JUNE 2014

NATIONAL GEOGRAPHIC

HERO DOGS

A SOLDIER'S BEST FRIEND

Layka saved lives of U.S. troops in Afghanistan after she was shot and gravely wounded.

THE DOGS OF WAR

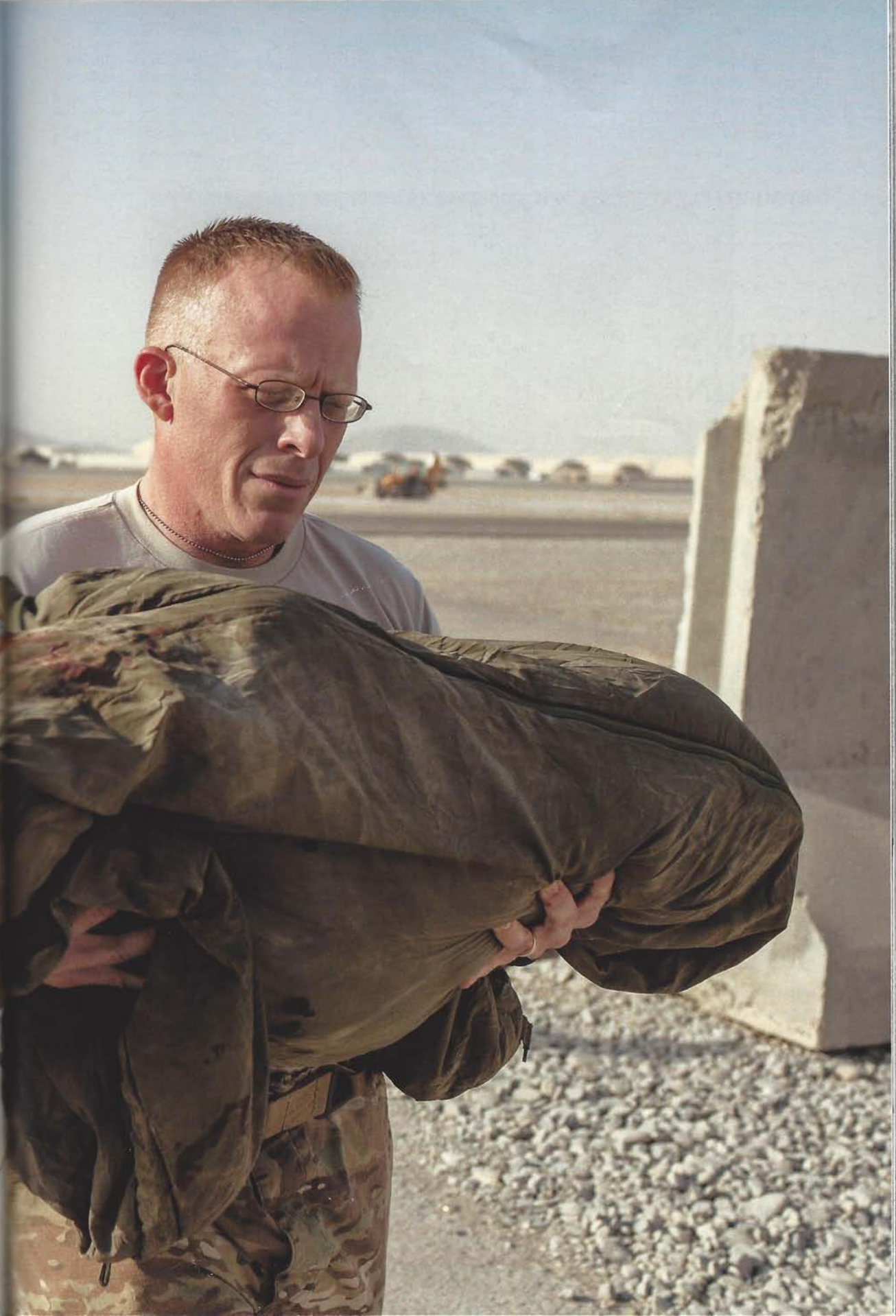
OUT IN FRONT OF AMERICA'S TROOPS, COMBAT CANINES AND THEIR HANDLERS LEAD THE WAY ONTO THE MOST DANGEROUS BATTLEFIELDS ON EARTH.

Marine Cpl. John Dolezal poses with Cchaz, a Belgian Malinois, at Twentynine Palms in California. Dogs bred at Lackland Air Force Base in Texas, the military's primary canine facility, are given names that begin with a double letter.

Army Staff Sgt. Terry Young and his German shepherd, Wero, search for explosives at a checkpoint in Kandahar, Afghanistan. More than 500 U.S. military working dogs are deployed worldwide at any given time.


MP

Staff Sgt. Thomas Sager carries the body of Dinomt, a dog killed by an IED while on patrol in Kandahar. His death spared the lives of nearby soldiers. "It's like losing a teammate," says veterinarian Maj. Bryan Hux (at left).



BY MICHAEL PATERNITI PHOTOGRAPHS BY ADAM FERGUSON

HERE IS MARINE CORPORAL JOSE ARMENTA

in his tent on the night before getting blown up in Afghanistan. He jokes with Mulrooney and Berry and the medic the guys have nicknamed "Christ." He feeds and waters his dog, Zenit, a sable-coat German shepherd. He lets Buyes, who will be dead in three months, ruffle Zenit's fur, for the radioman is crazy about the dog.

Then he takes Zenit outside in the waning light of this dusty, desert otherworld to train.

They're happiest like this. Jose has Zenit sit, which the dog does obediently, and then Jose jogs 50 yards down and hides a rubber toy, a Kong, up against a mud wall, covering it with dirt. On Jose's command, Zenit bursts forward, zigging in search of it, tail wagging. It's an intricate dance. Voice commands met by precise canine action, always with the same end goal in mind—to find the toy. Tomorrow, on patrol, the objective will be finding not a toy but an improvised explosive device, or IED, one of the Taliban's most brutally effective weapons against American troops here in what many consider the most dangerous province in one of the world's most dangerous countries. And no dog can find every bomb every time.

For the past three months Jose's been stationed at Patrol Base Alcatraz, at the edge of a town called Sangin in Helmand Province, without a "find." Despite his optimism—the man always beams a disarming smile—the lack of finds is beginning to wear on him almost as much as the 100-degree heat, which feels even hotter rucking 75 pounds of gear.

As a Marine dog handler, Jose is a perpetual outsider, assigned to platoons that have been together for years, tight-knit combat brotherhoods that regard newcomers, especially dog handlers, with a high degree of circumspection. His job is to accompany that platoon, to clear a path through hostile territory for his fellow marines. But as thankful as they may be, Jose

American GIs treat a combat dog wounded in the battle for Guam during World War II.

knows it's natural for them to wonder: Is this guy any good? Will he fit in? How will he respond in that first firefight?

At this moment in August of 2011 the stated mission in Sangin is to secure the 320-foot-high Kajaki Dam, to keep the Taliban from blowing it up and flooding the Helmand Valley. The marines of Third Recon, in groups of a dozen or so, take turns disrupting the enemy, mapping active pockets of Taliban fighters. Jose and Zenit are asked to accompany practically every mission. Each time he and Zenit go out beyond the wire, they're walking point along with a marine carrying a metal detector, making themselves the first targets as Zenit scours the area for any whiff of nitrate that might signal a buried IED. As exhausting as it is, Jose always says yes.

Maybe there's a little chip on Jose's shoulder, or maybe he feels there's a lot to prove—to himself, to the marines of Third Recon, and to his family back home. Maybe he's just doing his job, or maybe he needs just one find to allay whatever doubts he harbors about his—and Zenit's—ability to do the job. In this place especially, the threat is palpable. Sangin is littered with IEDs and teeming with enemy fighters tucked behind thick mud walls. It's where British forces, before pulling out of Sangin altogether in 2010, lost more than a hundred troops. It's been a graveyard since for many Americans, and a place where numerous U.S. troops have received disfiguring injuries.

This is what a dog handler tries not to dwell on: the risk associated with the need to find bombs and with the possibility of missing one.

Handlers in training at Lackland Air Force Base in San Antonio must learn basic leash skills and hand signals before they start working with a dog. Until then a used ammunition can stands in for the canine.

Trainers at K2 Solutions, a private contractor in North Carolina, train Bassie to work with military and law enforcement units. She practices rappelling from a roof and leaping through a window to confront an enemy, reducing the risk to the men who follow.

On base you sometimes hear them go off in the distance, set off by a goat, an unsuspecting villager. Sometimes frantic locals will rush a bleeding kid up to Alcatraz for medical help. And the recent news about two fellow dog handlers, Jeremy and Jasco, in his deployment, has been bad. Both were blown up and lost their legs. Jose is clear about this: He'd rather die than lose a limb or some vital body part. He'd rather get waxed than be half a person. What you do to take your mind off the fear is just what Jose does now, as he has done for the past two years: You train your dog, do your job, leave the rest to fate.

The next morning, August 28, Third Recon knows that the Taliban have been busy. Alcatraz sits on a rise out in the cornfields, not far from a wadi, and intel has it that IEDs have been planted everywhere. "We knew someone was going to get hit on that mission," Sgt. Ryan Mulrooney will say later. "Every day something was getting blown up. We knew going in there that it was a pretty risky movement."

So for the first time since deploying to Afghanistan, Jose puts on his "blast briefs," underwear made of Kevlar material to limit genital injuries, and he mounts his helmet cam hoping to document his first find. Then he puts an IV in Zenit to keep him hydrated in the heat.

The team moves out at 10 a.m. in ranger file, and Jose guesses it's already 120 degrees. The marines work down the hill slowly, and when they hit the 611 highway, Jose feels a surge of adrenaline. His mouth goes cottony as he commands Zenit, orchestrating the dog's every movement. The team veers through the corn to avoid the road, until they hit the wadi that runs parallel to the highway, eight feet deep and ten feet wide, empty of water.

Jose guides Zenit from bank to bank. Mulrooney, working the metal detector, calls out, "I think I got one here." Jose approaches, looks at the humped, loose dirt with a wire showing, fixes Mulrooney with a smile, and says, "Yup."

Michael Paterniti wrote about Hong Kong in the June 2012 issue. This is photographer Adam Ferguson's first assignment for the magazine.

Marine Gunnery Sgt. Kristopher Knight conditions Ronnie to the sound of gunfire at Yuma Proving Ground in Arizona, so that the dog will learn to remain calm during a firefight. Some trainers don turbans, play calls to prayer, and bring in farm animals to prepare dogs for the sights, sounds, and smells of Afghanistan.

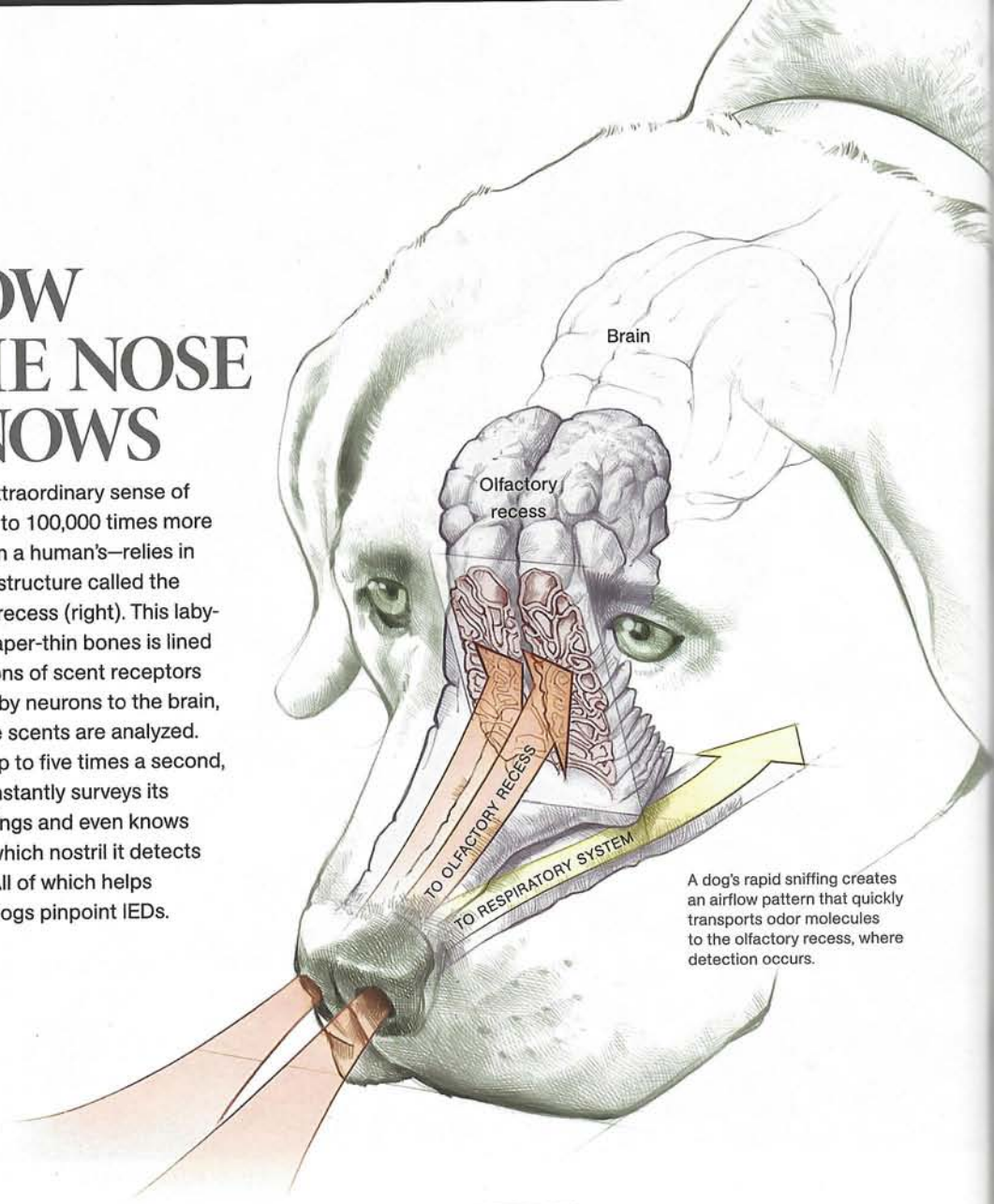
The team leader is notified. Jose moves on, spies another device, and calls it out. Sensing a pattern, he sends Zenit to the far side of the wadi, where the dog freezes, tail wagging, nose suddenly working overtime. The change in behavior marks the spot. After nearly a hundred days out here, it's their first IED as a team.

In his mind Jose throws an invisible high five and lets out a silent whoop. Trainers say, "Emotion runs through the leash." Jose knows he needs to remain calm, to keep Zenit focused, but how can he not be excited? The team leader is notified again. Jose and Zenit continue down the wadi in the deathly heat. The sun blisters down on the men in formation slow-walking in each other's footsteps, using shaving cream to mark safe spots. Just like that, three in a row. The riverbed is full of explosives—but where's the next? With that question, Jose's elation gives under the weight of duty. He and Zenit are the ones responsible for finding out.

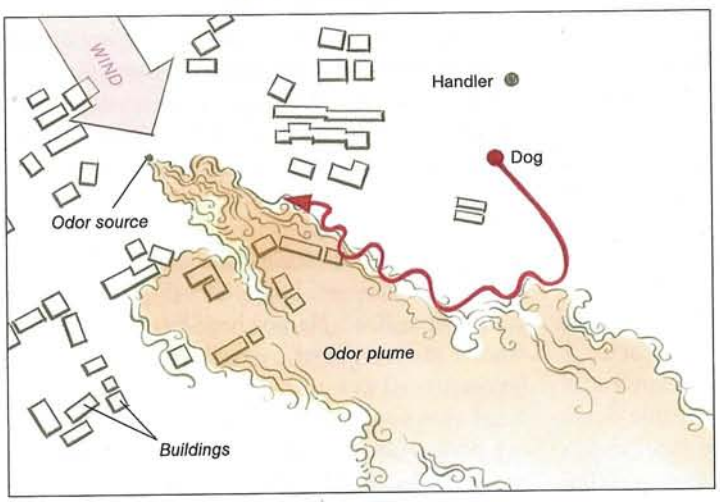
ZENIT—A 78-POUND German shepherd with an irrepressible love for ball retrieval—was born on Halloween, 2007. He was bred by a private contractor in Europe, who gave him his odd name (pronounced ZEE-nit), the meaning of which, if there was a meaning, Jose never learned. Having passed a battery of medical tests, Zenit was procured by the U.S. military just after his first

HOW THE NOSE KNOWS

A dog's extraordinary sense of smell—up to 100,000 times more acute than a human's—relies in part on a structure called the olfactory recess (right). This labyrinth of paper-thin bones is lined with millions of scent receptors attached by neurons to the brain, where the scents are analyzed. Sniffing up to five times a second, a dog constantly surveys its surroundings and even knows through which nostril it detects a scent. All of which helps combat dogs pinpoint IEDs.



A dog's rapid sniffing creates an airflow pattern that quickly transports odor molecules to the olfactory recess, where detection occurs.



Mission: Find IEDs
Various chemicals are used to make IEDs. Training exercises developed by the U.S. Office of Naval Research teach dogs to follow IED odor plumes to a source hidden by buildings (left). The dogs work off leash, so their military handlers learn to direct them to hunt upwind. On field patrol a dog zigzagging to investigate odors may cover up to three miles for every mile its handler walks.

JASON TREAT, NGM STAFF. ART: BRUCE MORSER
SOURCES: OFFICE OF NAVAL RESEARCH, NAVAL RESEARCH LABORATORY; K2 SOLUTIONS; BRENT A. CRAVEN, PENNSYLVANIA STATE UNIVERSITY

birthday and shipped to the kennel at Lackland Air Force Base in San Antonio. There working dogs are initially trained by the 341st Training Squadron in "drive building, grip development, and environmental and social stability," according to the Department of Defense. Days are regimented, the dogs released only at allotted hours for food and water, exercise, and training. It's during these training sessions that the marines evaluate what role a dog is best suited for: patrol, detection, or tracking. Though the military resists discussing individual dogs, records indicate that Zenit spent 13 months in the Lackland kennels. Because dogs have short attention spans, his lessons would have lasted up to an hour or two each day, with some as short as three to five minutes at a time. At the course's end Zenit was certified for explosives detection and patrol.

Yet when the two-year-old Zenit was finally paired with Jose on Okinawa, Japan, in 2010, the dog was still very much raw material. Having been passed over for deployment with his previous dog, Jose felt extra pressure to succeed with Zenit.

Not all military dogs are suited to combat. Some wither in the heat or become too excited by the sounds of gunfire or explosions, even after they've been desensitized to them in training. Some are too loyal, too lazy, or too playful. Each dog is its own particular, sometimes peculiar, universe. Still, certain breeds generally do better than others on the battlefield, such as German shepherds, Labrador retrievers, and especially the Belgian Malinois, which is known for being fearless, driven, and able to handle the heat.

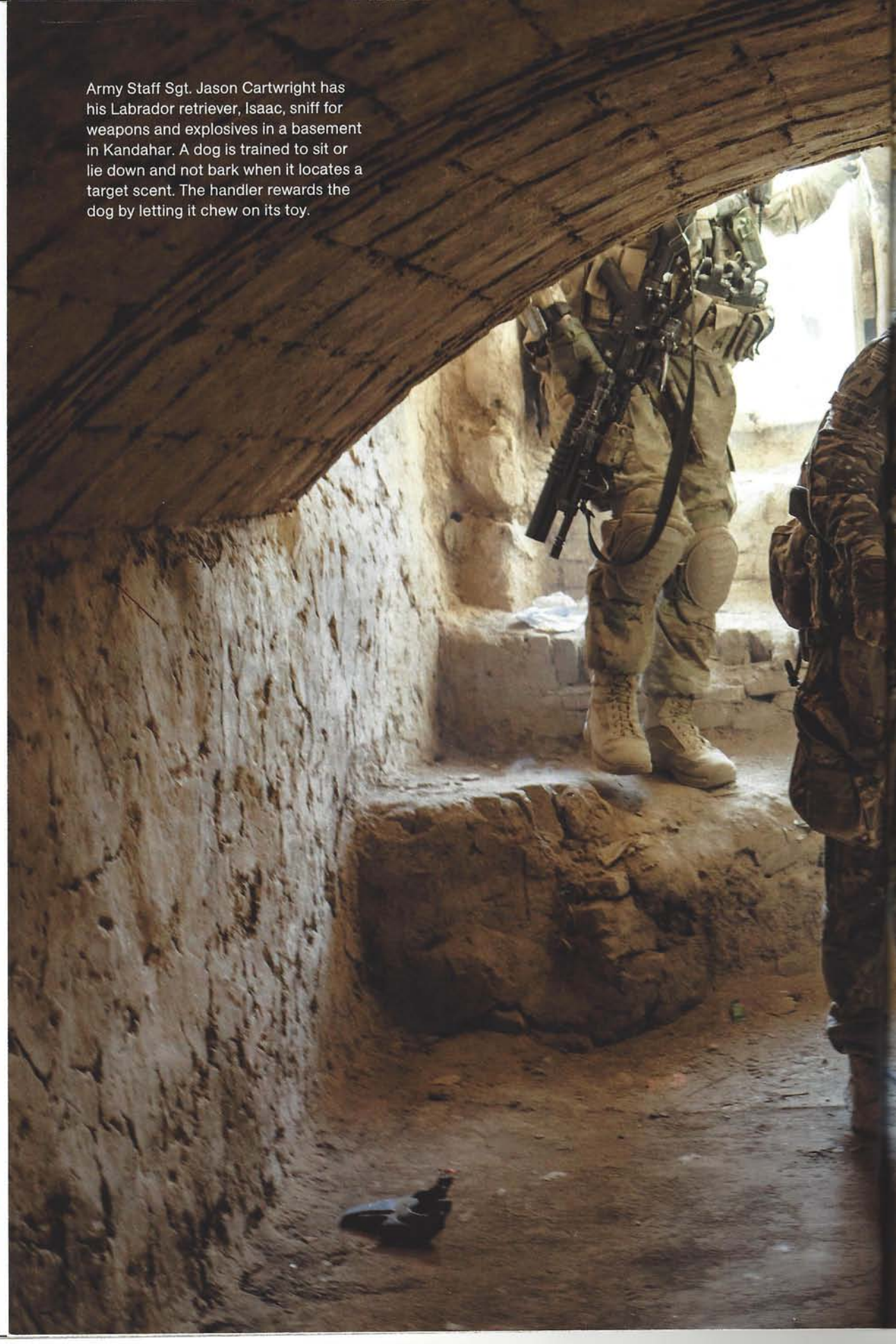
But what works in a given environment may not work in another. History suggests that each battle situation calls for its own breed and tactics. Benjamin Franklin encouraged the use of dogs against the Indians. They "will confound the enemy a good deal," he wrote, "and be very serviceable. This was the Spanish method of guarding their marches." (Spanish conquistadores were said to have used bullmastiffs against Native Americans.)

During the Second Seminole War, starting in 1835, the U.S. military used Cuban-bred bloodhounds to track Indians in the swamps of Florida. Dogs were said to have guarded soldiers in the Civil War. During World War I both sides used tens of thousands of dogs as messengers. In World War II the U.S. Marines deployed dogs on Pacific islands to sniff out Japanese positions. In Vietnam an estimated 4,000 canines were used to lead jungle patrols, saving numerous lives. (Nevertheless, the military decided to leave many behind when the U.S. pulled out.)

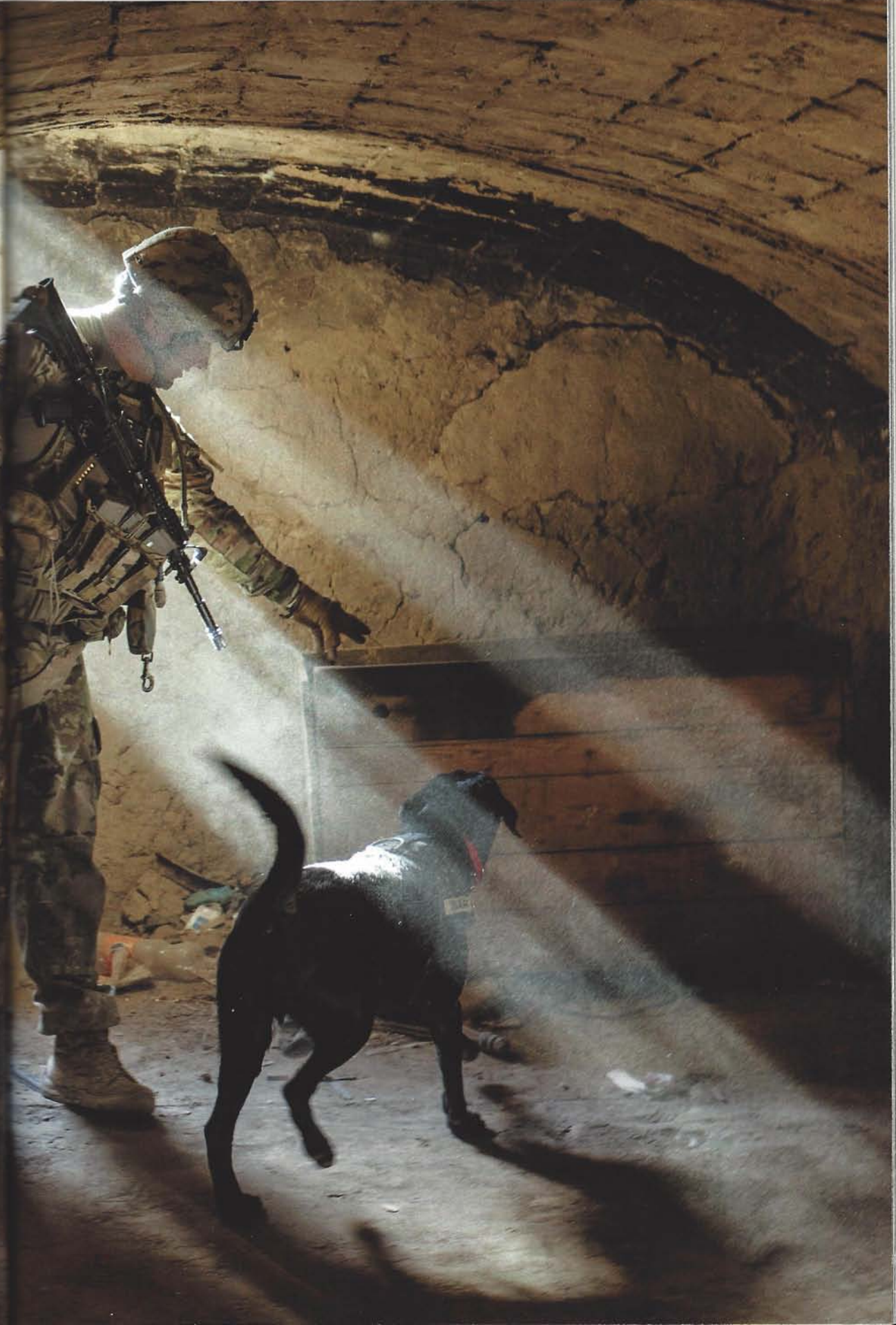
At the height of the wars in Afghanistan and Iraq, the U.S. military had a force of roughly 2,500 military working dogs (MWDs). Some have entered our national lexicon as heroes in their own right: Cairo, a Belgian Malinois hailed for his work with the Navy SEAL team that killed Osama bin Laden. And Rex, a shepherd; his handler, Mike Dowling, wrote a book about their harrowing exploits in Iraq, saying, "It was Rex who gave me the strength to get up and to carry on."

This age-old bond between man and dog is the essence of our fascination with these teams: The human reliance on superior animal senses—dogs are up to 100,000 times more alert to smells than humans are. The seriousness of the serviceman's endeavor, in contrast to the dog's heedless joy at being on the hunt or at play. The selflessness and loyalty of handler and dog in putting themselves in harm's way—one wittingly and one unwittingly—to save lives.

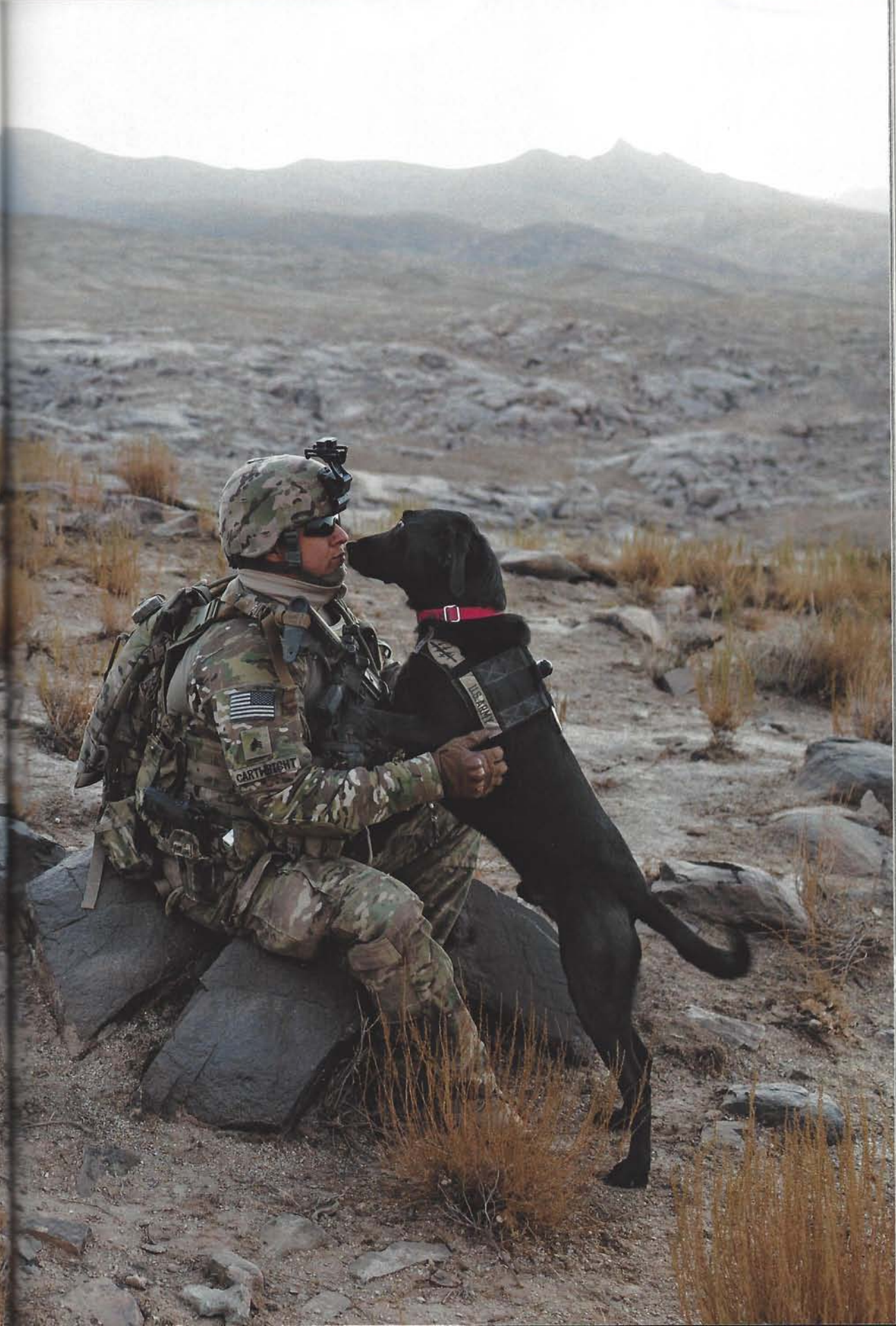
The image of dog and marine living as Lassie and Timmy, however, is not entirely accurate. In general, the military bureaucracy regards a working dog as a piece of equipment, something Jose understood the first time he saw Zenit's ID—N103—tattooed in his ear. After their training sessions in Okinawa, Jose always returned Zenit to his kennel according to protocol, and he knew it was vital that he establish himself as the alpha in tone and action. "Dogs are like toddlers," says Marine Gunnery Sgt. Kristopher Knight, who trained Jose and Zenit at Yuma Proving Ground in Arizona. "They need to be told what to do. They need to know that their primary drives—oxygen, food, water—are taken care of. Two betas will never get it right. One



Army Staff Sgt. Jason Cartwright has his Labrador retriever, Isaac, sniff for weapons and explosives in a basement in Kandahar. A dog is trained to sit or lie down and not bark when it locates a target scent. The handler rewards the dog by letting it chew on its toy.



Sergeant Cartwright bonds with Isaac during a mission to disrupt a Taliban supply route. Dogs are very sensitive to their handlers' emotions. Says Jay Crafter, a trainer for the military, "If you're having a bad day, your dog is going to have a bad day."


CARTWRIGHT
U.S. ARMY

must be the alpha, and it must be the handler."

The truth was, until Afghanistan and that August day in 2011, Jose would have repeated the party line. If Zenit stepped on an IED and was killed, Jose was pretty sure he wouldn't have shed a tear. Theirs was a strictly professional relationship and needed to remain that way. If Zenit got blown up, Jose would start all over again with another dog.

JOSE ARMENTA GREW UP TOUGH, simply because nothing came easy. His family lived in East Los Angeles, where his parents were affiliated with gangs and split up when Jose was young. His mother, who was of Puerto Rican heritage, cared for the children as best she could; his father, of Mexican origin, came and went. One of Jose's earliest memories is of the car accident that spared him and killed his little sister. He was five; she, four. The rent was often overdue, and sometimes his family simply jumped to another house, another school—15 in all. He was always the new kid, the outsider. In high school he lived in his garage, cranking heavy metal. He played drums in a band. He wore his hair in a Mohawk and pierced his nose.

But even the extremes of Jose's rebellion were relatively tame: ditching class, drinking beer, smoking cigarettes, playing video games. Living in a violent world of real and wannabe gangsters,

Air Force Staff Sgt. Jonathan Bourgeois clips Oopey's toenails before a mission in Afghanistan. Handlers care for their dogs' every need, learning canine CPR as well as how to spot canine post-traumatic stress disorder, which afflicts some 5 percent of deployed dogs.

of random shootings, of drug dealing, he wanted to escape. What he wanted most was the opposite of that world: He wanted to be a marine.

In July 2007, at 18, he enlisted and found himself at Camp Pendleton. Having grown up rootless and without religion, he immediately fell in love with the military's sense of tradition and ritual. He was nicknamed "Socks," for his civilian uniform of baggy shorts and tube socks pulled up to the knee. Upon graduating from boot camp, he signed up for military police training and was eventually assigned to the U.S. base on Okinawa. As a class standout, he was also offered the chance to go to Lackland to begin training as a dog handler.

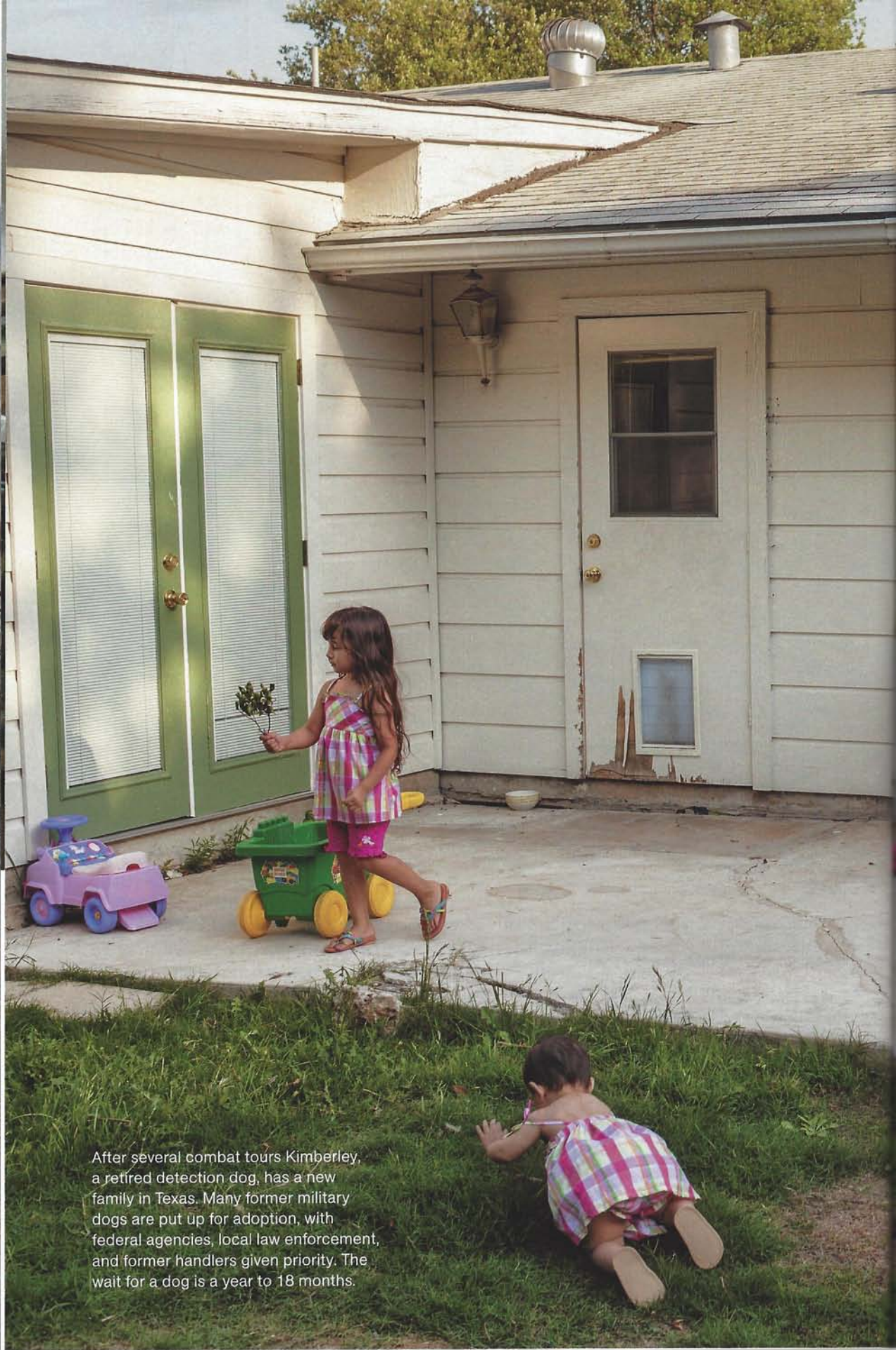
Jose had always loved dogs. During his erratic upbringing, they'd been ballast. At various times he'd owned a Dalmatian, a pit bull, and a Pekingese–chow chow mix named Bandit, legendary for once biting a friend on the posterior. But Jose understood that a military dog was an instrument he had to master, just as a technician had to understand sonar on a submarine or a drone operator had to learn to control a Predator.

The military, with its sharp edges and unyielding discipline—the thing that was saving him from the streets and his parents' life—seemed a little more humane in those moments when he was rewarding a dog by roughing its neck fur or giving it some fawning praise. Though he instantly loved the work, he was also inspired by its higher purpose. One bomb found in the field might equal several lives saved.

Jose's first impression of Zenit was that he seemed too sweet and a little unruly, still full of puppy energy. Jose already had a dog, a Malinois, but he was eager to try a shepherd and picked out Zenit himself.

A new working dog in the Marines learns to search for IEDs in small, incremental steps. After mastering basic obedience, the dogs are taught to recognize a range of odors associated with explosives, including ammonium nitrate, which is used in the majority of IEDs in Afghanistan.

Then they begin to practice an exercise known as "birding," which is designed to let the handler direct the dog's movements from a distance.



After several combat tours Kimberley, a retired detection dog, has a new family in Texas. Many former military dogs are put up for adoption, with federal agencies, local law enforcement, and former handlers given priority. The wait for a dog is a year to 18 months.

First a handler unleashes the dog and orders it to move toward a hidden "bird launcher," a remote-controlled catapult loaded with a tennis ball. Adherence to voice commands and hand signals is crucial and often hard-won. When the dog comes close to the launcher, the handler triggers it, and the ball rockets into the air. The dog gives chase and returns the ball to the handler, who praises and pats the dog.

As the dog gets better at following directions, the handler begins hiding items scented with all types of explosive materials in the surrounding terrain. By constantly moving the launcher and spreading scents both near and far, the dog becomes adept at searching large areas and alerting the handler to everything that smells like an explosive.

Eventually there's no bird launcher, no tennis ball, just the scents. After finding each one, the dog is called back and rewarded with the Kong. And that's what the process boils down to for a dog. An IED search is a game—identify a scent and get a toy.

Zenit was a motivated seeker—and perfect partner. In the fall of 2010 the pair was selected for deployment and sent to Yuma Proving Ground for a final three-week, boot-camp-like crystallization of everything a handler and a dog need in a war zone and for one final test to prove they are ready. In a fake Afghan village a handler and his dog must search out a complicated array of IEDs. Some are scented for the dog to find. Others are unscented but left exposed for the handler to spot. If together they find more than 80 percent, the pair receives final approval to go "downrange."

"Jose was a bit of an East L.A. hood rat when he came into the corps," says one of his supervisors, Sgt. Alfred Nieto. "But he and Zenit really knew what they were doing—that wasn't in doubt. I think they grew up a lot together."

After passing the training course at Yuma, the two boarded a transport, spent one night in Germany, and then flew to the Marines' main base, Camp Leatherneck, in Afghanistan. From there Jose and Zenit were sent to Alcatraz. One moment they were in a fictional Afghan village in the desert of Arizona, the next they were in a real one, in Helmand Province, on their own.

NOW IT'S THREE MONTHS LATER. They're in the wadi outside Sangin surrounded by IEDs. The finds are rapid-fire, oscillating between Mulrooney and Jose and Zenit. *I got one... Over here... Yup.*

Two years of training with your dog, three months in-country, every day with Zenit at your side, eating MREs, packing your gear—and your dog's—humping, working, waiting, waking at midnight to make sure Zenit pees and poops in the designated spot, and suddenly everything, your life as a soldier and handler, your life as hood rat and outsider and striving human being, gets compressed into 15 minutes and 60 yards.

Jose believes he's onto the pattern. It seems the Taliban have buried IEDs at the access points to the wadi, assuming the troops would feel safer out of sight down in the dry riverbed than exposed in the open fields. It's all happening so quickly now. He takes deep breaths to tame his excitement and maintain focus.

A dog's nose generally works best—or is most sensitive—in cool, calm weather. Odors become more volatile at higher temperatures, and wind can dilute and disperse them over a broad area, camouflaging their source. That's the good thing: Down here there's no wind. But it's midday, bone-dry, and so fryingly hot Jose can taste the salt of his sweat as it trickles to his lips.

Zenit is working the far bank, tuned to Jose's commands, ears perked, feet scrambling, excited too. The dog is looking for all those scents it knows will yield his toy. Where are they?

Over here a wide path leads from the berm into the wadi, and Zenit moves past it without any change in behavior. Jose follows at a distance, gauging his own steps. The men behind them follow at a distance, marking a shaving-cream route based on Jose's progress.

At the path he veers from the most trafficked area and walks up a little rise. He takes a step, then another. Which is when the earth gives, and a deafening roar fills his ears.

When his eyes open, Jose is lying on his back.

All he can see is the sky. He's been blown 20 feet back into the wadi. He knows exactly what's happening but can't comprehend any of it. His mouth is full of dirt, and his body yowls, as if on fire. He can't breathe. Mulrooney is the first to his side and cuts off his vest. Jose keeps repeating, "I fucked up. Do I still have my legs?" And then: "Where's Zenit?" Mulrooney says, "You're good, man, you're going to be fine."

There's a procedure out here when someone gets "got"—that's what the men call a hit like this. The marines secure the area; the medic puts a T-POD, a tourniquet at the waist to stanch the bleeding, on Jose; Buyes calls in a chopper; and everyone works to beat the "golden hour," the time within which the military endeavors to get a wounded soldier off the battlefield to increase his odds of survival.

But the closest chopper is already ferrying another wounded marine out of the area and takes two hours to arrive. Jose has lost a lot of blood but somehow stays conscious, asking again for Zenit. The dog, initially 20 feet from the blast, knows something has gone wrong. Zenit lies down next to Jose, his ears pinned to his head, which he lays on his paws. He stays there as they work to save Jose before the chopper arrives. According to protocol, both handler and dog are loaded on board and whisked from the spot.

JOSE HAS LOST A LOT OF BLOOD but somehow stays conscious, asking for Zenit. The dog, 20 feet from the blast, knows something has gone wrong and lies down at Jose's side, his ears pinned to his head.

A FARAWAY LIGHT—Jose remembers that. He remembers letting himself slip toward it, overcome by a very tired feeling. This was on the chopper. He remembers sensing Zenit nearby. He remembers thinking about his three younger sisters and brother (never having had role models himself, he wonders who will be theirs), his fiancée (how will she find out?), and then his sister who died (is he about to see her?). He remembers turning from the faraway light, shaking off sleep, and reentering his body.

What followed wasn't easy. He woke up in Germany, and ten days later he woke up again in Walter Reed hospital. There were 12 operations, a move to the Naval Medical Center in San Diego. Both legs had to be amputated above the knee. He slept 20 hours a day for a month. He dreamed that someone performed experiments on him with dolphins. He woke thrashing, calling for Zenit, only to learn that N103 hadn't accompanied him home, had been reassigned to a new handler, also by protocol.

"I was furious," Jose says. "And jealous. I never blamed Zenit for what happened. We were a team. If it was anyone's fault, it was my own. I just wanted my dog."

In different ways, it seemed, they were both itemized gear, until one of them didn't work anymore. Back in Afghanistan, Zenit had been returned to Camp Leatherneck, where he soon went through what's called a validation trial with another handler and then went on more than 50 foot patrols with other units. He had one more IED find.

At home, in the months after the operations, Jose waited for his incisions to heal, then worked to strengthen his core and what remained of his legs. He was given "shorties," introductory prosthetics without knee joints so he could learn to balance and stand—and get used to the pressure on his legs. Later he received prosthetics with knee joints so he could learn to walk again.

Physical recovery is one thing; mental recovery is a much different matter. Jose's wife, Eliana, whom he married six months after getting injured, remembers some very dark days: Jose, at 24, in a wheelchair in the house, drapes drawn,

trying to come to terms with his new life. "I went from being this badass fighter to a young guy in a wheelchair," Jose says. "Your mind doesn't just make an easy switch. I'm not sure it ever will."

Meanwhile, Jose was intent on getting Zenit back. "He was like my worn-out shield," he says. "Every scratch tells a story. And nothing felt right without him." Jose wasn't the only one feeling a nagging sense of incompleteness. Some injured handlers had been able to adopt their dogs after the animals had been discharged. Others had begun asking for their dogs even though the canines remained on active duty.

No formal program exists in the military to reunite dogs with their injured handlers, and some of those handlers have found the process inscrutable and frustrating at a time when they needed clarity. For Jose, there were calls and paperwork, excruciating months of waiting. Eventually Zenit was sent to the Marine Corps Air Ground Combat Center in California. More months passed, and finally in June 2012, after the Marine Corps approved the adoption, Jose and his wife road-tripped the three hours to the base. He approached Zenit in his wheelchair, and the dog covered him in slobbery kisses. "I couldn't stop smiling," says Jose. "For days. Actually I'm still smiling. It felt like the beginning to this new life."

IT'S TWILIGHT IN SAN DIEGO. Jose is seated by the pool at his house, drinking a beer, taking a break from his prosthetics, throwing a tennis ball for Zenit. The dog took immediately to eating steak and sleeping on the couch when he first arrived. Jose spoils him as he never could before. The German shepherd's glossy, sable coat flashes in the sun as he chases down each toss with happy zeal, then returns the ball to Jose, who keeps up a patter of "Good boy." It's a long way from war, yet the war seems ever present.

"For a long time I beat myself up over that day," says Jose. "I kept wondering what I could have done differently. I think the IED was offset from where I had Zenit searching or was just buried too deep. They always say that no dog is 100 percent accurate."

Eliana and Jose Armenta relax with their Boston terriers, Oreo and Sassy, and their German shepherd, Zenit. A retired Marine dog handler, Jose lost his legs in an IED blast while on patrol with Zenit. In 2012 he adopted Zenit. "Dogs complete our family," he says, a family soon to include a baby.

For more than a year after that day in the wadi Jose had to learn how to walk on his new legs. He went to rehab several times a week. "He always came in joking and upbeat," says his physical therapist, Dawn Golding. "You could hear him cranking his motivational music when he walked down the hall." Sometimes when he's out for dinner at Buffalo Wild Wings, a kid may see his plastic-and-metal legs and ask if he's a Transformer. "Nah, man," says Jose. "This is what happens when you don't eat your vegetables!" And then he flashes that huge smile.

He's learned to sail and ski and has been on outings to Colorado and Alaska. He works as a dispatcher for the military police, on the 4 a.m. to 1 p.m. shift. He comes home to his wife, who is newly pregnant, and they take Zenit to the beach. "He's like my quiet partner," says Jose. "He bridges three worlds: the person I was before Afghanistan, the one I was there, and the one I became after. I joke that when he dies, I'll get him stuffed and put him by the bed. But really I can't imagine it. I don't know what I'll do then."

Jose—brother and husband and soon-to-be father—cocks his arm and releases the ball, which arcs into the darkening sky like some forlorn hope. Before it takes a second bounce, Zenit has it in his mouth, racing to return it to his master. □