NUTS,
BOLTS,
\&i WHEELS:
100 YEARS OF BUGGY


## ACKNOWLEDGMENTS

Producing this book would not have been possible without he thireless
workt that volunters and alumi work that volunters and alumni
have done throughout the years have done throughour the years
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- nterfraternity Motor Sweepstakes-which would come to be known colloquially as Bugy-is one of Carnegie Mellon University's longest traditions. The students and alumni who have participated throughout the years, rsity campuses.

But the Sweepstakes demonstrated-and continues to demonstrate-a profoundly unique aspect of CMU's community.
Buggy is a demonstration of our collective commitment to both art and science. It's a demonstration of our desire to create Buggy is a demonstration of our collective commitment to both art and science. It
applied knowledge to solve problems that exist outside the walls of the university.

This is what makes CMU great: our ability to be interdisciplinary, to seek non-traditional solutions to problems, and to This is what makes CMU great: our abinisy to be interdiscipinimary, to sect

It's this spirit that made Spring Carnival-where the Sweepstakes happen-as important to CMU's culture today as it was
one huse one hundred years ago. This is our celebration of a collaboration between the arts, the sciences, the humanities, and athletics.
This is our celebration of a collaboration between students, faculty, staff, alumni, and the larger world. This is where we This is our celebration of a collaboration between students, faculty, staff, alumni, and the larger world. This is where we

And Buggy-a student-run event-was the first, and most enduring, demonstration of all of those ideals.
Nuts, Bolts, © Wheels: 100 Years of Buggy is a celebration of those students-past, present, and future.

- Julia Corrin, University Acchivist

Brad King, Editivorial Directort ETC PTress + University Libraries
Heidi Wiren Bartlett, Designer Heidi Wiren Bartlett, Designer



T $\qquad$ he first Interfraternity Motor Sweepstakes-which would come to be known colloquiully as Bugsy-took place during
Campus Week on April $21,1920$. . Ten fraternites participated in "The greatest, wildest, azziest, most blood-curding, hair-
raising, breath-stopping, shirt-tearing event in Tech annals," By the second year, nearly two-thousand people gathered to raising, breath-stopping, shirt-tearing event in Tech annals." By the second year, nearly two-thousand people gathered to
watch the eighteen teams participate in what would become the annual competition that an announcement in The Tartan
humorously decsibed as "soult watch the eighteen teams participate in what would become the annual competition that an annout
humorously described as a "soul-tearing, death-defying Interfraternity Push Mobile Sweepstakes."

While the race would go on to become a campus mainstay, in the beginning nobody was exactly sure what the Sweepstakes would become. Rules were in flux. The course changed several times. Pusher-driver configurations changed. And, buggy weight and design specifications changed

The last change-design specifications-eliminated one of the more colorful aspects of the event. Originally, the competition was split into two categories: race and design. The " "freak buggies" created for the design competition, were developed to look cool without regard for their racing ability. However, by decade's end, the freak buggies were no more. Only buggies that raced were eligible for the design competition.
notable highlights:

- In 1922, Sigma Alpha Epsilon (SAE) and Pi Kappa Alpha (PiKA) tied at the finish line, the only tie in race history,
- Kappa Sigma (KZ) became the first buggy dynasty, winning from 1923-1925, placing second in 1926, and returning to the winner's circle in 1927-1929,

In 1929 , Campus Week was canceled. Sweepstakes still occurred, but without any other campus events. Phi Kappa Sigma ( $\varnothing$ K) won that race



Ithough Campus Week was shuttered by faculty in 1929 , students petitioned the administration and in January 1930 the faculty approved Spring Carnival, which began a new Sweepstakes era. Still, the rules continued to evolve. The prohibition
against recruiting athletes as pushers was relaxed. And freak buggies were officially eliminated. his decade saw some of the first major new buggy innovations as teams tried to out-engineer each other. While Beta Theta Pi (ВОП) had introduced the three-wheeled buggy the year before, in 1933 Beta Bill Dilks cloaked his trike buggy in airplane silk in order to create a ightweight, aerodynamic racer. That simple change helped trike buggies sweep the next few Sweepstakes.
The was also the golden age of Kappa Sigma's (Ǩ) dynasty. They won in 1934, nearly won in 1935, and then won every race from 1936 through 1941, which was the last race until after World War II ended in 1945.
notable highlights:

- In 1931 Delta Tau Delta (ATA) wins both the cMU's buggy race and Pitts buggy race

In 1935 , somebody dumped a bucket of sand in the Chute in order to cause the first buggy to skid and flip over. However, it was discovered and cleare before the race began.

Image credit: Sweepstakes, 1930 (from the 1931 Tistie) (inght page)


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he United States' entry into World War II caused a hiatus with Spring Carnival during the war years. And in 1942, the Sweepstakes was cancelled for the first time In its place, the buggy organizers created a "JJalopy Race", which was similar in style to the Sweepstakes with one exception:
vehicles couldn't contain any materials that "might instigate tension with the [War Production Board)." "This meant no metal or rubber. The jalopies were smaller than buggese, and the course, which was a wild ride down Frew Street, was much shorter.
Buggy would resume in 1946 with a small field since not all the fraternities had re-activated. While the Men's Dorms were permitted to race as early as 1928, it wasn't until 1948 that there was a record of the organization particicipating.

Another notable addition: the era of broadcasting began that same year. A jeep with a PA system drove along the course and called the race to the spectators.
notable highlights

- In 1941 , the Delta Upsilon ( $\Delta 4$ ) trike was leading the race on the free roll when a car accidentally made its way on the course. The trike team attempted to avoid the vehicle to no avail. It hit the car and went up and over the curb.
- From 1943 through 1945 , Spring Carrival and buggy were both cancelled.
- In 1947, Deta Upsilon ( $\Delta$ ) earned their only victory in the history of buggy, driving the Flying Pork Barrel.
- 1948 marked the start of f five-year winning streak for Delta Tau Delta (ITA)
- The introduction of the Soap Box Derby Wheel led to the development of wheel technology.



## $1950 \$$

ike much of the rest of American culture, engineering and experimental innovation marked the post-World War II Sweepstakes rule meant to eliminate some of the bad wrecks that happened in previous years.
By the middle of the decade, teams had begun experimenting with wheel technology. Some experiments were successful, such as the Alpha
Tau Omega's ATO) decision to place its wheels in an oven on a truck in order to alter the hysteresis of the rubber Some failed experiments Tau Omega's (ATS) decision to place its wheels in an oven on a truck in order to alter the hysteresis of the rubber. Some failed experiments In 1956 , several organizations paid more than $\$ 100$ for wheel bearings from Switzerland as teams focused on speed over safety. By 1959 ,
ball bearing technology advanced so much that teams spent upwards of $\$ 250$ on the latest innovations. This led to new safety inspections which included checking for functional brakes, wheel security, adequate steering mechanisms, and ensuring that detachable parts would not come flying off during the race

## notable highlights

- 1953 also marked the first time organizations could enter more than one buggy in the competition



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& \text { hile the fifties were filled with innovation, the experiments of the sixties weren't quite as successful. } \\
& \text { In } 1961 \text {, Sigma Alpha Eppilon (IAE) created the two-wheeled, bike-style design, which became the organization's hallmark bugg } \\
& \text { However, the group failed to win any of the races in the decade. Two years later, organizers put together a comical heat that }
\end{aligned}
$$ featured Sigma Nu's ( NN ) "sailboat," which was made out of a bathtub and concrete. They were in the lead until the last ten feet when one of the concrete wheels disintegrated.

The buggies were getting faster thanks to all the design changes with wheel technology, but that speed didn't come without a price. Despite safety
precautions, the increased speeds caused some racers to miss the "chute" turn, sending them over the curb and crashing into the crowds Those precautions, the increased speeds caused some racers to miss the "chute" turn, sending them over the curb and crashing into the crowds. Those
crashes led organizers to instal hay bales around the turn in 1967 .

With so many material and design innovations happening in the business world and on the campus, the sixties marked a grand time for new buggies. Organizations ditched their recycled buggies and built newer, lighter ones. And to ensure safer, more competitive (and faster) runs, the course road was paved.
notable highlights:

- In 1960, the Men's Dorm made the finals, which marked the first non-fraternity organization to accomplish that goal
- While not officilly called the drop test, in 1963 organizers added a brake check that required each buggy to remain stationary while on a fifteen degree incline.
- In 1965 the Buggy Book was introduced. II contained past photos, highights from history, photos for each team, and information and statistics from the past.

In 1969 , the International Club (renamed Fringe in 1970) was founded by a group of architects as the first independent organization to compete in Booth ad. he Sweepstakes during Spring Carnival.

 Buggy Safety Net, run by the W3VC group, officially became part of the Sweepstakes.
But the biggest change to Sweepstakes happened in 1979 with the introduction of the Women's Division. The first year included four teams: The SDC's team of Shari Burton, Juanita Jordan, Cybelia Cartwright, Deneice Williams, Tammy Fair, and Sarah Freestone won the day.
notable highlights:
19105

- In 1970, a crash took out the entire consolation heat, which caused organizers to revert to the preliminary times to determine fourth through sixth place.
- In 1971 , the first official Sweepstakes predictions appeared in The Tartan.
- In 1976 , Joan Bothwell was named the Sweepstakes chair, marking the first time a woman held that position.
- This marked the first time a women's team was officially recognized.


T( $\Pi$ KA) "Silver Bullet" -which spun in the turn in 1981 -recording very fast freerolls in practice. Thanks to a dominating victory by Sigma
 of their buggies and for a couple of years a single source of superior wheels. Within a few years, several fraternities and organizations

The decade saw more innovation around wheel development, one of the surest ways to increase a buggy's speed and agility. Some teams opted for The decade saw more innovaviou around wineel development, one of the surest ways to increase a buggy's speed and aginty. Some reams optect for buggies and after a few unfortunate accidents, the buggy organization introduced a new 83 -page rulebook in 1987 that outlined measures both on and off the track.
One interesting idiosyncrasy about the Women's Division: while there were twenty-one teams representing eleven organizations in the 1988 race,
sororities aligned themselves with fraternities, racing in the Women's Division under those organizations.
notable highlights:
In 1981, Carnegie Invovement Association (CIA) became the first independent organization to win the Sweepstakes.

- In 1984, Pi Kappa Alpha (TKAA built Mach l , a very small and fast buggy designed for its driver, firstyear student Audrey Greenfied.
- In 1985, , SpRIT raced for the first time. In ust its second year, the organization won the Women's Division Sweepstakes.
- In 1986, comedian Jerry Lewis was named the Grand Marshall of Sweepstakes.
- In 1989 , the two-wheeled buggies were banned with the new safeyry rules but permitted to remain until the Detta Upsilon ( $\Delta \mathrm{V}$ drivers had graduated.

Image cradit: oriver, 1976 ( $\mathrm{Clght} \mathrm{prage)}$




## s $S$ weepstakes continued to grow in popularity on campus, the allocation of money became a major sticking point between the organization and student government. But that didn't dampen the spirit of the spectators. In 1991, Tartan TV produced its first live coverage of the event, which was piped to people on campus while WRCCT, the student radio station, provided the audio commentary.

One notable change in buggy design: the nineties helped usher in the modern reverse trike, first with Sigma Nu's (IN) entry in 1990 and ten as others followed suit throughout the next few years.

Sigma Phi Epsilon ( $\sum \Phi E$ ) returned to the Sweepstakes for the first time since 1931 after the fraternity reorganized in 1996 . While they didn' field a team that year, they partnered with Fringe and provided a push team.
notable highlights

- In 1992, Beta Theta Pii (Ben)'s buggy split into two before race day cussing the fraternity to withdraw from the Sweepstal

Women's race.


## W

heel technology was back at the center of buggy design in the new millennium.
Fringe started the wheel design race in 2001 when it replaced its old pneumatic tires with smaller, better groundgripping wheels made by the scooter company Xootr: Fringe swept the Ments's and Women's riaces that year, and it took home the top two spots in the Design competition. Other organizations rushed to catch up just as
design in 2007, replacing the Xootr wheeels with better performing wheels made by AEND Industries.
Race coverage got another upgrade, as well. A graduate student research team at the Entertainment Technology Center contributed to a umbotron, which was installed at the top of Hill 2 so that spectators could watch the race. The screen proved so successful that the Buggy Alumni Association sponsored a second Jumbotron in the Chute.
notable highlights:
In 2000, cmulv began broadcasting the race. The first video was made nublic was in 2003

- In 20004, Kappa Kappa Gamma (KǨ) became the first
- In 2008 , the course record which had stood for 20 years was finally broken, as Pi K Kappa Alpha (గKA) ended the day with a new course record and a new record for consecutive wins when they captured their seventh win.



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Left: The Hill One pusher for the Spirit team has a strong start.

## A

now ruled the race. Even as the number of organizations decreased, Sweepstakes has seen an increase in the number of people participating. Today, nearly half of organizations have at least four Men's teams and three Women's teams.
The increase in Women's teams means both divisions now look similar. The Women's Division final increased from six to ten, the same as the men And in 2018, the Men's Division had twenty-seven teams and the Women's Division had twenty-five.

The increased competition in the Women's Division has pushed teams to roll faster. In the first 28 years of Women's racing, only one Pi Kappa Alpha (ПKA) team had finished with a time under $2: 30$. But by the 2010 s , Women's teams have finished under $2: 30$ nine times.
notable highlights:

- In 2012 , cmuTV began live streaming their TV coverage of race day
- In 2017, Student Dormitory Council's (SDC) buggy Malice became the winningest buggy of all time, winning nine races (five Men's and four Women's).
- In 2017, the CMU Robotics Club, known as Roboobuggy, completed the first autonomous roll using a self-driving buggy pushed by the usual team of five pushers.
- In 2019 Sophie Halpern became the first ever buggy chair of a fraternity team (sigep).
- In 2099, the Student Dormitory Council (SDC) set the record for most consecutive wins when it captured its eighth straight victory.





BUGGY WINNERS






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BUGGY (WOMEN) WINNERS

















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 2010
2011
2012
2012
2014
2014
2015
2016
2017
2017
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