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Scottsdale, AZ temp= 77.68 F
 6/22/12 0:00 baro= 29.98 *Hg
 1:11:52 PM humidity= 27%
 sample= 5 sec sample avg

Medium (54 cm) frames with manufacturer's specified fork and drive train

Profile Desion Ozero base bars, T2+ clip-ons, ABS reverse brake levers
 Fizik Arione Tri 2 saddles
 Profile Desion Altair 52 Carbon Clincher wheelset with Michelin Lithion 23c tires used in all test runs.
 The X-Y coordinates (position) and orientation (pitch) of each component is harmonized (the same).

TitanFlex AL-Ti						platform	Cervelo P3						Cervelo P3 vs. AL-Ti	platform	Scott Plasma 2						Scott Plasma 2 vs. AL-Ti			
drag longitudinal	net longit'l	drag lateral	net lateral	wind axis	net wind axis	rotation	drag longitudinal	net longit'l	drag lateral	net lateral	wind axis	net wind axis	bike axis	wind axis	rotation	drag longitudinal	net longit'l	drag lateral	net lateral	wind axis	net wind axis	bike axis	wind axis	
grams @ STP	grams STP	grams STP	grams STP	drag gr STP	drag gr STP	degrees*	grams @ STP	grams STP	grams STP	grams STP	drag gr STP	drag gr STP	delta**	delta**	degrees*	grams @ STP	grams STP	grams STP	grams STP	drag gr STP	drag gr STP	delta**	delta**	
1345	692	4465	4368	3106	2392	25	1425	769	4587	4490	3230	2516	80	124	25	1431	775	4266	4169	3100	2386	86	-6	
1355	701	4515	4418	3135	2421	25	1426	771	4569	4472	3223	2509	71	88	25	1442	786	4316	4219	3132	2418	87	-3	
1371	690	3591	3528	2517	1809	20	1411	728	3770	3707	2614	1906	40	97	20	1452	767	3503	3439	2563	1855	81	46	
1380	698	3621	3558	2535	1827	20	1413	730	3758	3695	2613	1905	33	78	20	1444	760	3470	3407	2544	1836	64	9	
1399	735	2721	2660	2055	1366	15	1432	767	2896	2835	2132	1443	33	77	15	1469	802	2567	2506	2083	1394	70	28	
1395	731	2716	2655	2051	1362	15	1428	762	2876	2815	2123	1434	33	72	15	1473	806	2548	2487	2082	1393	78	31	
1449	760	1734	1718	1728	1059	10	1425	734	1958	1942	1743	1074	-24	15	10	1498	806	1587	1571	1750	1081	49	22	
1450	761	1790	1774	1738	1069	10	1431	740	2022	2006	1760	1091	-19	22	10	1498	806	1561	1545	1746	1077	48	8	
1431	746	870	871	1501	852	5	1396	709	951	952	1472	823	-35	-29	5	1458	770	648	650	1508	859	27	7	
1418	733	826	827	1485	836	5	1382	695	1016	1017	1466	817	-36	-19	5	1454	766	675	676	1508	859	36	23	
1411	727	-40	-14	1411	772	0	1374	699	-43	-17	1374	735	-37	-37	0	1398	722	-99	-73	1398	759	-13	-13	
1411	727	-40	-14	1411	772	0	1374	699	-43	-17	1374	735	-37	-37	0	1398	722	-99	-73	1398	759	-13	-13	
1444	757	927	849	1519	942	-5	1387	698	1109	1031	1478	901	-57	-41	-5	1446	756	836	757	1513	936	2	-6	
1432	746	925	847	1508	931	-5	1385	696	1114	1035	1477	900	-47	-31	-5	1467	778	834	756	1535	958	35	27	
1479	798	1735	1616	1759	1226	-10	1446	763	2110	1990	1791	1258	-33	32	-10	1537	852	1681	1561	1805	1272	58	46	
1502	820	1750	1631	1783	1250	-10	1449	766	2145	2025	1799	1266	-53	16	-10	1539	855	1661	1541	1804	1271	37	21	
1451	767	2676	2530	2094	1584	-15	1433	748	2904	2758	2135	1625	-18	41	-15	1512	825	2578	2432	2126	1616	61	32	
1451	768	2686	2540	2097	1587	-15	1421	735	2902	2756	2125	1615	-30	28	-15	1510	823	2564	2417	2122	1612	59	25	
1424	778	3496	3325	2534	2084	-20	1421	773	3716	3545	2606	2156	-3	72	-20	1499	851	3359	3187	2558	2108	75	24	
1427	781	3475	3304	2530	2080	-20	1433	785	3716	3545	2618	2168	6	88	-20	1510	862	3397	3225	2581	2131	83	51	
1402	748	4210	4003	3050	2627	-25	1475	818	4325	4117	3165	2742	73	115	-25	1472	815	4111	3902	3071	2648	70	21	
1396	741	4161	3953	3024	2601	-25	1480	824	4339	4131	3175	2752	84	151	-25	1467	830	4128	3919	3092	2669	91	68	
													1.1	41.9									53.2	20.4

<- TitanFlex AL-Ti averages fewer grams of drag over the platform's rotation sweep->

NOTES:

Net drag excludes the drag created by the fixtures that hold the bike in place during testing.
 STP = Static Temperature & Pressure. As the tunnel's air temperature and pressure may change, the wind speed is adjusted to assure that the FORCE acting on the bike is constant.
 Longitudinal (Bike Axis) drag is the force of the wind pressing the bike straight backwards. Lateral drag is the force of the wind pressing the bike sideways.
 Wind Axis drag is a composite. Notice that Wind Axis drag is nearly equal to Bike Axis drag at 0 degrees and closer to Lateral drag at 25 degrees.
 Wind Axis drag relates to the effort a rider must expend to remain upright in a sidewind and how much that effort might diminish propulsive effort...an admittedly fuzzy science.

* Negative degrees of platform rotation expose the drive side of the bike to the air flow.
 **Green values represent TitanFlex AL-Ti's lower drag. **Orange values represent TitanFlex AL-Ti's higher drag.

A cycling industry convention holds that every 100 grams of drag force equates to 10 watts of power which adds/saves 1 second over 1 kilometer.