

The **BUSINESS** *of a*



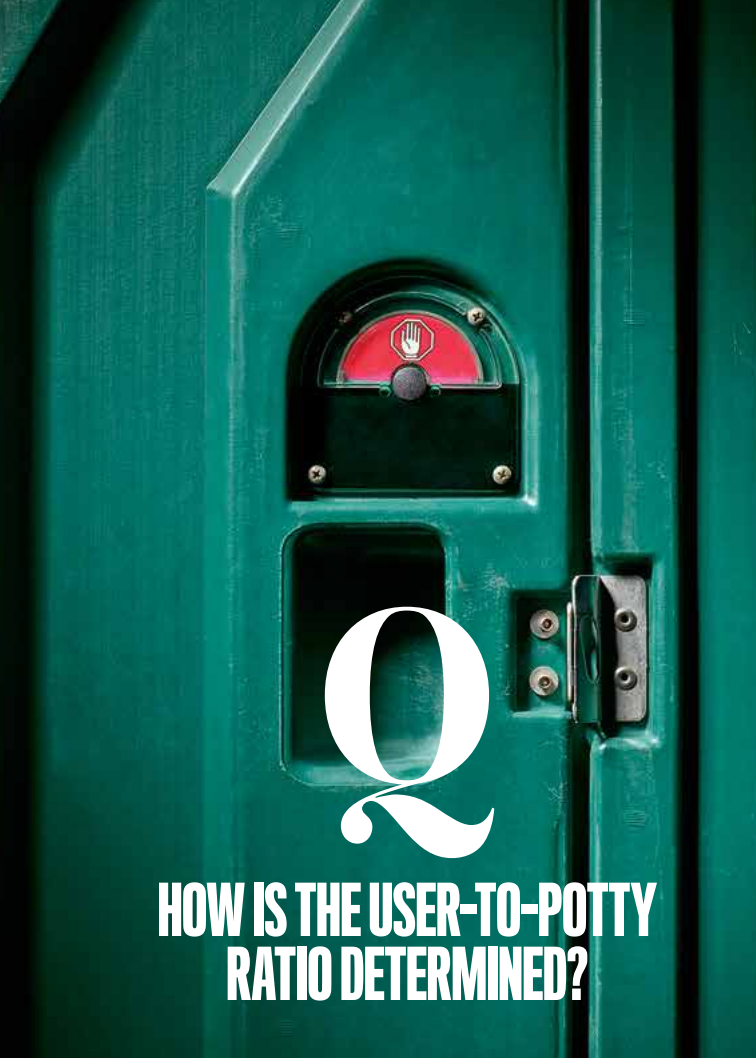
By
**RACHEL
SWABY**

We runners have a complicated relationship with portable toilets. We're happy to see them before (and sometimes during and often after) a race, especially when we've been shot-gunning liquids and glucose. But that minute-plus (on average) we spend in their odiferous confines tends to yield some memorable-and-not-in-a-good-way moments. However, instead of shaking your fist at them, we suggest cutting the portable toilet some slack. Everything from the mysterious blue liquid to the height of the drop to the placement of the urinal has been studied and calibrated to make the best of a crappy situation. Which intrigued us—there's a lot more to these things than we thought. So here's everything you ever wanted to know (and a lot you probably didn't) about the humble box that gets so much s---.



PORTA-POTTY

Photographs by
DAVID ARKY



HOW IS THE USER-TO-POTTY RATIO DETERMINED?

A “There’s one toilet per 60 people at a concert,” says Steve Brinton, the vice president of sales and marketing at Satellite Industries, a portable-toilet manufacturer, “but at a race it’s one for every 10 people because of the way they’re used.”

Meaning a heck of a lot of well-hydrated runners create heavy traffic over a condensed time period. In fact, after an informal study of race participants, Ron Crosier, president of Crosiers Sanitary Service, Inc., which services events like West Virginia’s Komen Race for the Cure and The Gristmill Grinder, found that 80 percent use the loo in the hour before the start. Companies like Crosiers do provide recommendations, but the race director’s budget guides the quantity and quality of the selection. Units range from \$50 to \$150, depending on the region and the distance they’re transported; \$100 is average, says Crosier, and extras cost... extra. “We charge \$10 more for a unit with a hand sanitizer, mirror, purse shelf, and hover handle,” he says.



PORTA PEEVE

“Lock the damn door. I’ve seen more than one bare-butted dude who just didn’t bother to slide the bar over. IT’S NOT THAT HARD.”
—MEGHAN LOFTUS, RW SENIOR EDITOR

Punny Providers

These 5 companies service events with a sense of humor.



1. **Doodie Calls**, New Orleans, LA
2. **Drop Zone Portable Service Inc.**, Joliet, IL
3. **Mr. Party Pooper**, Long Island, NY
4. **Oui Oui Enterprises Ltd.**, Markham, IL
5. **Willy Make It?** Portland, OR

THE WAITING BY THE NUMBERS

1:15–1:30

Average time it takes runners to get in and out

1:30

Average time it takes men (nonrunners) to get in and out

3:00

Average time it takes women (nonrunners)

10

Suppliers’ suggested max length of the queue, in minutes (or else the trees start getting watered)

10

Percentage increase in toilets needed when you add alcohol to an event



GREAT IDEA!

“There should be a big digital timer on the outside of porta-potties to track how long someone has been in there and (hopefully) pressure them to hurry it up.”
—ROBERT REESE, RW EXECUTIVE DIGITAL PRODUCER



Why is everything, um, wet?

A survey conducted by Brinton uncovered the obvious: Users prefer to hover. In fact, 95 percent of women and 93 percent of men won’t make contact with the seat. Since copping a successful squat (especially with destroyed

quads) over those things is to defy physics, it’s no wonder things get messy. So why not just put a normal toilet over the tank to encourage better aim? Because making room for ergonomic porcelain would shrink the tank and lower its capacity. “All that waste has to be contained within a 44-by-48-inch footprint,” says Brinton. “You need more tank than seat.”

PHOTOGRAPH BY DAVID ZAITZ/GETTY IMAGES (ROW OF TOILETS)

PHOTOGRAPHS BY DAVID COOK/BLUESHIFTSTUDIOS/ALAMY (CHERRY); GINO’S PREMIUM IMAGES/ALAMY (BEAKER)

ARE THEY PURPOSELY SET UP TO MAKE CHAOS OUT OF LINE MANAGEMENT?

Suppliers do make suggestions about how to best configure toilets for optimal use, but ultimately their placement is up to the race director. Sometimes, space constraints mean a line of porta-potties—as opposed to the U-shape used by races like the Hartford Marathon, which lets runners choose from more at a time—is the only option. At the Nike Women’s Half Marathon in San Francisco, for example, a line better accommodates the narrow streets and thousands of participants. In that case, banks of 10 toilets should be separated by a 20-foot gap to minimize the chaos. One line per bank, rather than per unit, is ideal. By promoting one line with signage or tape, one out-of-service (or endlessly occupied) toilet won’t stop up traffic. But the U-shape really is the way to go. “There’s something aesthetically pleasing about them,” says Crosier. “You have a courtyard surrounded by doors, so when you’re walking in, you can see very quickly which unit is open.” (Bonus points for atmosphere and cleanliness when a sink station is placed in the middle and the whole configuration is tented.)



Fun Fact

That 44-by-48-inch footprint is deliberate. Portable toilets were originally designed for use at construction sites, says Brinton, “for guys to take off

their jackets and hang up their tool belts.” So the width—44 inches—was standardized with that use in mind. The depth, 48 inches, has to do with portability. “You can put two of them back-to-back sideways on a truck and they’ll still be under the Department of Transportation’s width regulation, which is 102 inches.”

PORTA PEEVE

“Why are there not monitors to help form lines and manage the crowds? And keep spectators out of the runners’ lines?”
—NANCY CAVINESS, VIA FACEBOOK



GREAT IDEA!

“There should be an express line like at the grocery store—runners who pee fast need their own section. I also think some races that start in the dark need headlamps in the porta-pots.”
—BART YASSO, RW CHIEF RUNNING OFFICER



What is that smell?

(NOT THAT ONE, THE OTHER ONE)

Manufacturers deploy several methods of distracting your nose, including hiding deodorizing disks behind hand sanitizers and adding scents to the tank. The most popular aromas are cherry and bubble gum. In part, it’s because they can be easily produced in-house, unlike many fragrances, says Dean Carstens, deodorizers general manager at Satellite Industries. “Cherry was one of the first fragrances used and is still known as an industry standard,” he says.



GREAT IDEA!

“I can’t hover and go. Maybe they could put in some handles to hold onto—like Olympic parallel bars? And I hate the open pit. Why can’t they have something like the Hungry Hungry Hippos game where you press a button and a hippo (not a real hippo) comes out and pulls your poop away?”

—KEITH PLUNKETT, RW ASSOCIATE MANAGER, EVENT MARKETING



THE BLUE STUFF (A.K.A. “PRECHARGE”) BY THE NUMBERS

- 5 gallons water
- 1-7 ounces liquid deodorizer (designed to last seven days; powder packets are also available)
- 1 part fragrance (client’s choice: baby powder, mountain breeze, fresh, mulberry, cherry, etc.)
- 1 part biocide (to prevent bacteria)
- 1 part surfactant, like soap (helps keep everything in solution)
- + Dashes of blue dye (masking agent; limits the view)

Fun Fact

The biocide in the blue stuff is sometimes formaldehyde, which has a strong chemical smell. “It’s inexpensive and it works,” says Crosier. “But it will sting the eyes, and I don’t consider it environmentally friendly.”

DOWN BELOW BY THE NUMBERS

6

Ounces in the average deposit

60

Capacity, in gallons, of the tank

70

Percentage of a used portable toilet that is made up of urine, on average

250

Number of uses a porta-potty can handle before sanitary conditions start going south

1,280

Number of uses, based on the average deposit, that will fill a tank to the brim



HOW COME THEY ALWAYS RUN OUT OF TP?

A race's budget often determines the quantity and quality of toilet paper, which costs about 25¢ to \$1 per roll. How much each unit needs depends on the breakdown of men vs. women—more women means more TP—and the type of event. (In an average race, runners only use toilets at the start for 60 minutes or less.) The industry standard is two to four single-ply 1,000-sheet rolls per stall. “The number of rolls doesn't matter near as much as what they are,” says Ron Inman, vice president of Honey Bucket, the company that services the Hood to Coast relay in Portland, Oregon. “You can get rolls with 500 sheets or 1,500 sheets. Our rolls are 1,500 sheets, single-ply. Dispensers hold three rolls, and we put an extra roll on the shelf.”



GREAT IDEA!

“I wish the latch were at the bottom of the door so it could be opened and locked with your foot instead of your hands. Blech.” —LINDSAY BENDER, RW ASSISTANT MANAGING EDITOR



What's the lifespan of a unit?

“Porta-potties will easily last 10 years,” says Brinton. “There are toilets more than 30 years old.” The secret of their durability is high-density polyethylene. The plastic is “relatively pliable,” he says, a key quality when you're continually hauling the houses on and off trucks. “You want toilets that will absorb impact so they won't crack and leak—a problem with a lot of the old fiberglass tanks.” High-density polyethylene also won't rot, host nasty bacteria, or break down from cleaning agents—of which it will see many.

Fun Fact

Over the course of the 36-hour Hood to Coast relay, organizers go through 4,200 rolls of TP for 17,500 participants. Race director Felicia Hubber advises monitors at exchange points to keep a sharp eye out for thieves. “People will take rolls with them,” she says.



PORTA PEEVE

“Guys: Please, don't splatter the toilet seat. Come on.” —MARK REMY, RW WRITER AT LARGE

A+ Amenities

Five innovations that rarely make it to races, but that we'd love to see at the starting line.

Foam hand sanitizer stations So you can decontaminate *after* you've opened the toilet door.

Flush systems They are, actually, available. That blue liquid doesn't do enough to mask the sight—or the smell.

Kros unit For men, a four-sided urinal means quicker access to relief.

Luxury restroom trailer With AC, television, music—the ultimate swanky sitting experience.

Handwash stations These foot-operated stations aren't new, but they're a rare sight at races.

PHOTOGRAPH BY IVAN DIMITRI/MICHAEL OCHS ARCHIVES/GETTY IMAGES (MAN ON TOILET)

TALES from the DARK SIDE

We asked runners on Facebook—and folks around RW HQ—for their most memorable portable-potty stories.



GREAT IDEA!

“An output fan. If you get rid of that smell, you've easily made that thing at least a 1.5 star rating on TripAdvisor.” —DAN FUEHRER, RW DIGITAL DESIGNER

“I was about to go, then I saw a snake at my feet. I ran out of the porta-potty screaming while still trying to pull my shorts up.” —ALEX AMEEN, VIA FACEBOOK

“I was in line for a porta-potty when the 'friends' of a man already using one turned it upside down after jamming the door shut. Suffice to say, the guy that emerged was not one to be near.” —PAUL SPARKS, VIA FACEBOOK

“My running buddy came out of the porta-potty and made a comment about how it was nice that they had a place for you to put your hat, gloves, etc., while you peed. I had to inform him that the 'holder' was a urinal!” —BILL PRITCHETT, VIA FACEBOOK

“At a triathlon last year, the porta-potty chemicals were crazy

RESPONSES MOST FREQUENTLY CITED...

Waste where it shouldn't be **26.9%**

Dropped objects **11.5%**

Toilet paper problems **11.5%**

Stomach troubles (including vomiting) **5.8%**

Unwanted sightings (spiders, snakes, and private parts) **5.8%**

Other **38.5%**

DROPPED OBJECTS INCLUDED...

Car keys House/gym key **Inhaler**
Phones **Socks**
Sunglasses **Timing card** Top of tri suit **Water bottle**

strong! Everyone was hacking when they exited. If you took a breath, it burned. I started coughing so bad it made me throw up a few times before the race even started.” —MELISSA ANN MIANO, VIA FACEBOOK

“I was in a porta-potty at Hood to Coast, and right before I got in, the truck that was there to switch them out came by. I was terrified that they were going to put mine in the truck (like, lift it up with the forklift and everything) while I was still in it.” —HANNAH MCGOLDRICK, RW SOCIAL MEDIA EDITOR

“When I was 7 years old, I got locked in a porta-potty for about 50 minutes. I couldn't figure out how to unlock it. My mom talked me through it.” —KIT FOX, RW REPORTER

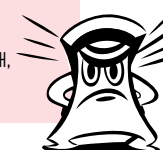
“At Hood to Coast, a woman put her arm in

a plastic bag and had friends hold her ankles while she reached for her cell phone.” —BART YASSO

“I went to an event that had two days of racing, some 500-plus racers, and only three porta-potties to accommodate everyone. They did not empty any of them out. I never knew two days of prerace jitters could crest like that. Some things just can't be unseen.” —DAN FUEHRER

PORTA PEEVE

“Midrace I really had to pee. I ran in one and started to pee and was getting splashed....who closes the lid on a porta-potty?!” —LAURA DOOT FISH, VIA FACEBOOK



What happens to everything?

First, workers run a hose from a truck that sucks everything from the abyss. If the toilet is staying put, they spend three to five minutes cleaning it and refilling the blue stuff/precharge. Trucks can carry up to 1,500 gallons of waste and 500 gallons of precharge or fresh water (precharge mix is added once water is in the potty). If the unit is leaving, it's pumped out, loaded on a truck, and pressure-washed.

A Tinkle in Time

The evolution of the portable toilet.*

1940s

During World War II, Long Beach Shipyards in California installed portables constructed of wood with modified



metal 55-gallon drums to save time for naval ship repairmen.

1950s

Rise of the construction industry

coincided with rise of independent suppliers of homemade, wooden portables that weighed up to 400 pounds each. (They're now 160 to 170.)

1960s

After a rank visit to a portable, Ken Holyoak, who was in the RV business, offered

the unit's owner a free drum of RV deodorizer. Holyoak was a pioneer in replacing subpar fixes like Pine-Sol with an industry-specific portable-toilet smell solution.

1969

Woodstock was one of the first places outside commercial and

industrial settings to use portable restrooms. The concert had 15 20-foot wooden buildings with 10 stalls and a urinal room each. About one pot for every 3,000 people.

1970s

The Boston Marathon outgrows Hopkinton High School's restroom

facilities at the starting line. They supplement with portable toilets.

1972

Heading the industry shift from wood—which was heavy and retained odor—to fiberglass and plastic, Al Hilde of Satellite Industries introduced polyethylene

pots. He was inspired by plastic bleachers he saw in a stadium.

1973

Portable Sanitation Association successfully lobbied for its members to be exempted from gas rationing during the oil crisis “for health reasons.”



1980s

Plastic replaces fiberglass. Because of its rigidity and brittle nature, fiberglass units were prone to cracking.

1996

Registration for Boston Marathon's 100th anniversary event swells. Race director Dave McGillivray procures

a 340-foot urinal trough. Made up of sections secured with duct tape, it was pitched so gravity ushered urine into the tank. But the tape wouldn't stick, and not a drop made it into the tank.

2007

Boston begins wave starts in

response to “urinegate,” when Hopkinton residents seethed over runners hopping barricades to relieve themselves on lawns. With wave starts, runners stay on Main Street, which is lined by businesses.

2012

With some 39,000

workers, 10,000 trucks, and 3 million restrooms worldwide, the portable-sanitation industry has an annual revenue of about \$4 billion. ☑

*According to Portable Sanitation Association International; Karleen Kos; Steve Brinton; Dave McGillivray