

# Drone racing's thrills and spills draw pilots of all ages

By CHADD CRIFE  
Idaho Statesman

BOISE, Idaho — It was just another morning in the park for Chris and Cadence Haskins. Chris arranged his 11-year-old daughter's flying station — lawnchair, video goggles, controller and antenna.

Cadence began piloting a drone across Boise's Sycamore Park and through a row of trees like a slalom course. The goggles showed her the view captured by a camera on the front of the drone (called first-person view, or FPV).

And little kids wandered over from the playground to inquire about her new sport — drone racing — as they always do.

"To me, it feels like I am in the drone," said Cadence, whose pilot name is KrazyK. "... I'm inside, flying it."

Drone racing has become a worldwide phenomenon — a race in Dubai featured \$1 million in prize money — with a growing niche in the Treasure Valley.

Chris Haskins (pilot name: Hazak) finished sixth in the Drone Racing League's December race at the Miami Dolphins' stadium. Conrad Miller of Boise (pilot name: Furadi) finished fifth.

Miller began racing in 2014 and started a Facebook group (Boise FPV) that provides a community for pilots to share videos, tips and organize races. His 12-year-old son, Sorell (pilot name: Zero), races, too.

"Probably the first real drone race was drone nationals last (summer)," said E.J. Duarte (pilot name: Amped-Out), who designs racing drones for the company he founded, Boise-based Thrust-UAV. "That's really when drone racing exploded. There was racing before that, but not at that scale. Less than a year later, and drone racing is on an enormous scale, and it's only growing exponentially."

Miller traveled to Dubai to compete in the recent World Drone Prix. Thrust-UAV entered one of its drones, too.

Drones are a natural fit for kids who grow up playing video games — in fact, a 15-year-old pilot from Great Britain won the Dubai event.



Chadd Crife/Idaho Statesman  
**Cadence Haskins, 11, works on her controller in Boise, Ore. Haskins has been flying racing drones for about two months. She competes against adults on weekends, racing in the "B" group.**

and yaw (left/right spin) on the left and pitch (forward/backward tilt) and roll (left/right tilt) on the right.

Cadence became interested in drones by watching her dad, who works for Thrust-UAV.

"(The simulator) helped me a lot," Cadence said. "It feels exactly the same to me but I'm not breaking all of the parts. ... I crashed a lot."

Her first day flying for real, though, she only crashed once. "It just felt like I was flying the simulator," she said.

Robert Grover, executive vice president of PCS Edventures, says drones are a terrific vehicle to teach students science, technology, engineering and math (STEM). Boise-based PCS Edventures, a public company founded in 1988, installs engineering and robotics programs in schools worldwide.

Duarte built drones for the education program before PCS Edventures acquired Thrust-UAV.

"Drone racing is a perfect fit for STEM education," Grover said. "I call it STEM education at 100 miles an hour because it really grabs kids' attention."

In races, the drones zip through gates (think hurdles that you go under) and around flags (like slalom skiing). Pilots watch the live video feed from their drone, as if they're in the cockpit, to help them navigate the obstacles at speeds that can exceed 100 miles an hour. It's like being in an amusement-park ride where you feel like you're turning and spinning even though you're sitting still.

Races usually last a few minutes because the battery life on racing drones isn't long.

Duarte used to race trucks on dirt tracks and off-road. Miller used to own motorcycles.

"The adrenaline is insane," Duarte said. "... When you get done, your body feels like you have run a marathon and you haven't even gotten up."

Added Miller, who flies a Hovership Zuhl Racehound: "Your body runs through the same range of emotions as it would if you were flying or racing or going high speed through a forest. It's totally exhilarating."

## GETTING STARTED WITH DRONES

**Equipment you'll need:** A racing drone, video goggles, controller, extra batteries, battery charger, extra props and some hand tools (screwdrivers, pliers, etc.). Thrust-UAV soon will release its "ready to fly" package — everything you need to fly for \$1,200-\$1,300. Racing drones typically are 250 millimeters diagonally with power-to-weight ratios from 5:1 to 8:1. Camera drones, in contrast, have power-weight ratios of about 2.5:1.

**Try a simulator first:** A game like Liftoff (liftoff-game.com) can train you to fly a drone and work through many of the rookie mistakes without damaging any equipment. You'll want to use your drone controller so you get used to the controls. It connects to the computer via USB.

**Add a GoPro:** An HD video recorder, like a GoPro, is an important drone add-on because you can review your flight and gauge progress.

**Reach out to Boise FPV:** The Facebook group is a community of Idaho drone pilots. "That's the best way to get started," pilot E.J. Duarte said. "You have so much support. Everybody likes helping each other. It will really make you better faster."

**Start slow:** Some people "fly well beyond their means" when they're learning, Duarte said, and frequently break their drones. "They get discouraged and quit."

They also appeal to people like Haskins and Miller, who transferred their interest in radio control airplanes and helicopters to drones.

Duarte has sold drones to customers ranging from 7 years old to 63.

"There are no boundaries," Duarte said.

Thrust-UAV, which recently was acquired by STEM-education company PCS Edventures, is about to release a new drone model (the Riot 250R Pro). The "ready to fly" package — everything you need to get started — will be in the \$1,200 to \$1,300 range.

The price is softened a bit by the fact that racing drones

are resilient. Damage can be fixed relatively cheaply — sometimes for a couple bucks.

"They're built to crash," Duarte said. "It's not like a typical toy where you crash it and it's broken. We build these things to be able to take impacts."

Still, you don't want to learn with a brand-new drone.

The best way to get the feel for flying is through a computer simulator. Cadence spent about two weeks playing Liftoff (liftoff-game.com), using the computer screen as the goggles. Drone controllers plug into the computer via USB.

Flying requires mastering two joysticks that each control two inputs — throttle (speed



John O'Connell/Capital Press  
**Jeff Manning, an architect of the iconic Got Milk? campaign, speaks about the lasting effects of the campaign during the Intermountain AgTech Conference in Pocatello earlier this month.**

# Got Milk? architect describes campaign's lasting legacy

By JOHN O'CONNELL  
Capital Press

**Simple is powerful**

POCATELLO, Idaho — Hoping to boost demand for a well-known product facing declining consumption, Jeff Manning and the California Milk Processor Board gambled in 1993 on a campaign that ignored the central theme of virtually every other milk marketing program.

Speaking earlier this month during the inaugural Intermountain AgTech Conference, Manning described how the now iconic "Got Milk?" campaign he helped create succeeded by viewing the product differently, and how it's challenged long-held notions about marketing.

"Complacency is just a killer for ideas," Manning said.

From Japan to Germany, Manning said, milk campaigns all emphasized the beverage's nutrition, which succeeded in convincing 96 percent of the public that milk is healthy. Nonetheless, consumers opted for soda, sweetened teas and sports drinks.

"It didn't matter how much money you spent on 'good for you,' it did not change behavior," Manning said.

So Manning and his team ignored milk's calcium and protein and instead came up with a "deprivation" strategy, based on the realization that milk is usually consumed as a complement to food, such as cereal and cookies.

"When you're on the 'good for you' strategy, you don't want to talk about Oreos," Manning said.

Got Milk? commercials depicted the possible tragedies of depriving consumers of the commodity.

The first commercial, "Aaron Burr," featured a history museum curator who received a phone call from a radio station promising \$10,000 for the identity of the man who shot Alexander Hamilton. With a bite of sandwich in his mouth, he replied, "Awaan Buhh!" but failed to claim his prize because his words were indecipherable, and he had no milk to wash down his food.

Got Milk? was picked up by the National Fluid Milk Processor Promotion Board and used through 2014. The campaign remains active in California, where Manning said industry analysis shows it's had a 10-to-1 return on investment and helped flatten declining milk demand.

Got Milk? became one of the most parodied slogans in history. A survey found it was the most recognizable slogan associated with a beverage, known by half of respondents.

"Two words and a question mark. Simple is a powerful concept," Manning said.

Manning explained a key to the campaign's success was that the board gave the slogan away rather than imposing licensing fees to those who wished to use it. Got Milk? appeared on soccer balls, baby outfits and cereal boxes. The slogan was embossed on Oreo cookies, and Mattel released a Got Milk? Barbie doll. His team also encouraged other parodies.

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# TV LISTINGS

Evening listings  
THURSDAY

THURSDAY EVENING													MARCH 24	
A	L	6 PM	6:30	7 PM	7:30	8 PM	8:30	9 PM	9:30	10 PM	10:30	11 PM	11:30	
2	KATU	(2) KATU News at 6		Jeopardy!	Wheel of Fortune	Grey's "I Am Not Waiting Anymore" (N)	Scandal			The Catch "The Pilot" (P) (N)		KATU News at 11	(35) Jimmy Kimmel	
3	KOMO	(4) KOMO 4 News		Jeopardy!	Wheel of Fortune	Grey's "I Am Not Waiting Anymore" (N)	Scandal			The Catch "The Pilot" (P) (N)		KOMO 4 News	(35) Jimmy Kimmel	
4	KING	(5) NBC Nightly News	KING 5 News	KING 5 News	Evening	Apocalypse "Calm Before the Storm" (N)	The Blacklist			Shades of Blue "For I Have Sinned" (N)		KING 5 News	(35) Tonight Show	
5	KOIN	(4:00) NCAA Basket.	NCAA Basketball Division I Tournament (L)					KOIN Local 6		Extra	Ent. Tonight	KOIN 6 News @ 11	(35) S.Colbert	
6	KIRO	(7) (4:00) NCAA Basket.	NCAA Basketball Division I Tournament (L)					Post Game Show	KIRO 7 News	Judge Judy	KIRO 7 Profiles	KIRO News	(35) S.Colbert	
7	KGW	(3) KGW News at 6:00 p.m.		Live at Seven	Inside Edition	Apocalypse "Calm Before the Storm" (N)	The Blacklist			Shades of Blue "For I Have Sinned" (N)		KGW News at 11	(35) Tonight Show	
8	KRCW	(3) Seinfeld	Seinfeld	Modern Family	Modern Family	Legends of Tomorrow "Star City 2046"	The 100 "Wanheda" Pt. 2 of 2			KGW News at 10	(35) Access H.	Met Your Mother		
9	KOPB	(10) Burt Wolf: Travels	Business (N)	PBS NewsHour		Oregon Art Beat	Oregon Guide	Midsomer M.	(50) Midsomer Murders	"Shot at Dawn"	(35) Afterlif	"More Than Meets the Eye"	Film School Shorts	
10	KPTV	(12) 6 O'Clock News		Family Feud	Family Feud	American Idol "Top 4 Perform"	The top four continue on their journey. (N)			10 O'Clock News		11 O'Clock News	Loves Ray	
11	KPDQ	(13) Mike & Molly	Mike & Molly	Big Bang Theory	Big Bang Theory	FOX 12's 8 O'Clock News on PDX-TV	FOX 12's 9 O'Clock News on PDX-TV			The Mentalist "Scarlett Fever"		The Mentalist "Bloodshot"		
12	KCPQ	(13) Name Game	Modern Family	Big Bang Theory	Big Bang Theory	American Idol "Top 4 Perform"	The top four continue on their journey. (N)			Q13 News at 10		Q13 News	Modern Family	
13	TBS	(20) (4:15) NCAA Basket.	(45) NCAA Basketball Division I Tournament (L)					March Madness		New Girl	New Girl	Conan (N)		
14	KZJQ	(22) Two and Half Men	Two and Half Men	The Simpsons	The Simpsons	Modern Family	Modern Family	Q13 News at 9		Big Bang Theory	Big Bang Theory	Friends	Friends	
15	ESPN	(29) (4:00) MLB Baseball	Spring Training (L)	The Baseball Tonight 100 (L)		SportsCenter		SportsCenter		SportsCenter		SportsCenter		
16	ESPN2	(30) 30 for 30	"Fantastic Lies"			NFL Live		NBA Tonight	Jalen & Jacoby (N)	College Gameday Scoreboard (L)		30 for 30 Shorts	Scoreboard	
17	NICK	(31) The Thundermans	The Thundermans	The Thundermans	The Thundermans	Open Season 3 ("10, Child) Matthew W. Taylor, Dana Syder.	Full House			Full House	Full House	Friends	Friends	
18	DISN	(32) Friends Whenever	Bunk'd	Girl Meets World	Liv and Maddie	*** Hop ("11, Ani) Voices of James Marsden, Russell Brand.	(40) StarWarsRebl			Full House	Full House	K.C. Undercover	Friends Whenever	
19	FAMC	(35) Movie	(45) *** The Bounty Hunter	(2010, Action) Gerard Butler, Joel Garland, Jennifer Aniston.		*** The Parent Trap (1998, Family) Dennis Quaid, Natasha Richardson, Lindsay Lohan.		FXM Presents	*** Sucker Punch ("11, Fant) Vanessa Hudgens, Abbie Cornish, Emily Browning.	(45) FXM Presents				
20	LIFE	(36) Project Runway "Fashion 911"		Project Runway "Birthday Suits"		PR Stars Social "Going for Baroque" (N)	Project Runway "Bait and Stitch" (N)			To Be Announced				
21	ROOT	(38) MLS Soccer Vancouver Whitecaps at Seattle Sounders FC		Insider (N)	UFC Flashback	Main Event "172: Jones vs. Teixeira"	UFC Unleashed "Team AKA"			UFC Unleashed "Team AKA"		UFC 166		
22	FS1	(39) (4:00) NCAA Baseball (L)		UFC Main Event "Johnson vs. Moraga"		Fox Sports Live	Fox Sports Live	Best 1 Heard (N)		Fox Sports Live	TMZ Sports	Fox Sports Live	Fox Sports Live	
23	SPIKE	(43) (5:30) ** Transformers: Revenge of the Fallen (2009, Action) Megan Fox, Josh Duhamel, Shia LaBeouf.				Lip Sync Battle				Lip Sync Battle	Lip Sync Battle	Kiss of the Dragon ("01) Bridget Fonda.		
24	COM	(44) (2:0) Futurama	(50) Futurama	(25) Futurama "Cold Warriors"		(55) Tosh.0	(25) ** Employee of the Month (2006, Comedy) Jessica Simpson, Andy Dick, Dax Shepard.			The Daily Show (N)	Nightly Show (N)			
25	HIST	(45) Pawn Stars	Pawn Stars	Pawn Stars	Pawn Stars	Pawn Stars	Pawn Stars	Vikings "Promised"		Vikings "What Might Have Been" (N)		Join or Die (N)	(35) Class (N)	
26	A&E	(46) The First 48 "Cold Light of Day"		The First 48 "Dark Waters"		The First 48 "Broken Home" (N)	The First 48 "The Fighter/ Final Ride" (N)			60 Days In "Fight Face" (N)		The First 48		
27	TLC	(47) Beauty "Survival of the Fittest" (N)		My 600-lb Life "Angel's Story"		600 Life: Supersized "Sean's Story" (N)	Extreme Weight Loss "Jami" Jami struggles with self esteem and is a wreck.			Fat Chance "Meagan"				
28	DISC	(48) Naked and Afraid "Hearts of Darkness"		Naked and Afraid "Garden of Evil"		Naked and Afraid "Redemption Road"	Naked and Afraid "Lord of the Rats"			Naked and Afraid "Frozen in Fear"		Naked "Argentina Impossible"		
29	NGEO	(49) Big Fish, Texas "Hurricane Buddy"		Search for Noah's Ark		Killing Jesus A historical look at Jesus' persecution.						Killing Jesus		
30	TNT	(50) Castle "I, Witness"		Castle "Resurrection" Pt. 1 of 2		*** The Dark Knight Rises (2012, Action) Christian Bale, Tom Hardy, Anne Hathaway.							Movie	
31	AMC	(51) (5:00) ** Enemy of the State ('98, Action) Gene Hackman, Jon Voight, Will Smith.		*** The Italian Job (2003, Action) Charlize Theron, Donald Sutherland, Mark Wahlberg.		*** The Bourne Identity ('02) Matt Damon.				*** Rush Hour 3 (2007, Action) Jackie Chan, Roman Polanski, Chris Tucker.				
32	USA	(52) Law & Order: S.V.U. "Painless"		Law & Order: S.V.U. "Bound"		WWE Smackdown! WWE superstars do battle in long-running rivalries.				Beat Bobby Flay	Beat Bobby Flay	Beat Bobby Flay	Beat Bobby Flay	
33	FOOD	(53) Chopped "Beer Here!"		Chopped "College Challenge"		Chopped "Chopped: College"				Cooks vs. Cons (N)				
34	HGTV	(54) Flip or Flop	Flip or Flop	Flip or Flop	Flip or Flop	Flip or Flop	Flip or Flop	Flip or Flop (N)	Flip or Flop	House Hunters (N)	House Hunters	Masters of Flip (N)		
35	FX	(56) (4:00) The Avengers Robert Downey Jr., Chris Evans, Chris Hemsworth, Mark Ruffalo, Chris Pratt, Jeremy Renner, Scarlett Johansson.		*** Man of Steel (2013, Action) Amy Adams, Michael Shannon, Henry Cavill.						Baskets (SF) (N)	Baskets	Baskets	This is the End	
36	CNN	(57) Anderson Cooper 360		CNN Tonight With Don Lemon		Anderson Cooper 360				CNN Newsroom		CNN Newsroom		
37	FNC	(58) The Kelly File with Megyn Kelly		Hannity		The O'Reilly Factor				The Kelly File with Megyn Kelly		Hannity	On the Record	
38	CNBC	(61) Shark Tank		American Greed: Scam		Amer. Greed "Lights! Camera! Fraud!"				American Greed "A Widow's Web"		Paid Program	Paid Program	
39	BRVA	(63) Top Chef "Finale"		Vanderpump R. "Reunion Part One" 1/2		Housewives Atl. "Reunion Part One"				The Real Housewives of Beverly Hills		Recipe Deception "In the Can" (SF) (N)	WatchWhat (N) Housewives Atl.	
40	TCM	(64) (5:00) The Carey Treatment		*** The Competition (1980, Drama) Amy Irving, Lee Remick, Richard Dreyfuss.		(15) *** Those Lips, Those Eyes ('80) Tom Hulce, Jerry Stiller, Frank Langella.						(15) Lemora: A Child's Tale of the Su...		
41	SYFY	(65) (5:00) *** Superman II ('80) Margot Kidder, Gene Hackman, Christopher Reeve.		** Superman III (1983, Sci-Fi) Richard Pryor, Annette O'Toole, Christopher Reeve.								Superman IV: The Quest for Peace		
42	RFD	(162) SF Machinery	Small Town	Rural America "Live"		Steve Lantvit	Rural Eve. News	Market Journal	GA Farm Monitor	SF Machinery	Small Town	Time Life Library		

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