



OODHOUNDS

ARE THEY ON THE NOSE OR COMPLETE CLOTS?



Mine games

Mines maim and kill thousands of people each year. Clearing them is fraught with danger, but for a team of specially trained detection dogs, the minefield is their natural playground

AS THE AFRICAN SUN blazes above, Bronco is tirelessly pushing a piece of drainpipe around the garden. He stops to lie down at his owner's feet for five minutes, before starting up again, tossing the plastic up in the air, chewing it, and growling at it.

Andreas Steineberg, his owner, laughs and encourages him. He has trained Bronco, a Belgian Shepherd found in his native Germany, since a puppy. The dog was first trained in obedience, next as an attack and guard dog, and finally, he was deemed suitable to be trained to detect explosives, landmines and unexploded ordnance, such as rockets.

Bronco and Andy have since travelled the world to countries in desperate need of help in clearing the remnants of war. They work for German company Securatec, which specialises in training dogs for this massive task, and are currently based at the International Mine Action Training Centre in Nairobi, Kenya - which is one of only three places in the world where both military personnel and civilians are trained in manual demining.

The dog centre is supported by the Mines Awareness Trust - a charity based in the Channel Islands. It houses six dogs, all of which were selected for training because of one shared trait - their love of playing. Andy explains, "We chose dogs aged between 10 and 18 months, but the key factor in our choice is how much they like to play. This is really important whatever they are being trained to find."

The chosen ones

The breed of the dog is also taken into consideration. Andy continues, "If you are training an attack dog, then you need a tough breed, like a Belgian Shepherd or a German Shepherd. For a mine detection dog, you just need a dog that isn't too small, so they can be anything from a Springer Spaniel upwards, although a Great Dane may be a little too big for this work! Labradors are very good and collie mixed breed dogs as well. They just have to be working dogs. If a dog is too small, then the long leads that we have to use when they are mine detecting may be heavier than the dog, which is no good when you are trying to control them."

The dog trainers take their time in finding new dogs, as training for mine detection is a lengthy process, which takes up to one year. "We find the dogs all over the place, from different breeders," says Andy. "We don't just take the first dog we come across. We always check a lot before we choose. We will come to see the dog, hide something, and see if the dog tries to find it."

Once a dog has been chosen, the trainer will start getting to know the animal. It is incredibly important that the two develop a close bond of trust. The teams may be sent to very dangerous environments. The handler must be able to read whether the dog is distracted or perhaps feeling unwell and make the call not to go into the field. Andy is categorical about this. "One mistake is deadly. I am only too aware that a dog can set off an anti-personnel mine. I have never lost a dog and I wouldn't do this otherwise."

The basic training for all dogs, whether they are being trained in



narcotics, explosive or mine detection, is the same. The team uses either a specially designed piece of tube or ball with holes in it, into which the handlers can put explosives or narcotics - whatever that animal is being trained to find. Andy adds here that explosives are actually poisonous for dogs. "If the animals smell it on your fingers and then lick you, they will get sick. Therefore, the training kit that we use has to be sturdy so that none of the dogs can get inside it."

All the while, the dogs are also trained in obedience, as it is imperative that they follow directions when out working. Basic tricks are initially used. "We use this exercise in which you throw one ball in front of you. The dog has to get this one, then return it to you, before you throw another ball in the opposite direction." This may seem simple but it encourages the dog to return to their handler, and also to play. However, there comes a point

when the mine detection dogs face tougher training, although the trainers always maintain that it has to be fun. Andy continues, "After a while, we will place the training toy somewhere, but make sure that the dog has no clue where. Then a while after that, we will just use pure explosives, but train them to scratch when they find something. But if we are training them in mine detection, they are taught to sit. You just have to keep using their toys as rewards. They sniff something, they sit, and then they are rewarded. We always use toys instead of food."

Office worker

Training the dogs to passively indicate, as opposed to give an active communication such as scratching or barking, is the hardest part of the course. And on top of this, the dogs must work independently of their handlers so as not to set off any mines. It takes a special type of dog to

complete the mine detection course, Andy states.

With training complete, the dog and handler can be deployed. Andy had been working with dogs since 1995, but became a full-time trainer after quitting his electrical engineering course to go into humanitarian work. He and Bronco were sent to Sri Lanka, where there were 38 landmine casualties reported in 2005 alone. It was Andy's first trip out of Germany, and he recalls, "When the team travels, you have to make sure that you keep the dogs in the air for the shortest time possible, and that they have tablets to keep them calmer. I think that tablets could have been a good idea for me too, as my flight to Sri Lanka was my first!"

Once in the field, the dog teams can clear as much as 1500m² a day. This is 100 times faster than the rate at which a human deminer can work. Not only this, but the dogs are incredibly accurate, able to indicate as close as

If the dogs do indicate the mines, the handlers set up a grid system on the ground. The grids are 10x10m and the team will tend to work on two grids at the same time, spaced 50m apart, and in between is a safe area that has already been cleared



30cm to the mine. Andy proudly relates, "One of our dogs found a mine buried 1.2m under the surface in Angola. Obviously, it had taken some time for the scent to come to the surface, but that was quite a feat. Dogs are able to smell 100 parts per trillion - this is one nanogram, which you can't even see. If I touched a piece of explosive now, touched a piece of grass, and then took the dog outside, it would find the piece of grass that day or the day after. If I took a piece of cardboard outside that had had explosives in it, again left it outside for a couple of days, perhaps even in the rain, the dog would find it."

All that said, Andy states that the handlers are well aware that dogs, like humans, make mistakes. "The dogs are not machines, and so you have to check

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they are ready to work before you start to demine. We always set up a checking area. The human deminers have a pit with metal buried in it to check that their detectors are working properly. For the dogs, we have a pit with a couple of mines buried in it - TNT/ explosives without a [detonator] cord, so it's safe and not live - and we take them there in the morning before we start working to make sure that they pick them up. If the dog doesn't, then it gets a break."

the handlers set up a grid system on the ground. The grids are 10x10m and at the same time, spaced 50m apart, and in between is a safe area that has already been cleared. Within the grids, the team sets up lines, and the dogs will move up and down these - one vertically and one horizontally. The dogs will then swap grids. Andy explains, "It is a double-check system. If a dog indicates twice in one area, we pull out because we know that that area is contaminated. If there is no indication from either of the two dogs, we know that an area is free of mines."

All the while, Andy watches to make sure that Bronco is happy, and constantly checks that the conditions are suitable for the dogs to be working. Many factors, including terrain, heat and humidity, have to be taken into account. Andy explains, "Dust affects the dogs. We therefore try to cover the area with water before bringing them to it. The steam from the ground then comes up, and if there is anything there, the dog will smell this in the vapour. The dust just gets up the dogs' noses. The dogs also cannot work when it is raining. This is because the rain suppresses any smells coming from the ground. Also, we tend not to work when it is too windy, for obvious reasons. On a normal day, though, when it is not too gusty, we always work against the wind. If the ground temperature exceeds 36°C, then we stop working."

If the dog teams are working, however, once their job is done, the manual deminers must go in to determine what type of unexploded ordnance or mine they are dealing with. It is a hugely laborious process, but organisations from the United Nations to the governments of countries blighted by mines, such as Cambodia, are unified in their praise for the dog teams that are now operating around the globe.

Sitting in the dog centre in Nairobi, Bronco pushes his piece of drainpipe at my feet yet again. Atti, Aska, Fly and West loll around in their kennels while Lucky paws at the gate, keen for a hug. These dogs will never realise how important they are. ::

If the dogs do indicate the mines, the team will tend to work on two grids





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