



## 2008 Super Lightweight Bridge & Wing Building Contests Results

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The SAMPE 2008 symposium and exhibition hosted the eleventh annual Super Lightweight Bridge competition and the fifth annual Lightweight Wing competition. This year we pre-registered a total of 53 teams, split 41/12 for the bridge/wing contests. In addition to the bridges and wings, we had an outstanding display of student posters in the registration area. We had three new schools participating this year – University of Utah, University of Delaware and Texas State San Marcos University.



As always, there was a crowd of about 60 students to witness the actual load testing on Tuesday morning. There were probably at least another 60 students who participated at their home school but didn't come to Long Beach. Each year the contest location becomes more prominent. We thank United Testing for providing our test machine.



The four bridge categories were the same as last year – carbon kit, carbon non-kit, glass kit and natural fiber. The primary change in the rules this year was that the maximum bridge weight was 750 grams. In previous years there was no weight limit.



NASA LaRC was the primary sponsor of the Wing contest again this year. The wing geometry this year required a constant airfoil cross section along its entire 24 inch length. This year there was no weight limit on the wing but the leading edge thickness was reduced to 1/2 inch, somewhat smaller than last year. The wing had to support a center load with a maximum 2.5 inch deflection. The wing having the largest load to weight ratio was the winner.



Results for both contests are given in the table on the next page.



All of the awards were given out at the Student Awards Breakfast on Wednesday, June 21<sup>st</sup>. In all, we gave away more than \$6000 in prize money as well as a number of composite tennis racquets from Prince and a composite training course from Abaris. First place awards were presented by A&P Technologies, High Performance Composites Magazine and United Testing.

Once again, we thank our 50 sponsors for their support. They provided the materials for the kits and the cash and product hardware for the prizes. United Testing provided the tensile machine used to load the bridges at the Exhibition. We also acknowledge the very strong financial support from NASA Langley and Boeing.

# FINAL RESULTS

	wt(grams)	P(lbs)	P/wt	Finish
<b>Bridge - Carbon Kit</b>				
US Naval Academy	461	2347	5.06	1
Univ. Washington	632	2161	3.42	2
Univ. Dayton	617	1905	3.09	3
Cerritos College	718	2068	2.88	4
South Dakota School of Mines	347	650	1.87	5
Univ. British Columbia	607	1051	1.70	6
South Dakota School of Mines	628	1029	1.64	7
Cerritos College	533	827	1.55	8
Cerritos College	693	979	1.41	9
South Dakota School of Mines	749	976	1.30	10
Cal State Univ. Los Angeles	642	727	1.13	11
Univ. Cincinnati	439	445	1.02	12
Cal State Univ. Los Angeles	545	494	0.91	13
South Dakota School of Mines	869	1384	1.59	overweight
South Dakota School of Mines	834	2025	2.43	overweight
South Dakota School of Mines	834	1376	1.64	overweight
South Dakota School of Mines	861	829	0.96	overweight
<b>Bridge - Carbon Non-Kit</b>				
Western Washington Univ.	740	9777	13.17	1
Western Washington Univ.	643	8270	13.01	2
Univ. Washington	733	8224	11.60	3
Univ. Washington	747	6426	8.60	4
Univ. Utah	680	3250	4.75	5
Univ. Nevada Las Vegas	569	1133	1.99	6
Univ. Nevada Las Vegas	750	1302	1.74	7
<b>Bridge - Glass Kit</b>				
Univ. Washington	745	2841	3.81	1
Univ. Dayton	718	2331	3.24	2
Univ. Dayton	527	1077	2.04	3
US Naval Academy	345	625	1.81	4
Univ. Auckland	743	775	1.04	5
<b>Bridge - Natural Fibers</b>				
Univ. Washington	623	1839	2.95	1
Univ. Dayton	356	294	0.83	2
Texas State Univ.	620	368	0.59	3
Univ. British Columbia	626	303	0.48	4
Texas State Univ.	737	229	0.31	5
<b>Wing</b>				
	wt(grams)	P max at 2.5"	P/wt	
Univ. Utah	677	1525	2.25	1
Univ. Maryland	313	413	1.32	2
Univ. Maryland	176	227	1.29	3
Univ. Maryland	255	252	0.99	4
Univ. Delaware	334	276	0.82	5
Univ. Maryland	265	215	0.81	6
Univ. Nevada Las Vegas	443	353	0.80	7
Univ. Nevada Las Vegas	361	281	0.78	8
Univ. Delaware	496	375	0.76	9
Cal State Univ. Los Angeles	412	190	0.46	10
Cerritos College	454	128	0.28	11
Cerritos College	467	133	0.28	12
Cerritos College	588	1120	0.19	13
Univ. Washington	273	735	Disqual	
South Dakota School of Mines	606	596	Disqual	
UC Santa Barbara	82	68	Disqual	
Univ. Washington	170	213	Disqual	
<b>Posters - wing</b>		<b>Posters - bridge</b>		Place
Univ. Delaware	1	Western Washington Univ.	1	
Univ. Nevada Las Vegas	2	Univ. Nevada Las Vegas	2	
UC Santa Barbara	3	Univ. Washington	3	

### 2008 Bridge/Wing Contests Sponsors

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