



OPERATIONS CHALLENGE 2020 GOES VIRTUAL

Justin Jacques with Steve Harrison

Operations Challenge 2020 featured a diverse group of nearly 100 veterans and newcomers; revamped events and divisions; and a brand-new, online format. While this year looked different than the previous 32 years of competitions, Operations Challenge 2020 delivered the high levels of excellence, intensity, and solidarity that the competition embodies.

Competing via webcam from their home facilities, 27 teams from across the U.S., Canada, and Denmark took on the challenge during WEFTEC Connect. They competed in modified versions of three classic Operations Challenge events: Process Control, Laboratory, and Collections Systems. This year also featured three divisions

Operations Challenge Commissioner John Bennett (top) announces Controlled Chaos as the first-place-overall winners of Division 1 during an awards ceremony on October 8. Members of the team, representing the Water Environment Association of South Carolina, include Seth Duncan, Troy Newton, Kevin Ganley (back), Patrick Ross, and coach Tyler Waterhouse (not pictured). Image courtesy of WEF



instead of the traditional two. The three divisions were based on competition experience and number of members. This year, each event also required two competitors to participate at a time rather than the usual four.

And for the first time in the competition's 33-year history, the general public had the same front-row perspective as the panel of judges.

Operations Challenge, an annual, skills-based competition that pits the wastewater operations community's top talents head-to-head in timed trials, is demanding on both the body and brain. Watching this year's teams efficiently surmount these obstacles was a sure sign that the world's water resource recovery facilities (WRRFs) are in capable hands, said Steve Harrison, who manages Operations Challenge for WEF.

"Each year, the Operations Challenge competition showcases the best qualities of the wastewater profession: expertise, teamwork, vigilance, and more," Harrison said. "This year's competition also revealed that operations professionals are adaptable. Learning new event procedures, navigating technology hurdles, and remaining open to new ways of doing things in the weeks leading up to Operations Challenge 2020 was an amazing feat, and we couldn't be happier with the outcome. Congratulations to all who competed this year."

Operations Challenge 2020 Divisions

To accommodate this year's virtual format and help ease the stresses and demands placed on competitors, Operations Challenge 2020 included three divisions.

Division 1

Teams must include at least one member who has competed in a past Operations Challenge competition at WEFTEC. Teams may have up to four team members, each of whom must compete in at least one of the two-person events. Only two team members may actively compete in each event.

Division 2

Teams consist of only two members and must include at least one team member who has competed in a past Operations Challenge competition at WEFTEC.

Division 3

Team consists of only two members, neither of whom have competed at a past Operations Challenge competition at WEFTEC.

CONTROLLED CHAOS LOCKS DOWN DIVISION 1 TITLE

Seth Duncan and Patrick Ross of Controlled Chaos managed to complete the physically demanding Collections Systems event in just 1 minute and 18 seconds. That is faster than any of the other 26 teams that competed across three divisions in Operations Challenge 2020. Image courtesy of Troy Newton

Propelled by the fastest Collections Systems time of any Operations Challenge 2020 team across all three divisions, Controlled Chaos from the Water Environment Association of South Carolina secured first place overall in Division 1. Their run took just 1 minute and 18 seconds. The four-member team representing Mount Pleasant (South Carolina) Waterworks featured Operations Foreman Troy Newton, WRRF Operators Seth Duncan and Kevin Ganley, Pump-Station Maintenance Supervisor Patrick Ross, and Laboratory Technician Tyler Waterhouse, who was team coach. All of the teammates have competed together during the last six WEFTEC Operations Challenge competitions.

Duncan and Ross were behind the team's division-topping Collections Systems performance, while Duncan and Ganley delivered a strong, second-place win in the Laboratory Event with a completion time of just over 5 minutes. In the Process Control Event, Newton and Ross led the team to score 95 out of 100 possible points, taking third place in their division.

Newton, who served as team captain, said the team was "ecstatic" when Operations Challenge Committee Chair John Bennett announced that Controlled Chaos was the overall Division 1 winner during a livestreamed awards ceremony on October 8.



"The following day, the news was announced by email to Mount Pleasant Waterworks' 140 employees and commissioners, along with videos showing our practice sessions and gameday events. Co-workers were congratulating us all day," Newton said. "Having other industry professionals across the country recognize our team with kudos online gave the entire company a sense of pride."

Although all members of Controlled Chaos are Operations Challenge veterans, preparing for the 2020 competition during a pandemic presented unfamiliar obstacles. Per social distancing guidelines, members of the team rarely work in the same facility at the same time. Many Mount Pleasant Waterworks employees are working remotely. Dealing with the stresses of childcare arrangements, safety precautions, and the team's responsibility to their communities, finding time to plan strategy and conduct practice runs was difficult.

"Without a doubt, our team was able to overcome this because of the pride we take in improving our skills. We all have a healthy dose of competition in our blood and made practice a priority," Newton said.

In addition to practice, simulating the typical atmosphere of the Operations Challenge competition at WEFTEC was a major focus during preparations. The team routinely invited co-workers to watch practice runs, which enabled them to "feed off the energy" of having an excited audience, Newton described.

"Operations Challenge 2020 was such a unique and rewarding event, and we are thankful to have been a part of it," Newton said. "All of us have benefited tremendously throughout our years competing in Operations Challenge, both professionally and personally."

Other strong finishers in Division 1 included such familiar names as the Water Environment Association of Texas Poiseidons, who hoisted first place in the Laboratory Event and second place overall. The Arizona Water Association Surprise Turdologists placed third overall. Brown Tide, representing the New York Water Environment Association, achieved a perfect 100 out of 100 score in Process Control, taking the top spot in the event.

Watch Controlled Chaos take on the Laboratory and Collections Systems events at bit.ly/Controlled-Chaos-2020.

Controlled Chaos team captain Troy Newton communicates with judges and event coordinators during the Laboratory event. Image courtesy of Troy Newton



BLUE RIDGE BRAWLERS PUNCH OUT DIVISION 2 WIN

The Blue Ridge Brawlers — Lacy Burnette and Stephen Lofaro — took the top spot in Division 2 after leading their field in the Collections Systems and Laboratory events. Image courtesy of WEF



Blue Ridge Brawlers

The Blue Ridge Brawlers, representing the Virginia Water Environment Association (VWEA), demonstrated during this year's competition why they have long been an Operations Challenge crowd favorite.

The team won first place overall in Division 2 after top showings in the Laboratory and Collections Systems events. Team members include Western Virginia Water Authority (WVWA; Roanoke) Environmental Programs Specialist Lacy Burnette and SCADA Network Manager Stephen Lofaro.

Since 2011, Burnette and Lofaro have returned to Operations Challenge each year as members of a four-person team. Their experiences working together proved useful while adapting their strategy to the new, two-person events, Burnette said.

"Steve and I have built a lot of team chemistry together through the last decade while competing, so the conversion to a two-man team wasn't nearly as difficult as I expected it to be," Burnette said. He added that VWEA hosted a two-person Operations Challenge event earlier in the year that served as a trial run for the WEFTEC competition.

"We knew each other's strengths and weaknesses for each of the three events and tried to capitalize on our strengths as much as possible when developing a strategy for each event," Burnette said.

The Brawlers earned first place in the Division 2 Laboratory Event with a time of 5 minutes and 48 seconds. They also hoisted first in Collections Systems, finishing in just 1 minute and 31 seconds.

Wearing a face mask during the Collections Systems Event — considered the most physically demanding event — added a new layer of difficulty, Burnette said. During practices, Burnette and Lofaro worked to control their breathing while bisecting a pipe as quickly as possible — not only to preserve their stamina, but also to keep their safety goggles from fogging up. With two fewer members, the duo also had to contend with portions of the event they had not previously encountered.

"As someone who is usually responsible for the hole-saw portion of the Collections event, I realized quickly how difficult it is to complete the hand-saw cuts on the pipe," Burnette said. "I developed a huge appreciation for Steve [Lofaro] and the other competitors who make the saw cuts look like a hot knife through butter."



Lofaro scrambles to retrieve a tool while Burnette vigorously cuts into a pipe during the Collections Systems Event. Image courtesy of WEF

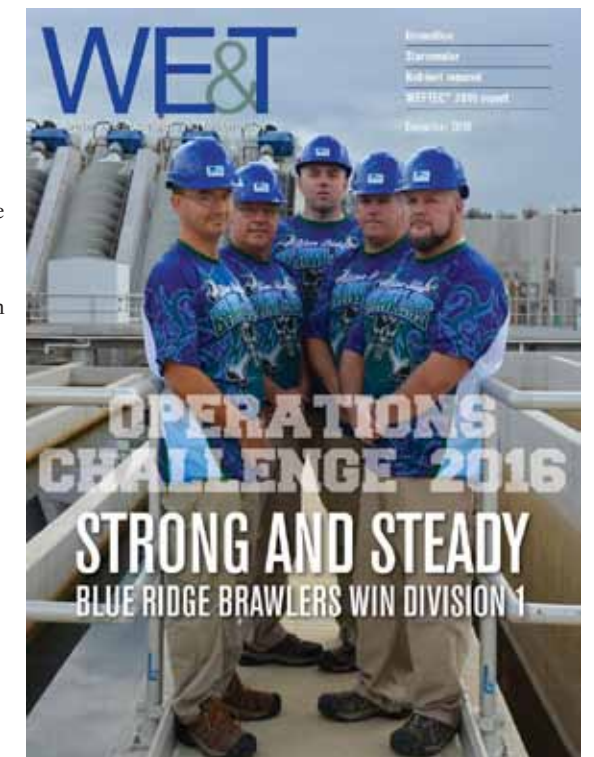
The team's exemplary performance in Laboratory and Collections Systems compensated for their Process Control run; the team earned fourth place in their division with a score of 71 out of 100 points. In previous competitions, Lofaro had operated the event's simulation software provided by Hydromantis (Hamilton, Ontario) while Burnette had focused on mathematics-based scenarios. Neither team member had dealt with the multiple-choice portion of the test before, necessitating a "crash course" on the subject matter before competition week, Burnette said.

Nevertheless, when the dust settled and the Brawlers were announced as Division 2 winners, Burnette's phone immediately began ringing with congratulations from co-workers and supporters, he said.

"The mood at the WVWA was fantastic once word spread that we brought home the Division 2 trophy," Burnette said. "I am extremely proud to represent all of the hard-working men and women of the WVWA anytime that I am competing, and it makes me glad to be able to bring some positive news to them, especially as we continue to push through this pandemic."

Elsewhere in Division 2, the Women of Wastewater, representing the North Carolina Water Environment Association, won second place overall after completing the Process Control event with a perfect 100-point score. Force Maine, representing the New England Water Environment Association, earned third place overall in Division 2.

Watch the Blue Ridge Brawlers' winning Laboratory and Collections Systems runs at bit.ly/blue-ridge-brawlers-2020.



Lofaro and Burnette are Operations Challenge veterans. For a decade, they have represented the Virginia Water Environment Association as part of four-person teams from the Western Virginia Water Authority (Roanoke). The four-person team previously won first place overall in Division 1 at Operations Challenge 2016. Image courtesy of WEF

PEEL WASTEWATER CONNOISEWERS SAVOR DIVISION 3 TITLE



The Peel Wastewater Connoisseurs, competing in the WEFTEC Operations Challenge competition for the first time this year, won first place overall in Division 3. The Connoisseurs include Maitrik Patel, coach Dennis Newdick, and captain Lino Zanardo. Image courtesy of Bethany Ladewig/Region of Peel (Ontario)

The Peel Wastewater Connoisseurs, representing the Water Environment Association of Ontario (WEAO), showed off their skills to come away with the Division 3 title. The team featured Technical Specialist Lino Zanardo and WRRF Operator Maitrik Patel from the Region of Peel (Ontario) Public Works Department.

Zanardo and Patel first participated in a regional Operations Challenge competition as part of a four-person team in 2019 at the event held by WEAO. Peel colleagues Dennis Newdick and Bethany Ladewig rounded out the full Connoisseurs during that competition.

“After competing, we were hooked,” Ladewig said. “When WEAO approached us this year with the opportunity to compete virtually at WEFTEC, we were thrilled with the idea to be able to compete on a bigger platform.”

To comply with the new divisional format, the Connoisseurs had to downsize by two members. Newdick and Ladewig became temporary coaches, using their knowledge of the competition to help bolster their teammates’ chances. They also plan to use the experience gained this year for the team’s return to a future Operations Challenge as a four-member ensemble.

“We were honored to compete at this year’s WEFTEC Operations Challenge and hope to return in 2021 and compete in person,” Zanardo said.

The Connoisseurs truly made their mark during their first year at the WEFTEC competition. They finished first in Division 3 in the Laboratory Event with a time of just under 5 minutes. They earned second in Process Control scoring 84 out of 100 points. And in Collections Systems, they secured third place with a run time of 1 minute and 55 seconds.

Even more impressive, the team received official confirmation that they would be able to compete in Operations Challenge 2020 just two weeks before the competition began. This required them to perfect the

maneuvers that would win them the division in a matter of days rather than months.

“This was challenging because we had to mobilize quickly to secure training space, equipment, and practice time,” Ladewig said. “As we all have busy, full-time roles within the Region of Peel, we needed to redistribute our tasks to ensure we had enough time to prepare for all the events. Thankfully, with the support of upper management, we were able to ensure we had the adequate resources to commit time and energy to prepare and compete in the competition.”

In Division 3, eight teams of two competitors each made their Operations Challenge debut. Other strong finishers in Division 3 included two teams from the North Carolina Water Environment Association: Smooth Operators 1 and 2. The teams took second and third place overall, respectively. Additionally, Smooth Operators 1 earned the Division-best time in the Collections Systems Event, finishing in only 1 minute and 36 seconds. The Watertown Waterbears, representing the New York Water Environment Association, came in first in the Process Control Event with a perfect 100 out of 100 points.

Watch the Peel Wastewater Connoisseurs, Zanardo and Patel, complete the Laboratory and Collections Systems events at bit.ly/wastewater-connoisseurs-2020.

PASSION, PROFESSIONALISM ON DISPLAY DESPITE PANDEMIC

Forming an Operations Challenge team is not a decision to be made lightly. Preparing for the WEFTEC competition, as well as regional qualifying events, typically involves committing significant time, energy, and sweat to forming a team and perfecting a strategy.

This year, the coronavirus pandemic’s demands on essential WRRF operations professionals created additional stresses. Competitors assembled their teams, learned a brand-new competition format, and began practicing only a few days or weeks before the challenge began.

However, Operations Challenge 2020 competitors were undaunted. They demonstrated incredible professionalism and dedication while showing judges and fans why WRRF personnel are “essential workers.”

Pros and Cons

Jake Miller said because of their schedules his team met for its first practice session just one day before the competition kicked off. Miller is a member of the Long Island Brown Tide, who represented the New York Water Environment Association. However, Brown Tide still achieved a perfect 100 out of 100 score in Process Control, taking the top spot in Division 1 for that event.

“We may have lacked practice, but there was no lack in determination,” Miller said. “Anything can be accomplished.”



The Women of Wastewater, representing the North Carolina Water Environment Association, placed second overall in Division 2 and first in their division’s Process Control Event. Members of the team included Muriel Steele and Trinh Nguyen. Image courtesy of WEF



Wet Bandits
Competing for the first time at WEFTEC, Jason Ludlow of the Chesapeake Water Environment Association Wet Bandits said participating in Operations Challenge 2020 provided exercise, job training, and networking opportunities, all without sacrificing fun. The other member of the Wet Bandits is Royce Lindenberg. Image courtesy of WEF

Nevertheless, the pandemic also offered unforeseen opportunities. For example, Muriel Steele, team captain of the Women of Wastewater, attributed the team's perfect score in the Process Control Event to having more study time than usual. The Women of Wastewater represent the North Carolina Water Environment Association. Their performance earned them the Division 2 Process Control trophy.

"I've been working at home, which allowed a lot of practice time in the simulator," Steele said. "This year's competition just proved something we've known for quite some time: the water workforce is extremely adaptable."

Chris Legg of the Water Environment of Texas Poosidons agreed that the new format presented some silver linings.

"I think practicing and competing in the same building under the same circumstances around the same people makes it much easier than being in front of judges," Legg said.

Worth the Work

For all its physical and mental strains, however, this year's competitors described participating in Operations Challenge as worthwhile.

Jason Ludlow of the Chesapeake Water Environment Association Wet Bandits (who made their competition debut this year) described that the process of practicing and competing provided "great exercise, expedited job training, and excellent networking opportunities."

"It's made me a more educated and motivated water professional," Ludlow said.



Surprise Turdologist
The Arizona Water Association Surprise Turdologists took third place overall in Division 1 after placing well in the Laboratory and Process Control events. Members of the team include Andrew Johnson, Kevin Larson, Reynaldo Aldava, and Jorge Gurrola. Image courtesy of WEF

Given this year's unique circumstances and new format, some competitors saw an opportunity to change their perspectives accordingly. Force Maine, the third-place overall Division 2 winners representing the New England Water Environment Association, shared its secret weapon: Its "low-stakes, low-pressure approach." This mindset enabled them to focus more on learning new skills and having fun than on the results, according to captain Alex Buechner. Competing this year with a different frame of mind taught him more about himself and his teammates.

While Buechner manages other people at work, he said he does not consider leadership one of his core competencies. Competing in Operations Challenge brought out the leader in him, Buechner described. "Getting a team together and getting us prepared with so little time made me realize that maybe I am not giving myself enough credit for my ability to get things done and have a positive influence on others."

Nearly all teams thanked management at their respective home facilities for their support in purchasing equipment, allotting practice time, and being flexible with scheduling.

Despite the necessary time, travel, and equipment, Andrew Johnson of the Arizona Water Association Surprise Turdologists described the program as a very worthwhile "investment for your team and your facility."

For more highlights from this year's competition, watch the Operations Challenge 2020 Awards Ceremony at bit.ly/OC-2020-awards.

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A Look Inside the Operations Challenge Command Center

For more than three decades, Operations Challenge administrators, judges, and event coordinators have met in a small, private room amidst the action of the WEFTEC exhibition to make decisions during competition week. The room tends to be a hub of activity on a near-constant basis, hosting preparations, reviews, and, sometimes, heated debates.

Like everything else, the command center looked a bit different this year. The remote format and social distancing mandates led to the new Operations Challenge Command Center. Four WEF staff members — sitting 6 ft apart and wearing masks — managed the technical aspects of the action from WEF headquarters in Alexandria, Virginia. Steve Harrison and Jessica Rozek of WEF's Operator Programs team led the initiative and were supported by Justin Jacques and Stephen Massa, on loan from other WEF departments. Command center staff were accompanied by official Operations Challenge dogs Otto and Luca, who dressed for the occasion in custom jerseys.

As teams called into spectator-accessible video chatrooms during hourlong time slots, the control team connected them with event coordinators and judges calling in from their own homes and facilities.

"Watching teams make their runs through a monitor was a far different experience than being in the thick of the action onsite in the WEFTEC exhibition, but the level of excitement remained the same," said Rozek. "After each run, Operations Challenge staff, judges, volunteers, and supporters cheered just as loudly as ever. The fact that this year's competitors put on such an incredible show of talent made the distance between us feel much smaller."

