



BUGGY ALUMNI ASSOCIATION

2012 Members Only Raceday Preview

Hello BAA Members!

We want to thank you for your continued support this year. As a members-only perk, you're receiving this Raceday Preview - our chance to give you some extra news and predictions so you'll have the best inside information going into Raceday.

This will be the BAA's 4th Carnival, making it the BAA's senior year! We've resisted the call of senior-itis, and been keeping busy since last Carnival. Our website continues to grow and attract visits by the thousands. A big part of our efforts leading up to Carnival has been raising corporate sponsorship for the two JumboTrons that have become a Raceday must-have. Despite getting a late start, we have over \$5,000 in sponsor commitments, more than half the cost of the JumboTron screen rental.

On Raceday the BAA will be operating the timing system for the third year in a row, providing accurate timing and awesome finish line photos. Our 4th annual Lead Truck Auction should be in full swing by the time you get this, giving you a chance to bid on a seat in the lead truck. You'll get a view that even chairmen don't get, and help us raise money for our continuing Buggy Alumni efforts. And finally, we're partnering with Sweepstakes to produce the buggy guides that have been an enormous hit since we introduced them in 2009.

This Raceday we'll be seeing some new faces, and missing some old ones. Pioneers and Kap Sig crossed the finish line last Raceday, but won't be making it to the starting line this year. Pioneers quietly faded away without rolling once this year, and Kap Sig only managed to make it out to three weekends of practice in the fall. Their places are being filled by Delta Force and Apex. Apex is the first new independent to form since 1988 (Pioneers), started by enthusiastic residents of The Residence on Fifth, and absorbing the remains of Pioneers and their space on campus. Delta Force is a partnership between DTD and TriDelt. And a surprising addition this spring was ... PiKA! After losing their house on campus last year, it was assumed they would be absent this year, but they are back and ready to race.

In addition to the new orgs, there is plenty to get excited about this Raceday. Last year Fringe proved 2010 was no fluke with their 2:05 Men's win, but it was also the first time since 2006 there were no finals. Can Fringe defend their Men's win against SDC or take the Women's trophy from SDC when there is a second day? PiKA is looking to come back from a difficult 2011 when their A, B, and D teams all DQ'd, leaving their C team 2:23 finish as their only time, followed closely by being ousted from campus. Can they overcome those hurdles and return to their former glory? CIA's Ascension impressed the judges last year and won the design competition trophy. Can they repeat the win with this year's Orca?

How things will turn out this year is anybody's guess, and if you're not able to come to Pittsburgh this year, we have your back and you won't miss a thing. cmuTV will be streaming the races live, and on cmubuggy.org you'll find a complete suite of tools to keep you informed and in touch throughout the races..

See you on the hills!

cmubuggy.org

Carnival 2012 Schedule of Events

Thursday, April 19

Design Competition:

10am - 2pm - University Center, Wiegand Gymnasium

Bar Hangout:

8pm - Hough's Bar, 563 Greenfield Ave (houghspgh.com)

Friday, April 20

Prelim Races

8am - 12pm

CIT Buggy Breakfast

9am - 11am - Roberts Engineering Hall, Singleton Room

Buggy Alumni Association Reception

12:30pm - Baker Hall coffee lounge just off Hill 4

Everything I Know About Innovation I Learned From Buggy:

A Case Study in Innovation, Presented by Matt Wagner (E'87)

1:30pm - Baker Hall, Giant Eagle Auditorium

Buggy and Patent Law? Really? Presented by Don Wood (E'54)

3pm - 4pm - Baker Hall, Giant Eagle Auditorium

Saturday, April 21

Alumni & Exhibition Heats

8am - 9am

Final Races

9am - 12pm

Awards Ceremony

6pm - Midway Main Tent

Sunday, April 22

Morning after breakfast

10am Smallman Street Deli, 1912 Murray Avenue

See you on the hills...

and in the halls, at the bar, in the gym, at the deli, and of course at cmubuggy.org

Things looked bright for AEPi in 2009. They had built a new buggy (Kamikaze) and their men's A improved from a 2:39 finish in 2008 to a 2:21. But they couldn't keep that momentum going into 2010. Even though their women's team got their best time ever (3:26, cutting 14 seconds off their 2009 time), their men's A time inflated back to 2:30 and was DQ'd, and the buggy they built (Aether) has not been seen since. 2011 saw their men's time explode to a 2:41, and their women's team finished with a DQ'd 3:38. Things didn't look like they were going to get better in the fall - they were only able to get one buggy rolling (Kamikaze). But they had a burst of activity in the spring - a second buggy rolling (Zephyrus) with three weekends of rolls left in the spring, and we saw brand new Zero Error wheels on Kamikaze during truck weekend. AEPi hasn't given up yet, so neither are we.

Kamikaze '09

Zephyrus '07



Apex

New Team for 2012

Formed in the fall semester by an enthusiastic group of freshmen sharing dormitories in the Residence on Fifth, Apex comes into buggy with an entirely clean slate. They spent all of the fall semester pestering as many people as they could possibly track down in order to soak up all of the information about running a buggy team. They absorbed the remaining members of Pioneers and acquired their space, and debuted at rolls in the spring with a borrowed and heavily refurbished Camo from AEPi. Things went about as rough for them as one could imagine, as Camo's chronic mechanical unreliability drove their rolls to a screeching halt just before spring break. However, not much can get this group down, and they bounced back with Insite on loan from Fringe, managing to squeeze in enough rolls to qualify. Additionally, rumors say that they have a build in the works, and their indefatigable energy and morale should carry them well through this Raceday and beyond.

Insite '03 (from Fringe)



CIA

Carnegie Involvement Association

Best result out of last 5: Men 10th (2011), Women 7th (2011)

Team records: Men 2:10.42 (1986), Women 2:41.48 (1986)

The CIA kids have been keeping to their schedule and built a new buggy again this year. They seem to have found a design they like as their newest addition to the fleet, Orca, looks an awful lot like their previous Design Competition winning buggy: Ascension. Not to be outdone by the mechanics, the pushers have really been working their hardest to keep up with the technological growth. CIA seems to still be lacking in the wheel department though as their current wheels look no different from the ones that appeared at last year's Raceday. It'll be a tough battle back if they want to make it into the top 10 this year.

Orca '12



Ascension '11



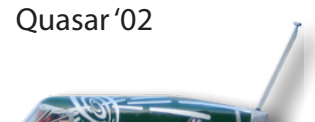
Freyja '10



Firebird '04



Quasar '02



DeltaForce

New Team for 2012

Another new team this year, Delta Force is a collaboration between Delta Tau Delta and Delta Delta Delta. We all remember DTD's last foray into buggy in 2010, when their rebranded Pioneers buggy Bethany had numerous issues and Sweepstakes declared them not fit to roll on Raceday. This time, they've partnered up with TriDelt, and got themselves what seems to be a much better loaner buggy from KDR, Perun. Delta Force has been out pretty consistently all year, and their freeroll times aren't bad for a new team. That said, their depth in pushers is lacking, and a day two finish seems like a longshot. But, this year has been a good one and we expect promising things from them in the future.

Perun '07 (from KDR)



Fringe

Best result out of last 5: Men 1st ('11 & '10), Women 1st (2010)
Team records: Men 2:05.08 (2011), Women 2:34.7 (2001)

After claiming the men's and women's titles in 2010 (controversial due to an SDC DQ), Fringe showed they were there to stay by claiming the men's title in 2011, and narrowly losing the women's title to SDC. Their 2011 build Bonsai was an impressive leap forward, finally allowing them to close the gap with SDC's Malice for the "fastest buggy on the course" conversation. They've stuck with the reverse trike design, and their new buggy Bissa looks similar to Bonsai. They've been about a second or so faster than SDC on the freeroll typically, which is about where they were this time last year. It looks like it will be another tight race with SDC to decide the titles.

Bissa '12

Bonsai '11

Borealis '10

Bedlam '09



PiKA

Pi Kappa Alpha

Best result of last 5: Men 1st ('07 & '08), Women 2nd ('07 - '10)
Team records: Men 2:04.35 (2008), Women 2:29.83 (2004)

To say that many of us were surprised when we saw PiKA out this spring is an understatement. After some incidents last year, they lost their house at CMU. However, they were allowed to remain as an organization (we won't get into detail here), and buggy certainly benefits by having one of its most successful teams still on campus. After missing the entire fall, they were back at their familiar spot in the spring, rolling their new build from last year Raptor as well as Chimera and Zeus. They seemed to waste no time in getting back up to speed, and while their freeroll times haven't been quite there with SDC and Fringe, they've been leading the rest of the pack. They've not been idle this spring in the mechanical department: Raptor has been sporting new smaller wheels in the back and doing well. That being said, their depth in pushers might be lacking, and it seems unlikely that they will challenge SDC and Fringe for the title; but anything can happen and you can't count them out just yet.

Raptor '11

Chimera '08

Zeus '00



SAE's return to buggy in 2009 after a six year absence was an encouraging one, although they have struggled to make it to Raceday since. For the second year in a row, they didn't make it to a single fall practice. There was concern that yet another fraternity was dropping out of buggy. It turned out they just needed a little extra time to completely renovate their buggy. When they emerged from their garage for spring freerolls, they unveiled a conversion of their buggy Rubicon, from standard trike rolling on 14" pneumatics into a reverse trike rolling on 7" Xootrs! It's good to not only see SAE back out on the hills, but to see they haven't given up on reaching for better performance. We'd like to see more of this creative reuse approach in Buggy.

Rubicon '99/'12



SDC has been a perennial contender the past few years, and it doesn't look like that will change this year. They bounced back from the disappointing DQ in 2010 to claim the women's title last year, and narrowly lost the men's title to Fringe. This year, many were surprised to not see them debut a new buggy. The rumors in the chute are that they were at work on something for the year that just didn't make it out. Malice and Bane have been performing great for them all year. 2010 new buggy Avarice has been spinning more often than most this year though, whether that's due to experimentation or a deficiency is anyone's guess; and reliable Rage is present as well. Their wheels remain the same from the record setting 2009 performance, and their pushers look to still be among the best. While 2009 and 2010 showed SDC a few seconds ahead of the pack, last year saw that gap close, and it's looking to be another tight race between SDC and Fringe this year.

Bane '11

Avarice '10

Malice '09

Rage '96



SigEp has been flying under the radar most of this year. They haven't crashed spectacularly, and they didn't bring out a fancy new buggy. Instead, they've quietly grown into a large, well-oiled operation, regularly rolling four buggies, with a variety of wheel types. Like last year, the best stuff wasn't in evidence until truck weekend, but Barracuda's performance on Saturday suggests they've gained some ground on the leaders. While their last two races have been slightly slower than their 2009 house record, and 2011's DQ was disappointing, their push team is capable of putting them ahead of everyone other than Fringe and SDC. If they keep up their progress, we may have a four-way race at the top to look forward to in the future.

Mamba '11



Peregrine '10



Barracuda '09



Pandora '06

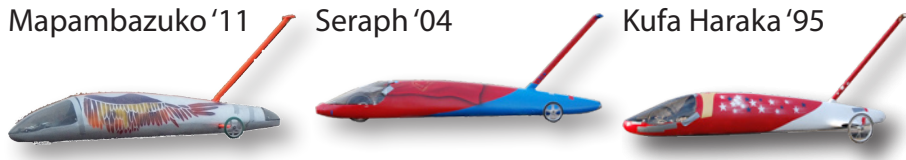


After crashing their only entry during prelims last year, and lightly attending fall freerolls, some wondered if the Zoo were going to make an appearance this Raceday. However, they've gotten serious in the last few weeks, with Krait and its male driver showing the impressive freeroll speed we've come to expect from them. That still might not be enough to help their push team get them into the top 10, but a middle-of-the-pack finish is far ahead of their absence two years ago, and hopefully gets them hooked on buggy again.

Bungarus Krait '09



Spirit's transition to hard rubber has not been easy. For the past two years, they have struggled with spins and seen their times increase instead of decrease. Trying to deal with those problems, they spent last year experimenting with new wheels, new rubber, and surprised a lot of people with their first new buggy in seven years. This year, they didn't let last year's disappointing results (5th place men's finish and 8th place women's finish) interfere with continued experimentation throughout the fall. Did the experiments pay off? They didn't spin once in the spring, after spinning at least once every weekend of the fall. If Spirit can regain confidence in their line, they could return as serious contenders.



Spirit's paint jobs are subject to last minute change.



Fire Marshall Rick



AEPI on deck



DeltaForce catches Perun



Occupy PiKA: CIA's new tent location

Wheels are a critical element in any successful buggy program. Gaining and keeping an advantage in wheel technology has gone hand in hand with winning for more than half a century. The original buggy dynasty, ATO, was successful, in part, because they were the only team who knew to heat their wheels. Those who develop or find fast wheels and wheel prep seek to keep the supply to themselves and thus the history of buggy tends to be the tale of the haves and the have-nots in wheel tech. Much of the secrecy that surrounds buggy relates to wheels.

There have been some exceptions though. The introduction of the Panaracer pneumatic tire in the late 80s provided wide access to victory capable wheels. The advent of the original Xootr wheel provided another such opportunity in the early 2000s. In both cases, the supply dried up forcing a continued quest for speedy wheels.



AEPi spreads the good word

Now, we are clearly in another era of widely available fast wheels as a variety of urethane compounds developed by AEND, a leading manufacturer of skateboard wheels, are available for purchase from Zero Error, a multi-sport supplier of racing products. AEND compounds have been behind many of the fastest rolls over the past decade. Their presence on campus became much more obvious when Fringe dominated the freeroll in 2007 with bright green models. SDC picked up the pace after switching to the AEND tires in 2009 on their way to the men's record.

Today, for \$200 one can buy a Xootr sized wheel in a range of durometer and bright colors in a well machined hub from Zero Error. The wheels are reasonably durable and quick right out of the box, and they respond well to many forms of "prep." The race has been won with AEND compounds for the past three years and one could argue that the AEND wheel ended the PiKA dynasty. With race favorites SDC and Fringe running 100% AEND based wheel programs, and PiKA and Sigma Nu also including AEND wheels in their programs, it is not a surprise to see other orgs like AEPi stepping up to buy into the same technology. While some may see the \$200/wheel as expensive, others see the time saved per dollar spent to be a bargain.



AEPi rolling on green Zero Error

The quest for speed continues on other fronts. CIA and Sig Ep have followed their own paths. Sig Ep has shown serious Raceday speeds since 2009 despite rarely showing much potential during practice. Spirit clearly has their own wheel program in place and, while not as quick at some others, they appear to have something that is working better in the chute this year. SigNu, despite rolling on green AEND for most of the spring, had something else rolling well of late.



Spirit

Lastly, PiKA, always on the prowl for a wheel advantage, have tested a variety of alternatives to their "PiKA rubber" wheels over the past 2 seasons. These have included many different AEND/ZE wheels and smaller diameter wheels that appear to have their origins in the Soap Box Derby Ultimate Speed Challenge (USC) race. Their most recent efforts have Raptor running well on ~4 inch wheels with pace to match Chimera on more traditional offerings. These smaller wheels may mark the leading edge of a new wave of wheels to cross over from USC to Buggy. There has been much wheel development in the Ultimate Speed race that has not made it to campus. The \$200 AEND/ZE wheels that hold the course records are far from state of the art in that race.



Zero Error's USC contender



PiKA's Raptor

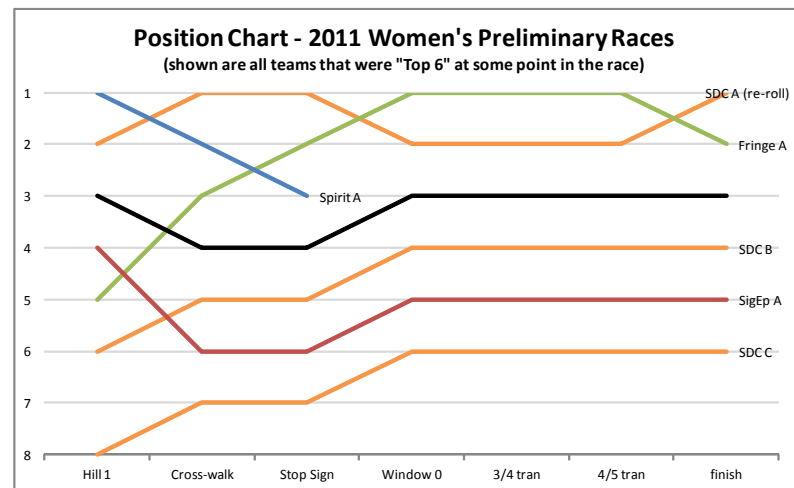
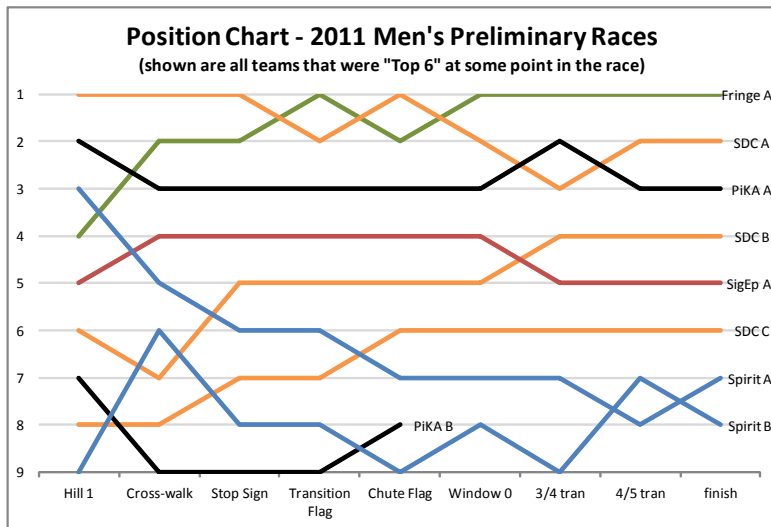
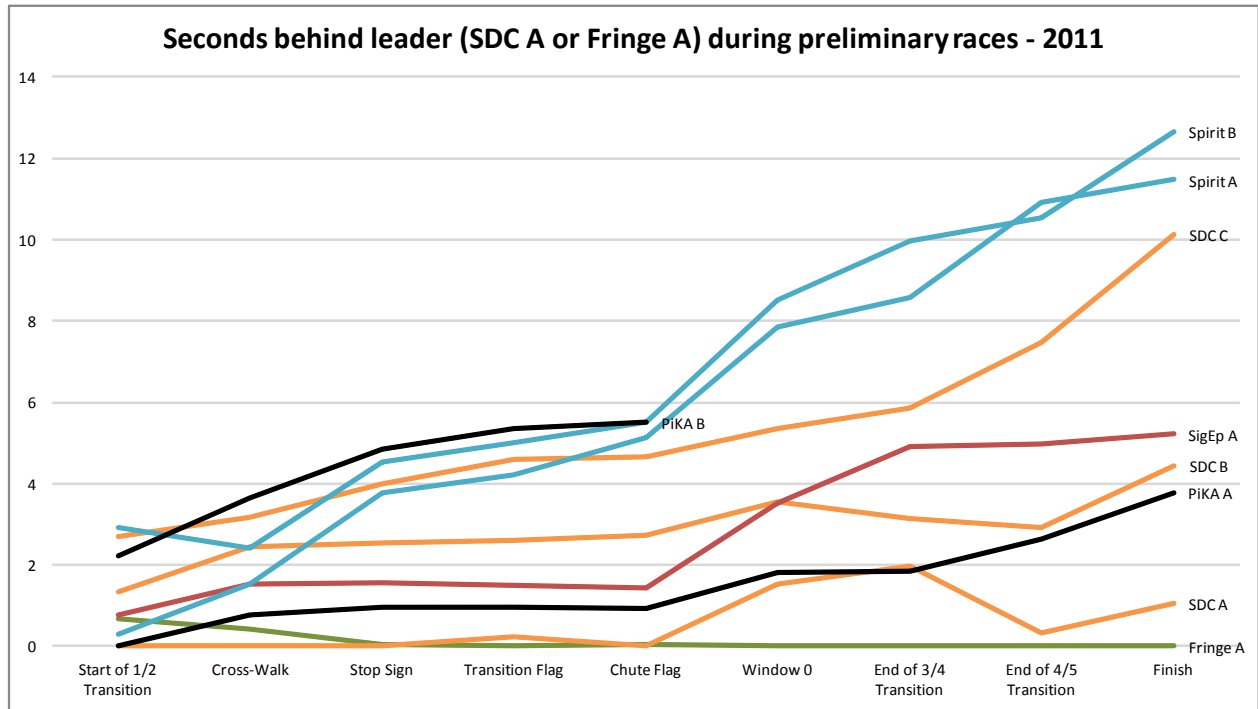


USC entry with familiar stickers



A \$200 chunk of debris (SDC)

Have a look at how the top finishing teams compared during last year's races. It becomes clear that with a clean chute line, SDC could have edged Fringe for the win. With a slightly faster Hill 5, they still could have pulled it off. And look at that chute turn. SigEp and Spirit both scrub off over two seconds here compared to SDC and Fringe. Moving onto the women's chart, you can see Fringe's dominance of the freeroll got them the lead right up to Hill 5. This year's times suggest that the races will be just as tight.



In the past three years, we've seen the return of a trend that hasn't been popular since the 80's - retrofitting older buggies instead of building new ones. Before the move to monocoques and carbon composites, it was not uncommon for a buggy to disappear and then reappear with massive changes. Fringe and CIA were notorious for producing frankenstein buggies. Both orgs retired buggies in the 90's which had everything replaced - including the entire frame.

So why are we seeing this trend now? Is it because of the cross pollination with derby racing, and the discovery of new wheels and rubber? Instead of every org having to make their own wheels and rubber, they now have a slew of off-the-shelf options. With a plethora of choices, and only one real way to test each option (put it on the buggy and try it out), does it make more sense for orgs to retrofit in order to experiment instead of building a whole new buggy?



Rubicon 1999-2011



Rubicon 2012

Fringe buggies that underwent major transformations in the 80s
 Top, from back: Tygr, Barrier (reverse trike), Lunatic (formerly Barchetta reverse trike)
 Bottom, from back: Barrier (standard trike), Tygr Junior, Lunatic

2012 Seeding Times

Calculated from a weighted average of the past three Races.
 See next page for actual heat selections for this year's races!

Women's

	Seed Time
SDC A	151.19
Fringe A	157.93
SDC B	161.63
PiKA A	163.23
SigEp A	168.24
Spirit A	172.29
SDC C	173.12
Fringe B	176.82
Spirit B	177.15
CIA A	179.97
SAE A	186.41
SDC D	188.69
SigEp B	191.65
Fringe C	212.31
AEPi A	213.83
CIA B	215.11
CIA C	275.37
Apex A	
CIA D	
SigEp C	
DeltaForce A	

Men's

	Seed Time		SeedTime
SDC A	125.51	CIA A	144.81
Fringe A	126.09	SDC D	146.57
SDC B	129.18	SAE A	147.58
PiKA A	129.71	SigEp C	150.34
SigEp A	130.34	AEPi B	151.11
Spirit A	134.63	AEPi A	156.21
PiKA B	135.47	CIA B	162.34
SDC C	135.82	SigEp D	163.47
Fringe B	138.08	CIA C	171.39
Fringe C	139.43	CIA D	189.81
SigNu A	139.68	Apex A	NA
SigEp B	140.48	Spirit C	NA
Fringe D	143.20	DeltaForce A	NA
Spirit B	143.58		

2012 Sweepstakes Races

Womens Heats

	Lane 1	Lane 2	Lane 3
1	SDC C	CIA C	Fringe C
2	Spirit A	SDC D	Apex A
3	SigEp A	Fringe B	CIA B
4	PiKA A	DF A	SigEp B
5	SDC B	CIA D	Spirit B
6	Fringe A	SigEp C	SAE A
7	SDC A	CIA A	AEPi A

Mens Heats

	Lane 1	Lane 2	Lane 3
1	Fringe B	SigEp C	Spirit C
2	PiKA B	SDC D	CIA D
3	Spirit A	APEX A	Fringe D
4	SDC C	SigNu A	CIA B
5	SigEp A	AEPi B	Fringe C
6	SDC B	SAE A	CIA C
7	PiKA A	SigEp D	Spirit B
8	Fringe A	CIA A	DF A
9	SDC A	AEPi A	SigEp B



A crowd of alums filmed during a live webcast from the Chute

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