

Line of fire

Boeing firefighters stay prepared to fight blazes they hope will never happen

By Elizabeth Davis

The blazingly hot scenes play out regularly, day and night, at several locations across Boeing.

With bright-green firetrucks standing by, hundreds of gallons of jet fuel engulf a helicopter- or fuselage-like structure. Firefighters have only seconds to extinguish the inferno, which can burn at nearly 1,830 Fahrenheit (1,000 degrees Celsius).

It's all part of the training to be a firefighter for The Boeing Company, which operates one of the world's largest private fire departments.

"We train for things we hope we don't have to do," said Rob Mathis, acting deputy chief of training for Boeing firefighting operations. "We train so if we have to, we can."

The training takes place at sites near Seattle, Philadelphia, Wichita, Kan., St. Louis, Mesa, Ariz., and in several locations in Southern California. Boeing firefighters, wearing pounds of gear and protective clothing, practice and prepare for something everyone hopes will never occur.

Why burn an Apache helicopter or an airplane fuselage over and over again?

"If you can prevent a fire from happening, then, obviously, that's best," said Mesa fire operations specialist Crystal Nicholson. "But more important, being prepared is crucial. One way to be prepared for a fire is by staging one and then training to actually put it out."

Some 400 Boeing firefighters at 21 stations hone their skills and keep their certifications in order by participating in Web-based training and by attending prevention exercises, hot drills and live fires. On average, Boeing firefighters are involved in up to a dozen training and prevention activities a month, in addition to participating in all required Boeing training.

That training has been standardized across the company. It means firefighters are ready to support a program or business unit and can travel to a remote location on quick notice.

Capt. Tom Tatum, a training officer and 32-year veteran of the Boeing fire department in Mesa, said the importance of training cannot be overemphasized. "A lot of what we prevent isn't measurable and you never know what you've prevented. However, prevention programs and systems inspections can be measured."

Conducting regular inspections is another prevention measure. Fire Inspector Jesse Scott, operating out of the Renton, Wash., office, has worked in fire prevention at Boeing for 26 years. "I inspect things people don't see—how things are stored, power and wiring systems, sprinklers, and other potential building hazards," he said. "Inspectors monitor systems that help people stay safe at work and get out safely should the need ever arise."

The Boeing Fire Protection and Emergency Preparedness



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PHOTO: Firefighters in Mesa, Ariz., battle heat and smoke to put out flames engulfing an Apache helicopter mock-up during a nighttime live fire-training exercise.

THOMAS TATUM/BOEING

team is an industry leader in Aircraft Rescue and Firefighting, as well as fire protection engineering, according to Mathis.

"As a leader, we meet federal standards, aerospace regulations and customer demands," Mathis said.

Boeing has been a driving force for establishing best practices and strengthening industry standards, Mathis added. It continues to raise the bar on fire safety and prevention for aircraft manufacturers and customers, he said.

Many of the Boeing firefighters have had experience in municipal fire departments.

Boeing St. Louis Fire Chief Mike Coleman joined the company in 2005 after a 28-year career with the St. Louis fire department, including 12 years spent as the assistant chief at the St. Louis airport, Lambert Field.

Recognizing the importance of joint training, Coleman draws on his municipal experience and shares his Boeing knowledge with city firefighters. "We partner with St. Louis firefighters in our mutual aid agreement and the live fire training we do together once a year," he explained.

The Boeing St. Louis fire department is also responsible for training Lambert Field firefighters on how to extricate pilots from Boeing F-15s and F-18s. "Twice a year, over three days, we train approximately 80 city firefighters on how to get a pilot out of a burning jet fighter," Coleman said.

Rich Stine, Boeing's fire marshal, said 83 percent of a Boeing firefighter's job is prevention-related. Most of the rest is dealing with hazmat (hazardous materials) and mitigation situations, and responding to emergency medical calls. Stine noted that the Boeing fire department also responds to calls for light search and rescue, motor vehicle accidents, and mutual aid requests from local jurisdictions.

Firefighters who come to Boeing must also be certified emergency medical technicians, or EMTs.

"Many of our calls are medical emergencies," said Tatum, the Mesa training officer. "We have one helicopter fully stocked with advanced life support equipment we use for chase rescue when we test Apache helicopters. We used it recently to transport someone who was nearly electrocuted."

The training, and intimate knowledge of each Boeing facility, pays off. The average response time for Boeing firefighters is less than 4.5 minutes compared with the industry average of six to nine minutes.

"This job takes a special person," Stine said. "When most people run away from a fire, we run toward it." ■

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PHOTO: Long Beach firefighters (from left) Kelvin Rising, Mike Csallo and Ron Trujillo demonstrate hose lays on the C-17 field where they route fire suppression water via a pumper truck and through the hose at approximately 200 gallons per minute (760 liters per minute). MICHAEL GAIL/BOEING



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By the numbers:

- **Number of Boeing firefighters:** 400-plus
- **Total number of Boeing Fire Service locations:** 21 (including 11 airfields)
- **Area covered:** nearly 86 million square feet (8 million square meters) protected by Boeing firefighters
- **States with Boeing Fire Protection locations:** 7 (Alabama, Arizona, California, Kansas, Missouri, Pennsylvania and Washington)
- **Emergency Operation Centers:** 56
- **Vehicles:** 70, including 1,500-gallons-per-minute (5,680-liters-per-minute) pumpers, hazmat response trucks, aid cars, ambulances, and Aircraft Rescue and Firefighting vehicles