Some Animals Uniquely Suited To Perform Specific Tasks For Man

WASHINGTON About 30 military installations in West Germany belonging to the 32nd U.S. Army Air Defense Command are being guarded these days by 900 geese that will honk, hiss, and flap their wings if they hear unfamiliar noises.

Whoever thought that America's first line of defense against terrorism would involve fowl play?

Actually, the geese are following in a noble tradition. Throughout the centuries, a variety of animals have been used in a variety of ways to benefit mankind other than by providing the basics of food, clothing, and companionship. Among the predecessors of the 32nd's watchgeese, in fact, is a goose patrol that has been guarding a Scottish distillery since 1959.

Dumb Animals?

The ways in which animals aid humans fall broadly into two categories. In one category, animals are taught to do something specific; in the other, animals simply do what comes naturally. In either case, it isn't that animals are particularly smart or generous, the experts

"Animals have no special intelligence," says Edward Price, an animal-science professor at the University of California, Davis, flying in the face of popular wisdom. "Some animals just happen to be uniquely suited to special tasks."

Price cites dogs trained to sniff out all kinds of objects, from drugs to guns to termites; and pigeons, whose eyesight is so acute that they have been used by many nations in peace and war.

Marian Bailey, now the president of Animal Behavior Enterprises in Hot Springs, Ark., had a contract during the Vietnam war to train pigeons to search out camouflaged enemy soldiers.

"We tested the idea with the Special Forces at Fort Bragg, N.C.," Dr. Bailey says. "The pigeons were trained to fly in front of a convoy of troops. If they found a camouflaged soldier, they would land near him, and a radio signal would be sent back to the convoy. The pigeons were fine, but the system was never actually used; there was a problem with the transmitter.

Dr. Bailey, an animal psychologist, first got involved in the use of animals in warfare with pigeons. While studying at the University of Minnesota, she worked with famed psychologist B.F. Skinner in training pigeons to pinpoint bombing sites. That project, too, was pigeonholed, so to speak, but for Dr. Bailey the experience was valuable.

"We realized how good the theory was: you could train all sorts of animals to do things that animals had not been previously trained to do," she says.

Responding To Signals

The theory she refers to is Skinner's concept of using operant conditioning techniques to bring about behavior modification. In plain English, that means training an animal to do what you want it to do in response to a signal.

Using these techniques, Bailey and others have trained pigeons and herring gulls to search for sailors lost at sea; put other pigeons to work inspecting drug capsules for defects; enlisted a Navy sea lion to retrieve objects stranded on the ocean floor; used a chimpanzee as a nurse/receptionist at a veterinary clinic in Japan; and drafted gerbils for drug-detection duty at Canadian airports. Public ridicule scrapped the gerbil idea before it went into operation.

There was a spate of mysterious



Sidney, an eager beagle, makes himself useful to Bob O'Malley, a termite inspector in Flushing, N.Y. Sidney pinpoints the exact site of termite infestation by leaving scratch marks where he sniffs the critters out. His valuable nose was trained by a Belmont. Calif., company and was leased, along with the rest of Sidney, by the Flushing firm. He can find termites in walls and floors whether their presence is known or merely suspected.

reports during the Vietnam War about porpoises used to guard against underwater attacks by Viet Cong frogmen in Cam Ranh Bay. The porpoises supposedly had switchblade knives attached to their snouts, and reportedly killed several wet and wildly surprised guerrillas.

But there are those - Marian Bailey, for one — who suspect that such reports were part of an American disinformation campaign designed to discourage enemy attacks.

In the second category of

their instincts — exhibit A is the sudden trendiness of the llama, a beast of burden whose innate qualities are making it increasingly popular as a pack animal among workers and out-doorsmen in the mountains of the American West.

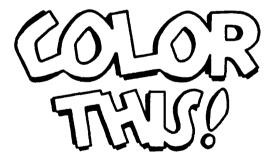
"They're versatile animals," says James Hook, manager of Great Divide Llamas of Loveland. Colo. "They have sure footing, they're agile, they can carry 80 to 100 pounds of gear, they're real intelligent, and they have a sweet disposition. You also get urbanites

horse or a mule, but a llama only weighs about 300 pounds.

"They don't disturb the vegetation much, because they have soft feet, and they have a low impact on pastures because they spread their grazing out. And there are wool and meat as end products.'

Experience Not Necessary

The llama doesn't have to be trained much; it just has to do a lot of what a llama would do anyway. In this way, it is like the military watchgeese, the de-scented skunk



- BLACK 6. PEACH DK. GREY GREEN LT.BROWN LT. GREY 9. LT. BLUE 5. BROWN 10. LT. GREEN
- **THE WOODCHUCK** 16 A LARGE RODENT. IT LOOKS MUCH LIKE A BEAVER WITH A BUSHY TAIL. IT BELONGS TO THE GROUND SQUIRREL FAMILY.MANY OF THESE ANIMALS LIVE IN OLD ROCK QUARRIES OR IN PLACES WHERETHERE ARE CREVICES IN ROCKS. WHEN OANGER THREATENS. THEY DIVE FOR THE ROCKS

