14	4.86121
5819.682	2.108	6973.062	5.93759	6225.696	5.81275
5819.298	2.0026	7037.658	6.58224	6329.472	5.81422
5864.448	1.94279	7170.294	7.09698	6436.662	6.58634
5819.298	2.09574	7170.324	7.22445	6547.89	6.44907
5864.976	2.11535	7170.294	7.21856	6662.4	6.51818
5819.268	1.94279	7170.432	7.26122	6721.59	6.90596
5864.622	2.04525	7238.7	7.24112	6781.728	7.11724
5910.246	2.1482	7238.982	7.22347	6781.608	6.55836
5910.564	2.2031	7170.432	7.23621	6842.814	7.04909

5910.408	2.24036	7238.736	7.22053	6842.55	7.09516
5956.728	2.37077	7170.444	7.21562	6842.412	6.91916
6052.182	2.46097	7204.494	7.21366	6904.758	7.30154
6051.936	2.5095	7238.544	7.20876	6904.68	7.04367
6150.576	2.60265	7308.198	7.29161	6904.884	7.37016
6151.134	2.84091	7308.324	7.45731	6904.998	7.44565
6150.288	3.05416	7379.112	7.28818	7032.726	7.62066
6201.024	2.79531	7451.586	7.43623	7098.576	7.90843
6252.126	4.03905	7525.344	7.55683	7165.77	8.01579
6411.048	4.34741	7600.596	7.76959	7165.242	8.20846
6465.642	4.79353	7600.308	7.80979	7303.374	8.39083
6521.496	5.08768	7755.708	8.00344	7374.198	8.69428
6521.724	5.25534	7835.454	8.35494	7374.45	8.74674
6521.76	5.31662	8085.924	8.79027	7446.402	8.52662
6521.796	5.2725	8261.484	8.92117	7520.364	8.95509
6521.61	5.19406	8352.15	8.96137	7595.436	9.02029
6521.526	5.06807	8445.33	9.04765	7750.296	9.21247
6521.568	5.02296	8445.114	9.16237	7750.056	9.42523
6578.916	4.9911	8540.1	9.1908	7911.954	9.50906
6521.538	5.08817	8492.463	9.24718	7911.582	9.6277
6521.202	5.12788	8444.826	9.26041	7995.096	10.01695
6578.514	5.18376	8540.172	9.20747	8080.458	9.91106
6578.616	5.22298	8540.562	9.19472	8167.2	10.27923
6578.286	5.3024	8540.316	9.29424	8167.152	10.24491
6578.556	5.33672	8637.42	9.40896	8166.954	10.10716
6578.502	5.34015	8637.366	9.39474	8255.934	10.27531
6636.138	5.28818	8637.168	9.55456	8166.888	10.24197
6695.25	5.32642	8736.678	9.51877	8256.024	10.09441
6635.712	5.50193	8736.348	9.61584	8256.048	10.10029
6635.736	5.64116	8838.396	9.68888	8255.982	10.13755
6635.76	5.71911	8837.826	9.83988	8346.804	10.10765
6635.598	5.74362	8941.986	10.09088	8255.55	10.05176
6694.71	5.76421	9157.65	10.31884	8346.876	10.08706
6754.704	5.17494	9157.176	10.4061	8346.732	10.14
6754.26	5.24112	9269.556	10.47033	8439.576	10.25864
6753.972	6.24955	9269.79	10.60955	8534.364	10.40767
6815.688	5.67204	9383.856	10.6272	8534.34	10.5822
6784.929	4.96561	9383.622	10.73309	8533.734	10.79153
6754.17	6.17307	9383.388	10.90713	8631.156	10.79839
6877.578	5.71028	9621.828	11.20912	8630.634	10.97341
6940.848	5.8902	9621.396	11.29883	8729.76	11.06018
7005.108	5.36368	9621.21	11.28265	8935.962	11.35923
7004.814	6.0961	9621.06	11.27922	8936.046	11.45728
7004.598	5.74019	9621.246	11.40423	8935.776	11.56072
7004.388	5.35437	9621.06	11.48218	9041.784	11.72446
7004.682	6.03139	9744.75	11.59739	9151.056	11.78672
7004.664	5.88088	9744.468	11.75426	9151.17	11.76319
7070.07	5.5789	9744.528	11.82535	9151.026	11.74015
7136.076	5.59851	9744.09	11.91997	9262.974	12.0436
7136.976	5.60733	9871.02	12.01164	9377.55	12.17058
7205.01	5.63871	9871.02	12.10037	9377.376	12.46227
7205.028	5.67057	10001.268	12.23127	9377.226	12.42991
7204.506	5.74607	10001.166	12.26313	9376.992	12.41226
7344.588	5.5333	10001.268	12.36069	9494.244	12.55247
7489.494	6.02747	10000.932	12.49306	9494.634	12.72308
7642.26	5.8	10134.828	12.59993	9615.444	12.82211

7641.66	5.89755	10134.69	12.64356	9494.184	12.83828
7640.706	6.14807	10134.348	12.71759	9614.646	12.90643
7718.61	6.18483	10134.384	12.7975	9614.766	12.95349
7799.136	6.18728	10134.108	12.84162	9614.49	13.09076
7798.464	6.18728	10133.832	12.90388	9737.286	13.4805
7798.368	6.2064	10271.616	13.0637	9864.234	13.63983
7881.69	6.20689	10412.544	13.41618	9993.672	13.97074
7799.094	6.23484	10411.314	13.66963	10127.952	14.04672
7881.942	6.24317	10706.832	13.89073	10127.508	14.03643
7881.132	6.3471	10705.986	13.95005	9993.636	14.02172
7880.448	6.43976	10556.244	13.96427	10127.916	14.08791
7879.941	6.40593	10705.914	13.99417	10127.472	14.14036
7879.434	6.34759	10706.064	14.09271	10127.508	14.22468
7880.094	6.29563	10706.22	14.01672	10127.508	14.24282
7879.23	6.3672	10556.394	14.06428	10127.508	14.2992
7879.632	6.44172	10705.95	14.20497	10126.926	14.34871
7880.034	6.41868	10705.644	14.21478	10127.298	14.36538
7964.682	6.4123	10555.8	14.2339	10264.728	14.34822
7963.242	6.38828	10705.8	14.28439	10264.584	14.39234
8049.24	6.80646	10859.61	14.32018	10127.508	14.36685
8135.106	6.75302	10705.38	14.31724	10264.866	14.45117
8133.522	7.03785	10704.996	14.31381	10263.882	14.75512
8314.326	6.89911	10858.59	14.37607	10549.824	15.12035
8406.396	6.9251	10859.256	14.34567	10549.638	15.10908
8404.68	6.99471	10858.392	14.5001	10549.374	15.39587
8500.248	7.0756	10858.626	14.60991	10699.152	15.42479
8498.802	7.12119	11016.696	14.71286	10698.084	15.5449
8498.268	7.12462	11016.816	14.77708	10697.664	15.67971
8498.268	7.00304	11016.372	14.96092	10697.742	15.69099
8598.282	7.01481	11016.048	15.21634	10698.084	15.7057
8597.022	7.53005	11177.808	15.26585	10697.82	15.69491
8794.2	7.83694	11177.97	15.4144	10697.97	15.72825
9007.818	7.9747	11178.138	15.51146	10697.97	15.80914
9005.898	8.04088	11345.37	15.62226	10697.706	15.82973
9117.042	8.11589	11345.76	15.72129	10697.898	15.81061
9115.854	8.08942	11345.412	15.73256	10851.282	15.85228
9116.022	8.10657	11177.472	15.70756	10851.324	16.08759
9004.008	8.09726	11177.556	15.73011	10850.814	16.32585
9116.13	8.19188	11345.628	15.75462	10850.418	16.41017
9114.882	8.33552	11344.77	15.79286	10850.736	16.39399
9114.138	8.29287	11345.37	15.74188	11008.608	16.63127
9113.97	8.2409	11177.682	15.7507	11007.924	16.70824
9113.862	8.31591	11344.86	15.82522	11007.924	16.92345
9113.64	8.44435	11344.86	15.88258	11007.642	16.88718
9228.33	8.39827	11176.806	15.91444	11170.566	17.0318
9227.022	8.32326	11345.46	15.95758	11170.398	16.94748
9227.814	8.51494	11345.286	16.03161	11170.104	17.17985
9225.09	8.50122	11344.602	16.02622	11169.858	17.27888
9223.728	8.56838	11344.428	16.16005	11169.024	17.25142
9224.016	8.61348	11517.462	16.31742	11336.754	17.24358
9223.02	8.6326	11517.198	16.30761	11337.354	17.32839
9222.822	8.69437	11516.844	16.33801	11169.942	17.32594
9339.072	8.87331	11517.156	16.33997	11337.354	17.39653
9458.472	8.77428	11517.288	16.35615	11337.18	17.44458
9458.946	8.90861	11516.622	16.72579	11336.796	17.59557
9457.248	8.97136	11694.222	16.87972	11509.2	17.6544



9336.516	8.86203	11785.446	17.13661	11509.866	17.78579
9456.174	8.91057	11876.67	17.20132	11336.754	17.87452
9457.488	8.96547	11877	17.24593	11508.894	17.83187
9335.7	9.02136	11877	17.31114	11509.068	17.89511
9454.836	9.12431	11877.016	17.30819	11509.422	17.89413
9577.686	9.21942	11877.032	17.30427	11509.464	17.87746
9574.662	9.31698	11877.048	17.37291	11509.332	17.92648
9574.446	9.36796	11877.426	17.42046	11509.116	17.95835
9700.578	9.38708	11877.234	17.34251	11509.2	18.03434
9699.228	9.39247	11877.282	17.37536	11509.332	17.96668
9699.324	9.39051	11876.718	17.46262	11508.894	18.05002
9697.848	9.50082	11876.58	17.52684	11508.894	18.09562
9697.062	9.66554	11876.766	17.6396	11509.464	18.07552
9825.078	9.58563	11876.154	17.8352	11509.248	18.35593
9822.408	9.80133	12065.298	18.05924	11686.068	18.47604
9822.408	9.69397	12065.106	18.1867	11686.296	18.64616
9956.688	9.8131	12261.06	18.20778	11685.792	18.54174
9956.16	9.75966	12065.154	18.28328	11686.656	18.7192
9954.576	10.03469	12064.812	18.34946		
10088.478	10.16754	12260.862	18.31171		
10086.342	10.11607	12260.562	18.34211		
10086.846	10.13225	12260.514	18.4127		
10084.812	10.23569	12260.208	18.64361		
10084.95	10.29304	12260.16	18.86618		
10084.812	10.28765	12260.058	19.08482		
10226.898	10.29746	12259.11	19.01472		
10084.506	10.29599	12259.758	19.34563		
10226.55	10.31609	12461.682	19.30249		
10224.324	10.39943	12461.574	19.33828		
10223.976	10.47541				
10222.824	10.51267				
10222.86	10.52983				
10222.65	10.60043				
10364.34	10.80535				
10362.48	10.96761				
10362.048	11.02546				
10507.182	11.30294				
10655.868	11.33824				
10655.226	11.54414				
10809.564	11.8074				
10806.84	11.90937				
10805.982	11.97212				
10806.564	12.00055				
10967.88	12.06673				
10967.076	12.08291				
10805.478	12.05595				
10968	12.18341				

Data of Figure 13

APC 8045		APC 9045		APC 1145		APC 1245	
Speed(r/min)	Torque(N·m)	Speed(r/min)	Torque(N·m)	Speed(r/min)	Torque(N·m)	Speed(r/min)	Torque(N·m)
1454.088	0.00749	1334.22	0.00808	1350.648	0.01017	1105.638	0.01141
2625.366	0.00564	2401.59	0.00688	1708.158	0.00846	1756.194	0.01019
3163.752	0.00477	3001.956	0.0059	2085.69	0.00838	1926.462	0.00982
3600.432	0.00407	3205.59	0.00563	2267.352	0.00791	2170.008	0.00927
3857.742	0.00386	3347.268	0.00593	2412.192	0.00831	2316.45	0.00922
4065.06	0.00402	3486.198	0.00533	2533.632	0.00741	2443.926	0.00841
4200.534	0.00354	3568.386	0.00514	2649.174	0.00814	2508.87	0.00869
4296.198	0.0037	3585.294	0.00558	2715.906	0.008	2577.354	0.00821
4370.604	0.00402	3619.65	0.0057	2765.64	0.00786	2631.18	0.00853
4447.746	0.00373	3672.264	0.00568	2796.432	0.00817	2659.014	0.00871
4474.044	0.00423	3745.02	0.00565	2827.812	0.00842	2716.344	0.00926
4500.6	0.00416	3763.662	0.00574	2838.516	0.00831	2756.028	0.00855
4582.392	0.00476	3782.448	0.00583	2881.764	0.00828	2766.066	0.00926
4667.244	0.00463	3782.406	0.00554	2892.858	0.0089	2807.28	0.00917
4785.576	0.00523	3820.644	0.00688	2892.87	0.00838	2828.28	0.00859
4878.054	0.00543	3919.71	0.00807	2926.482	0.00808	2828.316	0.00938
4974.366	0.00469	4089.204	0.00761	2915.256	0.00833	2849.676	0.00934
5024.508	0.00504	4202.802	0.00831	2926.518	0.00798	2860.398	0.01035
5074.65	0.00573	4322.754	0.00923	2915.238	0.00796	2893.272	0.01109
5143.53	0.00479	4449.93	0.00789	2903.964	0.00786	2984.796	0.01164
5214.732	0.00543	4476.318	0.00927	2909.58	0.00879	3032.79	0.01159
5250.84	0.005	4557.216	0.00791	2915.196	0.00877	3082.266	0.01102
5287.416	0.00541	4530.036	0.00819	2960.952	0.00886	3094.926	0.01091
5324.85	0.00548	4502.856	0.0087	2960.964	0.00941	3133.404	0.01187
5362.62	0.00606	4584.924	0.00877	2996.148	0.00937	3159.666	0.01374
5439.75	0.00627	4641.162	0.01018	3032.316	0.00992	3227.154	0.01298
5519.352	0.00564	4757.796	0.0093	3076.152	0.01001	3297.588	0.01321
5518.944	0.00613	4787.934	0.00932	3119.988	0.01056	3341.448	0.0131
5559.84	0.00627	4818.54	0.00994	3185.838	0.01064	3371.208	0.01305
5600.892	0.00638	4880.7	0.00957	3212.916	0.01041	3386.34	0.01314
5685.51	0.0062	4944.342	0.01071	3240.564	0.01059	3401.628	0.01349
5685.072	0.00691	4977.006	0.01006	3240.504	0.01041	3417.012	0.0146
5771.874	0.00695	4976.988	0.00999	3254.49	0.01011	3480.03	0.01506
5861.4	0.008	5043.486	0.01211	3268.578	0.01149	3528.744	0.01487

6049.008	0.00788	5181.678	0.01108	3297.234	0.01181	3578.952	0.01469
6147.3	0.00763	5217.648	0.01071	3355.776	0.01218	3596.016	0.01513
6248.934	0.00763	5253.618	0.012	3416.58	0.01377	3613.254	0.01524
6248.61	0.00797	5290.35	0.01407	3495.66	0.01334	3648	0.01771
6301.134	0.00788	5562.486	0.01428	3561.606	0.01327	3701.742	0.02205
6353.832	0.00933	5730.93	0.01468	3595.59	0.01343	3880.866	0.02046
6462.3	0.01035	5864.382	0.01428	3630.144	0.01377	4059.99	0.02
6750.552	0.01072	5864.574	0.01329	3665.34	0.01364	4126.59	0.02087
7001.382	0.01118	5864.634	0.01283	3701.412	0.01483	4172.226	0.02186
7065.306	0.01148	5818.824	0.01414	3756.576	0.0152	4242.486	0.02168
7341.444	0.0112	5910.306	0.01566	3832.926	0.01613	4290.72	0.02166
7413.264	0.01143	6003.948	0.01516	3892.062	0.01721	4315.188	0.02173
7485.198	0.01143	6051.744	0.0147	3995.166	0.01862	4365.12	0.0227
7485.498	0.0116	6100.824	0.01541	4081.494	0.02	4390.542	0.02232
7560.96	0.01178	6100.614	0.01626	4241.946	0.02016	4416.024	0.02276
7559.82	0.01155	6201.228	0.01518	4339.518	0.02102	4442.112	0.02454
7637.982	0.01153	6200.832	0.01514	4441.758	0.02042	4494.858	0.02516
7637.262	0.01176	6200.706	0.01673	4494.534	0.02032	4576.794	0.0251
7636.194	0.01201	6200.358	0.01693	4521.24	0.02153	4632.87	0.02516
7715.91	0.01203	6410.898	0.01701	4548.546	0.02134	4661.394	0.02592
7796.016	0.01173	6521.586	0.01613	4604.208	0.02203	4690.59	0.02542
7714.86	0.0125	6521.226	0.01606	4632.438	0.02166	4690.404	0.02512
7877.592	0.01203	6520.914	0.01608	4660.962	0.02222	4690.41	0.02599
7794.66	0.0119	6578.574	0.01592	4689.984	0.02247	4719.816	0.02639
7878.216	0.01231	6578.112	0.01611	4719.294	0.02118	4749.438	0.02701
7794.354	0.0125	6578.442	0.0158	4719.366	0.02242	4809.996	0.02759
7875.978	0.01242	6578.226	0.01705	4719.234	0.02372	4840.692	0.02782
7960.872	0.01252	6635.904	0.01648	4809.45	0.02422	4871.916	0.02906
7874.616	0.01295	6635.817	0.01682	4840.35	0.02407	4935.864	0.0296
7958.808	0.01326	6635.73	0.01581	4871.568	0.02554	5001.324	0.0299
8132.508	0.01415	6635.262	0.01641	4935.15	0.02566	5034.42	0.0313
8219.448	0.0139	6694.83	0.01585	5034.066	0.02466	5102.664	0.03061
8309.994	0.01443	6694.578	0.01611	5000.55	0.02543	5102.328	0.03142
8309.418	0.01478	6724.512	0.02102	5034.072	0.02612	5136.996	0.03366
8402.022	0.01485	6754.446	0.01634	5101.986	0.0276	5244.162	0.03536
8399.148	0.01519	6754.032	0.01837	5171.94	0.0278	5317.998	0.03659
8593.92	0.01582	6815.517	0.0198	5207.382	0.02974	5472.198	0.03742

8692.5	0.01559	6877.002	0.01846	5317.662	0.03066	5511.756	0.03681
8690.388	0.01573	6941.004	0.02155	5432.28	0.03083	5594.196	0.03839
8793.114	0.016	7005.006	0.01927	5471.526	0.0312	5635.536	0.03864
8791.572	0.01591	7070.034	0.02171	5552.286	0.03152	5677.794	0.04
8897.454	0.0164	7136.79	0.0206	5593.194	0.03006	5720.724	0.03951
8894.976	0.01655	7136.556	0.021	5593.572	0.03299	5764.644	0.0394
9002.874	0.01674	7204.956	0.02236	5634.996	0.03563	5809.11	0.03965
9000.9	0.01812	7274.088	0.02623	5764.008	0.03518	5764.344	0.03915
9220.302	0.01914	7489.44	0.02474	5853.522	0.03632	5764.362	0.03984
9451.884	0.01955	7720.182	0.02409	5945.88	0.03729	5809.104	0.04086
9570.936	0.01921	7641.192	0.02589	5992.488	0.0368	5854.254	0.04235
9695.562	0.01889	7640.838	0.02328	6040.884	0.0365	5853.672	0.04323
9695.592	0.01928	7640.976	0.0251	6040.788	0.03715	5945.928	0.04258
9694.524	0.01875	7719.306	0.02351	6089.85	0.03673	5993.334	0.04256
9696.498	0.01868	7718.988	0.02582	6040.518	0.0368	5993.118	0.04362
9696.75	0.01903	7718.352	0.02654	6040.518	0.03676	6041.334	0.04358
9695.28	0.01933	7800.372	0.02556	6089.922	0.03657	6041.202	0.04388
9694.242	0.01909	7718.868	0.02471	6089.892	0.03691	6090.306	0.04326
9694.272	0.01932	7799.784	0.02497	6089.862	0.03685	6041.07	0.04501
9694.368	0.01919	7799.178	0.02483	6089.838	0.03719	6040.824	0.04554
9694.026	0.0193	7800.168	0.02527	6089.502	0.03758	6139.668	0.04754
9693.492	0.019	7718.712	0.0251	6089.208	0.03724	6189.612	0.04987
9693.366	0.01889	7718.43	0.02593	6139.566	0.03825	6346.128	0.04965
9694.212	0.01893	7798.77	0.02623	6138.984	0.03908	6345.03	0.04987
9693.054	0.01941	7880.862	0.02633	6241.278	0.03957	6399.618	0.04928
9693.084	0.01958	7880.262	0.02637	6240.822	0.03962	6399.576	0.05038
9821.706	0.02015	7879.83	0.02644	6240.222	0.03961	6454.692	0.05345
9953.682	0.02041	7879.206	0.02697	6240.156	0.03959	6509.808	0.05265
9950.514	0.02068	7962.12	0.02792	6292.752	0.03976	6566.46	0.05251
9946.884	0.0211	8048.508	0.02746	6292.446	0.03927	6566.439	0.05228
10081.152	0.02225	8048.484	0.02734	6239.886	0.04146	6566.418	0.0528
10216.554	0.02239	8135.574	0.02992	6292.146	0.04142	6566.106	0.05251
10358.4	0.02189	8132.526	0.02937	6399.834	0.04156	6624.888	0.05347
10358.436	0.02226	8222.244	0.0281	6454.722	0.04125	6565.83	0.05318
10357.47	0.02285	8220.912	0.03011	6398.856	0.04142	6624.27	0.05297
10502.07	0.02435	8221.14	0.03064	6398.922	0.04128	6624.156	0.05281
10649.436	0.02451	8311.446	0.03131	6398.892	0.04038	6624.156	0.05285

10804.584	0.02482	8499.714	0.032	6398.622	0.04186	6624.126	0.05325
10800.186	0.02578	8696.964	0.03443	6454.29	0.04209	6624.228	0.05336
10956.822	0.02579	8797.11	0.0338	6453.276	0.0431	6623.526	0.05452
10953.984	0.02652	8692.074	0.03159	6452.904	0.04554	6682.794	0.0552
11291.91	0.02588	8796.828	0.03457	6623.19	0.04548	6682.212	0.05599
11291.1	0.02692	8797.164	0.03304	6682.17	0.04478	6742.116	0.05618
11116.008	0.02676	8794.536	0.03313	6681.204	0.04548	6803.646	0.05638
11114.982	0.02682	8793.552	0.03516	6741.738	0.04776	6803.154	0.05602
11285.154	0.02735	8898.96	0.03498	6866.028	0.05011	6803.076	0.0567
11283.246	0.02759	9007.47	0.03558	6927.576	0.04921	6803.094	0.05722
11457.51	0.02828	9005.604	0.03491	6991.686	0.05007	6802.644	0.0579
11455.062	0.0277	9005.25	0.03484	6990.66	0.05124	6865.14	0.06074
11456.676	0.02818	9005.004	0.03519	7057.746	0.05002	6927.636	0.0606
11456.328	0.02796	9003.9	0.03503	6990.348	0.05108	6991.704	0.06075
11456.154	0.02763	9003.846	0.03586	7057.08	0.05064	7057.596	0.06031
11455.848	0.02807	9113.664	0.03738	7056.198	0.05178	6990.84	0.0606
11456.112	0.02825	9228.864	0.03733	7055.85	0.05152	6991.524	0.06224
11456.373	0.02796	9114.054	0.03517	7123.626	0.05297	7056.684	0.06538
11456.634	0.02814	9002.334	0.03495	7191.246	0.05424	7191.918	0.06573
11456.196	0.02795	9114.774	0.03544	7190.364	0.05365	7261.476	0.06547
11455.41	0.03167	9114.882	0.03664	7260.738	0.05429	7260.51	0.0649
12007.014	0.03148	9112.584	0.04084	7331.592	0.05584	7332.9	0.06557
12201.024	0.03195	9340.962	0.03643	7330.896	0.05457	7332.078	0.06714
12196.908	0.03238	9459.156	0.04116	7403.64	0.05729	7259.508	0.06637
12193.782	0.03181	9458.262	0.03911	7403.55	0.05653	7331.094	0.0672
12194.976	0.03229	9457.668	0.03705	7402.146	0.05925	7404.318	0.06718
12192.444	0.03213	9336.864	0.04151	7551.312	0.06227	7403.772	0.06713
12194.478	0.03148	9456.858	0.04035	7626.852	0.06082	7330.428	0.06617
12194.13	0.03278	9456.054	0.03657	7706.454	0.0605	7404.132	0.06737
12193.782	0.03204	9455.19	0.0401	7705.623	0.06084	7330.086	0.06677
12400.692	0.03291	9578.88	0.04045	7704.792	0.06373	7330.428	0.06873
12398.334	0.03255	9454.986	0.04268	7704.318	0.06373	7403.184	0.06663
12397.668	0.03432	9576.252	0.04114	7783.596	0.06437	7329.21	0.07058
12393.006	0.03534	9574.506	0.04017	7866.048	0.06447	7401.594	0.07359
12601.23	0.03525	9574.326	0.04077	7865.922	0.06393	7549.56	0.07457
12598.056	0.03534	9574.446	0.0407	7865.388	0.06378	7626.522	0.07387
12820.02	0.03515	9573.162	0.04043	7865.448	0.06389	7705.464	0.07424

12598.74	0.03547	9699.792	0.04031	7865.202	0.06433	7705.842	0.0748
12817.062	0.03592	9571.944	0.04142	7865.448	0.06447	7704.636	0.07854
12814.764	0.03626	9696.876	0.04465	7865.43	0.06504	7866.48	0.07996
12814.38	0.03587	9825.852	0.04379	7864.914	0.06603	7864.686	0.07888
12813.396	0.03629	9824.472	0.03976	7948.494	0.0709	7949.862	0.07904
12926.622	0.03633	9822.216	0.04799	8118.462	0.07118	7863.984	0.07936
13039.848	0.037	9954.312	0.04013	8207.778	0.06964	7949.274	0.07959
13039.17	0.03753	9953.88	0.04596	8207.622	0.07046	7948.218	0.08153
13035.486	0.03691	9954.144	0.04493	8207.778	0.07176	8034.6	0.08052
13035.768	0.03674	9950.382	0.04253	8206.296	0.0709	7946.85	0.08142
13036.278	0.03802	10087.32	0.04571	8298.342	0.07158	8033.076	0.08312
13272.75	0.0385	10086.984	0.04795	8297.448	0.0746	8121.126	0.08493
13030.674	0.03838	10087.422	0.04463	8294.742	0.07453	8209.71	0.08747
13029.6	0.0382	10087.152	0.04223	8389.194	0.07483	8300.202	0.08809
13266.822	0.03944	10087.305	0.04485	8485.842	0.07501	8298.318	0.08679
13263.714	0.04162	10087.458	0.0479	8387.832	0.07554	8297.976	0.08719
13502.502	0.04021	10085.184	0.04765	8483.562	0.07684	8297.538	0.08746
13500.864	0.0411	10084.608	0.04534	8581.896	0.07891	8297.472	0.08963
13499.832	0.04113	10085.118	0.04432	8579.862	0.07856	8295.702	0.09063
13497.402	0.04016	10084.422	0.04513	8579.736	0.07822	8389.59	0.09462
13752.888	0.04097	10083.726	0.04658	8681.16	0.07917	8482.602	0.09542
13499.226	0.04131	10222.926	0.05099	8680.806	0.08226	8580.84	0.09469
13498.614	0.04118	10362.408	0.04959	8780.61	0.08344	8580.696	0.09436
13496.31	0.04185	10508.91	0.04892	8778.192	0.08239	8580.768	0.09434
13748.1	0.0417	10658.37	0.05046	8777.808	0.08383	8580.624	0.09506
13747.53	0.0421	10654.962	0.05538	8883.834	0.08382	8579.91	0.09584
13747.53	0.04256	10653.486	0.05125	8777.142	0.08237	8579.52	0.09499
13743.312	0.04327	10653.294	0.04966	8777.19	0.08286	8579.196	0.09588
13744.002	0.04334	10653.714	0.04951	8777.244	0.08362	8579.736	0.09572
13740.354	0.04261	10811.784	0.05344	8777.19	0.08542	8579.37	0.09565
14005.536	0.0427	10652.196	0.05404	8882.07	0.08602	8578.98	0.09743
14003.574	0.0433	10652.616	0.0542	8989.41	0.08671	8679.252	0.09907
14003.904	0.04353	10808.748	0.05279	8988.198	0.08652	8677.014	0.09935
14003.316	0.04312	10808.046	0.05371	8988.066	0.08634	8676.012	0.09974
14000.964	0.04519	10804.386	0.05275	8988.252	0.08779	8780.556	0.09942
14000.178	0.04355	10967.88	0.05249	9099.234	0.08884	8780.454	0.0999
13998.48	0.04665	10965.396	0.05104	8985.024	0.0889		

14265.132	0.04643	10964.634	0.05484	9096.918	0.09006		
14545.524	0.04598	10802.556	0.05773	9096.312	0.089		
14545.734	0.04635	10963.95	0.05404	9210.846	0.09029		
14259.438	0.04607	10959.906	0.05319	9209.292	0.09636		
14545.314	0.04662	11124.996	0.05828	9319.404	0.09659		
14542.284	0.04671	11125.164	0.05288	9316.452	0.09793		
14261.13	0.04694	11124.378	0.0575	9437.67	0.09529		
14544.186	0.04731	11123.76	0.05732	9437.256	0.0979		
14543.478	0.04697	11122.728	0.05049	9434.466	0.0992		
14544.042	0.04653	11123.556	0.06168	9558.312	0.0995		
14542.422	0.04607	11123.184	0.05108				
14542.212	0.04743	11294.286	0.05741				
14541.786	0.04838	11292.078	0.06135				
14541.576	0.0471	11290.464	0.05752				
14539.251	0.04658	11288.718	0.05683				
14536.926	0.04978	11287.914	0.05662				
14831.88	0.04704	11465.262	0.05644				
14830.416	0.05084	11288.124	0.05724				
14828.07	0.04604	11465.082	0.05773				
14829.312	0.04988	11287.404	0.05752				
14833.128	0.0478	11286.552	0.05939				
14829.312	0.04815	11462.064	0.06077				
14826.162	0.05209	11461.272	0.06094				
14820.084	0.04995	11460.966	0.05815				
15128.364	0.04992	11460.576	0.05588				
15126.378	0.04999	11460.882	0.05616				
15127.524	0.05013	11460.708	0.05736				
14821.62	0.04976	11460.792	0.05951				
15127.296	0.04943	11461.098	0.06156				
15123.024	0.04994	11460.75	0.06008				
15123.558	0.05142	11461.188	0.05946				
15122.49	0.05278	11461.056	0.05819				
15122.034	0.05041	11459.214	0.059				
15122.034	0.04935	11735.397	0.06159				
15122.112	0.05264	12011.58	0.06509				
15122.952	0.0529	12010.374	0.06562				
15436.308	0.05147	12009.702	0.06482				

15432.972	0.05018	12008.91	0.06422				
15432.732	0.05502	12008.118	0.06392				
15427.578	0.05341	12008.742	0.06389				
15430.35	0.05054	12007.542	0.06362				
15426.306	0.05061	12008.742	0.06366				
15432.18	0.0522	12006.63	0.06461				
15761.106	0.05495	12005.424	0.06433				
15756.384	0.0555	12004.848	0.0617				
15755.31	0.0571	12003.072	0.06202				
15753.822	0.0559	12004.464	0.06625				
15755.808	0.05384	12004.224	0.0682				
15754.398	0.05341	12002.256	0.06834				
15753.492	0.05536	12202.266	0.06094				
15753.984	0.05687	12200.976	0.06835				
15754.728	0.0559	12198.444	0.06977				
15755.142	0.05315	12199.98	0.06115				



Data of Figure 14

APC 9045		APC 9060		APC 9075	
Speed(r/min)	Torque(N·m)	Speed(r/min)	Torque(N·m)	Speed(r/min)	Torque(N·m)
1334.22	0.00808	2629.932	0.00835	973.806	0.01033
2401.59	0.00688	2957.406	0.00823	2092.458	0.00842
3001.956	0.0059	3262.074	0.00784	2515.086	0.00761
3205.59	0.00563	3454.824	0.00819	2762.022	0.00724
3347.268	0.00593	3551.55	0.00828	2990.418	0.00764
3486.198	0.00533	3707.622	0.00786	3075.132	0.00789
3568.386	0.00514	3781.41	0.00883	3204.798	0.00766
3585.294	0.00558	3838.698	0.00898	3316.806	0.00883
3619.65	0.0057	3979.218	0.00971	3421.434	0.00842
3672.264	0.00568	4086.246	0.00996	3516.558	0.00824
3745.02	0.00565	4153.326	0.01033	3566.01	0.00802
3763.662	0.00574	4222.536	0.01184	3582.846	0.00851
3782.448	0.00583	4444.842	0.01513	3634.266	0.00828
3782.406	0.00554	4780.284	0.01851	3651.804	0.00893
3820.644	0.00688	5241.852	0.01896	3687.156	0.00906
3919.71	0.00807	5547.81	0.01841	3723.396	0.00976
4089.204	0.00761	5672.184	0.01763	3816.894	0.00939
4202.802	0.00831	5802.048	0.0179	3836.178	0.0105
4322.754	0.00923	5801.898	0.01763	3915.324	0.01066
4449.93	0.00789	5801.91	0.01724	3997.68	0.00996
4476.318	0.00927	5802.06	0.01765	4018.86	0.01089
4557.216	0.00791	5802.102	0.01754	4061.688	0.01119
4530.036	0.00819	5802.168	0.0176	4150.644	0.01174
4502.856	0.0087	5801.946	0.01825	4196.406	0.01209
4584.924	0.00877	5892	0.01867	4291.332	0.01326
4641.162	0.01018	5891.886	0.01897	4390.614	0.01449
4757.796	0.0093	5984.88	0.01871	4521.252	0.01506
4787.934	0.00932	5984.706	0.01911	4679.673	0.01643
4818.54	0.00994	5984.694	0.01887	4838.094	0.01792
4880.7	0.00957	6032.274	0.01933	5030.274	0.01813
4944.342	0.01071	6032.262	0.02005	5202.42	0.01808
4977.006	0.01006	6129.516	0.02023	5274.678	0.0185
4976.988	0.00999	6179.376	0.02159	5311.692	0.01802
5043.486	0.01211	6281.34	0.02033	5348.988	0.01868
5181.678	0.01108	6334.212	0.02169	5386.956	0.01885
5217.648	0.01071	6387.084	0.02104	5425.404	0.01848
5253.618	0.012	6333.63	0.02046	5425.512	0.01839
5290.35	0.01407	6387.072	0.02261	5464.44	0.02
5562.486	0.01428	6441.264	0.02257	5544.282	0.02063
5730.93	0.01468	6583.695	0.02554	5585.052	0.02002
5864.382	0.01428	6726.126	0.02665	5668.494	0.01991
5864.574	0.01329	6847.374	0.02745	5668.302	0.02134
5864.634	0.01283	7037.544	0.02847	5668.368	0.02104
5818.824	0.01414	7103.316	0.02857	5754.282	0.02208
5910.306	0.01566	7238.454	0.02976	5842.716	0.02348
6003.948	0.01516	7308.426	0.0293	5935.536	0.02284
6051.744	0.0147	7308.18	0.02799	6028.356	0.02353
6100.824	0.01541	7379.532	0.02826	6028.308	0.02247
6100.614	0.01626	7308.144	0.0288	6028.296	0.02277
6201.228	0.01518	7308.144	0.02928	6028.308	0.02363
6200.832	0.01514	7379.346	0.02932	6076.44	0.02453
6200.706	0.01673	7379.346	0.02895	6125.4	0.02397
6200.358	0.01693	7451.64	0.03029	6226.044	0.02406

6410.898	0.01701	7451.658	0.03067	6225.846	0.02589
6521.586	0.01613	7525.344	0.02999	6329.766	0.02471
6521.226	0.01606	7525.584	0.03097	6382.968	0.02679
6520.914	0.01608	7525.23	0.03082	6436.956	0.02882
6578.574	0.01592	7525.344	0.03069	6604.818	0.02833
6578.112	0.01611	7600.92	0.03122	6721.83	0.02956
6578.442	0.0158	7600.692	0.03239	6781.914	0.03078
6578.226	0.01705	7677.504	0.03272	6842.958	0.03001
6635.904	0.01648	7677.012	0.03345	6905.22	0.03043
6635.817	0.01682	7835.724	0.03378	6905.22	0.02986
6635.73	0.01581	7917.366	0.03373	6905.106	0.03103
6635.262	0.01641	7835.538	0.03387	6905.46	0.02965
6694.83	0.01585	7917.696	0.03484	6905.154	0.03048
6694.578	0.01611	7917.258	0.03502	6843.006	0.03004
6724.512	0.02102	8000.556	0.03613	6842.862	0.03084
6754.446	0.01634	8085.624	0.03782	6905.694	0.02993
6754.032	0.01837	8173.008	0.03892	6968.526	0.03138
6815.517	0.0198	8261.436	0.03904	6968.544	0.03133
6877.002	0.01846	8352.216	0.04052	7032.924	0.03136
6941.004	0.02155	8540.22	0.04063	7032.63	0.03285
7005.006	0.01927	8539.95	0.04029	7098.762	0.03073
7070.034	0.02171	8539.662	0.04202	7098.66	0.03271
7136.79	0.0206	8637.222	0.04179	7165.842	0.03255
7136.556	0.021	8637.072	0.04086	7165.734	0.03255
7204.956	0.02236	8736.348	0.04292	7165.584	0.03218
7274.088	0.02623	8736.522	0.04098	7165.872	0.03331
7489.44	0.02474	8636.526	0.0428	7234.038	0.03371
7720.182	0.02409	8736.27	0.04234	7303.428	0.03474
7641.192	0.02589	8838.192	0.04356	7374.558	0.03654
7640.838	0.02328	8838.036	0.04379	7520.454	0.03602
7640.976	0.0251	8837.958	0.04315	7596.012	0.03721
7719.306	0.02351	8838.036	0.04345	7595.784	0.03712
7718.988	0.02582	8837.694	0.04418	7672.32	0.03802
7718.352	0.02654	8942.04	0.04421	7750.758	0.04128
7800.372	0.02556	8942.01	0.04501	7912.35	0.04222
7718.868	0.02471	8941.8	0.04495	7995.438	0.04082
7799.784	0.02497	8941.8	0.04506	8080.764	0.04317
7799.178	0.02483	9049.116	0.04592	8167.464	0.04308
7800.168	0.02527	9048.384	0.04626	8256.3	0.04329
7718.712	0.0251	9048.108	0.04612	8256.138	0.04416
7718.43	0.02593	9157.674	0.04804	8347.638	0.04278
7798.77	0.02623	9157.26	0.04834	8256.276	0.04379
7880.862	0.02633	9268.956	0.04804	8256.048	0.04211
7880.262	0.02637	9268.758	0.04846	8256.456	0.0443
7879.83	0.02644	9383.592	0.05067	8347.452	0.04471
7879.206	0.02697	9383.208	0.05034	8256	0.04467
7962.12	0.02792	9500.496	0.05214	8346.828	0.04511
8048.508	0.02746	9621.366	0.05178	8440.098	0.04621
8048.484	0.02734	9620.934	0.05173	8439.318	0.0463
8135.574	0.02992	9621.06	0.05217	8534.61	0.04614
8132.526	0.02937	9621.12	0.05247	8534.562	0.04594
8222.244	0.0281	9620.658	0.05231	8534.388	0.04912
8220.912	0.03011	9620.778	0.05203	8631.924	0.04778
8221.14	0.03064	9620.844	0.05134	8631.228	0.04778
8311.446	0.03131	9621.06	0.05143	8731.032	0.05145
8499.714	0.032	9620.874	0.05256	8730.648	0.04993

8696.964	0.03443	9620.598	0.05268	8730.702	0.04947
8797.11	0.0338	9744.912	0.05143	8832.258	0.05136
8692.074	0.03159	9620.904	0.05256	8832.546	0.05189
8796.828	0.03457	9621.09	0.05357	8936.604	0.05272
8797.164	0.03304	9744.276	0.05552	8936.232	0.05164
8794.536	0.03313	9743.868	0.05362	9043.038	0.0532
8793.552	0.03516	9744.15	0.05424	8935.542	0.05378
8898.96	0.03498	9871.314	0.05725	9042.846	0.05512
9007.47	0.03558	9870.858	0.05512	9151.98	0.05468
9005.604	0.03491	10000.968	0.05851	9151.446	0.05478
9005.25	0.03484	10134.996	0.05907	9151.56	0.05369
9005.004	0.03519	10134.486	0.05657	9151.476	0.05514
9003.9	0.03503	10000.5	0.05867	9042.216	0.0557
9003.846	0.03586	10134.384	0.05898	9151.56	0.05561
9113.664	0.03738	10133.904	0.06048	9151.254	0.0557
9228.864	0.03733	10271.298	0.06052	9263.148	0.058
9114.054	0.03517	10271.478	0.06156	9263.406	0.05653
9002.334	0.03495	10271.334	0.06512	9263.292	0.05918
9114.774	0.03544	10412.004	0.06265	9377.844	0.05729
9114.882	0.03664	10556.874	0.06685	9377.64	0.06138
9112.584	0.04084	10705.758	0.06373	9377.142	0.06142
9340.962	0.03643	10556.094	0.06678	9495.204	0.06121
9459.156	0.04116	10556.022	0.06694	9615.414	0.06216
9458.262	0.03911	10705.722	0.06422	9614.952	0.06227
9457.668	0.03705	10705.836	0.0641	9614.55	0.06198
9336.864	0.04151	10556.58	0.0671	9615.264	0.06283
9456.858	0.04035	10556.394	0.06364	9614.952	0.06239
9456.054	0.03657	10556.094	0.06567	9739.056	0.06204
9455.19	0.0401	10705.338	0.06737	9614.892	0.06244
9578.88	0.04045	10705.914	0.06576	9738.618	0.0635
9454.986	0.04268	10705.302	0.06481	9738.648	0.06532
9576.252	0.04114	10705.074	0.0664	9865.176	0.06929
9574.506	0.04017	10556.058	0.06767	9864.852	0.0656
9574.326	0.04077	10705.452	0.06754	9994.938	0.07137
9574.446	0.0407	10858.392	0.06705	9994.572	0.07127
9573.162	0.04043	10704.882	0.06569	9994.536	0.06739
9699.792	0.04031	10704.96	0.06594	10128.12	0.06913
9571.944	0.04142	10705.074	0.067	10128.36	0.07171
9696.876	0.04465	10704.918	0.06821	10128.6	0.07171
9825.852	0.04379	10704.42	0.06813	10128.498	0.06821
9824.472	0.03976	10858.668	0.06848	10128.054	0.06802
9822.216	0.04799	10704.576	0.06802	10128.36	0.0713
9954.312	0.04013	10858.746	0.06841	10128.222	0.0722
9953.88	0.04596	10858.392	0.06869	9994.506	0.07032
9954.144	0.04493	10858.392	0.06825	9994.404	0.06889
9950.382	0.04253	10857.684	0.06973	10127.742	0.06938
10087.32	0.04571	10857.96	0.07224	10128.084	0.07185
10086.984	0.04795	11015.724	0.07285	10127.952	0.0722
10087.422	0.04463	11015.442	0.06978	10127.676	0.07185
10087.152	0.04223	11015.118	0.07481	10127.64	0.0724
10087.305	0.04485	11014.914	0.07017	10128.12	0.07143
10087.458	0.0479	11177.886	0.07466	10127.814	0.07074
10085.184	0.04765	11014.794	0.07118	10265.358	0.0713
10084.608	0.04534	11177.844	0.07474	10127.814	0.07321
10085.118	0.04432	11014.956	0.07173	10265.148	0.07287
10084.422	0.04513	11014.47	0.07646	10265.394	0.07464

10083.726	0.04658	11177.556	0.07349	10264.728	0.07519
10222.926	0.05099	11177.304	0.0737	10265.148	0.07443
10362.408	0.04959	11177.388	0.07753	10265.01	0.07388
10508.91	0.04892	11176.974	0.07494	10264.272	0.07365
10658.37	0.05046	11176.953	0.07266	10406.226	0.07981
10654.962	0.05538	11176.932	0.07577	10405.32	0.07594
10653.486	0.05125	11176.848	0.07637	10405.248	0.08131
10653.294	0.04966	11177.142	0.07534	10549.824	0.07564
10653.714	0.04951	11345.112	0.07421	10549.782	0.08286
10811.784	0.05344	11344.428	0.07543	10549.746	0.08103
10652.196	0.05404	11344.728	0.07732	10699.038	0.07665
10652.616	0.0542	11344.386	0.07753	10699.344	0.08186
10808.748	0.05279	11344.344	0.07706	10698.504	0.08385
10808.046	0.05371	11344.128	0.07656	10698.774	0.0824
10804.386	0.05275	11344.512	0.07651	10698.546	0.08036
10967.88	0.05249	11343.87	0.07741	10852.11	0.07873
10965.396	0.05104	11344.002	0.07679	10698.81	0.08113
10964.634	0.05484	11344.386	0.07953	10698.432	0.08265
10802.556	0.05773	11343.654	0.07937	10698.732	0.08329
10963.95	0.05404	11343.27	0.07845	10698.582	0.08378
10959.906	0.05319	11516.67	0.07882	10698.276	0.08371
11124.996	0.05828	11694.222	0.07891	10853.886	0.08495
11125.164	0.05288	11694.036	0.0845	11009.496	0.08389
11124.378	0.0575	11693.718	0.07901	11008.932	0.08758
11123.76	0.05732	11693.67	0.08258	11009.334	0.08895
11122.728	0.05049	11693.718	0.08203	10850.772	0.08443
11123.556	0.06168	11693.538	0.0817	11008.812	0.08925
11123.184	0.05108	11692.854	0.08385	11008.248	0.08991
11294.286	0.05741	11876.202	0.08657	11008.164	0.09179
11292.078	0.06135	11876.58	0.082	11007.642	0.08659
11290.464	0.05752	11876.484	0.0832	11170.566	0.09471
11288.718	0.05683	11876.154	0.08775	11338.128	0.09149
11287.914	0.05662	11876.67	0.0844		
11465.262	0.05644	11876.718	0.083		
11288.124	0.05724	11875.92	0.08547		
11465.082	0.05773	11876.016	0.0871		
11287.404	0.05752	11875.638	0.08754		
11286.552	0.05939	11875.92	0.08786		
11462.064	0.06077	11874.978	0.08772		
11461.272	0.06094	12064.524	0.08936		
11460.966	0.05815	12064.374	0.09042		
11460.576	0.05588	12064.62	0.0902		
11460.882	0.05616	12064.668	0.08869		
11460.708	0.05736	12064.47	0.08807		
11460.792	0.05951	12259.86	0.0871		
11461.098	0.06156	12064.956	0.08874		
11460.75	0.06008	12259.56	0.09296		
11461.188	0.05946	12259.434	0.09169		
11461.056	0.05819	12259.308	0.08743		
11459.214	0.059	12259.608	0.09613		
11735.397	0.06159	12259.158	0.08918		
12011.58	0.06509	12258.66	0.09714		
12010.374	0.06562	12460.746	0.08837		
12009.702	0.06482	12461.01	0.09763		
12008.91	0.06422	12460.44	0.09276		
12008.118	0.06392	12461.112	0.09077		

12008.742	0.06389				
12007.542	0.06362				
12008.742	0.06366				
12006.63	0.06461				
12005.424	0.06433				
12004.848	0.0617				
12003.072	0.06202				
12004.464	0.06625				
12004.224	0.0682				
12002.256	0.06834				
12202.266	0.06094				
12200.976	0.06835				
12198.444	0.06977				
12199.98	0.06115				

Data of Figure 15

APC 8045		APC 9045		APC 1145		APC 1245	
Speed(r/min)	CT0	Speed(r/min)	CT0	Speed(r/min)	CT0	Speed(r/min)	CT0
3898.908	0.001421955	2711.484	0.000309069	2960.952	6.23043E-05	2766.066	1.84118E-05
4556.55	0.001680923	3026.028	0.000827934	2996.148	9.62241E-05	2807.28	3.61651E-05
4848.762	0.001801367	3260.79	0.000979395	3032.316	3.22707E-05	2828.28	7.59998E-06
4976.256	0.001877047	3392.346	0.001005919	3076.152	4.9898E-06	2849.676	2.12916E-05
5110.926	0.001922062	3518.568	0.001290381	3119.988	0.000242624	2860.398	4.85364E-05
5216.502	0.002104004	3602.322	0.001480502	3185.838	0.000384758	2893.272	0.000156532
5252.718	0.002072157	3672.318	0.001567092	3212.916	0.000400273	2984.796	0.00035572
5364.45	0.002166901	3708.402	0.001724252	3240.564	0.000337268	3032.79	0.000422941
5441.37	0.002171693	3801.498	0.002148167	3240.504	0.000408608	3082.266	0.000470194
5481.006	0.002197045	3919.578	0.002070101	3254.49	0.000407245	3094.926	0.000623593
5521.05	0.002263614	4045.47	0.00215333	3268.578	0.000410111	3133.404	0.00064266
5561.682	0.002285623	4089.21	0.002288986	3297.234	0.000375891	3159.666	0.000720285
5561.562	0.002262165	4111.344	0.002255436	3355.776	0.000385047	3227.154	0.000842811
5561.496	0.002291011	4133.892	0.002387709	3416.58	0.000361747	3297.588	0.000867607
5644.74	0.002368867	4156.626	0.00249336	3495.66	0.000458835	3341.448	0.000945418
5730.528	0.002345313	4226.268	0.002527938	3561.606	0.000592278	3371.208	0.001065577
5729.994	0.002363011	4250.046	0.002524914	3595.59	0.000695249	3386.34	0.001102164
5773.992	0.002380609	4298.274	0.00254249	3630.144	0.000730307	3401.628	0.001104764
5818.398	0.002339627	4372.83	0.002631034	3665.34	0.000794048	3417.012	0.001200513
5863.29	0.002327487	4398.3	0.002577137	3701.412	0.000810103	3480.03	0.001403509
5863.212	0.002450056	4398.144	0.00252245	3756.576	0.000845991	3528.744	0.00153488
5863.476	0.002539365	4398.192	0.00270273	3832.926	0.000970201	3578.952	0.001590945
6051.132	0.002740458	4449.954	0.002645324	3892.062	0.001378394	3596.016	0.001574643
6199.86	0.00301305	4476.336	0.002760633	3995.166	0.001777363	3613.254	0.001715523
6303.366	0.002902684	4476.21	0.002743131	4081.494	0.002392286	3648	0.00182147
6356.388	0.002850453	4503.06	0.002777814	4241.946	0.002956302	3701.742	0.00195957
6409.83	0.002787316	4529.982	0.002850852	4339.518	0.003177949	3880.866	0.002356291
6464.586	0.002697679	4584.894	0.002920118	4441.758	0.003357714	4059.99	0.00250387
6520.902	0.002725576	4612.818	0.00296088	4494.534	0.003359068	4126.59	0.002521571
6693.846	0.002884826	4612.866	0.003032124	4521.24	0.003313955	4172.226	0.002592812
6876.852	0.002933726	4669.704	0.002917041	4548.546	0.003342304	4242.486	0.002804097
6939.642	0.0030272	4787.982	0.002982031	4604.208	0.003363673	4290.72	0.002991199
7004.19	0.003116949	4866.228	0.003085485	4632.438	0.003511034	4315.188	0.003072678
7002.03	0.003170061	4944.474	0.003334016	4660.962	0.003620717	4365.12	0.003045667

7068.552	0.003248502	4944.3	0.003412857	4689.984	0.003681272	4390.542	0.00313519
7271.598	0.003064993	5043.396	0.00362199	4719.294	0.003688668	4416.024	0.003166488
7489.104	0.003103293	5146.404	0.004028307	4719.366	0.003634558	4442.112	0.003207355
7563.684	0.003111766	5181.582	0.004126352	4719.234	0.003665336	4494.858	0.003251491
7641.09	0.003175276	5181.492	0.00441091	4809.45	0.003477124	4576.794	0.003241671
7639.614	0.003225081	5327.706	0.004916786	4840.35	0.003520043	4632.87	0.003304775
7640.256	0.003220379	5365.188	0.005285742	4871.568	0.003579292	4661.394	0.003380234
7640.256	0.003241182	5521.812	0.006197467	4935.15	0.003717806	4690.59	0.003433688
7640.004	0.003277486	5687.886	0.005733019	5034.066	0.003669859	4690.404	0.003467462
7640.118	0.003306543	5819.682	0.006419874	5000.55	0.00373736	4690.41	0.003518427
7719.348	0.003230836	5819.298	0.006099685	5034.072	0.003726258	4719.816	0.00361283
7799.214	0.003322138	5864.448	0.005826744	5101.986	0.003789884	4749.438	0.003741941
7879.746	0.00346461	5819.298	0.006383378	5171.94	0.003929005	4809.996	0.003750112
7878.174	0.00352863	5864.976	0.006343138	5207.382	0.004145171	4840.692	0.003758775
7961.7	0.003485659	5819.268	0.005917572	5317.662	0.004402781	4871.916	0.003777591
7961.34	0.003571605	5864.622	0.006133675	5432.28	0.004631151	4935.864	0.003890139
7961.274	0.003565252	5910.246	0.00634334	5471.526	0.005216113	5001.324	0.00390621
8048.658	0.003483257	5910.564	0.006504752	5552.286	0.005762595	5034.42	0.004046573
7960.476	0.003628619	5910.408	0.006615113	5593.194	0.005960806	5102.664	0.004107683
8046.456	0.003617784	5956.728	0.00689173	5593.572	0.00605719	5102.328	0.004200539
8134.404	0.003526518	6052.182	0.006930056	5634.996	0.006706744	5136.996	0.004237547
8133.408	0.003527382	6051.936	0.00706729	5764.008	0.006715892	5244.162	0.004365017
8132.592	0.003600334	6150.576	0.007096408	5853.522	0.006896859	5317.998	0.004535876
8221.86	0.003526171	6151.134	0.007744644	5945.88	0.00711564	5472.198	0.00461292
8312.094	0.003554363	6150.288	0.008328279	5992.488	0.007229092	5511.756	0.004938307
8404.776	0.003633486	6201.024	0.007498209	6040.884	0.007209499	5594.196	0.005207028
8403.834	0.0036343	6252.126	0.01065806	6040.788	0.007238956	5635.536	0.005464397
8403.15	0.003775982	6411.048	0.010910055	6089.85	0.007150322	5677.794	0.005707436
8403.03	0.003771504	6465.642	0.011827325	6040.518	0.007229022	5720.724	0.00574401
8499.834	0.003738776	6521.496	0.012338993	6040.518	0.007218454	5764.644	0.005855959
8496.948	0.003921943	6521.724	0.012744722	6089.922	0.007082227	5809.11	0.005715842
8593.38	0.003966039	6521.76	0.01289319	6089.892	0.007051704	5764.344	0.00588357
8692.752	0.003999156	6521.796	0.012786055	6089.862	0.007097058	5764.362	0.005947195
8691.372	0.004052963	6521.61	0.012596552	6089.838	0.007125261	5809.104	0.005823645
8795.28	0.00398081	6521.526	0.01229132	6089.502	0.007286997	5854.254	0.005859458
8900.784	0.003964682	6521.568	0.01218176	6089.208	0.007285253	5853.672	0.006145877
8898.804	0.004054431	6578.916	0.011894385	6139.566	0.007233667	5945.928	0.006100315

9004.68	0.004118462	6521.538	0.012340022	6138.984	0.007260931	5993.334	0.006032737
9112.17	0.004373059	6521.202	0.01243761	6241.278	0.007378504	5993.118	0.006056814
9336.978	0.004359193	6578.514	0.012355026	6240.822	0.007493778	6041.334	0.006016276
9577.872	0.004318384	6578.616	0.012448117	6240.222	0.007344863	6041.202	0.006123666
9451.59	0.0045089	6578.286	0.01263867	6240.156	0.007641659	6090.306	0.006075431
9574.446	0.004497312	6578.556	0.01271943	6292.752	0.00722275	6041.07	0.006226239
9701.106	0.004497687	6578.502	0.012727814	6292.446	0.007579952	6040.824	0.006334765
9700.542	0.004527479	6636.138	0.012385964	6239.886	0.007409189	6139.668	0.006321164
9699.726	0.004616045	6695.25	0.01225621	6292.146	0.007851224	6189.612	0.006441652
9699.948	0.004605509	6635.712	0.012888263	6399.834	0.007414699	6346.128	0.0064688
9699.132	0.004665682	6635.736	0.013214313	6454.722	0.00740134	6345.03	0.006481382
9698.508	0.004712795	6635.76	0.013396813	6398.856	0.007721245	6399.618	0.006445231
9697.128	0.004826112	6635.598	0.013454884	6398.922	0.007593052	6399.576	0.006527086
9695.844	0.004873049	6694.71	0.013265714	6398.892	0.007934538	6454.692	0.006551467
9825.534	0.004897965	6754.704	0.011698955	6398.622	0.008279974	6509.808	0.006561241
9823.794	0.00497859	6754.26	0.011850125	6454.29	0.007907327	6566.46	0.006573377
9822.282	0.005043093	6753.972	0.014131382	6453.276	0.007671124	6566.439	0.006974021
9953.682	0.005151176	6815.688	0.012594307	6452.904	0.00780499	6566.418	0.006991531
10085.862	0.00515718	6784.929	0.011125931	6623.19	0.007559353	6566.106	0.007026014
10224.984	0.005177391	6754.17	0.013957628	6682.17	0.007636911	6624.888	0.006895681
10221.324	0.00531522	6877.578	0.012452047	6681.204	0.007799775	6565.83	0.007022518
10219.794	0.005406	6940.848	0.012611286	6741.738	0.007524521	6624.27	0.006925086
10362.444	0.00535172	7005.108	0.011274248	6866.028	0.007504412	6624.156	0.006922397
10360.62	0.00544868	7004.814	0.012814842	6927.576	0.008365634	6624.156	0.006922032
10506.264	0.005430741	7004.598	0.012067414	6991.686	0.008248205	6624.126	0.00691005
10652.424	0.005621784	7004.388	0.011256992	6990.66	0.008271058	6624.228	0.006932109
10806.564	0.005669947	7004.682	0.01267929	7057.746	0.008412527	6623.526	0.006976312
10964.634	0.00584653	7004.664	0.012362949	6990.348	0.008575065	6682.794	0.006898684
10961.148	0.005992496	7070.07	0.011512126	7057.08	0.0083567	6682.212	0.006861127
11124.54	0.006118173	7136.076	0.011339866	7056.198	0.008414852	6742.116	0.006684409
11121.576	0.006198709	7136.976	0.011354866	7055.85	0.008599833	6803.646	0.006730895
11293.482	0.006163841	7205.01	0.01120379	7123.626	0.008690985	6803.154	0.006736374
11292.756	0.006199576	7205.028	0.011267038	7191.246	0.00878678	6803.076	0.006531911
11293.44	0.006275034	7204.506	0.011418706	7190.364	0.008857413	6803.094	0.006783575
11293.014	0.006349806	7344.588	0.01058044	7260.738	0.008791582	6802.644	0.006802476
11206.077	0.006496446	7489.494	0.011083693	7331.592	0.008814997	6865.14	0.006723386
11119.14	0.00666919	7642.26	0.010243273	7330.896	0.009087344	6927.636	0.007002276



11466.924	0.006374884	7641.66	0.01041719	7403.64	0.009013151	6991.704	0.006986307
11465.478	0.006457822	7640.706	0.01086241	7403.55	0.008914002	7057.596	0.006762529
11287.404	0.006689892	7718.61	0.010707891	7402.146	0.009347306	6990.84	0.006993932
11285.028	0.006824365	7799.136	0.01049207	7551.312	0.009067629	6991.524	0.007124997
11460.18	0.006677177	7798.464	0.010493878	7626.852	0.009262649	7056.684	0.007184834
11460.27	0.006724561	7798.368	0.010526566	7706.454	0.009038659	7191.918	0.007120395
11459.874	0.006774983	7881.69	0.01030599	7705.623	0.008958437	7261.476	0.007065775
11460.444	0.006773693	7799.094	0.010572833	7704.792	0.009104872	7260.51	0.007094707
11459.916	0.006844014	7881.942	0.010365567	7704.318	0.00930863	7332.9	0.006956215
11644.2	0.006623127	7881.132	0.010540289	7783.596	0.009218487	7332.078	0.007010827
11460.222	0.006895453	7880.448	0.010696021	7866.048	0.009079062	7259.508	0.007245339
11459.526	0.006877166	7879.941	0.010641201	7865.922	0.009122627	7331.094	0.007195469
11459.832	0.006924292	7879.434	0.010545646	7865.388	0.009122032	7404.318	0.007021704
11460.048	0.006913539	7880.094	0.01045757	7865.448	0.009139507	7403.772	0.006984155
11459.742	0.006948455	7879.23	0.010578774	7865.202	0.009130171	7330.428	0.007220632
11460.138	0.006930703	7879.632	0.010701493	7865.448	0.009086313	7404.132	0.007085189
11460.444	0.00693588	7880.034	0.010662129	7865.43	0.009090021	7330.086	0.007153309
11460.528	0.006937011	7964.682	0.010426327	7864.914	0.009128273	7330.428	0.007155324
11460.222	0.00692382	7963.242	0.010391028	7948.494	0.00927711	7403.184	0.007181437
11643.75	0.006731173	8049.24	0.010835923	8118.462	0.009255986	7329.21	0.007285375
11460.138	0.006903567	8135.106	0.010525094	8207.778	0.009129072	7401.594	0.007388386
11459.874	0.006966801	8133.522	0.010973296	8207.622	0.009047893	7549.56	0.007246952
11823.03	0.006890738	8314.326	0.010294218	8207.778	0.009186675	7626.522	0.007226223
12005.232	0.006981026	8406.396	0.010107896	8206.296	0.009263792	7705.464	0.007108065
12002.256	0.007157102	8404.68	0.010213668	8298.342	0.009032069	7705.842	0.007112223
11999.616	0.007266562	8500.248	0.01010077	8297.448	0.009112798	7704.636	0.007250223
12201.468	0.007084714	8498.802	0.010169311	8294.742	0.009255628	7866.48	0.007064491
12199.536	0.007195263	8498.268	0.010175488	8389.194	0.009105137	7864.686	0.007086109
12402.432	0.007163971	8498.268	0.010001846	8485.842	0.008931064	7949.862	0.006943446
12400.386	0.007334371	8598.282	0.00978694	8387.832	0.00918422	7863.984	0.007160441
12399.156	0.007459103	8597.022	0.010508874	8483.562	0.009048116	7949.274	0.007050466
12399.768	0.007523691	8794.2	0.010452213	8581.896	0.008918061	7948.218	0.007095964
12400.638	0.007596384	9007.818	0.010137469	8579.862	0.008927227	8034.6	0.006942715
12400.386	0.007660419	9005.898	0.010225956	8579.736	0.00900209	7946.85	0.007174017
12399.87	0.007697409	9117.042	0.010071233	8681.16	0.008843561	8033.076	0.007041691
12400.026	0.007704587	9115.854	0.010041002	8680.806	0.008846396	8121.126	0.007010088
12400.176	0.007766034	9116.022	0.010061918	8780.61	0.00889339	8209.71	0.006948063

12397.77	0.007792235	9004.008	0.010301981	8778.192	0.008871485	8300.202	0.006954379
12613.416	0.0075963	9116.13	0.010167565	8777.808	0.008892587	8298.318	0.006979176
12604.302	0.007872912	9114.882	0.010348681	8883.834	0.008757215	8297.976	0.006986734
12822.048	0.007827519	9114.138	0.010297411	8777.142	0.00894932	8297.538	0.006970946
13048.752	0.007651603	9113.97	0.010233256	8777.19	0.008882939	8297.472	0.007035527
13046.256	0.007708309	9113.862	0.010326646	8777.244	0.008958533	8295.702	0.007083002
12817.338	0.008030974	9113.64	0.010486652	8777.19	0.009033766	8389.59	0.007105658
13044.558	0.007806947	9228.33	0.010171804	8882.07	0.00887576	8482.602	0.007021942
13044.78	0.007883317	9227.022	0.010083812	8989.41	0.008735548	8580.84	0.00686121
13039.962	0.007987747	9227.814	0.010314266	8988.198	0.008746052	8580.696	0.0068597
13276.392	0.007743466	9225.09	0.010303729	8988.066	0.008711756	8580.768	0.006882655
13037.076	0.008045614	9223.728	0.010388196	8988.252	0.008745385	8580.624	0.006881794
13039.626	0.008077711	9224.016	0.010442222	9099.234	0.008615855	8579.91	0.006887295
13276.566	0.007824136	9223.02	0.010467662	8985.024	0.008857085	8579.52	0.006927756
13274.16	0.007923046	9222.822	0.010543016	9096.918	0.008664669	8579.196	0.006931547
13270.224	0.008097012	9339.072	0.010493795	9096.312	0.008646623	8579.736	0.006910428
13513.998	0.007912644	9458.472	0.010116351	9210.846	0.008496053	8579.37	0.00694302
13268.64	0.008233285	9458.946	0.010270199	9209.292	0.008778275	8578.98	0.006945175
13270.05	0.008266495	9457.248	0.010346253	9319.404	0.008702972	8679.252	0.006881559
13269.402	0.008308702	9336.516	0.010486195	9316.452	0.00881124	8677.014	0.006939377
13268.874	0.008349387	9456.174	0.010278482	9437.67	0.008607242	8676.012	0.006988449
13266.588	0.008478825	9457.488	0.010338936	9437.256	0.00862227	8780.556	0.006825315
13508.1	0.008407398	9335.7	0.010676591	9434.466	0.008721451	8780.454	0.006876602
13758.126	0.008235965	9454.836	0.010528013	9558.312	0.008522492		
13756.986	0.008297254	9577.686	0.010366611				
13505.604	0.00862588	9574.662	0.010482929				
13504.026	0.008701184	9574.446	0.010540764				
13503.966	0.008735899	9700.578	0.010289391				
13504.692	0.008778045	9699.228	0.010298165				
13755.918	0.008515134	9699.324	0.010295813				
13752.762	0.008595268	9697.848	0.010419928				
13751.628	0.008645088	9697.062	0.010602302				
14012.01	0.008377517	9825.078	0.010242431				
13746.774	0.008730485	9822.408	0.010478605				
13747.656	0.008745651	9822.408	0.010363826				
14013.582	0.008433791	9956.688	0.010210119				
14010.834	0.008454017	9956.16	0.010155594				

13748.604	0.008791155	9954.576	0.010445105				
14012.73	0.00849752	10088.478	0.010304311				
14010.246	0.008516627	10086.342	0.010256492				
14008.806	0.008523328	10086.846	0.01027187				
14008.35	0.008549066	10084.812	0.010380921				
14006.388	0.008595635	10084.95	0.010438799				
14005.278	0.008675873	10084.812	0.010433619				
14005.47	0.008714036	10226.898	0.010155391				
14001.09	0.008717011	10084.506	0.010442711				
14000.898	0.008749067	10226.55	0.010174456				
14274.906	0.008499488	10224.324	0.010261119				
14269.002	0.008666839	10223.976	0.010336792				
14555.97	0.008449284	10222.824	0.010375897				
14549.478	0.008636659	10222.86	0.01039276				
14546.298	0.008710493	10222.65	0.010462871				
14547.006	0.008787721	10364.34	0.010375521				
14546.442	0.008864196	10362.48	0.010535108				
14546.16	0.008877557	10362.048	0.010591559				
14545.596	0.008916143	10507.182	0.010560228				
14545.806	0.008911294	10655.868	0.010299648				
14543.058	0.00892156	10655.226	0.010487951				
14545.734	0.008927843	10809.564	0.01042299				
14546.586	0.008921824	10806.84	0.010518304				
14546.442	0.008957981	10805.982	0.010575404				
14547.15	0.008959022	10806.564	0.010599375				
14547.36	0.008964892	10967.88	0.010346622				
14546.934	0.008962348	10967.076	0.010362015				
14549.196	0.008858546	10805.478	0.010650448				
		10968	0.010446441				

Data of Figure 16

APC 9045		APC 9060		APC 9075	
Speed(r/min)	CT0	Speed(r/min)	CT0	Speed(r/min)	CT0
2711.484	0.000309528	2763.84	0.000942013	3218.388	8.45704E-05
3026.028	0.000829165	2980.596	0.001214744	3316.836	0.000346667
3260.79	0.000980851	3166.884	0.001055848	3421.338	0.000710842
3392.346	0.001007414	3262.074	0.001894535	3516.354	0.000975959
3518.568	0.001292298	3408.336	0.002097251	3651.63	0.001451917
3602.322	0.001482702	3518.814	0.002078084	3797.766	0.001970807
3672.318	0.001569421	3585.18	0.002281617	3894.948	0.002094033
3708.402	0.001726815	3725.766	0.002207486	3955.872	0.002330973
3801.498	0.00215136	3838.728	0.002615611	4018.692	0.002349623
3919.578	0.002073178	3958.584	0.00285066	4061.682	0.00250578
4045.47	0.00215653	4086.246	0.002927054	4173.222	0.002553937
4089.21	0.002292388	4245.996	0.003132315	4315.68	0.002727987
4111.344	0.002258788	4418.82	0.00341076	4494.27	0.002808842
4133.892	0.002391258	4691.586	0.003849376	4659.774	0.003039645
4156.626	0.002497065	4903.5	0.003814489	4807.23	0.003449873
4226.268	0.002531695	5170.362	0.004143136	5030.172	0.004151566
4250.046	0.002528666	5278.17	0.004760883	5097.414	0.00467225
4298.274	0.002546268	5352.51	0.005138601	5202.444	0.005276927
4372.83	0.002634944	5352.576	0.005493731	5238.234	0.005539105
4398.3	0.002580967	5352.462	0.005981819	5202.138	0.005943711
4398.144	0.002526199	5352.486	0.006384738	5238.072	0.006486252
4398.192	0.002706746	5390.466	0.006776083	5238.054	0.006683768
4449.954	0.002649255	5468.166	0.007213196	5238.228	0.00678482
4476.336	0.002764736	5547.894	0.007838218	5274.588	0.007192111
4476.21	0.002747208	5630.04	0.008903652	5274.57	0.007980319
4503.06	0.002781942	5714.7	0.00935818	5348.892	0.008503498
4529.982	0.002855089	5846.766	0.009926784	5425.248	0.008728601
4584.894	0.002924457	5846.472	0.010572249	5464.302	0.00917754
4612.818	0.00296528	5984.706	0.010499504	5503.8	0.009572883
4612.866	0.00303663	6080.58	0.010440795	5544.006	0.010515361
4669.704	0.002921377	6229.908	0.011115362	5626.398	0.01136301
4787.982	0.002986463	6281.304	0.011201155	5797.944	0.012000614
4866.228	0.003090071	6333.882	0.011609246	5887.758	0.011983486
4944.474	0.003338971	6333.792	0.012619426	5933.766	0.012428334
4944.3	0.003417929	6552.324	0.011822355	6028.032	0.012583397
5043.396	0.003627373	6609.282	0.011797959	6027.9	0.012873814
5146.404	0.004034294	6667.212	0.011468504	6028.164	0.013109596
5181.582	0.004132484	6726.168	0.011410474	6076.158	0.013328493
5181.492	0.004417466	6786.18	0.011525136	6175.14	0.013168918
5327.706	0.004924093	6847.422	0.011848041	6225.696	0.015491917
5365.188	0.005293597	6847.656	0.01193577	6329.472	0.014991871
5521.812	0.006206678	6847.236	0.012593943	6436.662	0.01642185
5687.886	0.005741539	6973.062	0.012614281	6547.89	0.015537948
5819.682	0.006429415	7037.658	0.013728299	6662.4	0.015169256
5819.298	0.00610875	7170.294	0.014259326	6721.59	0.015789899
5864.448	0.005835404	7170.324	0.014515318	6781.728	0.015985647
5819.298	0.006392865	7170.294	0.014503606	6781.608	0.014730898
5864.976	0.006352565	7170.432	0.014588757	6842.814	0.015551165
5819.268	0.005926366	7238.7	0.014275257	6842.55	0.015654009
5864.622	0.00614279	7238.982	0.014239352	6842.412	0.015266317
5910.246	0.006352767	7170.432	0.014538508	6904.758	0.015820379
5910.564	0.006514419	7238.736	0.014234524	6904.68	0.015261992
5910.408	0.006624944	7170.444	0.014497092	6904.884	0.015968476

5956.728	0.006901972	7204.494	0.014356482	6904.998	0.016131503
6052.182	0.006940355	7238.544	0.014212074	7032.726	0.015916388
6051.936	0.007077793	7308.198	0.014102696	7098.576	0.016212394
6150.576	0.007106954	7308.324	0.014422679	7165.77	0.016125751
6151.134	0.007756154	7379.112	0.013826435	7165.242	0.016515788
6150.288	0.008340656	7451.586	0.013834221	7303.374	0.016250143
6201.024	0.007509352	7525.344	0.013784349	7374.198	0.016515943
6252.126	0.0106739	7600.596	0.013893195	7374.45	0.016614462
6411.048	0.010926269	7600.308	0.013966137	7446.402	0.015884856
6465.642	0.011844902	7755.708	0.013744632	7520.364	0.016356545
6521.496	0.01235733	7835.454	0.014057702	7595.436	0.016151558
6521.724	0.012763663	8085.924	0.013888081	7750.296	0.015843052
6521.76	0.012912351	8261.484	0.013502215	7750.056	0.016209948
6521.796	0.012805057	8352.15	0.013270191	7911.954	0.015691679
6521.61	0.012615273	8445.33	0.013103939	7911.582	0.015888951
6521.526	0.012309587	8445.114	0.01327077	7995.096	0.016187787
6521.568	0.012199864	8540.1	0.013017475	8080.458	0.015680052
6578.916	0.011912061	8492.463	0.013244675	8167.2	0.015918918
6521.538	0.012358361	8444.826	0.013413686	8167.152	0.015865955
6521.202	0.012456094	8540.172	0.013040865	8166.954	0.015653385
6578.514	0.012373388	8540.562	0.013021618	8255.934	0.015572626
6578.616	0.012466617	8540.316	0.013163317	8166.888	0.015862427
6578.286	0.012657453	8637.42	0.013027854	8256.024	0.015298131
6578.556	0.012738333	8637.366	0.013008327	8256.048	0.015306953
6578.502	0.012746729	8637.168	0.013230227	8255.982	0.015363666
6636.138	0.012404371	8736.678	0.012882125	8346.804	0.014986806
6695.25	0.012274425	8736.348	0.013014477	8255.55	0.015235244
6635.712	0.012907417	8838.396	0.012812268	8346.876	0.014956019
6635.736	0.013233952	8837.826	0.013013624	8346.732	0.015035032
6635.76	0.013416723	8941.986	0.013036482	8439.576	0.014878114
6635.598	0.01347488	9157.65	0.012710485	8534.364	0.014760821
6694.71	0.013285429	9157.176	0.012819297	8534.34	0.015008435
6754.704	0.011716341	9269.556	0.012587568	8533.734	0.015307496
6754.26	0.011867736	9269.79	0.012754296	8631.156	0.014973399
6753.972	0.014152383	9383.856	0.012466815	8630.634	0.015217929
6815.688	0.012613024	9383.622	0.012591663	8729.76	0.014991908
6784.929	0.011142466	9383.388	0.012796479	8935.962	0.014694865
6754.17	0.013978371	9621.828	0.012507073	8936.046	0.014821429
6877.578	0.012470552	9621.396	0.012608303	8935.776	0.014956145
6940.848	0.012630028	9621.21	0.012590734	9041.784	0.014814395
7005.108	0.011291003	9621.06	0.012587299	9151.056	0.014539514
7004.814	0.012833887	9621.246	0.012726315	9151.17	0.014510127
7004.598	0.012085348	9621.06	0.012813797	9151.026	0.014482162
7004.388	0.011273722	9744.75	0.012615899	9262.974	0.014499558
7004.682	0.012698134	9744.468	0.012787285	9377.55	0.014296569
7004.664	0.012381323	9744.528	0.012864465	9377.376	0.014639756
7070.07	0.011529235	9744.09	0.012968565	9377.226	0.014602209
7136.076	0.011356718	9871.02	0.012734373	9376.992	0.014582202
7136.976	0.011371741	9871.02	0.012828442	9494.244	0.01438493
7205.01	0.011220441	10001.268	0.01263167	9494.634	0.014579248
7205.028	0.011283782	10001.166	0.012664831	9615.444	0.014325842
7204.506	0.011435676	10001.268	0.012765326	9494.184	0.01471265
7344.588	0.010596164	10000.932	0.012902896	9614.646	0.014422444
7489.494	0.011100165	10134.828	0.012671695	9614.766	0.014474671
7642.26	0.010258496	10134.69	0.01271592	9614.49	0.014628901
7641.66	0.010432672	10134.348	0.012791236	9737.286	0.014686878

7640.706	0.010878554	10134.384	0.012871518	9864.234	0.014480433
7718.61	0.010723805	10134.108	0.012916597	9993.672	0.014450024
7799.136	0.010507663	10133.832	0.012979927	10127.952	0.014145913
7798.464	0.010509474	10271.616	0.012790514	10127.508	0.01413679
7798.368	0.01054221	10412.544	0.012782462	9993.636	0.014502857
7881.69	0.010321307	10411.314	0.013027018	10127.916	0.014187495
7799.094	0.010588546	10706.832	0.012517063	10127.472	0.014241564
7881.942	0.010380972	10705.986	0.012572503	10127.508	0.014326386
7881.132	0.010555954	10556.244	0.012944901	10127.508	0.014344656
7880.448	0.010711917	10705.914	0.012612436	10127.508	0.014401439
7879.941	0.010657015	10706.064	0.012700891	10126.926	0.014452964
7879.434	0.010561319	10706.22	0.012632038	10127.298	0.014468692
7880.094	0.010473112	10556.394	0.01303724	10264.728	0.014067032
7879.23	0.010594495	10705.95	0.012802336	10264.584	0.014110683
7879.632	0.010717397	10705.644	0.01281191	10127.508	0.014469573
7880.034	0.010677974	10555.8	0.013195958	10264.866	0.014167583
7964.682	0.010441822	10705.8	0.012874275	10263.882	0.014468342
7963.242	0.01040647	10859.61	0.012543518	10549.824	0.014033654
8049.24	0.010852027	10705.38	0.012904895	10549.638	0.014023688
8135.106	0.010540736	10704.996	0.012902729	10549.374	0.014290591
8133.522	0.010989604	10858.59	0.01259484	10699.152	0.01391938
8314.326	0.010309517	10859.256	0.012566665	10698.084	0.014030568
8406.396	0.010122917	10858.392	0.012703965	10697.664	0.014153357
8404.68	0.010228847	10858.626	0.012799621	10697.742	0.014163332
8500.248	0.010115781	11016.696	0.012522577	10698.084	0.014175704
8498.802	0.010184424	11016.816	0.012576963	10697.82	0.014166664
8498.268	0.01019061	11016.372	0.012734458	10697.97	0.014196359
8498.268	0.01001671	11016.048	0.012952628	10697.97	0.014269371
8598.282	0.009801485	11177.808	0.012621386	10697.706	0.014288661
8597.022	0.010524491	11177.97	0.012743833	10697.898	0.01427089
8794.2	0.010467746	11178.138	0.012823692	10851.282	0.013906856
9007.818	0.010152535	11345.37	0.012537353	10851.324	0.014113179
9005.898	0.010241153	11345.76	0.012615961	10850.814	0.014323544
9117.042	0.0100862	11345.412	0.012625779	10850.418	0.014398574
9115.854	0.010055924	11177.472	0.01298736	10850.736	0.014383534
9116.022	0.010076872	11177.556	0.013005809	11008.608	0.014176203
9004.008	0.010317291	11345.628	0.012643001	11007.924	0.014243581
9116.13	0.010182675	11344.77	0.012675606	11007.924	0.014427045
9114.882	0.01036406	11345.37	0.012633352	11007.642	0.014396863
9114.138	0.010312714	11177.682	0.01302254	11170.566	0.014099689
9113.97	0.010248464	11344.86	0.012701377	11170.398	0.014030307
9113.862	0.010341993	11344.86	0.012747414	11170.104	0.014223428
9113.64	0.010502237	11176.806	0.013159981	11169.858	0.014306046
9228.33	0.010186921	11345.46	0.012806255	11169.024	0.014285444
9227.022	0.010098798	11345.286	0.01286606	11336.754	0.013859556
9227.814	0.010329594	11344.602	0.012863285	11337.354	0.013926248
9225.09	0.010319042	11344.428	0.012971101	11169.942	0.014344794
9223.728	0.010403634	11517.462	0.012706831	11337.354	0.01398101
9224.016	0.010457741	11517.198	0.012699774	11337.18	0.014020057
9223.02	0.010483219	11516.844	0.01272423	11336.796	0.014142364
9222.822	0.010558684	11517.156	0.012725067	11509.2	0.01376772
9339.072	0.010509391	11517.288	0.012737376	11509.866	0.013868579
9458.472	0.010131386	11516.622	0.01302674	11336.754	0.014366675
9458.946	0.010285462	11694.222	0.012750344	11508.894	0.013906859
9457.248	0.01036163	11785.446	0.012744776	11509.068	0.013955757
9336.516	0.010501779	11876.67	0.012597133	11509.422	0.013954134

9456.174	0.010293757	11877	0.012629101	11509.464	0.013941033
9457.488	0.010354301	11877	0.012676854	11509.332	0.01397958
9335.7	0.010692459	11877.016	0.01267466	11509.116	0.014004959
9454.836	0.010543659	11877.032	0.012671755	11509.2	0.014064015
9577.686	0.010382017	11877.048	0.012721985	11509.332	0.014010929
9574.662	0.010498508	11877.426	0.012755993	11508.894	0.014076991
9574.446	0.01055643	11877.234	0.012699326	11508.894	0.014112554
9700.578	0.010304683	11877.282	0.012723278	11509.464	0.014095482
9699.228	0.01031347	11876.718	0.012788389	11509.248	0.014314686
9699.324	0.010311114	11876.58	0.012835718	11686.068	0.013975631
9697.848	0.010435414	11876.766	0.012917893	11686.296	0.014103762
9697.062	0.010618058	11876.154	0.013062481	11685.792	0.01402599
9825.078	0.010257653	12065.298	0.012815121	11686.656	0.014158137
9822.408	0.010494178	12065.106	0.012905979		
9822.408	0.010379228	12261.06	0.012511238		
9956.688	0.010225293	12065.154	0.012974413		
9956.16	0.010170687	12064.812	0.013022114		
9954.576	0.010460628	12260.862	0.012583059		
10088.478	0.010319625	12260.562	0.012604565		
10086.342	0.010271734	12260.514	0.012653173		
10086.846	0.010287135	12260.208	0.012812494		
10084.812	0.010396349	12260.16	0.012965553		
10084.95	0.010454313	12260.058	0.013116029		
10084.812	0.010449124	12259.11	0.013069874		
10226.898	0.010170484	12259.758	0.013295921		
10084.506	0.01045823	12461.682	0.012839832		
10226.55	0.010189577	12461.574	0.012863862		
10224.324	0.010276368				
10223.976	0.010352154				
10222.824	0.010391317				
10222.86	0.010408206				
10222.65	0.010478421				
10364.34	0.010390941				
10362.48	0.010550764				
10362.048	0.0106073				
10507.182	0.010575922				
10655.868	0.010314955				
10655.226	0.010503537				
10809.564	0.01043848				
10806.84	0.010533936				
10805.982	0.010591121				
10806.564	0.010615128				
10967.88	0.010361999				
10967.076	0.010377415				
10805.478	0.010666276				
10968	0.010461966				