Mounted SAR: Equine Clue Detection

by Jorene Downs

Photo: Jorene Downs, CEOates Ranch

Even very young equine are alert to possible threats in their vicinity

Some consider the horse or mule in Mounted SAR (Search and Rescue) to simply be a method of a non-motorized transportation for a mounted searcher, but that mount has strong potential to be an active search partner. Management should be aware of the existing potential and encourage stronger partnering, and riders can enhance their search capabilities with better awareness or additional training. One key area where the mount contributes very advantageously is in natural clue detection.

The equine is a prey animal, with all the related survival instincts that usually trigger flight before fight response. The horse (or mule) is also a herd animal and commonly prefers being with known and trusted companions. In general, this combination translates to the equine being very aware of his surroundings and continually monitoring for possible threats, known companions, and noting likely sources for food or water. Sight, hearing and scent are natural equine detection tools that can provide valuable input to the rider on every search. However, the rider needs to be actively aware of that equine input and perform follow-up as needed.

Equine Detection Tools

The eyes of a prey animal tend to be located more to the side of the head for a broader field of vision, unlike the human predator's view that is directed more forward. The equine has binocular vision, and while there is a small blind area below the nose and directly to the rear, a minor adjustment of the head provides almost a complete circle of view. The horse's vision is 20/30, but with acute ability to detect movement within the vast field of view. The horse's eye is also better designed for low light than the human eye, providing better night vision. Vision is the primary equine danger detector, and the horse has greatly increased potential to see something that the rider does not.

Horses have a well-developed sense of hearing that is notably better than the human's, and their range includes higher frequencies. Ears turn on the horse's head up to 180 degrees to focus directionally for better hearing, and can swivel independently. As a prey animal, the equine ears are constantly monitoring for possible threats from all directions. The mount has good potential to hear something the rider doesn't, such as a voice calling in the distance or movement rustling the bushes.

Equine routinely use scent discrimination to help identify friend and threat, food sources, etc. Olfactory sensor capabilities greatly exceed the human's, and are comparable to a dog's. In the herd environment it isn't unusual to see a horse sniff to pick up a scent and follow it to rejoin the herd, locate a wandering foal, seek out a herd buddy, etc. With training, the equine will actually follow a scent searching for a missing person, human remains, etc. (see www.airscentinghorse.com) But even without specific training the natural equine nose is a valuable search resource when the wind is favorable.

Equine with no particular training have been reported noting a nearby cadaver or showing behavior indicating the location of a person not yet seen by the rider. In an environment like a parade equine will often obviously focus on recognized people or herd buddies within the crowd, which confirms the potential for the mount to discriminate during a search even in a more crowded environment. The equine's natural sight, hearing and scent ability is better suited for detection than the rider's, making that mount a valuable search partner. However, without specific training the natural equine "alert" may apply to numerous things not related to the SAR.

Natural "Alerts"

The equine uses various ways to indicate when something attracts his interest. For example, the mount's stride may vary while distracted or startled, changing the rhythm of movement with a longer or shorter step, or there may be a hesitation or abruptness in the stride. Ears alert and forward, and nostrils slightly flared, may indicate someone – or something – in the direction where the horse is looking. The head and ears may turn to better see, hear, or smell something to the side or rear. The nose may reach out with flared nostrils to try and pick up a scent better, sometimes with the neck notably extending, to check a scent in the air or on the ground.

Some mounts may make an audible sound when something attracts their attention, such as a soft snorting sound. The startled mount may react with a more flight-related behavior such as sudden movement, or may spin to face and make full use of available senses to evaluate the possible threat. The equine may also sniff and paw to investigate an unusual scent or object, and depending on the situation the equine search partner may have located something buried under a shallow surface.

These are some of the more obvious natural equine signals indicating "something" has caught that animal's attention. The rider should consider these as possible "alerts" which may be very blatant, or may be very subtle. Some experienced riders report their normally calm mount has potential to display startled behavior to some degree if they detect a human in an unexpected location. But what one mount may react to may be relatively ignored by another, which is why knowing that particular mount well or adding training more specific to clue detection is advantageous.

Desensitizing the search mount to more controlled response to stimuli is important for safety. This is very equine-specific, and another may disregard what one mount considers a threat. However, intense desensitization training will reduce the mount's natural response to detection of possible threats. With a more sensitive mount the need for better rider skills can be a safety issue, assuming that mount is considered safe for Mounted SAR use. So the degree of desensitization training for each equine should be balanced with the advantages of the search mount's potential as a natural clue detector.

The Equine Search Partner

What comes natural to the equine as a prey animal is also a form of clue detection during a search … if the rider is paying attention to the mount. The mounted searcher should be very familiar with that equine search partner's methods to communicate. Each mount is a bit different, and the rider needs to be in harmony with that particular mount, not just a passenger. Most of the "alerts" from the equine not trained for detection may be completely unrelated to the search, and the rider will need to filter what is casual information from the mount, and what may be pertinent to the search. The alert searcher will value the clue detection input from the mount, and investigate behavior that suggests it may be related to the search. The curious mount, given loose rein and encouragement, may go investigate.

The natural equine detection tools may be noting a nearby predator or nothing more than a bird moving in the bushes. Traveling in a group of mounted searchers, the horse may simply be checking on the others. However, where the mount at least temporarily focuses attention may also be a valuable search clue. The equine may be noting an item dropped by the missing person, the scent of a human lingering on the trail, a possible witness to interview, the dog that traveled with the overdue hiker, human remains, etc., or the live missing person.

A revealing training exercise is to have some volunteers with video cameras hide off trail where they are not likely to be seen by a rider. Perhaps also put some other "dropped by the human" articles on or near the trail. Then send individual mounted searchers down that trail with instructions to look for clues and log what is found where. Use the video cameras to record how often a searcher's horse actually acknowledges a hidden person's presence during the approach or after passing. This exercise also helps the rider better understand that mount's signals specific to detecting human scent on the trail.

The potential exists for the equine clue detection natural abilities to be far better utilized as a search partner tool. A good partnership of mounted searcher and mount can greatly increase the clue detection potential, even as a partner untrained for SAR. With repetition and encouragement, basic training also encourages the search mount to focus on looking for the human and human scent, much like the horses routinely used by cowboys to gather cattle learn to actively look for cattle. Or, riders may choose to specifically train their mount in air scenting.

The natural ability for clue detection exists in the equine. Riders who choose to add clue detection training have an even more valuable asset as a SAR partner because the equine "alerts" are far more reliable.

References: *How Horses See* by Evelyn B. Hanggi, M.S., Ph.D. http://www.completerider.com/horsemanfeb2003.html ; *Ultimate Horse Care*, Chapter 7, by Francis Burton, 1999, ISBN 1860541860. http://www.gla.ac.uk/external/EBF/uhcc7.html

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