

BUILT ON BRAVERY

How the WVU Mine Rescue Team was born

By KALEY LAQUEA

THE WEST Virginia University Mine Rescue Team has evolved from the seed of an idea born out of determination to a highly respected competition team earning accolades around the world for its performance.

Built by students from multiple disciplines on campus and industry experts with a passion for safety and rescue, the team already has two international and four national champion titles under its belt. Its commitment to one of the state's most celebrated and noble professions continues, honoring the Mountaineers and coal miners who have shaped West Virginia through their grit, determination and hard work.

Travis Hartsog is a Mining Engineering alumnus from the WVU Benjamin M. Statler College of Engineering and Mineral Resources and the person whose idea it was to form the team.

The West Virginia native grew up watching his father, a mining engineer, work in the industry. He knew it was his path, too. The summer he turned 18, he worked underground as a surveyor before he began classes at WVU.

"To be honest, my parents were scared to death that I was gonna enjoy making money and not wanna go to school in the fall," he recalled. "After that summer I thought, 'You know, this is fun and I enjoy it, but I know I'm not going to be able to do this forever.' This can be tough work, so going to school to be able to continue would be the best thing."

Hartsog said that in his first few years taking classes in the mining department, it was rare for his teachers to have hands-on industry experience.

"I understood a little more about the practicality and I started thinking, 'OK, well, they're teaching us this but in the real world, this is gonna hold you back because this law, that law and everything.' I understand why they don't teach the laws, but I wanted to find a way to help students who may not have an internship underground or at a mine until they graduate."

Hartsog said there was a lot of discussion about building a mine rescue team, but little momentum. He wanted his classmates to experience the same hands-on learning he'd had. At the time, rescue teams out West, like the one at the Colorado School of Mines, were more common, so he reached out to them for guidance.

Hartsog's push to get the team going was a labor of love and an opportunity to apply his Mountaineer spirit. With limited resources available, students had to get creative and build the program from scratch. In 2009, the Academy for Mine Training and Energy Technologies at WVU was established and ready for action.

"Even though Dolls Run — the Academy's nickname — isn't a real mine, it gives them a vision," Hartsog said.

By Hartsog's senior year, he'd managed to get all the necessary equipment donated. He rounded up 11 students and the team took off, growing its skills and signing up to compete.

Since Hartsog's days at WVU, the team has gone on to sweep championships, winning against established teams like the one from the Colorado School of Mines.

Justin Waybright, now in his third year as captain and who also grew up listening to stories of his father's work in the mines, has been a key component to the



PAIGE NESBITT | WVU photos

From left: Justin Waybright, Ashton Crawford and Ian Stengel review coordinates of a search-and-recover simulation during a West Virginia University Mine Rescue Team training exercise.

team's success. "I had the background from him of just knowing the process before actually going there," Waybright said. "Being able to just go see everything really solidified me knowing that that's what I wanted to do."

Hartsog served as the briefing officer when the team took home two international victories in spring 2023 and 2024. At this year's professional national competition in Kentucky in August, Waybright and mining engineering student Dylan Shilling earned fourth and fifth place respectively in the BG-4 Bench, a skills match where members troubleshoot problems with equipment and breathing apparatuses typically used in mine rescue.

Out of 85 professional benchmarks, Waybright and Shilling took top positions as the only collegiate members to compete. Waybright said he feels the camaraderie among those in the mining industry is an integral part of building support and trust, especially when it comes to safety training and emergency preparedness.

"Every time we go to a big professional competition like that, it really gives us more insight on what it is and what all they do, what it means to them — because they're the ones that are actually working there, going in," Waybright said.

After graduation, Hartsog worked his way up to operations manager, gaining experience in different roles all over the state before transitioning to a project engineer position in Beckley. He has also stayed involved with the WVU Mine Rescue team.

"You know it gives you a blue suit feeling," Hartsog said. "It was worth it. It was fun, and I'm extremely proud of what it has become. It's grown further than I ever thought it would. Coal impacts my life every day by giving me a career and giving me hope, giving my children hope. It's extremely important, it's in way more products and things than people ever realize. If it can't be grown, it must be mined."

WVU Mining Extension program boasts century-long legacy of excellence

For more than 100 years, the West Virginia University Benjamin M. Statler College of Engineering and Mineral Resources Mining Extension program has stood as a cornerstone of progress and education, shaping countless students' careers and transforming the landscapes of both the mining industry and the Mountain State.

Former Mining Extension Director Jim Dean and current Mining Extension Director



DEAN



BRADY

Joshua Brady reflected recently on the program's profound impact and service to the state over its 111 years and its vision for the future.

After a number of tragic mining accidents in the late 1800s, the state of West Virginia created the Department of Mines in 1905. In response to calls for more regulation and industry oversight, Congress followed suit, forming the U.S. Bureau of Mines in 1910. The Mining Extension program, which opened in 1913, was established in response to the growing demand for skilled professionals in the mining industry.

From its early days, the program mission was clear — to equip students with technical expertise and a commitment to improving safety. The industry saw its highest employment in

1940 with more than 130,000 workers.

As the industry evolved, so did the curriculum, incorporating cutting-edge technologies, emergency preparedness and safety practices that now define modern mining.

In 1995, a year after Dean took the helm as director of WVU Mining Extension, West Virginia coal production hit its peak at more than 181 million tons.

In the beginning, the Mining Academy in Beckley housed much of the program. Some of the mainstays were apprentice miner training, electrical training and mine foreman training to help those working in the mining industry advance their careers. There were big dreams to expand the program, but as Dean soon learned, the impetus and resources to make them a reality were hard to come by.

"For many years there were a lot of ideas and rough sketches about how to build a simulated underground mine for doing emergency response-style training. Setting out to do that and then actually securing the funding — that was a defining moment."

Construction for the Academy for Mine Training and Energy Technologies at WVU, more commonly known as Dolls Run, started in 2008. The live fire area and half of the mine were built during the first year of funding, but the program didn't have the resources to complete it.

"We didn't know whether we were going to get the money to build the rest of it," Dean added.

Two years earlier, a mine disaster

trapped 13 miners for more than two days. A number of other accidents in 2006 renewed the focus for better training and safety protocols, and Dean faced a challenging road ahead.

"It was a very challenging time for mining and everyone associated with it. It was one of the worst years for the collective industry in many years, especially for the state of West Virginia."

"During that time when I lectured students in the mine management and safety class, I said, 'At some point in your career, you'll have the opportunity to impact mine safety and health. You'll know when it happens and you need to stand up. Though it may be difficult, you need to follow through.'"

And that's exactly what Dean did. On his birthday in 2006, he received a call from the governor asking him to lead the West Virginia Office of Miners' Health Safety and Training. Dean stepped in that year to serve as the office's director, working with industry, labor and vendors to make recommended regulatory changes. They needed experts in the field to help them ensure compliance with updated safety laws and the program delivered.

After working closely with industry partners and legislators, the funding finally came through to complete the state-of-the-art training center. The new simulated mine facility at Dolls Run, built on land donated to WVU by Consol Energy, opened its doors in 2009.

(Source: WVUToday.WVU.edu)



LEFT: WVU Mining Engineering alumnus Travis Hartsog is a founding member of the WVU Mine Rescue Team.

(Kaley LaQuea is a communications specialist with the WVU Statler College of Engineering and Mineral Resources. The above article appeared on the WVU Today website and is reprinted with permission.)

Charley West says ...

The West Virginia University mine safety team is competing these days . . . competing to save the lives of miners.

