Accelerant Detection Canine Program

These clever and hard-working canines put their excellent sniffing skills to use to help with fire scene investigations

You've heard of sniffer dogs – those crime-fighting canines that work with the police to do important jobs, such as detecting drugs and explosives and tracking missing persons. But chances are you may not have heard of accelerant detection dogs. These hard-working dogs work with NSW Fire & Rescue as a part of the Accelerant Detection Canine Program, which is the first program of its kind in Australia.

The program began over two decades ago in 1995 with a German shepherd dog called Ellie, who was donated by the NSW Police. Since then, the program has expanded to three canine teams; each team has a handler,

who is a firefighter/fire investigator, and an accelerant detection dog. Currently, the three teams that make up the Accelerant Detection Canine Program are:
• Station Officer Phil Etienne and Viking
• Senior Firefighter Joel Walton and Opal
• Qualified Firefighter Tim Garrett and Earl

The teams are based in NSW but are sometimes required to travel all across Australia. These teams make a vital contribution not only to fire investigations, but to overall community safety.

So what makes dogs the perfect candidate for accelerant detection? For much the same reason that we use dogs to sniff out

Working dogs . . .

Dogs at Work: The Katie Foreman Murder Trial

In 2011, Wollongong solicitor Katie Foreman died in a suspicious house fire. Fire & Rescue NSW assisted with the investigation into her death by deploying handler Phillip Etienne and his canine Sheeba to the scene of the crime, where they would spent the entire day searching the house for traces of accelerant. Whenever Sheeba detected something, she would alert her handler by assuming the sit position. Phillip would then ask her to "show him" where the accelerant was, and she would push her nose towards the area in question. Sheeba was able to detect the largest traces of accelerant on the bedhead in Katie's bedroom. This was a big help in the investigation, as it allowed police to determine where the fire started. Katie Foreman's estranged boyfriend and a woman he had paid to help start the fire were found guilty of her murder.

drugs: their sense of smell is much more sensitive than ours. The part of the brain that controls smell is 40 times larger in dogs than in humans, despite their brains being overall much smaller than ours – as you can imagine, this makes their sense of smell over 1,000 times superior to ours! On top of that, their physical abilities and their desire to please their human friends mean that they are all too happy to do the tasks required of them, as long as they get lots of praise and encouragement!

How does the program work?

The canine teams are the only teams of their kind in Australia. They are always on call and ready to assist – 24 hours a day, seven days a week. Each year they attend around 200 calls across NSW, where they use their excellent sniffing skills to help determine the cause of fires, including residential, industrial, and bush and grass fires. They are also required to sniff out accelerants on clothing, and in line ups and vehicles. Although the canine teams do most of their work with Fire & Rescue NSW, they also help out the NSW Police and NSW Rural Fire Service from time to time, and even travel interstate when required.

Heather Abrahams, Senior Media Officer at Fire & Rescue NSW, describes the 'passive alert and active reward system' that is used with the accelerant detection dogs:

"When they find an odour, the dogs adopt the sit position and direct our attention to the source by either staring or pointing with the nose or paw. Handlers then throw down a rolled up towel, tell the dog that they are the best in the world and have a tug of war game with them while safely guiding them out of the scene."

Once the dog makes his indication, it is up to detectives to work out why the dog has indicated a particular item or spot. The canine's findings are then used to assist with fire/arson investigations, where the canine handler will provide expert testimony in federal and state court cases. These

testimonies, combined with the canine indications, have been accepted as evidence in high-profile cases such as the Katie Foreman murder trial and the Rozelle fire.

As well as working hard all year-round to investigate fire scenes, the canine teams also deliver lectures, presentations and demonstrations to university and other fire investigation and NSW emergency services, conferences and courses.

How are the dogs chosen?

Labradors are the dog of choice for this very important position; as Heather from Fire & Rescue NSW explains, they are "very robust and adaptable for all environments" – not to mention agile and fast! Labradors are also naturally good at hunting and retrieving, which is a key requirement of this position. But not just any old Labrador will do. In order to be an accelerant detection dog, specific criteria must be met.

As you can imagine, these hard-working dogs would experience their fair share of noisy, stressful and even chaotic environments, so it is crucial that the right dog is chosen for the job. The dogs should also be well-behaved around the general public and prove their reliability in different situations and environments. Needless to say, the dogs must be in excellent physical condition!

Temperament matters too – these working dogs are selected based on their enthusiastic personality and their ability to concentrate for longer periods of time. Each dog is carefully assessed to ensure that their temperaments are well-matched to their handlers.

Firefighter Tim Garrett, who is a canine handler in one of the Accelerant Detection Teams, describes his bond with his dog Earl as "very unique" and "very exclusive". In other words, Tim likes to be the only one to give Earl his daily doses of love and attention, and doesn't like anyone else interacting with him too much – although Earl is always happy to

come up and say hello to people! By creating this tight bond, it instils a great work ethic in the dogs, who focus all their attention on their handlers when they are on the job.

How are the dogs trained?

These clever canines are very good at what they do. With a 97% accuracy rate of identifying and locating ignitable liquids within fires, these special canine teams are the most effective method of detecting accelerants. All three of the current accelerant detection dogs had already graduated as Detector Dogs, but received further training with Fire & Rescue NSW where they underwent three months of highly specialised training. This training covers a range of areas, the main one being odour detection, which teaches the dogs to use their excellent sense of smell to hunt for and detect the odour of five different ignitable liquids.

The dogs are also trained to adapt to different environments, where they may face working at night, working in noisy areas, and travelling via helicopter. Firefighter Tim explains that the dogs are taken into different environments in order to get them used to it, while the handlers monitor how the dogs are reacting. Thus far, they have never had a problem with the dogs adjusting to different environments. Tim highlights the importance of training the dogs in as many different locations as possible, including parks, office facilities, fire scenes, and gun ranges, as this helps them to prepare for real-life situations.

Tim explains that the training is ongoing, with the dogs being trained for a few hours each day. So do they ever get to put their paws up and relax? When asked about what the dogs do in their downtime, Tim says that they get to rest in the back of the car on their way to and from jobs –leaving them behind simply isn't an option; the dogs wouldn't allow it! After all, they live with their handlers, and are by their sides practically 27/4.

So what happens when they retire? Accelerant detection dogs generally work for around eight years, making their retirement age at around 10 years old. This means that they are still active into retirement and are able to enjoy their leisure time. Once it is time for an accelerant detection dog to hang up his fireman hat, Fire & Rescue NSW will advertise internally for adoption. They then narrow it down to three applicants and assess their houses and lifestyles to make sure they are a good match for the special canine.

Article written by Janie Medbury.
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