BARC provides professional volunteer handlers and search dogs for the recovery of missing and/or lost person(s) upon the request of any official agency at no cost to the agencies or the families. We have responded to hundreds of missing persons searches in the mid-Atlantic states, as well as have been requested throughout the U.S. for our specialized advanced recovery skills to work missions such as cold cases or technically difficult scenes and national tragedies such as the Pentagon after the 9-11 attacks, the Space Shuttle Columbia and hurricane Katrina recovery efforts in Bay St. Louis, MS. As leading specialists in human remains detection, we also provide monthly open training opportunities as well as formal class instruction to other search & rescue teams and law enforcement K9 officers free of charge. We also provide educational programs to agencies and the public to promote a greater understanding of the capabilities of search dogs such as when to use them and why they are highly effective tools for locating missing persons.

The members are experienced handlers coming from the wilderness and FEMA search & rescue community who also specialize in working cadaver dogs. We train to high standards to ensure the best is given to those families who are missing their loved ones.

BARC is a 501c3 organization.

Canine SAR Background:

•Certified 4 canines in various specialties (live - wilderness & disaster, cadaver – land, building & water)

•FEMA Canine Search Specialist as a member of Maryland Task Force 1

•Approximately 300 searches since 1989 working with local, state, regional, and federal agencies to locate missing persons.

- •Including Operation Noble Eagle - Pentagon September 16-27, 2001 & Hurricane Katrina for Human Remains Recovery;
  FEMA deployments: LaPlata Maryland tornado 2002, and the Space Shuttle Columbia crew recovery efforts 2003
- •Specialize in training & utilizing cadaver dogs

Using properly trained cadaver/human remains detection dogs can speed the search effort by covering more area with less resources and with higher probability of detection at a low cost

•Respectable K9 teams only respond to authorized agencies such as law enforcement or fire departments – not at a family's request or self-deploy to a scene nor talk to the media unless agency requests team to do so

•Dogs are highly mobile, can work over most ground conditions, cover a lot of land quickly, in most types of weather*, are non-invasive, and can be highly effective at locating remains or clearing an area of remains

•Instead of 20 officers on their hands & knees looking for evidence, a dog can sweep the area in minutes. Nearly impossible to locate live disaster victims without using dogs.

•By using their noses, they can find remains or evidence not visible to humans. This is especially true for overgrown/junky areas or for buried or drownings.

•Dogs can differentiate between animal and human remains

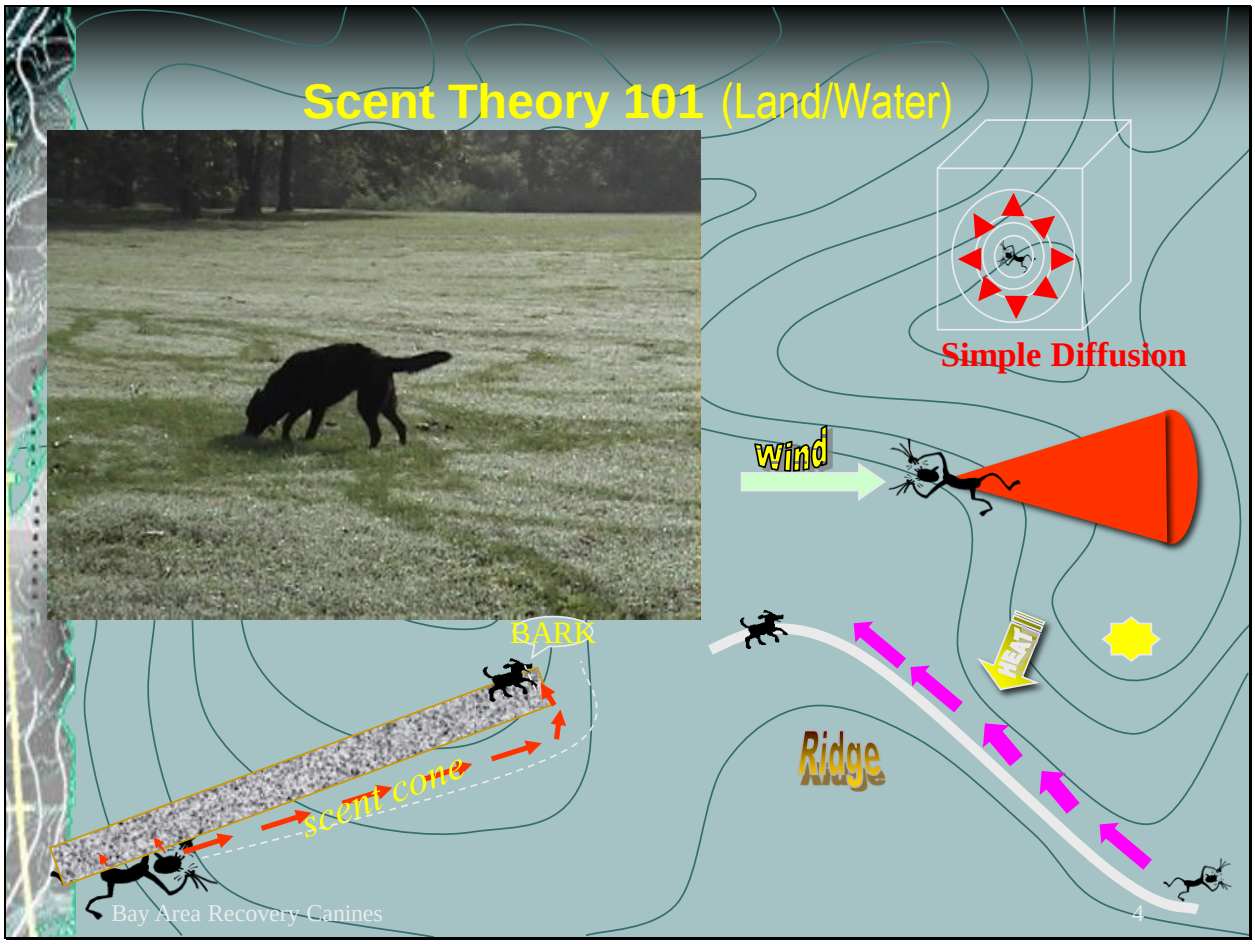
•Most often dogs clear areas suspected to have the missing person or evidence – even clearing areas is valuable information to the agency

•For buried, disarticulated remains, or for drownings the dogs may narrow the search area but not be able to pinpoint due to environmental factors

- •Rather than divers slowly search by hand a whole lake, they can concentrate on a small area the dogs have indicated contains scent
- •Using knowledge of scent theory as well as experience, the handler can recommend certain specific spots to check first

•Realize dogs are tools. No tool is perfect, each has its time & place, plus often one tool is used that compliments another, with the combined outcome being successful

•Be realistic; understand dogs have bad days or moments just like us



Scent Theory 101

Not yet known exactly what makes humans smell differently from animals nor exactly what the dogs are 'hitting on'. Weather greatly affects dogs ability to locate scent and pinpoint it's source. Morning and dew are ideal and in moderate temps. The worst is hot, humid, mid-day when scent evaporates quickly and dogs work the fringe scent in vegetation, in trees, and in any shade. Dogs also have a shorter work time period if hot.

Variety of factors influence probability of detection.

•Terrain/vegetation impact

- •Catching features: trees/brush/dips/depressions/shade/walls. Anywhere scent may pool up and can be stronger than actual source

•Water: currents, flow directions, eddies, strainers, dams/hydraulics, buoy lines in water bring the scent to the surface, thermoclines, surface winds, height of the boat the dog is searching from

Don't always get trained indications: slow down, intensely sniff, change in tail, collected gait, quick/snappy turns, snort, taste vegetation, go up trees, etc but often don't indicate. The odds of pinpointing/indications increase under more ideal scent conditions (morning, moderate temps, dew).

Dogs are exposed to different situations – dark buildings, unstable surfaces, helicopters, animal remains, food distractions, loud noises, smoke, etc. For Human scent, the are taught different indications to signal to the handler when they have located the target scent by either barking, laying down, sitting, or doing a refind. For FEMA, dogs are required to stay & bark when they located a live victim in the rubble. For Human Remains Detection you want a trained indication that preserves the scene such as a passive down. Notice the center picture of Alley laying down with the cadaver scent source between her feet. This way evidence is not destroyed or lost.

To be a SAR dog, you need a solidly trained dog. Solid on cadaver, and solidly proofed against hitting on extra scents (distractions, live scent, other dog's digs, fresh holes, animal dens, air exchange, etc) and used to close, detailed searching after other dogs have searched same area. Training the handler to read the dog is the hardest part of SAR.

Puppies are trained with lots of positive rewards by using treats, praise, and toys. They are exposed to as much as possible when young so they grow up confident in all situations. They need to learn where their back feet are and to use them independently. This is not natural for dogs and must be taught. Often on rubble the puppies are allowed to freely roam along side a more experienced adult dog.

For training cadaver, we often start with tossing a scented tennis ball. Then they progress to sources hidden under containers or in a scent wheel. During this stage they are taught the indication. Above is Raven being given a treat for laying down at a source under a flower pot. She was roughly 3 months old in that picture.

Once dogs learn where their back feet are and how to place them independently, they move on to tougher agility obstacles. They must go up and down ladders and unstable surfaces that are not comfortable such as wire fencing. The seesaw is how dogs learn to control an unstable surface. They learn to stop when it starts to slide and how their foot placement and weight can control the slide. They need to stay on the obstacle, riding it out, and not jumping off for their safety later on.

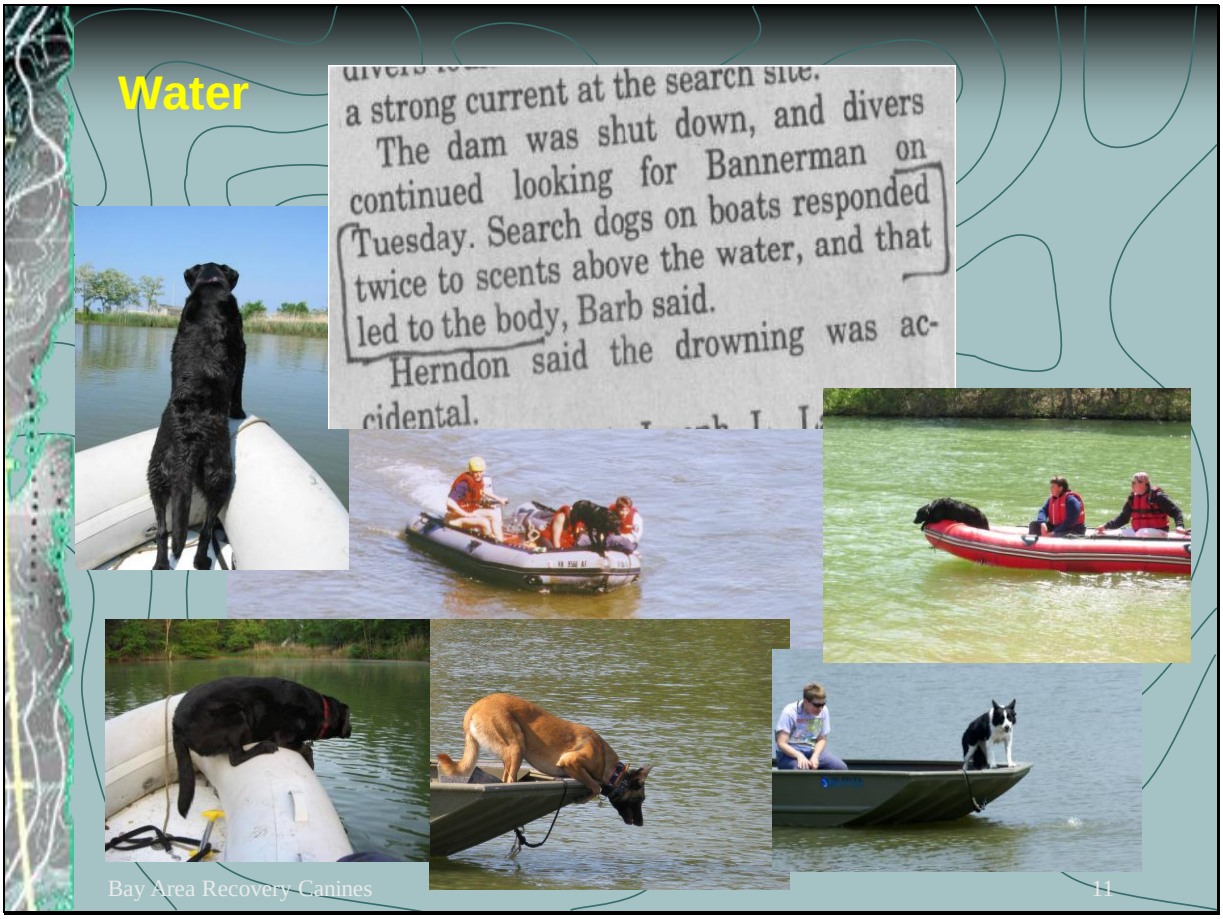
SAR dogs locate missing victims of homicides, suicides, or those missing due to accidents or health issues. Above are pictures from trainings as well as real missions. At times dogs search vehicles to find evidence of a missing person. Sometimes remains of an accident may wash up on shore and due to time and conditions dogs are called in to locate the rest of the remains. Often searches are speculative, such as an informant tells law enforcement they know where a body is buried. The dogs find or confirm the location before the agency digs to make the recovery – saving hundred of man hours. The top row are photo's from a real scene after Alley & Red indicated on a large mound in a field, authorities dug to uncover a young child buried 6 feet deep and covered with split bags of lime. Earlier on the search the dogs were used where forensic techs were beginning to uncover the child's ATV. They thought the girl might be buried with it. The dogs search showed the area was clear so efforts to locate the girl continued, resulting in the mound area being searched. We responded as a canine team with the National Center for Missing & Exploited Children (NCMEC).

Dogs are also being used to locate historical and pre-historical remains with archeologists.

Dogs are critical during disasters as they can cover large areas quickly and by using their noses, they can locate victims much faster than humans using their eyes. Rather than humans wasting time de-layering rubble to search, the dog can tell them where to start digging which raises the probability of survival of any trapped victim.

While humans were protective gear, dogs do not. They are given a quick decon in the field – plus a full decon back at base or at the end of each shift.

Note about Hazards:
People often think about SAR dogs needing booties in disasters but the opposite is true.
•Booties are actually extremely dangerous to a disaster dog
    •Can't feel something hot/cold or sharp. Can't use their natural black pads to grip (anti-slip properties). Can't spread out toes to get a better grip or wrap around obstacle.
•Rather risk a cut then a broken bone or death. Only use a single bootie after a cut to keep a wound clean
•Dogs are trained in disaster environments. Through agility they learn to place each paw separately and to adjust a single foot when necessary. Training sites contain nails, glass, other sharp objects.
•It is the chemicals that are worrisome to handlers as the dogs may absorb while searching toxins, or lick their feet/coats ingesting harmful agents
•Think about all the hazards any household contains – gas, oils, cleaners, medicines, antifreeze (deadly to animals), etc
•Also worry about dangers not visible to the eye such as manhole covers off in a flooded street so a dog could fall down (or rescuer), or debris over pools that a dog could fall through then get trapped underneath. This applies to water searching as well as logs can float above which the dog would see as a solid surface but fall between or step onto a strainer and fall upstream getting stuck in the trap.



What affects scent: current, tides, time of day, surface winds, channels, thermoclines, eddies, strainers, hydraulics, dams, feeder streams, sunshine/shade, deep pools/water depth, time since drowning, & water temperature

•Hydraulics, dams, buoy lines all can push scent to the surface far from the actual source

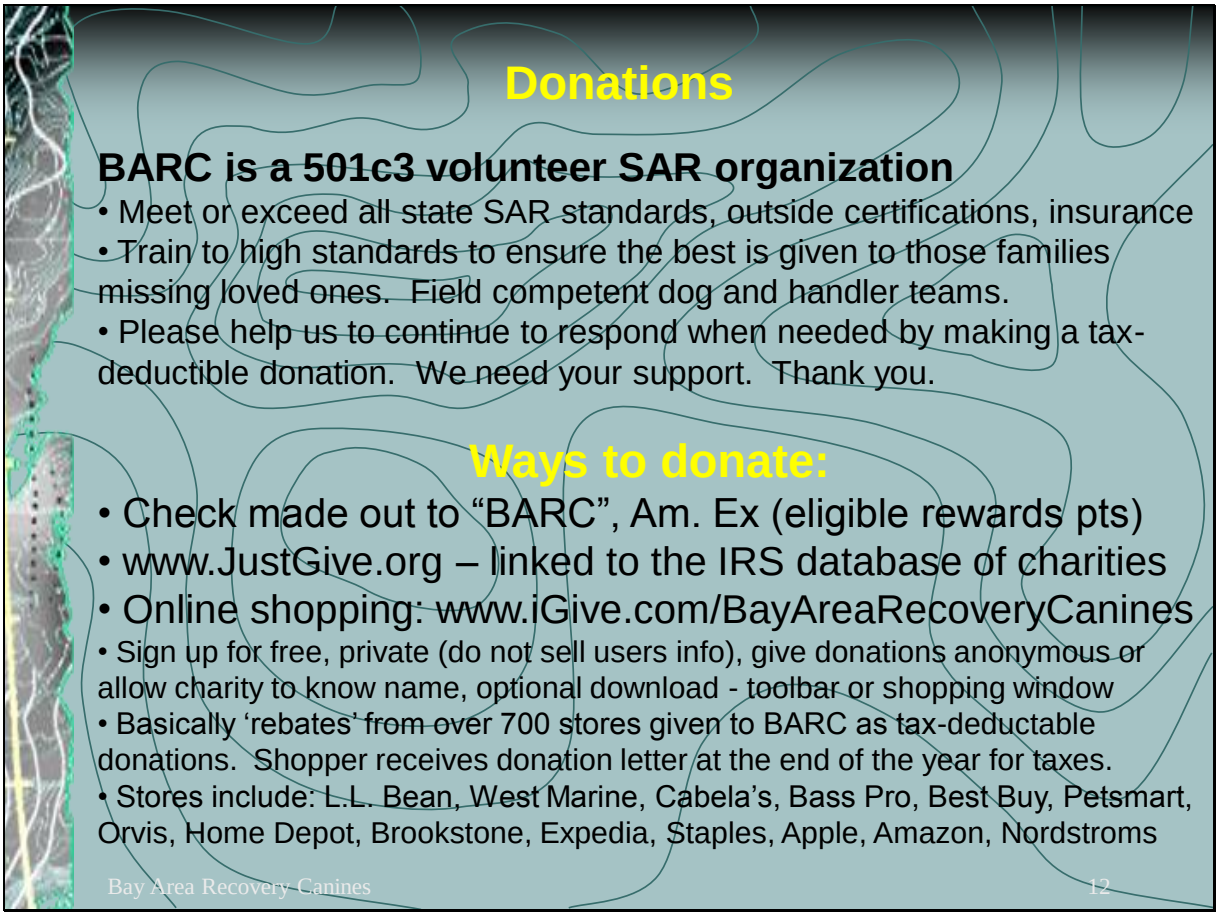
•Hazards: current, debris, undercut rocks, strainers, dams, water temperature, etc

Since the dog can not work freely, the boat must make the search pattern putting the dog in the optimal location for success (cross perpendicular to the wind).

•Often a dog will paw at the side of the boat trying to get it to move in the desired direction.

•Hardest for dogs to stay focused on searching as often they need to have their feet moving to stay on task.

•Once the dog indicates, divers are sent to make the recovery.



All training and responses are done at the expense of the handlers. Handlers dedicate approximately 20 hours or more a week to training themselves and their canines for SAR and often use their vacation time off work for SAR activities. Most gear and equipment is privately owned by the handlers. They use their personal vehicles to travel to trainings, seminars, demos, and search missions - most are more than two hours away. The biggest personal expense is the care of their canines.

To help defer costs in support of our mission, donated funds are used for team equipment & supplies such as radios, GPS units, boat equipment, as well help to defray costs associated with outside seminars and certification tests.

Please help us to continue to respond when needed by donating today. We need your support. Thank you!

Ways to donate:
Check made out to "BARC"
American Express (eligible rewards pts)
www.JustGive.org – linked to the IRS database of charities
Online shopping: www.iGive.com/BayAreaRecoveryCanines