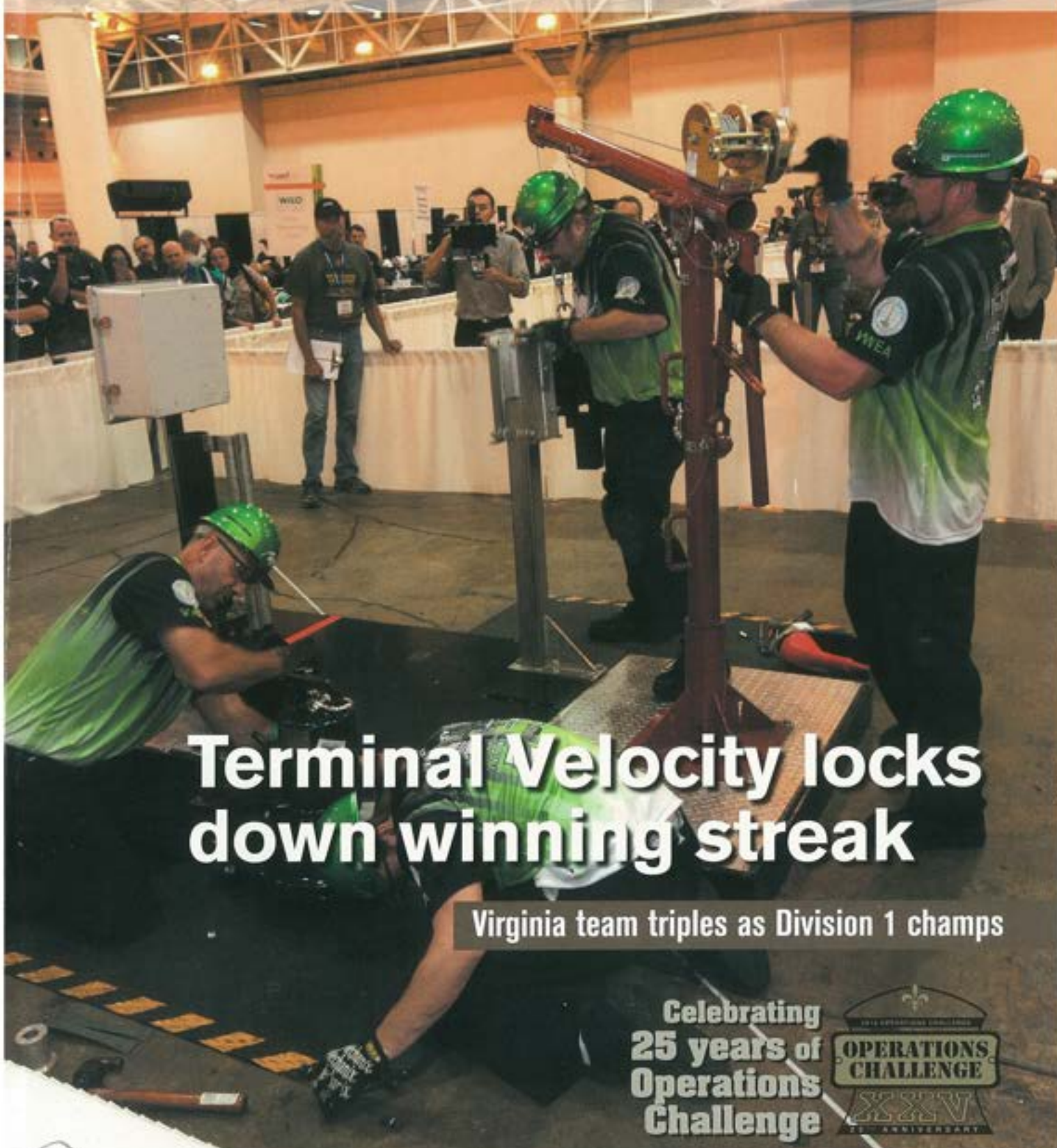


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December 2012

A photograph showing three workers in green safety vests and hard hats working on a large industrial machine. One worker is kneeling on the floor, another is standing and adjusting a component, and a third is standing nearby. The machine has a large red arm and various mechanical parts. In the background, other people are visible, suggesting a trade show or exhibition setting.

Terminal Velocity locks down winning streak

Virginia team triples as Division 1 champs

Celebrating
25 years of
Operations
Challenge





Operations

Terminal Velocity sweeps Division 1 for the third year

Terminal Velocity worked with fierce determination to clinch first place in Division 1 of Operations Challenge 2012 for the third year in a row.

"Flexibility, determination, and a desire to win," are the key attributes of a successful team, said team captain Donnie Cagle. The Virginia Water Environment Association team – Cagle, Stephen Motley, Jason Truitt, Steve Poe, and coaches Elijah Smith and Bobby

Williams – exemplifies these attributes, taking first not only overall but also in the Safety and Collection Systems events. The team adds this year's accomplishment to an impressive winning streak, winning first in Division 1 in 2010 and 2011, second in Division 1 in 2009, and first in Division 2 in 2008.

And this year, Liquid Force from the Water Environment Association of South Carolina edged out the rest of the competition to take second in Division 1. Team captain Troy Newton attributes the team's success, which also includes placing first in the Wilo Maintenance event and second in the Safety event, to teamwork and organization of the team's runs in each event.

"Our coach David Niesse has a great talent in recognizing each one's strengths and weakness," Newton said. "He sees everything, where we can save time or cut corners. He knows where everyone is supposed to be, down to the second. He has been the reason we've made it this far."

"This is the best team I've ever been on," Newton said. The Water Environment Association of South Carolina team – Newton, Greg Hill, Tom Kohler, Allan Clum, and Niesse – share a similar work ethic and dedication to the competition, and also get along on a personal level, Newton added.

But achieving second place has left the team ready to do more next year. "Second place is great, but I think it left us thirsty for more, like first," Newton said.

The TRA CReWSers, who placed third overall in Division 1, also credit their success to teamwork, compatibility, and organization of each event. The Water Environment Association of Texas team members – Dale Burrow, David Brown, Steve Price, and Jacob Burwell – have been competing together for 8 years.

"One of the biggest parts of Ops Challenge is the way the teams set up their runs," said Burrow, captain of the team. Assessing each team member's strengths and assigning the right tasks to them in each event is key, he explained.

Having the same team work together and compete for 2 or more years makes a difference because it's easier for veteran teams to know who is going to be stronger in what area when events change, Burrow said. "There's a real advantage to having a team together for 8 years, because that's something that you pretty much have down," he added. In addition to the team's overall ranking in Division 1, it placed second in the Laboratory event. ■



Terminal Velocity continued its winning streak, placing first in Division 1 for the third year in a row. Team members, Steve Poe, Jason Truitt, Donnie Cagle, and Stephen Motley (not pictured), also worked together to place first in the Safety and Collection Systems events. Kieffer Photography

s Challenge

Jennifer Fulcher with
Steve Harrison



Blackwater Bruisers make history as first ReWa team to win

Operating as a cohesive unit, the ReWa Blackwater Bruisers worked quickly and cleanly during Operations Challenge 2012 – its second year competing as a team – to earn first place in Division 2.

The Bruisers are the first team from Renewable Water Resource (ReWa; Greenville, S.C.) to place first in the competition. Coach Larry Camp describes the team members as hard-working and energetic with a willingness to learn.

"We switch different members into different tasks to find the most competitive time, always looking for ways to improve our time and reduce mistakes," Camp said. "We practice and review tasks; if there is a problem, we all work together to improve."

This year, the Water Environment Association of South Carolina team – captain Russ Moore, Cain Massey, Adam Harvey, and Camp – placed first in the Safety and Collection Systems events and second in the Process Control event. "We had a great conference where our times were good and our penalties were low," Camp said. "Everyone in the company is excited," he added.

The OCWA Jets, who placed second in Division 2, also value teamwork. "We work as a group to make everyone as strong as possible; we coach each other," said Marcel Misuraca, team captain. And to create that winning performance, Misuraca determines which tasks best suit each team member to maximize the team's performance and works to keep the team calm and focused during the competition, he said.

The Water Environment Association of Ontario team – Misuraca, Carly McLennan, Tom Nicol, Alan Robdrup, and coaches Beverly Mollard

and Dennis Rau – placed second in the Laboratory and Wilo Maintenance events.

The third place Division 2 team, the Aqua Techs, attributes its success to practice, hard work, and dedication to the competition, said coach Rey Davila. Even with two new team members this year, the Water Environment Association of Texas team – Davila, captain Thai Nguyen, Ryan Brunette, Edward Burrell, and Kevin Wiley – placed first in the Wilo Maintenance event and second in the Collection Systems event in addition to its overall third-place standing.

Getting the right team members who are willing to put in the effort and continue practicing, repeating the same runs time and again, is the name of the game, Davila said. "I think repetition is the key to success," he said.

"You have to have the spirit of a competitor," Davila said. "It takes a lot of time and a lot of dedication." ■



ReWa Blackwater Bruisers – Russ Moore, Cain Massey, Adam Harvey, and Larry Camp – sprung into action during the Safety event. The Division 2 team earned first overall, first in the Safety and Collection Systems events, and second in the Process Control event. Kieffer Photography

Teams develop their own Operations Challenge recipe for success

Under the bright, buzzing convention center lights, Operations

Challenge competitors bent over their tasks with complete focus and control apparent in every movement. Coaches and other team members called out tasks, the time on the clock, and encouragement.

As competitors moved quickly around each other to complete their specific set of tasks, one thing was obvious: Each event requires extreme planning, teamwork, and training. Each of these ingredients goes into a team's recipe for success.

Ingredients for overall success

"It's just maintaining calm, staying collected, working together as a team," said Jesus Garibay Jr., LA Wrecking Crew captain. Success in Operations Challenge requires maintaining some speed while being precise and avoiding mistakes, which is achieved only if

everyone understands his role in each event, he added.

And to practice and have the right tools to practice on, team members need support from their employers and Water Environment



Norberto DeRosa from MCA Argentina completes a confined space entry permit during the Safety event.
Kieffer Photography



John Sykora
Seacoast Sewer Snakes



Total number of years competing on team: 5
Employer: Weston & Sampson
Job title: Project Manager
Strongest skill: Other (Ability to charm judges)
Favorite thing about Operations Challenge:
Filling up my Ops Challenge trophy case



Jesus Garibay Jr.
LA Wrecking Crew



Total number of years competing on team: 4
Employer: Los Angeles County Sanitation Districts
Job title: Chief, Plant Foreman
Strongest skill: Organization
Favorite thing about Operations Challenge:
The rewarding experience, knowledge, skills, and competitive spirit



Kevin Richard
LUS Cajuns



Number of years competing on team: 1
Employer: Lafayette Consolidated Government
Job title: Wastewater Supervisor
Strongest skill: Speed
Favorite thing about Operations Challenge:
Competition and meeting other teams

Federation (Alexandria, Va.) Member Associations, said TRA CReWSers captain Dale Burrow.

The TRA CReWSers' overall strategy for success includes assigning tasks that play to competitors' strengths, making sure everyone stays busy during an event, and practicing so much that competitors develop "muscle memory" so that they know the next step automatically, Burrow said. "We make sure that everyone is doing something at all times," he said. "We get familiar enough with the events that you don't have to think about the next step."

Process Control event

During the Process Control test, team members divided up multiple-choice and operation-scenario questions and worked diligently to finish within 25 minutes.

Process involves learning about new technologies and topics that might not be in your comfort zone, said Terminal Velocity captain Donnie Cagle. The event requires "cohesive comprehension and knowledge of the skill set for wastewater treatment," added Blackwater Bruisers' coach Larry Camp.

Laboratory event

During the Laboratory event, teams performed all the steps of an *Escherichia coli* membrane filtration analysis using YSI (Yellow Springs, Ohio) instrumentation. This year, the event included a biochemical oxygen demand (BOD) task in which teams performed all steps of a BOD analysis, including determining acidity, preparing blank and seed correction series, and calibrating a dissolved-oxygen meter.

"There's a lot of memorization involved," Garibay said. "Everybody's pretty much got to know what they have to do before they do it. It takes a lot of teamwork." Muscle memory and keeping everyone busy are very important in this event, Burrow added.



During the Laboratory Event, Dale Burrow of the TRA CReWSers relied on "muscle memory," which is key to success in this event, he said. The team, which also includes David Brown, Steve Price, and Jacob Burwell, placed third overall in Division 1 and second in the Laboratory event.

Kieffer Photography

Aaron Montgomery
Capitol Flow

Total number of years competing on team: 4
Employer: DC Water
Job title: Assistant Program Manager
Strongest skill: Problem solving
Favorite thing about Operations Challenge:
 Friendships and networking opportunities available during these conferences

Norberto DeRosa
MCA Argentina

Total number of years competing on team: 4
Employer: AYSA S.A.
Job title: Technical Mechanic
Strongest skill: Problem solving and organization
Favorite thing about Operations Challenge:
 Traveling and sharing experience and knowledge with the people of the competition

Sean Kehoe
Massachusetts

Total number of years competing on team: 3
Employer: Weston & Sampson
Job title: Senior Mechanic
Strongest skill: Other (Team motivator)
Favorite thing about Operations Challenge:
 Working as a team



During the Safety event, the Seacoast Sewer Snakes - John Sykora, Daniel Driscoll, Tim Vadney, and Michael Carle (not pictured) - rescue an unconscious "co-worker" from a confined space.

Kieffer Photography

Collection Systems event

In the Collection Systems event, competitors repaired an in-service pipe and completed a quiz identifying six pipe defects. The event requires strength, speed, and precision, Cagle said. "Part of the event, of course, is getting the cuts made to bring the repair piece over, but if you're not precise in your actions and you can't get the repair made, it doesn't matter how fast you can cut," Cagle said.

While cutting the polyvinyl chloride pipe quickly may seem to rely primarily on strength, Burrow says strategy is more important. "It's not

necessarily about strength, it's more about technique when you cut the pipe," he said. To develop this skill, competitors just need to practice, he added.

Safety event

During this event, teams rescued a mannequin representing an unconscious colleague from the bottom of a confined space and responded to a simultaneous "co-worker" having a heart attack. This year, the event featured new rescue equipment, including a Reid Lifting (Monmouthshire, Wales) gantry and Fibergate Composite Structures (Dallas) training platform.

This year, being tall was an advantage, Cagle said. When running the event, teams had to choose between attaching equipment to the gantry then hoisting it to its full height with the extra weight, or extending it to its full height and then working higher up.

This event required not only strength to lower another team member into the confined space, but also patience to take the time to follow specific safety procedures in proper order, Garibay said. "Teams are judged on safety knowledge, physical endurance, quickness, and communication," Camp added.

Wilo Maintenance event

In the Wilo Maintenance event, teams responded to separate and simultaneous "moisture reset" failure conditions for a



Erik Bailey
Vermont Vortechs



Total number of years competing on team: 12+
Employer: City of Winooski, Vermont
Job title: Water Pollution Control Department Superintendent
Strongest skill: Strength
Favorite thing about Operations Challenge: Camaraderie among teams



David Cornelio
Septic Soljahs



Total number of years competing on team: 4
Employer: City and County of Honolulu
Job title: CSM Repair
Strongest skill: Strength
Favorite thing about Operations Challenge: Getting to travel and meeting new people



Kevin Willey
Aqua Techs



Total number of years competing on team: 7
Employer: City of Dallas Water Utilities
Job title: Operation Supervisor
Strongest skill: Problem solving and strength
Favorite thing about Operations Challenge: We work at a high volume plant dealing with the many operational conditions, and Ops Challenge keeps us on top of our operational skills and decision-making abilities

submersible pump and submersible mixer in adjacent, simulated, slide-rail-mounted installations. Competitors were tasked with safely removing the pump and mixer from service, performing and documenting the required service to repair the units, and placing them back into service.

During this event, several factors come into play, including mechanical knowledge, dexterity and speed, strength, and organization.

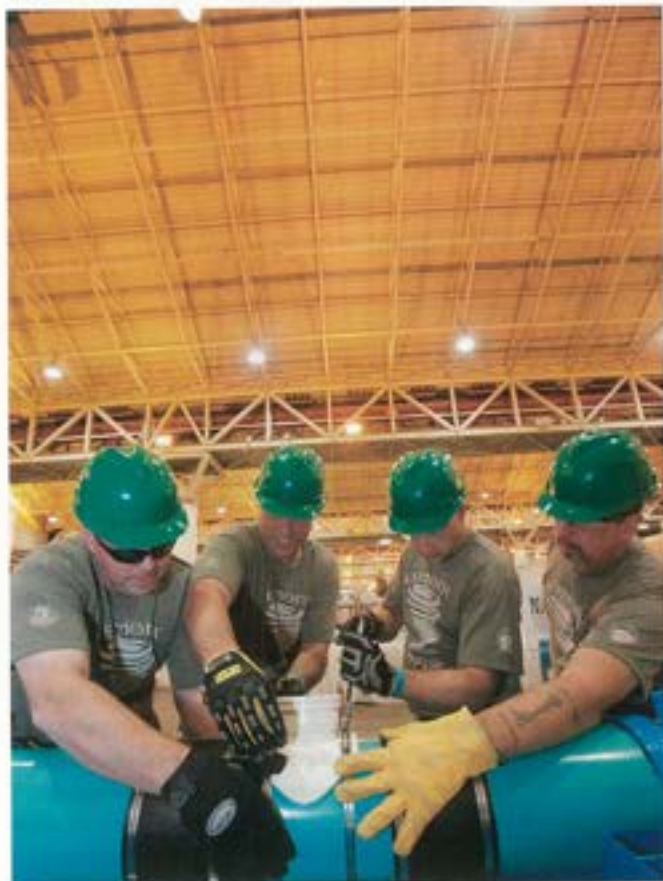
"This challenge is a very physical challenge, using a hoist to lift and move the equipment to disassembly," Camp said. "Teams are judged on performance of skills, knowledge, communication, and speed in this event." Key skills include "mechanical dexterity and being familiar with the tools that are involved in doing the event," Garibay added.

"Maintenance is more about timing," Burrow said. "Making sure that you've got everyone in the right place, and you're keeping everyone extremely busy, and you try not to have people moving around."

Competition requires well-rounded team members

While each event is different, they also share similarities, explained Troy Newton, captain of Liquid Force from the Water Environment Association of South Carolina. Some, such as the Process and Laboratory events, require a little more brains, while the Safety, Wilo Maintenance, and Collection Systems events require a little more brawn, he said. Therefore, the competition requires well-rounded teams that work well together.

And even if team members excel in either the physical or mental portions of the competition, they have to be able to serve in any role, Newton said. "On a whole, all team members have to be prepared to step in at any given time to any part of the competition," Camp added. ■



During the Collection Systems event, Vermont VorTechs team members – Nathan Lavallee, Erik Bailey, Brian Mattison, and Kevin McLaughlin – exemplify one of the key components to Operations Challenge success, teamwork. Kieffer Photography



Dale Grudier Jr.
Brown Tide



Total number of years competing on team: 7
Employer: Suffolk County Department of Public Works, New York
Job title: Operations Crew Chief
Strongest skill: Agility
Favorite thing about Operations Challenge: My favorite thing about being an operator is all the different disciplines that are involved; the Operations Challenge captures the spirit of that in competition



Larry Camp
Blackwater Bruisers



Total number of years competing on team: 2
Employer: ReVva
Job title: Process Control Officer
Strongest skill: Problem solving
Favorite thing about Operations Challenge: The teamwork we have on Ops Challenge



Marcel Misuraca
OCWA Jets



Total number of years competing on team: 7
Employer: Ontario Clean Water Agency
Job title: Manager
Strongest skill: Problem solving and organization
Favorite thing about Operations Challenge: Competition, traveling, and meeting people

Operations Challenge celebrates 25th anniversary

Competition has grown throughout the years to develop better competitors and better operators

Operations Challenge 2012 marked the 25th anniversary of the competition, which began at WEFTEC® 1988. While specific requirements of each event have changed, the heart of the competition remains the same.

Changes in competition

Terminal Velocity captain Donnie Cagle has been competing in Operations Challenge since 1989, he said. The competition has evolved, especially in terms of updated technology and equipment. He remembers when the Collection Systems event used clay pipe instead of polyvinyl chloride, but the basics stay the same.

"It's [still] virtually the same event," Cagle said. "You still have two tables; you still have a broken pipe; you still have to cut a repair piece out and make a repair on it. [Only] the type of material used for the event has changed."

"The equipment has definitely gotten bigger and better," said TRA CReWSers captain Dale Burrow, who has competed for 18 years. "I think [Operations Challenge is] such a great opportunity for the vendors, because I can't think of a better way to showcase your equipment than to actually have all these teams run on it." Burrow's plant has even purchased equipment for the team to practice on, because it will put it into use at the plant eventually, he said.

Competitors grow and develop

Marcel Misuraca, captain of the OCWA Jets, has competed since 2005 and has seen changes in both the competitors and level

of competition. "I have noticed that the teams are getting younger and stronger, more women are participating, and there is much more camaraderie between the teams," he said.

Rey Davila, coach of the Aqua Techs, also has seen an increase in the level of competition since he started competing in 2005. He has



Once a member, always a member is the New Jersey Devils' motto. Here, a 20-year veteran of the competition, Art Cowan, works beside newer team members Kenneth Wuerker and George McCabe in the Collection Systems event. Kieffer Photography

**Matt Schmidt**
Shovelers



Total number of years competing on team: 4
Employer: Green Bay Metropolitan Sewerage District
Job title: Field Services Technician
Strongest skill: Speed
Favorite thing about Operations Challenge: I get to meet such amazing people and be on a team with them

**Joe Tillison**
Wastewater Rangers



Total number of years competing on team: 5
Employer: City of Bowling Green, Ohio
Job title: Operator
Strongest skill: Organization
Favorite thing about Operations Challenge: The chance to do different things; work or Ops Challenge is different every day

**Justine George**
River Rangers



Total number of years competing on team: 4
Employer: Clean Water Services
Job title: Operations Analyst 2
Strongest Skill: Problem solving and organization
Favorite thing about Operations Challenge: Meeting teams from across the country, South America, and Canada

seen the fastest time in the Collection Systems event reduced from 1 minute, 55 seconds to 1 minute, 10 seconds, he said. "You have to become faster and more accurate," he said.

The skills competitors develop transfer to their jobs. "Teams are getting more and more serious about it, and I think they're starting to see that it's beneficial to their careers to get involved," said competition veteran and New Jersey Devils alternate John Reardon. "It's made every one of us a better operator, a better mechanic, better supervisors."

"It's allowed me to grow," said Jesus Garibay, LA Wrecking Crew captain, who has competed for 4 years. "I think it's allowed me to stay calm and focused when running into certain situations [at work]."

The competition also provides a professional network, New Jersey Devils coach Timothy Fisher said. He has called friends he has made through competing to ask how they've fixed a problem or about a new technology they use, he said. Preparing for the competition also helps participants pass state exams needed for certification, added New Jersey Devils veteran Art Cowan, who has competed since 2001.

Developing better operators for the future

"[Operations Challenge is] an opportunity and a pathway for some of these younger operators that want to compete and also develop some leadership ability, critical thinking, and decision-making," Fisher said. "I believe in it; it makes good operators."

The New Jersey Devils includes a mix of veterans, including Fisher, Reardon, and Cowan, as well as new members, including George McCabe and Kenneth Wuerker, who have competed for 3 years, and Carl Seabrook, who has competed for 2 years. "Our philosophy is once you're on the team, you're never off; you just play a different role, a support role, a coaching role," Reardon said.

The veterans now are working to help newer teammates improve, as well as working at the New Jersey Water Environment Association to increase the number of New Jersey teams. "We need to build on these guys," Fisher said. "It's our way of preparing for the future."

Newer members of the team joined because they enjoy competition and already have seen how they are developing skills they would never have developed without it, Wuerker said. "It helps you become a better operator; you learn a lot of new things," Seabrook added. And the team of new and veteran members work together to build a better team. "Everybody puts their heads together to figure out a faster, more efficient way to get these events done," Seabrook said.

Expanding reach of the competition

"I love Operations Challenge, and I really recommend anybody who is willing to be competitive and wants to win and grow in the wastewater industry [to participate]," Garibay said.

And new teams continue to join, including the New Orleans home team, the Louisiana Water Environment Association LUS Cajuns. Team captain Kevin Richard has been watching the competition since the early 1990s and always wanted to compete. After the formation of his association a couple of years ago, he finally got his chance this year.

"The competition and meeting other teams has been great; [it's] one of my favorite things about this event," Richard said. "We're here to try to represent our home town, and really all the guys on our team want to get to the point where we're one of the main competitors to look out for."

Burrow hopes that the competition will spread even farther, reaching other countries and bringing more international teams to compete, he said. "I would love to see it grow," he said. "I want to see other teams from other countries get involved and would love to see it take flight." ■



The Central States Water Environment Association (CSWEA) Division 2 team, the Shovelers - Matt Schmidt and Ken Bloom (pictured), and Todd Carlson and Brian Skille - first met each other in August, about 2 months before the national competition. The team only had the opportunity to practice together twice. Without access to equipment for the Safety or Wilo Maintenance events, the team had to make due by watching videos during practice, said team coach Jim Miller. "The first time the team completed a full run-through of those events was during the competition," Miller said.

Despite these obstacles, the team placed first in the Laboratory event, third in the Process event, and sixth overall.

Team captain Matt Schmidt attributes these achievements to the organization of the two Division 2 CSWEA teams and coordination of the runs, as well as the competitors. "The individuals on each of the teams bring everything they have to the competition," Schmidt said. "Everyone helps each other out and pushes each other to do their best, but have fun at the same time." Kieffer Photography

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