



RESEARCH REPORT

Riding a Fine Line

DEVISING SUSTAINABLE AND HEALTHY
OPERATIONS FOR THE ARMY CAISSON HORSES
OF ARLINGTON NATIONAL CEMETERY

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About This Report

This report documents research and analysis conducted as part of a project entitled *Development of a Get-Well Plan for the U.S. Army Caisson Detachment*, sponsored by the U.S. Army for the Military District of Washington (USAMDW). The purpose of the project was to devise a plan to efficiently and effectively improve the health and fitness of the Army's Caisson Detachment, and to enable the detachment to resume regular operations at Arlington National Cemetery in a sustainable fashion when ready. In doing so, the project team sought to review the overall management and taskings of the Caisson Detachment in recent years and to develop recommendations to address gaps and operational deficiencies.

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Summary

The U.S. Army Caisson Detachment of the 3rd U.S. Infantry Regiment, a prestigious equine unit, has carried fallen soldiers and U.S. presidents to their final resting places since 1948, carrying on a proud tradition that began with the first caisson burial in 1888. In 2022, however, the deaths of two horses highlighted issues with poor equine management and care; it was discovered that the herd of about 60 horses had health issues, such as parasites and sand colic, because of overcrowded pastures and poor feeding practices.

In response, the National Defense Authorization Act for Fiscal Year 2024 required the Secretary of the Army to brief Congress every 180 days on the health and care of military working equids. In April 2023, the U.S. Army Commanding General for the Military District of Washington (USAMDW) recommended suspending Arlington National Cemetery caisson operations for 60 to 90 days, a recommendation that was extended for a year after a thorough evaluation of the animals and facilities. In February 2024, the Under Secretary of the Army asked for timelines to resume four caisson missions a day and to conduct a reduced mission load of two missions a day.

To help the Army restore the Caisson Detachment's capabilities, USAMDW, in coordination with the Under Secretary of the Army, asked RAND to evaluate recent efforts to resume missions, devise a plan to improve the health and fitness of the Army's Caisson Detachment, and develop a plan to resume and sustain regular operations. Accordingly, our team reviewed extensive literature, conducted 70 interviews with equine experts and Army or government personnel, and performed six case studies of similar equine herds. We also visited domestic and international equine facilities, such the U.S. Park Police Mounted Patrol in Washington, D.C.; the Budweiser Clydesdales facilities in St. Louis and Boonville, Missouri; and the King's Troop Royal Horse Artillery in London, United Kingdom.

Findings and Recommendations

Our analysis showed that the U.S. Army can address current Caisson Detachment challenges along three lines of effort: (1) rethinking Army maintenance of these historic operations, (2) modernizing operations in line with recent equine science and best practices, and (3) improving day-to-day operations at the ground level. The research findings and correlating recommendations are brought together here with each correlating level of effort.

Rethinking Tradition

This study assumes that the Army will continue to maintain the Caisson Detachment. However, the reality is that caisson operations require significant financial investment, particularly when it comes to maintaining strong equine health standards, and the unit—as currently structured—poses significant risks to horses and riders. Furthermore, achiev-

ing such improvements will be difficult considering the current personnel and facilities constraints of the U.S. Army. Retaining the caisson mission will require the Army to make resource, personnel, and opportunity cost trade-offs to fund and support the detachment to the level it requires. Alternatives to Army-run caisson operations also exist, from contracting the ceremony to professionals to ending the tradition, although the latter would require revising the statute enshrining it. Rethinking the caisson tradition will be challenging and requires that the Army critically evaluate and openly discuss alternative options that will give the military heroes deserving of this ceremony the kind of funeral that still truly honors their service and sacrifices.

Modernizing Operations

Research and subject-matter experts who participated in our interviews pointed to ways in which the Caisson Detachment could—and in some cases, should—be modernized in line with recent equine and animal science as well as best practices. Modernizing the detachment could lead to letting go of some traditions. However, the Caisson Detachment will still be able to perform its dignified operations. In fact, such changes could improve horse health and well-being and reduce Army spending. Steps toward modernization include

- **Eliminating the postilion riding style.** The postilion style puts particular strain on the horses because they must carry a soldier, pull the wagon, and wear tack appropriate for both duties. Moreover, the riders must have advanced skills because they need to control the horse they are riding and the unmounted horse at their side. Simply driving the wagon will reduce horse strain and the need for complex postilion rider training. This strategy could also result in a smaller caisson team of six to seven horses total, including alternates, and thus reduce the 60-horse herd size to between 24 and 28 horses. A reduction in herd size would lower stabling, staffing, and other expenditures.
- **Conducting fewer funerals.** Although it would require several tough decisions about eligibility or wait times, it is possible to redesign Arlington National Cemetery’s full honors funeral by establishing caisson eligibility requirements or a waitlist that limits operations to two missions per day. Eligibility would need to be discussed at higher leadership levels. A modified waitlist could offer hybrid options for full honor funerals to families who wish to have their loved ones buried sooner. Hybrid options—such as offering full honors funerals with alternative conveyance—are already being used because the Caisson Detachment has been suspended.
- **Increasing external capabilities.** From riding instruction to shoeing to horse training, the Caisson Detachment already relies on outside expertise to help care for their horses and maintain mission readiness. This strategy would shift full care of the horses to contracted experts while the soldiers would continue to participate in formal funereal duties.

Ground Level Improvements

The analysis revealed many tactical-level opportunities that can be made to reinstate and improve caisson operations. These are summarized in Table S.1. We conducted our research and present these results according to the Army's doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) framework.

Together, these ground-level recommendations task the Caisson Detachment with creating a horse-first stable that puts equine welfare above and beyond mission or resource efficiency. The horses are the mission—without the caisson horses, the caisson procession is impossible. The stable must center on and respect the horses, beyond treating them as materiel. Rather, they will need to be treated as specialized personnel, entitled to safety, health, and the ability to thrive. Horses that are treated poorly are an ethical issue, a danger to themselves and others, and unlikely to be capable of performing the mission long-term. Happy, healthy, and well-trained horses, on the other hand, will meet the aesthetic standards of the mission and deliver an appropriately solemn ceremony. To make this happen, Congress must commit to adequately resourcing such changes.

TABLE S.1

Findings and Recommendations for the Army Caisson Detachment's Ground-Level Operations

DOTMLPF Framework Area	Findings	Recommendations
Doctrine	<ul style="list-style-type: none"> • Flexibility is sometimes necessary. The Caisson Detachment's operating procedures set strict standards for horse care and maintenance and mission procedures. Equine experts noted the need for more flexibility in the guidelines to address horses who are in pain, disabled, or behaving abnormally. • Outdated care manuals. The most recent guide on military horse care, riding, and maintenance is the 1942 <i>Field Artillery Mounted Instruction</i> manual. Other units have developed standard operating procedures, but the Caisson Detachment's standard operating procedures are from 2015. 	<ul style="list-style-type: none"> • Update the Caisson Detachment's standard operating procedures. There is a need for guidance regarding day-to-day barn operations and ways to improve coordination and integration between stakeholders in the Caisson Detachment. Areas that require more equine expertise should be left flexible. • Update doctrine, documentation, and standard operating procedures regularly. Equine and animal science is always evolving, so it is important to regularly consult with equine experts to account for changing standards and best practices. Confer with unit personnel as well to be sure that current requirements and challenges are addressed. • Update and codify standards of equine care across Army equine units, but remember that flexibility is necessary. Army equine units have different missions and might require nuanced guidance when it affects these missions.
Organization and Leadership	<ul style="list-style-type: none"> • The Caisson Detachment has two primary missions with little overlap in personnel requirements: (1) conducting funeral ceremonies and (2) deploying as a combat unit, if necessary. Both missions require deep learning and full-time effort to maintain readiness. • The only officer authorized for the platoon by the modified table of organization and equipment is a Chief Warrant Officer 2. This position is classified as an automotive maintenance technician. 	<ul style="list-style-type: none"> • Consider changing the Caisson Detachment authorization. Moving the detachment from a modified table of organization and equipment to an augmentation table of distribution and allowances will focus the unit almost exclusively on the ceremonial mission and care of the horses. • Increase unit size to correspond with any increase in the operational tempo of the detachment. Soldiers are already overstretched and are frequently forced to split their time between two missions. More or longer duties can lead to dangerous gaps in training and horse care. • When possible, turn to civilian equine experts. Address the issues affecting how civilians are treated and ensure that supervisors support civilian experts' efforts. • Make the Caisson Detachment commander a field grade officer with equine knowledge. Doing so can help to provide effective oversight, leadership, and authority for the mission. • Stabilize the Caisson Detachment leadership position for at least four years. This will allow leaders to gain necessary experience and will reduce horse care and mission management issues. Encourage the leader to attend equine education courses, and/or look for commanders with equine experience to join the unit.

Table S.1—Continued

DOTMLPF Framework Area	Findings	Recommendations
Personnel	<ul style="list-style-type: none"> • Traditional Army hiring is fundamentally at odds with how equine experts are usually hired. USA Jobs postings are unlikely to reach top equine experts, who are typically hired through networks of existing experts or recruited from top universities. • The herd manager position has proved hard to fill. This critical position requires knowledge of equine science and deep experience with horses. It also requires the ability to work with Army and civilian staff. To date, the Army has reduced job responsibilities to draw more applicants. • More equine expertise is necessary. Until May 2023, soldiers acted as farriers, horse trainers, and grooms. Currently, the Army has contracted civilians to assist with these tasks and is consulting external experts to find ways to build up internal expertise. • Rank affects how personnel are treated in the unit. Individuals with lower ranks or civilian status often feel that they receive less respect than those of higher rank or with military backgrounds. Individuals with knowledge of equine care often feel afraid to speak up about bad practices or mistreatment of horses because of fear of losing their rank or contractor status. • Soldiers' longevity in caisson positions is a continual issue undermining levels of equine expertise, both for the Caisson Detachment and for other Army equid units. Staying in the unit for two to three years does not allow soldiers to develop the necessary skills to properly care for and maintain equines without supervision. • Not all soldiers choose to be in the Caisson Detachment for the horses, which undermines a horse-first stable ethos. Some reasons cited for joining were boredom with other duties, incentive pay, conflict with individuals in their current units, and curiosity rather than an interest in working with animals. 	<ul style="list-style-type: none"> • Continue to invest in external equine expertise hiring. This is especially important for key positions, such as farriers and horse training roles. Experts should, as much as possible, be encouraged to offer their opinions—perhaps through a formalized or anonymous reporting system. • Take a flexible approach for all Caisson Detachment manager positions. The Army can adopt a committee hiring strategy that uses trusted equestrian expert networks. Adopting a hiring model that includes a mandatory probationary period with formalized assessment is also recommended. • A separate military occupational specialty for Army horsemen will be difficult but deserves further study. If this proves to be too challenging, consider identifying other methods of enhancing soldier longevity in the Caisson Detachment and relying more on contracted and/or reservist personnel to enhance overall equine expertise in the unit. • Consider collaborating with peer working herds. Other herds indicated interest in offering aid, and exchanges might prove to be a powerful transmitter of best practices from other organizations facing similar concerns. • Try to recruit soldiers with a passion for equine care and welfare. These soldiers can provide benefits to the Caisson Detachment in helping personnel focus on healthy horses and proper care.

Table S.1—Continued

DOTMLPF Framework Area	Findings	Recommendations
Training	<ul style="list-style-type: none"> • Longevity is critical for the robust development of horsemanship and riding skills. Experts noted that the Army’s ten-week training period was too short to learn the necessary horse-related skills and safety measures. In comparison, the Royal Canadian Mounted Police conducts more than seven months of training before an individual is considered skilled. • Horsemanship and rider training are not yet in-house capabilities. Interviewees indicated that there was not yet the internal expertise to support in-house training by the Caisson Detachment and advised that it should maintain externally contracted training for at least the next two years. • Several external working herds indicated willingness to share their training materials with the Caisson Detachment. Local organizations, such as the U.S. Park Police (with which the Caisson Detachment has already done some training exchange) were enthusiastic about deepening the relationship. International organizations, such as the King’s Troop, do significant work with other herds supporting the development of their standards and indicated willingness to help support the Caisson Detachment. 	<ul style="list-style-type: none"> • Allow soldiers to provide support under the eye of an in-house equine expert supervisor. Soldiers’ roles can be tailored to enhance and reflect their knowledge base and experience levels. Until personnel solutions can be devised to ensure the longevity of the caisson soldiers’ experience in the detachment, soldiers will have very limited <i>time in position</i> in equine training terms. • Continue to lean on external contracted training for both the horses and riders until the detachment develops or hires more internal equine expertise. Other possible options would be to partner with other working herds in the area or work with sister organizations to aid in and pool resources for training. • Continue to include more horsemanship skills in caisson training, including horse care (e.g., grooming, identifying lameness and injuries), horse psychology and body language, and trailering instruction. • Consider more exchange or side programs with other working herds. Other Army equine units have more-extensive contact, which allows them to share resources.

Table S.1—Continued

DOTMLPF Framework Area	Findings	Recommendations
Materiel	<ul style="list-style-type: none"> • Breed characteristics and mission fitness are critical when procuring new horses. Errors in horse procurement have challenged the detachment in the past. Budget limitations led to the continued use of old horses in need of retirement, which caused injuries. • Specialized equine veterinary inspection is a critical aspect of the procurement process but must be conducted by appropriate veterinary personnel. Careful procurement of only horses with manageable health concerns will lessen the burden on staff, especially veterinary staff, in the Caisson Detachment, and ensure that horses are less likely to need care that is outside the Caisson Detachment's natural ability to provide. • Army budget processes can make it difficult to purchase horses—and sometimes medication—in a timely manner. Horse procurement in the civilian market is usually done much more quickly. • Quality tack that is customized for individual horses and frequently adjusted and refitted is critical. Poorly fitting saddles previously led to rubs and sores on horses' backs, which was noted as a major health concern in reviews of caisson operations. As of this writing, the Caisson Detachment had purchased new tack. • Horse nutrition is a significant driver of overall equine health. Prior to the deaths of two caisson horses in 2022, they had been fed low-quality hay, reportedly because the Army had difficulties finding a consistent supply of high-quality hay. 	<ul style="list-style-type: none"> • Pursue horse procurement at a slow, careful pace, and secure only those animals that will thrive in the Caisson Detachment environment. Horses, if treated well, can give the unit a decade of service. Because of this, every purchase is important and should not be taken lightly, even if it slows the process by which the Caisson Detachment returns to its full capabilities. • Look for horses with specific qualities. Interviewees agreed that the Army should choose strong, calm, and friendly Percheron or Percheron-mix horses for caisson operations, especially those between the ages of six and eight. Caisson horses are traditionally black or gray but procuring an all-black herd will allow horses to be easily swapped should the need arise. When purchased, horses should be healthy or have only maintenance-related health concerns, be of cool temperament, and have some driving experience, if possible. • Ensure that Army equine veterinarian staff have integrated procurement decisionmaking roles. Not all Army veterinarians have equine expertise, which is critical to selecting the healthiest, most-capable horses. • Suit tack to the mission and to the individual horses. The tack should be adjusted every six months at a minimum. • Optimize procurement processes and structures to continue to ensure that Army equine veterinarian staff have an integrated role with decisionmaking power in the procurement process. • Explore opportunities to partner with specific suppliers of top-quality hay and grain. This can help ensure optimal equine nutrition for the herd.

Table S.1—Continued

DOTMLPF Framework Area	Findings	Recommendations
Facilities	<ul style="list-style-type: none"> • Facilities still pose considerable challenges to herd health, but the Army is actively seeking solutions. Fort Myer is too small to support a large herd and cannot be expanded because of its urban environment. The barns, although under renovation, will remain a restrictive factor in the long term. The Caisson Detachment, as of the time of this writing in mid-2024, was contracting external facilities and making every effort to formalize a longer-term plan for external pasturing and stabling. • Adequate and properly maintained turnout space is critical for equine facilities. Paddock maintenance measures eliminate such preventable risks as inadequate exercise or consumption of sand and gravel. • Equine expertise and a horse-first philosophy should be prioritized when designing, renovating, and using facilities. Prioritizing the horse, horse health, and horse comfort is key to sustainable herd health. 	<ul style="list-style-type: none"> • Continue to contract with an offsite entity within trailering distance of Fort Myer, or purchase offsite facilities nearby but contract out horse care. Offsite facilities should be operated by contracted personnel because the Army needs to build up sufficient expertise to operate such a facility. • The temporary stabling of the herd near Fort Meyer during stable renovations should be conducted deliberately. Notably, this effort will likely require additional personnel for care, cleaning, and maintenance. • Maintain and follow a horse-first philosophy when developing, modifying, and using equine facilities. This means that all decisions should be focused on equine health and well-being and in line with evidence-based best practices rooted in recent equine science.

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Introduction

The U.S. Army Caisson Detachment of the 3rd U.S. Infantry Regiment is a historic and prestigious Army equine unit.¹ The Caisson Detachment (previously a platoon) is housed under The Old Guard (TOG)—the oldest active Army unit, itself dating back to June 3, 1784.² Among other duties, the Caisson Detachment is responsible for conducting full honors military funerals in Arlington National Cemetery (ANC). The unit assumed official ceremonial duties in 1948, continuing a proud tradition of caisson funeral ceremonies that began in 1888.³ Traditionally, a caisson funeral includes a team of horses that are ridden and driven by soldiers. The horses pull a caisson wagon—a heavy piece of military equipment that was historically used to transport artillery—that carries the casket of a service member. The ceremony is a solemn and revered tradition at ANC, and it holds significant meaning to the family members whose loved ones receive this honor.

In early 2022, the unit came under intense public scrutiny after the deaths of two horses in quick succession revealed poor management and substandard care. Media reports highlighted that the caisson horses faced unsanitary living conditions, poor-quality feed, and inadequate facilities.⁴ Despite periodic inspections, the herd of approximately 60 horses

¹ The unit was redesignated from the Caisson Platoon to the Provisional Caisson Detachment in early 2024. In this report, we use *Caisson Platoon* when referring to TOG before the redesignation and *Caisson Detachment* for the current unit. Both names are used when discussing overlapping periods. Joint Task Force–National Capital Region and U.S. Army Military District of Washington, “The Old Guard: Caisson Platoon,” webpage, undated-b.

² Old Guard History, “Short History of the Old Guard,” webpage, undated.

³ The earliest example of a caisson being used in a funeral ceremony was during the funeral of General Philip Sheridan, on August 12, 1888. Sheridan was also the first to receive a full honors funeral at Arlington National Ceremony (see Stephen A. Carney, “Historical Use of Caisson for Military/Full Honor Funerals at Arlington National Cemetery,” memorandum for record, Department of the Army, March 27, 2018).

⁴ Drew F. Lawrence and Katie Bo Lillis, “Army Report Finds Horses That Carry the Caskets of America’s Heroes Live in ‘Unsatisfactory’ Conditions, After 2 Die,” CNN, April 7, 2022; Drew F. Lawrence, “‘Alarming’: Two More Horses Die in Army’s Premier Ceremonial Unit, Marking Four Since February,” *Military.com*, December 2, 2022b; Rachel Nostrant, “Army’s Old Guard Horses Suffer Poor Living Conditions, Report Finds After 2 Died,” *Military Times*, April 7, 2022; Drew F. Lawrence, “Arlington’s Caisson Horses Still Lack Space and Sanitary Conditions, Alabama Senator Says,” *Military.com*, June 10, 2022a.

reportedly suffered health hazards, such as parasites and sand colic, which were exacerbated by overcrowded pastures and substandard feeding practices.⁵

The health of the caisson horses poses a significant challenge for the Army, not least because the Army is now mandated by law to maintain and operate the caisson unit. In accordance with Section 366 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2024, the Secretary of the Army is prohibited from eliminating the Caisson Platoon (Figure 1.1) or its mission of providing support to military and state funerals. In addition, the Secretary of the Army is required to provide a briefing to Congress every 180 days on the “health, welfare, and sustainment of military working equids.”⁶ Although the FY 2024 NDAA officially enshrined the Caisson Platoon into law, this unit has been included in written military policy since 1947.⁷

On the recommendation of the U.S. Army for the Military District of Washington (USAMDW) Commanding General in conjunction with U.S. Army Veterinary Corps Officers, the Secretary of the Army suspended caisson operations in ANC in April 2023 because of concerns about the health and well-being of the caisson herd. Initially, the suspension was supposed to last 60 to 90 days. However, following a more thorough evaluation of the herd by the U.S. Army Veterinary Corps and equine experts, USAMDW determined that the herd was not ready to restart operations at ANC. Subsequently, the Secretary of the Army extended the suspension of caisson operations for one year.

USAMDW and TOG are working with the U.S. Army Veterinary Corps, equine experts from multiple disciplines, and the U.S. Army Corps of Engineers to make the Caisson Detachment mission capable. On February 22, 2024, the Under Secretary of the Army asked USAMDW to provide timelines for (1) resuming four caisson missions a day in ANC and (2) conducting a reduced mission load of two caisson missions a day.

Study Purpose

In March 2024, USAMDW—in coordination with the Under Secretary of the Army—sought to assist the Army in making the Caisson Detachment capable by commissioning our RAND team to provide an objective evaluation of the Army’s efforts along those lines. After the evaluation, we were asked to devise a plan to efficiently and effectively improve the health and fitness of the Army’s Caisson Detachment and to enable the detachment to resume regular operations at ANC in a sustainable fashion when ready. In response, this report documents our review of the overall management and taskings of the Caisson Detachment

⁵ *Pasture* refers to land used for grazing (e.g., grass lots). Lawrence and Lillis, 2022.

⁶ Public Law 118-31, National Defense Authorization Act for Fiscal Year 2024, December 22, 2023.

⁷ Published in 1947, the U.S. War Department Pamphlet “Conduct of a Military Funeral” states, “The casket of the soldier is covered with the American flag. It is usually transported to the cemetery on a caisson” (U.S. War Department Pamphlet No. 21-39, “Conduct of a Military Funeral,” September 1947, p. 3).

FIGURE 1.1
Caisson Platoon



SOURCE: Reproduces image from Lisa Ferdinando, "Caisson Platoon: Solemn Duty of Honor and Respect," U.S. Army, October 13, 2014.

in recent years. It also lists recommendations to address gaps and operational deficiencies based on our study findings. This report is intended to prove useful not only to the Caisson Detachment but also to the broader Army equid community going forward.

History of the U.S. Army Caisson Detachment

The USAMDW's ceremonial mission had been performed since World War II by the Military District of Washington's Ceremonial Detachment, which was activated on July 23, 1942, in response to the departure of the 3rd Cavalry in February 1942 for wartime duty. In 1943, the Detachment became Company A of TOG, beginning the 3rd Infantry Regiment's ceremonial mission in the capital.⁸ With the addition of the Ceremonial Detachment, TOG became responsible for conducting burials in ANC, escorting diplomatic arrivals and departures, standing perpetual guard at the Tomb of the Unknown Soldier, and maintaining caisson

⁸ Old Guard History, undated.

wagons, horses, and salute guns.⁹ Previously, these duties rotated among the cavalry, artillery, and military police units stationed at Fort Myer.¹⁰

From 1942 until the end of the war in 1945, the Ceremonial Detachment was responsible for

details for all military funerals, the permanent guard at the Tomb of the Unknown Soldier and such other ceremonies as were ordered In an average year between 1942–1945, the Ceremonial Detachment performed duties at approximately twelve hundred burials, thirty ceremonies at the Tomb of the Unknown Soldier, and over fifty cannon salutes and eight hundred rifle salutes were fired.¹¹

Notably, the Ceremonial Detachment performed all these duties with an authorized strength of 146 men.¹² Deactivated in Germany in 1946 as part of the post–World War II demobilization, TOG was reactivated in April 1948 to take over the missions of guarding the Tomb of the Unknown Soldier, conducting funerals in ANC, and guarding the National Capital Region.¹³

Despite this long history, caisson operations have not always been seamless. We learned in interviews that the Caisson Platoon’s herd has faced serious equine health and mismanagement issues at various points in its contemporary history. In the late 1990s, the Caisson Platoon turned to external organizations to help them address ongoing difficulties, such as issues with tack,¹⁴ lack of soldier experience, inappropriate horses for the caisson mission, and issues with rank.¹⁵ One interviewee who consulted for the Caisson Platoon during this time commented that they were trying to solve “lots of problems” and that it was “interesting that they are facing similar issues 40 years later.”¹⁶

Recent Challenges

We created a timeline to track recent developments that led to the 2023 suspension of the Caisson Detachment’s operations at ANC. This information was drawn from relevant documents and interviews and is summarized in Figure 1.2. This section contains a more detailed narrative about those developments.

Proper equine care is expensive, a fact that has been borne out across the history of the unit, including in more recent years. The Caisson Detachment faced a long period of underfunding, which led to the procurement of cheaper horses ill suited to the job, an unwillingness to retire

⁹ Old Guard History, undated.

¹⁰ Carney, 2018.

¹¹ Old Guard History, “Photo Friday—MDW Ceremonial Detachment,” webpage, March 9, 2018a.

¹² Old Guard History, 2018a.

¹³ Old Guard History, “Reactivation of the Old Guard,” webpage, April 6, 2018b.

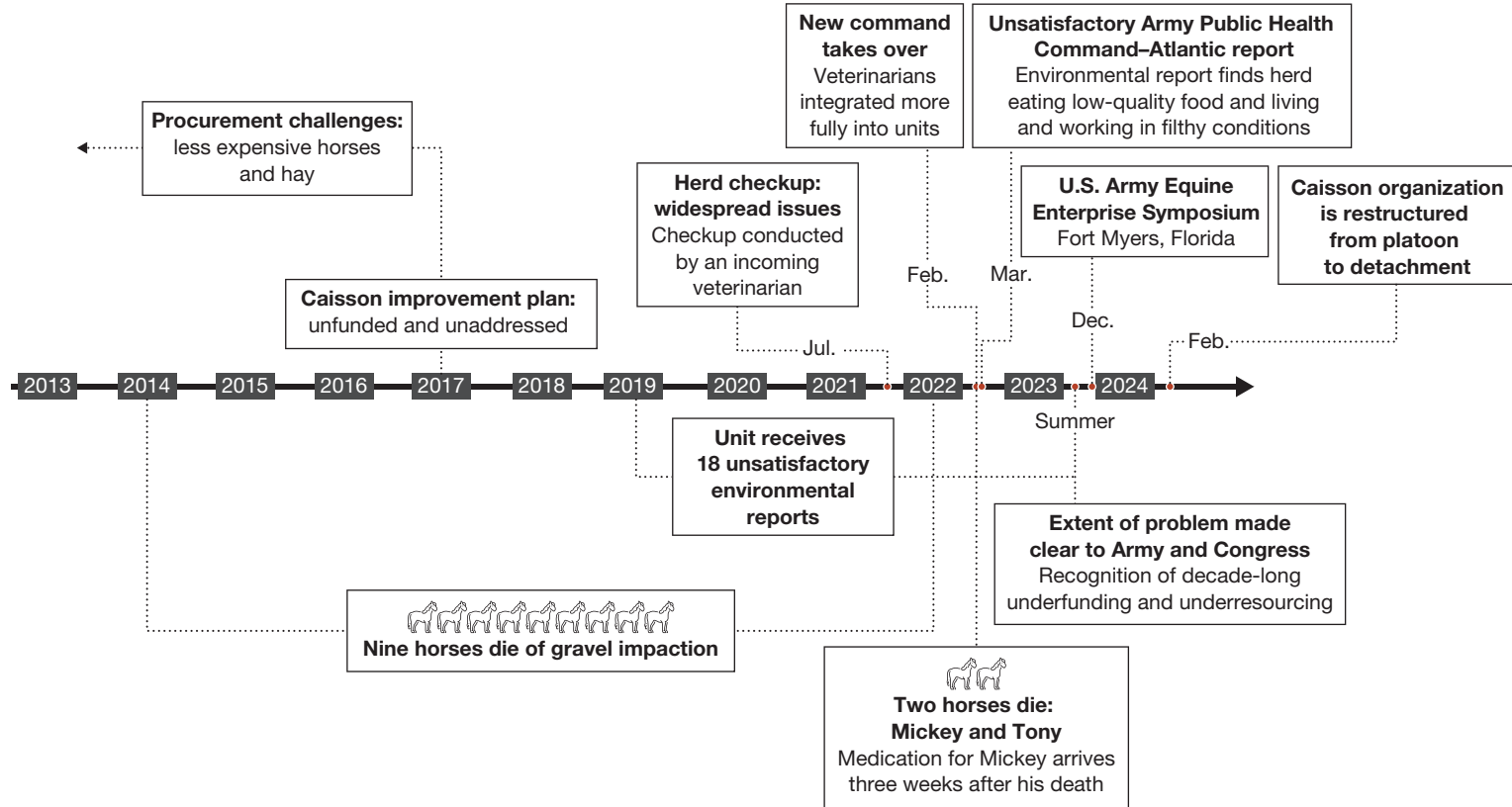
¹⁴ *Tack* refers to saddles, bridles, harnesses, and other equipment used on the horse.

¹⁵ Equine expert (B10), interview with the authors, May 29, 2024.

¹⁶ Equine expert (B10), interview with the authors, May 29, 2024.

FIGURE 1.2

Timeline of Recent Army Caisson Unit Challenges Related to Horse Care



SOURCES: Features information from Lawrence and Lillis, 2022; Lawrence, 2022b; Current or former caisson command or staff (C7), interview with the authors, May 20, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024.

horses who might be past their working years, purchases of unsuitable hay, a staff with fewer personnel than were needed to properly maintain the herd, challenges obtaining medications for horses in a timely manner, and other issues maintaining tack and facilities.¹⁷ Between 2014 and 2022, nine horses died of gravel impaction. Although the two equine deaths in 2022, which were first reported by CNN, brought widespread attention to the problems in the Caisson Platoon, these nine deaths were indicators of long-term gaps in veterinary care and oversight of horse nutrition and feeding.¹⁸ A 2017 improvement plan for the Caisson Platoon was followed by an unsatisfactory inspection report in 2019; both the plan and the report went unfunded and unaddressed.¹⁹ In July 2021, the summer before the most-recent equine deaths reported in the media, veterinary evaluations of the caisson horses found that there were widespread and severe equine health issues among the herd.²⁰ By February 2022, the situation had further deteriorated when two horses, Mickey and Tony, died within 96 hours of one another.²¹ By summer 2023, Army leadership and congressional staff began an in-depth examination of the scope of the problem.²² It became evident that the Caisson Detachment had been underfunded and underresourced for at least a decade and substantial resources would be needed to address the underlying issues. In December 2023, the Army convened the U.S. Army Equine Enterprise Symposium at Joint Base Myer–Henderson Hall (JBMHH), inviting several equine experts to discuss the challenges that the Caisson Detachment faced.

Funding

Caring for equines is a resource-intensive endeavor. Historically, the Caisson Platoon received relatively low funding priority within the Army and the wider defense community, and its budget has presented long-term procurement challenges. Before FY 2023, the detachment was granted an operational budget of \$1 million to \$1.2 million per year from the 3rd Infantry

¹⁷ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Current or former U.S. Army command or staff or U.S. government staff (E8), interview with the authors, July 29, 2024; Current or former manager of an equine herd (D1), interview with the authors, March 15, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Veterinarian (A7), interview with the authors, June 10, 2024; Current or former U.S. Army command or staff or U.S. government staff (E10), interview with the authors, August 12, 2024.

¹⁸ Veterinarian (A6), interview with the authors, June 5, 2024; Lawrence and Lillis, 2022.

¹⁹ Lawrence and Lillis, 2022; Lawrence, 2022b.

²⁰ Veterinarian (A6), interview with the authors, June 5, 2024; Veterinarian (A2), interview with the authors, March 26, 2024.

²¹ Lawrence, 2022b.

²² Current or former caisson command or staff (C12), interview with the authors, July 18, 2024.

Regiment's overall fund. The total operating budget of TOG was about \$5 million.²³ Following the February 2022 leak of a U.S. Army Public Health Command–Atlantic report highlighting issues with the Caisson Platoon, Congress increased its funding to \$5 million in the FY 2023 NDAA, which was supplemented by \$1.7 million from TOG and brought the Caisson Detachment's budget to \$6.7 million.²⁴ No targeted funding was requested or provided for FY 2024, but the FY 2024 NDAA included language prohibiting the elimination of the Caisson Platoon and required periodic reports to Congress.

In October 2023, the Military District of Washington requested \$6.9 million for FY 2024, of which \$5.4 million was granted. By April 2024, the FY 2024 funding request was increased to \$9.9 million after TOG had already spent \$5.6 million. For FY 2025, the Army requested \$6.2 million to support the Military Working Equid Get-Well Initiative, with plans to request similar amounts yearly through FY 2029, totaling \$31 million. This amount, based on FY 2023 requirements, might increase in the future. A preliminary cost evaluation is offered in Appendix B of this report.²⁵

Caisson Operations: Characteristics, Demand, Challenges, and Proposed Solutions

The Army asked us to assist in evaluating timelines and best practices to return the Caisson Detachment to normal operations at ANC. In this section, we offer a brief overview of what *normal operations*—defined simply as unit characteristics and demand for operations—look like for the detachment. We also present reflections on rotational needs and the implications for operational tempo and overall herd size.

Demand. We were asked to examine demand for caisson operations ranging from two to four full military honors funerals per day.²⁶ USAMDW has conveyed to us that, per discussions with ANC, the actual demand for funeral capabilities might range from two to six full honors funerals per day.²⁷ Prior to the suspension of caisson operations, the Caisson

²³ This funding was drawn from the Army's operations and maintenance budget. Major infrastructure improvements and acquisitions are handled through the Army's military construction budget.

²⁴ Further information can be found in Appendix B, which is focused on budget.

²⁵ Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Equine expert (B7), interview with the authors, May 22, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Current or former U.S. Army command or staff or U.S. government staff (E1), interview with the authors, June 12, 2024.

²⁶ Service members are eligible for a full military honors funeral with the caisson horses if they attained the grade of E-9, CW-4, CW-5, or O-4 and above, or a Prisoner of War medal recipient. In 1984, eligibility was expanded to Medal of Honor recipients. In 2008, eligibility was expanded to include those killed in action. Carney, 2018.

²⁷ Current or former caisson command or staff (C8, C10), interview with the authors, August 19, 2024.

Detachment performed six full honors funerals per day, with a surge capability of eight full honors funerals per day.²⁸

Herd Size. The number of daily funerals that the Caisson Detachment is expected to conduct determines the size of the equine herd. It also defines the requisite training for horses and handlers as well as management, personnel, and facility requirements. We will assess these needs throughout this report.

Traditionally, the caisson team for each funeral has consisted of seven horses—six pulling the wagon (three rows of two horses) and one ridden next to the wagon. Since the April 2023 shutdown, USAMDW and TOG have reconceptualized the mission-capable teams to include alternate horses, which can be used if another horse on the team is temporarily unable to work. According to this new vision, each team will have 12 horses: six pulling the wagon, one ridden alongside the wagon, one caparisoned horse,²⁹ and three alternates (one for each two-horse pair pulling the wagon).³⁰

Unique mission challenges. Performing caisson missions is a strenuous task for the horses. The caisson wagon is heavy, and the horses are pulling it on hard pavement up and down hills in ANC. This puts significant strain on their hooves, legs, and bodies.³¹ Operations are expected to be conducted year-round, meaning the horses are often working in extremely hot weather with heavy tack and riders or in cold weather on potentially hazardous footing.³²

The postilion style required in these services puts additional strain on the horses. There is no rider simply sitting in the caisson wagon and driving the horses who pull it. Rather, caisson units traditionally use this style, which is a combination of driving and riding: The horses are harnessed to the wagon, but one horse in each two-abreast pair is ridden by a soldier. Postilion style is rare in the world of equestrian sports and has been described as “one of the most difficult equestrian tasks you could do.”³³ It causes additional strain and weight for the horses because they must carry a driving harness, full riding tack, and a rider while simultaneously pulling a wagon. It also demands advanced skills of the riders to control their own horses and those harnessed alongside.

²⁸ Current or former caisson command or staff (C18), interview with the authors, September 3, 2024.

²⁹ The caparisoned horse, or cap horse, is a riderless horse “led behind the caisson wearing an empty saddle with the rider’s boots reversed in the stirrups, indicating the warrior will never ride again” (Joint Task Force–National Capital Region and the Military District of Washington, “Caisson Detachment—3d U.S. Infantry Regiment,” webpage, undated-a).

³⁰ Current or former caisson command or staff (C8, C10), interview with the authors, August 19, 2024.

³¹ Current or former U.S. Army command or staff or U.S. government staff (E4), interview with the authors, July 3, 2024; Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Veterinarian (A4), interview with the authors, May 15, 2024; Equine expert (B2), interview with the authors, March 25, 2024.

³² In cases of inclement weather, such as sleet or storms, the Caisson Detachment usually does not take part in the funeral ceremony (Current or former caisson command or staff [C18], interview with the authors, September 3, 2024).

³³ Current or former manager of an equine herd (D6), interview with the authors, May 17, 2024.

Rotation and Operational Tempo. The Army has plans to reduce the strain put on the horses by rotating horses in and out of caisson operations. This would set limits on the horses' daily work hours and will give rotating horses time between the operational front at JBMHH and ANC and a rest and relaxation (R&R) facility—currently the NOVA Equestrian Center (NEC) in Aldie, Virginia. This rest cycle and rotation is critical to maintaining the herd's health. However, the logistical cost is significant. Given the strain of each mission on the horses, a single team should conduct no more than two funerals each day as recommended by equine specialists and veterinarians that USAMDW has consulted.³⁴ Two full teams are thus needed for an operational tempo of four funerals per day. Moreover, experts recommend that horses have R&R each month, preferably in a healthy grass turnout pasture with at least one acre of grazing area per horse.³⁵ These requirements mean four full teams will be needed at any given time: at least two teams actively engaged at ANC; one team held in reserve, if needed, for a state funeral; and another team on R&R to rotate with the active teams. With 12 horses per team (11 horses per squad plus one caparisoned horse), an operational tempo of four full honors funerals per day would require a herd of about 60 horses, similar to the herd size prior to 2023.³⁶

Research Approach

We used multiple research methods to approach this topic, including a literature review, semistructured interviews with experts inside and outside the Caisson Detachment, and six comparative case studies of both U.S. and international working equine herds. Our literature review was conducted in multiple stages over the lifespan of the project and covered a wealth of resources, including military documentation of caisson and horsemanship guidance, internal Army reviews of the Caisson Detachment, animal husbandry and equine science publications, contemporary news coverage of the Caisson Detachment, and other resources relevant to our comparative cases. This foundational literature review helped to inform the history of the Caisson Detachment and best practices and standards regarding equine care and maintenance.

We conducted 70 semistructured interviews with current and former caisson members, current and former staff in other Army equine units, veterinarians, equine experts, and professional herd managers in other organizations (Table 1.1). We selected interviewees using a multifaceted strategy that began with entities and individuals directly related to the Caisson

³⁴ Current or former caisson command or staff (C8, C10), interview with the authors, August 19, 2024.

³⁵ Current or former caisson command or staff (C8), interview with the authors, May 21, 2024; Equine expert (B1), interview with the authors, March 7, 2024.

³⁶ Current or former caisson command or staff (C8, C10), interview with the authors, August 19, 2024.

TABLE 1.1
Number of Interviews by Category

Interviewee Category	Number of Interviews
Veterinarian	8
Equine expert	17
Current or former caisson command or staff	17
Current or former manager of an equine herd	10
Current or former U.S. Army command or staff or U.S. government staff	18
Total	70

Detachment, then snowball sampled beyond that original sample.³⁷ From these interviews, we identified key issues in the Caisson Detachment, but the breadth of the interviews allowed us to find consensus and identify larger trends in responses from experts in the field.

To reinforce our findings beyond this substantial interviewing effort, we conducted comparative case study analysis of six peer working herds: the U.S. Army North (ARNORTH) Fort Sam Houston Funeral Honors Platoon—Caisson Section, U.S. Park Police Mounted Patrol (Washington, D.C. unit), the New York City Police Department (NYPD) Mounted Unit, the Budweiser Clydesdales, the King’s Troop Royal Horse Artillery,³⁸ and the Royal Canadian Mounted Police (RCMP) Musical Ride. These cases were selected for variation and represented different missions, herd compositions, environments and locations, organization and leadership structures, and approaches to training. To conduct our analysis, between March 2024 and August 2024, researchers visited the facilities of the caisson herd, the U.S. Park Police Mounted Patrol, the Budweiser Clydesdales, and the King’s Troop Royal Horse Artillery.

This comparative case analysis gave us a better indication of best practices in the field, innovative tactics used to run working herds sustainably, and options for possible future partnerships for the Caisson Detachment.

Organization of This Report

We conducted and presented this work according to the Army’s doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) framework. The next chapter offers details on the findings related to the doctrine, organization,

³⁷ *Snowball sampling* is a nonprobability sampling method for interviews, in which new interview respondents are recruited at the recommendation of earlier interview respondents. This sampling procedure increases risks of sample bias, as interview respondents are more likely to recommend similar community members. However, it is necessary in a research effort (such as this one) in which the target interview respondents—those with relevant information—is a small population.

³⁸ The King’s Troop Royal Horse Artillery is a ceremonial unit of the British Army.

and leadership structures currently undergirding the Caisson Detachment. Chapter Three provides an in-depth analysis of the personnel structures and training practices of the Caisson Detachment, detailing findings regarding potential gaps and areas of improvement in these realms. Chapter Four details our analysis of the Caisson Detachment's materiel and facilities. The report concludes with an overview of our key findings and recommendations in Chapter Five.

Three appendixes support this document. Appendix A includes the detailed case study overviews of each of the six cases explored here. Appendix B reflects observations regarding budget and funding trajectories for the Caisson Platoon—and now Detachment—over time. Appendix C details the interview methodology used throughout this effort.

Doctrine, Organization, and Leadership

Military doctrine offers the written principles and foundations that guide planning and implementation for the Army. This can range from “policies and procedures put in place by a particular military branch to the tactics and techniques taught to new members during training.”¹ For this project, we took a broad view of doctrine because we examined not just military equine cases but also other working herds with relevant documentation. Thus, this section could more properly be referred to as an analysis of the doctrine and process documentation underlying the Caisson Detachment and similar working herds. Organization and leadership analysis in this report focuses, more traditionally, on the examination of the staffed structure of the Caisson Detachment, including its level of leadership. The combination of these three factors—documentation, organization, and leadership—is critical to the success of the Caisson Detachment and reflects its bureaucratic and structural foundations.

Doctrine and Documentation

The Caisson Detachment operates under the U.S. Army Caisson Platoon Standard Operating Procedures (SOPs), implemented on October 1, 2015. The Caisson Detachment is drafting a series of SOPs on the care and maintenance of military working equines (MWEs), but as of this writing, they have not been formalized or signed.² The Army does not possess other updated documentation that the Caisson Detachment could depend on. One interview from the ARNORTH Caisson Section cited the *Field Artillery Mounted Instruction* manual as a good source for guidelines on the care, riding, and maintenance of military equids,³ and it could serve a useful starting point for a comprehensive horsemanship manual. However, some aspects of the 1942 manual could be outdated and might not apply to the needs of the Caisson Detachment’s mission, especially in areas in which equine science might have changed, such as nutrition. Other interviewees indicated that their documentation is updated annually—if not more often—to follow external equestrian organization guidelines and

¹ RAND Corporation, “Military Doctrine,” webpage, undated.

² Current or former caisson command or staff (C8), interview with the authors, May 21, 2024.

³ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024; Field Artillery School, *Field Artillery Mounted Instruction*, 1942.

explained that changes to these guidelines were consistent and significant enough to warrant regular updates.⁴

The Caisson Detachment's horsemanship and rider training course syllabus was being drafted at the time of this report's writing.⁵ Most unmounted skills and knowledge in the curriculum—including safety, grooming, tacking, stable chores, and horse health—are taught in the first week of the course. Weeks two through five are heavily geared toward mounted instruction, and weeks three and four have no unmounted segments, instead focusing on schooling figures and drill riding. Trainees begin using the caisson harness in the fifth week of training, and they practice with it during three half-day sessions. As of this writing, the curriculum does not appear to include any instruction on postilion riding or mounted practice with the caisson wagon, which has been outsourced to external experts.⁶

Findings: Doctrine and Documentation

Further Documentation Can Help Standardize Some Processes, but It Should Remain Flexible and Open in Areas That Require Higher Levels of Equine Expertise

Documentation and doctrine are helpful in establishing standards and will remain critical to the overall functioning of the Caisson Detachment until institutional knowledge is extensive and aligned with proper equine care. The Caisson Detachment SOP establishes rigid standards for the care and maintenance of military equids, as well as operating procedures for missions and barn maintenance, and it is encouraging that the Caisson Detachment is updating and expanding its SOPs. Documentation is especially important for facilitating day-to-day operations,⁷ coordinating Caisson Detachment stakeholders, and providing guidance for those with less equine expertise.

As further revision is made to the curriculum, it might be useful to look to the Army Technique Publication (ATP) on military working dogs (MWDs) that was last updated in May 2022.⁸ It offers an in-depth description of canine health (including specific conditions that would make dogs less efficient and effective at their jobs), requirements for the maintenance of canine performance, and daily care for the dogs' well-being. Moreover, it closes gaps already observed by equine experts. For example, trailering of horses has been cited as

⁴ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

⁵ Equine expert (B4), interview with the authors, August 13, 2024.

⁶ Department of the Army Staff, "Caisson Horsemanship Training Syllabus or Written Training Products," email to the authors, July 17, 2024c.

⁷ Examples of such operations include cleaning, tack care, tacking, and basic nutritional standards, although the latter should also be tailored to the herd. See the discussion in Chapter 4 on procurement for more information about nutrition.

⁸ Army Tactics, Techniques, and Procedures 3-39.34, *Military Working Dogs*, Headquarters, Department of the Army, May 2022.

a concern in subject-matter expert (SME) interviews because of soldiers' lack of knowledge about proper procedures for handling equines during transportation.⁹ However, there is an entire section in the ATP on procedures for transporting MWDs. The Fort Sam Houston SOP, updated in January 2024, is much newer than the Caisson Detachment's 2015 SOP.¹⁰

Although there is a need to update existing SOPs, equine SMEs also emphasized that the care of equines requires flexibility. Due to the nature of caring for living animals, equine experts responsible for MWEs should be granted a certain degree of autonomy to make decisions that might not align directly with prescribed doctrine, especially in high expertise areas, such as assessing health and fitness for mission. Many equine SMEs noted that true equine expertise involves a visceral understanding of when a horse cannot perform to the standards of the caisson mission,¹¹ such as noticing when a horse is sick, lame,¹² or acting abnormally. Therefore, although documentation is important for the daily functioning of the barn and mission, it might be counterproductive in areas requiring more expertise. For example, several equine experts noted that having an upper age limit might not be an accurate indicator of when horses are unable to perform, and a more flexible veterinary assessment could be a better way to assess when the caisson horses need to retire. We recognize that this is a delicate balance to achieve, and the need for flexibility further emphasizes the importance of having equine experts continually involved in decisionmaking around the herd.

Case analysis also bears out the important role of documentation. For example, the King's Troop Royal Horse Artillery uses significant documentation to oversee their operations.¹³ Although soldiers in the King's Troop have long tenures with the unit that allow them to develop institutional knowledge and expertise, the more-tenured soldiers also recognize that

⁹ Current or former caisson command or staff (C8), interview with the authors, May 21, 2024; Current or former manager of an equine herd (D7), interview with the authors, June 4, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Veterinarian (A4), interview with the authors, May 15, 2024.

¹⁰ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

¹¹ Equine expert (B2), interview with the authors, March 25, 2024; Veterinarian (A4), interview with the authors, May 15, 2024; Current or former manager of an equine herd (D2), interview with the authors, March 29, 2024; Current or former U.S. Army command or staff or U.S. government staff (E4), interview with the authors, July 3, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Current or former manager of an equine herd (D6), interview with the authors, May 17, 2024; Equine expert (B3), interview with the authors, March 27, 2024; Current or former manager of an equine herd (D4), interview with the authors, May 14, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Equine expert (B12), interview with the authors, June 4, 2024; Equine expert (B4), interview with the authors, May 8, 2024.

¹² *Lameness* refers to a horse's inability to fully use one or more legs, usually because of injury, soreness, or stiffness. Horses with hoof- and leg-related concerns are referred to as lame.

¹³ Current or former manager of an equine herd (D4), interview with the authors, May 14, 2024.

their knowledge might become out of date over their tenure and use the documentation regularly as a reference manual.¹⁴

The need for overarching doctrinal or documentation guidance is true for all Army equine units, many of which face similar challenges in the care and maintenance of MWEs.¹⁵ Documented standards are important to ensure that army equines are being treated properly. A note of warning, however: These standards must recognize that equine units operate in diverse environments and under different missions.

Doctrine and Documentation May Be Particularly Beneficial for Training New Personnel

In several cases, documentation is used primarily for training purposes. For example, in their initial training, Budweiser Clydesdale handlers use a horse care handbook specifically written for them by the head herd consultant, a veterinarian and Clydesdale expert.¹⁶ Additionally, the U.S. Park Police's training materials document the information covered in the classroom and during the hands-on sessions of their horsemanship course, which lasts 11 weeks.¹⁷ An overview of the U.S. Park Police curriculum is included in Appendix A. Both organizations, however, also emphasize practical experience and consultation with experts as key to successful daily operations.

Recommendations: Doctrine and Documentation

Prioritize regular updates to doctrine, documentation, and SOPs for MWE activities to set standards. These updates are especially important for the day-to-day running and processes of the barn and to help coordination and integration between stakeholders in the Caisson Detachment. Documentation for the Caisson Detachment could be more beneficial if used as a starting point for new handlers than as a strict protocol for all situations. Interview respondents suggested that the level of comprehensiveness in the MWD documents could be instructive for updating equine documentation. Once MWE documentation is established, it can reinforce MWD ATPs in return and offer additional formats for inclusion of topics, such as nutrition.

Rely on established civilian equine expertise when updating doctrine and documentation to account for changing industry standards and best practices. Regularly reviewing and updating the Caisson Detachment's SOP would help it remain relevant and useful for all

¹⁴ Current or former manager of an equine herd (D9, D10), interview with the authors, August 16, 2024.

¹⁵ Equine expert (B4), interview with the authors, May 8, 2024; Current or former caisson command or staff (C7), interview with the authors, May 20, 2024; Current or former U.S. Army command or staff or U.S. government staff (E8), interview with the authors, July 29, 2024.

¹⁶ Authors' site visit, St. Louis, Missouri, July 17, 2024.

¹⁷ U.S. Park Police staff, interview with the authors, June 3, 2024; Authors' site visit, Washington, D.C., June 3, 2024.

unit members. Additionally, this updated documentation should be regularly used to inform and update the Caisson Detachment rider training curriculum.

Create guidance across all equine units in the Army to flexibly codify standards of care. Standards are critical but flexibility needs to be built into policy because of the differing needs and missions of various units. Striking that balance should be done in consultation with equine experts and stakeholders in the units.

Organization and Leadership

The Caisson Detachment has two top-level missions.¹⁸ The first is its highly visible primary mission: conducting funeral ceremonies at ANC.¹⁹ Mission success requires serviceable ceremonial equipment (caisson wagon, tack, uniforms, etc.), trained and healthy horses, facilities and materiel required to maintain the herd (stables, pastures, feed, equipment, etc.), and trained riders and handlers. In addition, because the Caisson Detachment is embedded in a table of organization and equipment (TOE)-type unit, it has a secondary mission of supporting homeland defense and providing defense support to civil authorities missions in the national capital region.²⁰ Success in this mission requires serviceable TOE equipment, training facilities, and trained soldiers. In its secondary mission, the Caisson Detachment is also considered to be deployable, and, although an overseas deployment is unlikely, the 3rd Infantry Regiment to which it is assigned is managed as a deployable unit and reports its readiness status as if it were a deployable unit.²¹ The Caisson Detachment, therefore, has two distinct missions with no overlapping requirements besides the need for personnel.

There are also organizational implications of being a TOE unit. A TOE is a doctrinally based requirements document that provides the minimum mission-essential wartime requirements in terms of manpower and equipment for sustained combat operations.²² As a

¹⁸ The U.S. Department of Defense formally recognizes these two missions by noting that TOG conducts memorial affairs and ceremonies but also “conducts defense support of civil authorities” (Joint Task Force–National Capital Region and U.S. Army Military District of Washington, “Public Affairs, 3d U.S. Infantry Regiment (the Old Guard),” webpage, undated-c).

¹⁹ The Caisson Detachment also participates in other ceremonial duties.

²⁰ The Caisson Detachment does not have an individual TOE. Its manpower and equipment authorizations are derived from two paragraphs in the TOE of the Headquarters and Headquarters Company of the 1st Infantry Battalion, 3rd Infantry Regiment. This organization is reflected in both the unit’s base TOE (SRC 07706X100) and the MTOE associated with its unit identification code (Headquarters, 3rd U.S. Infantry Regiment, *U.S. Army Caisson Platoon: Standard Operating Procedures*, January 31, 2015, revised October 1, 2015).

²¹ As long as the Caisson Detachment remains a TOE unit that is part of the 3rd Infantry Regiment, it could be “in the position to deploy” (Current or former caisson command or staff [C8], interview with the authors, August 19, 2024).

²² Force Structure and Unit History Branch, “History of Tables of Distribution and Allowances (TDA) Units,” webpage, U.S. Army Center of Military History, May 30, 1995. Army Regulation 71-32 provides the

rule, with the exception of specific maneuver support or sustainment functions (particularly, maintenance), its manpower requirements are not workload-based.²³ In addition, TOEs do not include civilian personnel, such as equine professionals. Requirements for civilian personnel are listed in a separate augmentation table of distribution and allowances (TDA). As a result, the Caisson Detachment's manpower is determined by overarching U.S. Army structures for manning rather than tailored in force structure, and the Caisson Detachment needs to be task-organized to conduct its primary funeral support mission.

Maintaining readiness and conducting each mission should be a full-time effort for the Army personnel involved. This means that the Caisson Detachment soldiers are expected to successfully balance two full-time positions. Active-duty units in the Army essentially spend all their time maintaining combat readiness for their deployable, wartime mission. Reserve component units need additional post-mobilization training prior to deployment.²⁴ For the other Caisson Detachment missions, ceremonial duties previous to the suspension occupied 12 to 14 hours a day for the personnel (and horses) on that duty.²⁵ In addition, one interview respondent indicated that the time commitment for horse care is about 15 hours per week per horse, every week of the year.²⁶ Time is also required for rider training and to periodically rotate the horses from their off-JBMHH equine accommodations to the JBMHH stalls for ceremonial duties. These time requirements create overfull days for the Caisson Detachment soldiers, particularly when other soldier requirements (physical training, quarters maintenance, formations, etc.) are included and the ratio of soldiers to horses is about one to one or less and will likely remain so.²⁷ Several soldiers noted that—between preparing for an infantry career and the significant burden of the caisson mission—they felt pulled in several

authoritative definition of a TOE (Army Regulation 71-32, *Force Development and Documentation Consolidated Policies*, Headquarters, Department of the Army, March 20, 2019).

²³ Army Regulation 71-32, 2019, pp. 12, 24, 26–25; Department of the Army Pamphlet 71-32, *Force Development and Documentation Consolidated Procedures*, Headquarters, Department of the Army, March 21, 2019, p. 52.

²⁴ For example, the Army National Guard training regulation requires that units achieve only platoon and battle staff proficiency prior to mobilization. Company- and higher-level collective training must be accomplished post-mobilization prior to deployment (National Guard Regulation 350-1, *Army National Guard Training*, National Guard Bureau, June 23, 2021).

²⁵ In 2020, military horsemen worked from 4:15 a.m. to 6:00 p.m. with funeral missions being conducted every day of the year except on the ten federal holidays. A military horseman averages 435 missions (922 hours) in the saddle during an average assignment of two years (Deputy Chief of Staff, G-1, *Military Horseman: SDAP Program Recertification/Review (FY21)*, Headquarters, Department of the Army, November 10, 2020, p. 4).

²⁶ Grooms in herd management generally care for three to four horses (Equine expert [B12], interview with the authors, June 4, 2024; Veterinarian [A6], interview with the authors, June 5, 2024). Assuming full-time work, this equates to between ten and thirteen hours per week per horse. Some of the horse care time is included in the ceremonial duty time for those soldiers conducting ceremonial duties. Platoon personnel provide all-day care for the horses every day (Deputy Chief of Staff, G-1, 2020, p. 4).

²⁷ Current or former caisson command or staff (C8), interview with the authors, August 19, 2024.

directions.²⁸ Other, similar military herds, such as the King's Troop, also noted the heavy burden placed on their soldiers from the requirements of around-the-clock equine care.²⁹

The Caisson Platoon was historically organized as an enlarged light infantry platoon but task-organized to conduct the caisson mission. As shown in Table 2.1, the modified TOE (MTOE) for the Caisson Platoon, now a Provisional Detachment, consists of 56 soldiers: eight in the platoon headquarters and 48 divided among five squads. This overall structure has been stable since 2009 with the only change being the reduction in grade of the auto maintenance warrant officer from a W4 to a W2 between FY 2010 and FY 2014.³⁰ Another formal organizational change affecting the Caisson Detachment happened in FY 2021 when its attachment to the Headquarters and Headquarters Company, 3rd Infantry Regiment was moved to the Headquarters and Headquarters Company, 1st Battalion, 3rd Infantry Regiment.³¹

The only officer authorized for the platoon by the MTOE is a Chief Warrant Officer 2 (CWO2). A more senior warrant officer was previously authorized, but that has not been the case since September 2014.³² The CWO2 is an automotive maintenance technician. Presumably, this helps maintain the caisson wagons in top condition for the funeral ceremonies, but the CWO2 is very unlikely to have expertise in equine care and, although warrant officers are expected to lead small teams of technical experts or task-organized operational elements,³³ leading a 50- to 60-soldier unit is generally not expected of a CWO2. There is often an acting lieutenant platoon leader, but that officer must be pulled from another authorized MTOE billet in TOG.³⁴

Three civilians are also authorized to the Caisson Detachment by an augmentation TDA, which means they are nondeployable.³⁵ Although the formal job titles of these personnel have changed over the years, they have filled three primary functions: herd manager, horse trainer, and equipment and facilities manager. In 2024, the grade level of these three personnel was increased by two levels in the General Schedule (GS) pay scale, from GS-11 and GS-12

²⁸ Current or former caisson command or staff (C4), interview with the authors, March 19, 2024; Current or former caisson command or staff (C17), interview with the authors, August 15, 2024.

²⁹ King's Troop staff, interview with the authors, June 21, 2024; Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

³⁰ Prior to this change, in FY 2009, the platoon increased in size from four squads with 44 soldiers to five squads with 56 soldiers—a 27 percent increase (Headquarters, 3rd U.S. Infantry Regiment, 2015).

³¹ Headquarters, 3rd U.S. Infantry Regiment, 2015.

³² U.S. Army G3/5/7, "FY14 MTOE for UICWJRQAA," online dataset, *FMSWeb*, September 16, 2014, CUI.

³³ U.S. Warrant Officer Career College, "Warrant Officer Overview," webpage, undated.

³⁴ The 2015 Caisson Platoon SOP shows the platoon task-organized with an O2 platoon leader (Headquarters, 3rd U.S. Infantry Regiment, 2015, p. 2).

³⁵ Headquarters, 3rd U.S. Infantry Regiment, 2015, p. 2. We discuss TDA versus MTOE staffing more extensively in the "Recommendations: Organization and Leadership" section.

TABLE 2.1
Caisson Platoon and Caisson Detachment MTOE Personnel

Paragraph Title	Grade	Position Code	Position Title	Required Strength	Authorized Strength
Caisson Platoon Headquarters	W-2	9155A0	Auto Maintenance Warrant Officer	1	1
	E-7	11B4O	Platoon Sergeant	1	1
	E-6	11B3O	Operations Sergeant	1	1
	E-6	68T3O	Animal Care NCO	1	1
	E-5	92S2O	Shower and Laundry NCO	1	1
	E-4	92S10	Shower and Laundry Specialist	2	2
	E-3	11B10	Radiotelephone Operator	1	1
Caisson Platoon Headquarters total				8	8
Caisson Squad	E-6	11B10	Squad Leader	5	5
	E-5	11B10	Fire Team Leader	8	8
	E-4	11B10	Rifleman	13	13
	E-3	11B10	Rifleman	22	22
Caisson Squad total				48	48
Caisson Platoon total				56	56

SOURCE: Features information from Headquarters, 3rd U.S. Infantry Regiment, 2015, p. 1.

NOTE: The MTOE of the Caisson Platoon remains unchanged since FY 2014. NCO = noncommissioned officer.

to GS-13 and GS-14.³⁶ The augmentation TDA provides only a limited number of positions, given the size of the herd; soldiers are expected to provide most of the labor required to care for the horses. However, as noted elsewhere in this report, few of the soldiers assigned to the Caisson Detachment arrive with prior experience caring for horses. Additionally, their training period is short, and they are typically reassigned within two years of arrival, making it difficult to develop such expertise. This lack of equine experience among the soldiers and the small number of civilians—with varying levels of expertise—supporting the unit suggest that equine expertise in the Caisson Detachment will continue to be limited should the current personnel structure remain as is.

Historically, the Caisson Platoon has been task-organized to support its funeral mission. The basic organization has consisted of four operational squads and one or two support sections. When conducting cemetery missions, each squad of eleven soldiers is divided into a riding team of five soldiers and a tack preparation team of at least four soldiers. Squads rotate between primary cemetery teams, backup cemetery teams, training teams, and stable teams.

³⁶ Headquarters, 3rd U.S. Infantry Regiment, 2015, pp. 2, 16–18; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024.

Under normal circumstances, each cemetery team is expected to conduct no more than four missions a day, with the backup squad taking on any missions that the primary squad could not complete. The primary and backup cemetery teams are responsible for horse care and tack maintenance, the stable team is responsible for stable cleaning, and the training team conducts training to improve its skills. The remainder of the platoon's military personnel, supported by the three civilian roles, care for the platoon's horses (as veterinary technicians and farriers),³⁷ handle supply and equipment maintenance, and provide riding instruction.³⁸ This basic organization appears to have been maintained with the shift from a platoon to a detachment structure. The detachment consists of an operational platoon encompassing the unit's operational squads and a support platoon encompassing its support sections and functions.³⁹

In February 2024, the Commander of the 3rd Infantry Regiment designated the Caisson Platoon as the Caisson Detachment (Provisional) to simplify its chain of command and provide additional administrative and staff capacity. As Figure 2.1 shows, prior to this change, the Caisson Platoon's chain of command ran through the 1st Battalion's headquarters company and the battalion commander to the regimental commander. As a detachment, the unit reports directly to the regimental headquarters. Within the regimental headquarters, the deputy commander has been tasked with directly supporting the commander of the Caisson Detachment.

The number and grade of the Caisson Detachment's leadership has also increased. A standard infantry platoon is led by a Lieutenant (O-2) with an E-7 as their platoon sergeant. As a detachment, the unit now has a Major (O-4) assigned as its commander with an E8 assigned as the 1st Sergeant. Three other officers (O-2s and O-3s) and an E-7 have been attached to the detachment's headquarters to increase its administrative and staff capacity. As a result, the number of personnel in the unit's command element has increased from three to nine.⁴⁰

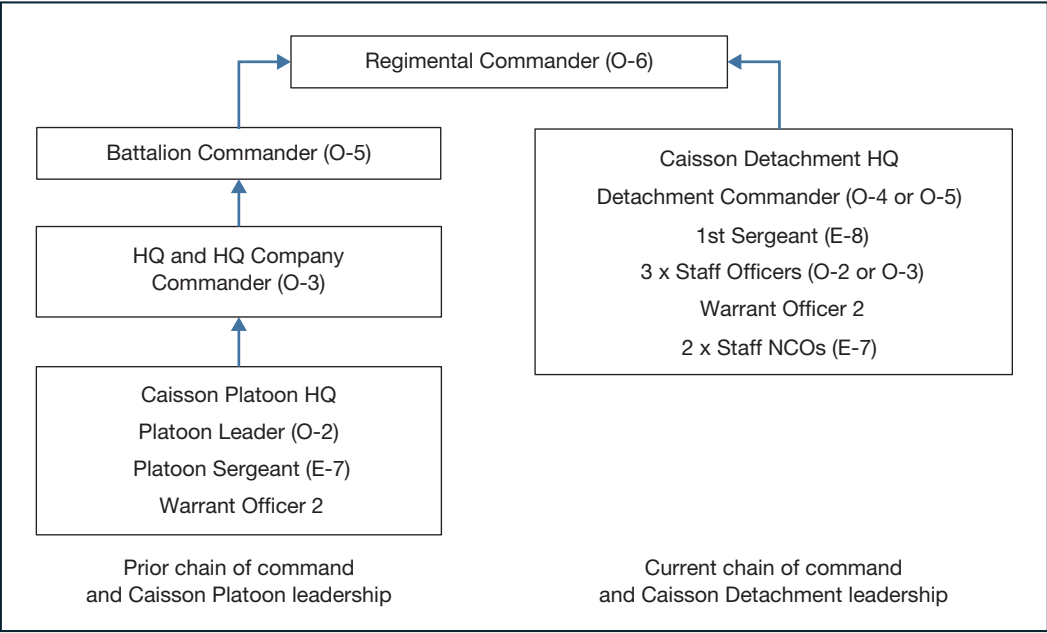
³⁷ *Farriers* are highly trained professionals who shoe horses. Farrier care encompasses fitting, shaping, and applying shoes, as well as trimming and shaping hooves.

³⁸ Information about the Caisson Platoon's organization and responsibilities is based on the Caisson Platoon's October 2015 standard operating procedures (SOPs), which were provided to the authors in April 2024 by the ARNORTH Caisson Section (Headquarters, 3rd U.S. Infantry Regiment, 2015). There might have been modifications to some of the procedures described in the SOP since its publication.

³⁹ Department of the Army Staff, "RAND Caisson Study," email to the authors, 2024d.

⁴⁰ Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Department of the Army Staff, 2024d.

FIGURE 2.1
Caisson Unit Chain of Command and Leadership Structure



SOURCES: Features information from current or former caisson command or staff (C1), interview with the authors, March 19, 2024; Current or former caisson command or staff (C2), interview with the authors, March 19, 2024; Current or former caisson command or staff (C3), interview with the authors, March 19, 2024; Current or former caisson command or staff (C4), interview with the authors, March 19, 2024; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Department of the Army Staff, 2024d.

NOTE: HQ = headquarters.

Findings: Organization and Leadership

Having Caisson Soldiers Serve Two Missions Muddies Their Incentives and Priorities

Managing the workload issue associated with the two missions is a challenge for the unit’s leadership and, inevitably, shortcuts are taken. Given the visibility of the ceremonial mission and the unlikelihood that the unit will be deployed on short notice, the unit’s mission as a deployable combat formation is likely to be a lower priority for its chain of command. As a result, reportable, individual-level training (physical fitness tests, weapon qualification, etc.) is likely the most training that the soldiers receive toward their warfighting mission during their time with the unit. With the chain of command prioritizing the ceremonial mission, soldiers are likely to spend the bulk of their duty time focused on that mission, though even

that mission might receive less soldier time than optimal.⁴¹ In addition, the formal need to be prepared for combat operations likely drives the requirement that the unit be manned primarily by infantrymen. This requirement could have a secondary effect of limiting the pool of soldiers who potentially have a background with horses.

There Is No Guarantee That the Caisson Detachment, at Least in Terms of Military Personnel, Will Match the Size of the Herd or Grow If Demands on the Herd and Herd Size Grow

There are several key points to be made regarding unit size. First, the number of assigned soldiers is roughly equivalent to the number of horses in the caisson herd, but the ratio of soldiers to horses should be considered even lower.⁴² Most of the personnel in the platoon headquarters are unlikely to spend time caring for horses. Additionally, squad leaders might spend less time on horse care in favor of taking care of their soldiers and working mission requirements, and the unit will often be less than fully manned on the horse care mission. Thus, with the current MTOE, if the horse herd is increased to 60 horses,⁴³ the soldier-to-horse ratio could be closer to one-to-two. These issues (soldiers having multiple responsibilities, not all soldiers being involved in horse-care, and the increasing ratio of horses to soldiers) create a larger time management issue and potentially result in less attention on horse care than necessary. If, over time, the herd size increases to more than 100 horses to meet the rotational demands of more ANC missions per day (as discussed in Chapter 1), this problem would be further exacerbated. The Army is operating in a zero-growth and resource-constrained environment. Thus, there is no guarantee that personnel growth will adequately correspond with herd growth.

Changes to Unit Organization Might Be Difficult to Sustain Without Formalizing Force Structure

The new chain of command is intended to allow accurate information to reach the regimental commander more quickly and to better support timely decisionmaking.⁴⁴ Several interview respondents noted that the reorganization helped remove middle steps that were impeding

⁴¹ Indeed, a previous caisson soldier indicated a lack of time to conduct training due to other ceremonial obligations (Current or former caisson command or staff [C17], interview with the authors, August 15, 2024).

⁴² As discussed elsewhere in this report, the number of horses in the herd varies, but is typically between 40 and 60.

⁴³ Interviewees cited a wide range for the desired number of horses in the caisson herd—from 44 to 93. For an explanation of why we opt for the number 60, please see the discussion of operational tempo in Chapter 1.

⁴⁴ Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024.

complaints from below and leading to less responsiveness to serious equine health concerns.⁴⁵ However, some interviewees doubt how sustainable the reorganization is in the long term, and they raised concerns that the shift had complicated efforts already under way to improve the Caisson Detachment.⁴⁶ Another interview respondent outside the Caisson Detachment noted that other units are doing the opposite with their chain of command and increasing the number of positions between the commander and the unit itself to prevent potential misuse of the unit or neglect if the commander is too busy to directly address issues.⁴⁷

The increase in leadership positions, and more-senior leadership, is a notable step toward elevating the Caisson Detachment to a greater priority status. These changes, however, are a result of the initiative and priorities of the current regimental commander and could easily be reversed if command priorities change.⁴⁸ In particular, without changes in the unit's authorized force structure, the increase in command staff might be difficult to sustain because those billets are being filled by personnel pulled from elsewhere in the regiment.

Given the Lack of Equine Expertise in Leadership Roles and the Incentive Structure, the Caisson Detachment's Organizational Model Encourages the Deprioritization of Equine Care

One important point about leadership, regardless of the organizational model, is that the officers and NCOs in the Caisson Detachment and the 3rd Infantry Regiment chain of command usually come to the unit without prior horse care expertise or experience.⁴⁹ The leaders in the regiment will, therefore, need to rely on outside expertise and the advice of personnel down the chain of command to ensure that the mission is not inappropriately prioritized over the horses' well-being. As leaders face a resource-constrained environment and pressure to flawlessly execute funeral missions, it is unsurprising that leaders without horse experience deprioritize herd health, but this is an unacceptable trade-off.⁵⁰

⁴⁵ Veterinarian (A6), interview with the authors, June 5, 2024; Current or former U.S. Army command or staff or U.S. government staff (E1), interview with the authors, June 12, 2024; Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024.

⁴⁶ Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024.

⁴⁷ Current or former U.S. Army command or staff or U.S. government staff (E6), interview with the authors, July 17, 2024.

⁴⁸ Current or former caisson command or staff (C15), interview with the authors, July 19, 2024.

⁴⁹ Occasionally, a leader will join the 3rd Infantry Regiment with prior experience in the Caisson Detachment or with experience riding and caring for horses outside the Army, but this seems to be the exception.

⁵⁰ Please see Chapter 5 for why this trade-off is unacceptable, both ethically and for the mission.

Authorizing the Caisson Platoon as a TDA Organization Might Be More Appropriate for Its Mission

TOE authorization documents are primarily intended to organize units with a wartime mission. The Caisson Platoon (which, as of this writing, is task-organized as the Caisson Detachment) is authorized as a subcomponent of a larger TOE unit, and the basis for this organization is a modified light infantry platoon.⁵¹ Therefore, its personnel requirements are not based on the unit's expected workload for its primary mission, it is not formally organized to execute its primary mission, and it does not include personnel authorization for civilians with specialty skills related to the care and management of horses. TDA authorization documents are used to prescribe the manpower and equipment requirements and organizational structure to perform missions for which no TOE exists. They can include civilian personnel and civilian equipment and have workload-derived manpower requirements.⁵²

Recommendations: Organization and Leadership

Modify the authorization document for the Caisson Detachment, changing it from an MTOE to a TDA that focuses the unit almost exclusively on the ceremonial mission and care of the horses. A TDA is a unit identification code-specific authorization document that prescribes the organizational structure, manpower and equipment requirements, and personnel and equipment authorizations to perform a mission for which no TOE exists. Authorizing the Caisson Detachment as a unique TDA organization would have several potential advantages. Significantly, its manpower requirements are workload-based, so a TDA would be tailored to execute the specific headquarters-level mission assigned to it.⁵³

Developing the unit's personnel requirements based on workload (i.e., number of funerals per day or week, number of horses requiring care, etc.) would help to ensure the health and welfare of the unit's personnel and horses, and there is an established procedure for updating TDAs to reflect changes in workload or mission scope.⁵⁴ Additionally, developing workload-based personnel requirements would clearly signal to leadership that exceeding that workload for an extended period could risk the health and safety of the unit's personnel and horses, and it would help leaders identify the additional resources required to meet the new workload. A workload-based organization would help set expectations as to what the Caisson Platoon could reasonably be expected to do with the resources made available to it. As a TDA, the Caisson Platoons formal structure could be aligned with its operational structure and be staffed appropriately with personnel with the requisite skills. Finally, as a TDA, civilian equine experts could more easily be integrated into the unit at the appropriate career

⁵¹ The platoon headquarters does include some positions tailored for its funeral support mission.

⁵² Army Regulation 71-32, 2019, p. 30.

⁵³ Army Regulation 71-32, 2019, pp. 30, 33.

⁵⁴ Department of the Army Pamphlet 71-32, 2019, pp. 22–30.

level and in positions of authority to help ensure that their expertise was used by the unit's military personnel.

Increase unit size to correspond with any increase in the operational tempo of the detachment. Soldiers are already overstretched and are frequently forced to split their time between two missions. More or longer duties will lead to dangerous gaps in training and horse care. Thus, we recommend prioritizing horse welfare through a two-pronged organizational strategy:

1. **Turn to and empower civilian equine expertise.**

Turn to civilian equine experts. Several interview respondents inside the Caisson Detachment or other Army equid units noted the issue of feeling ignored or dismissed because of their rank.⁵⁵ Recognize that rank will play a role in how civilians are treated in the Caisson Detachment and build in supervisor support to empower civilians. Appropriate compensation could serve as a surrogate for rank, and the Caisson Detachment has already increased compensation for civilians. It might be helpful to incorporate civilians into formal training for military personnel—this could establish their expertise and help encourage the two groups to work together.

2. **Develop and foster equine expertise within USAMDW and TOG leaders themselves.**

- a. The Caisson Detachment commander should be a field grade officer, preferably with equine knowledge. The unit MTOE or TDA should be changed to reflect the commander's field grade rank. Field grade rank is justified by the need to provide effective oversight to the civilian members of the detachment, leadership to the large number of soldiers, and the authority to manage a highly visible, cannot-fail mission.
- b. The Army should require and fund graduate-level civil schooling in equine science to incoming commanders if they do not already have equivalent education or experience. Most officers will have developed leadership skills through their career and should be competent in managing their soldiers, but they will not have developed the skills required to manage a large herd of horses. Although the commander can rely on the expertise of civilian equine specialists, the horse herd is such a significant responsibility that the commander should have some knowledge of equine welfare to provide oversight of the herd and leadership for its caregivers.
- c. The Caisson Detachment commander should be stabilized in the position for a minimum of four years. The stabilized command is justified because this is a command that the Army needs to invest in with specialized education. It is also unique and requires special skills that most officers will not have developed

⁵⁵ Equine expert (B10), interview with the authors, May 29, 2024; Current or former U.S. Army command or staff or U.S. government staff (E9), interview with the authors, August 12, 2024; Veterinarian (A6), interview with the authors, June 5, 2024.

over the course of a typical career and will not use in follow-on assignments. Moreover, a four-year minimum tenure could help ensure that most of the command occurs after the commander has gained experience, and it could reduce the potential for problems with horse care and ceremonial mission management that are primarily the result of inexperience.

Personnel and Training

People are the core of Army capabilities. In the case of the Caisson Detachment with its specialized mission and unique set of requirements, the correct number of personnel with required expertise and devotion to the caisson mission, including horse care, is especially key. Because of this, we approached questions of personnel and training with a purposefully broad scope. We first looked at the role of civilians and contractors in the barn—specifically, how the herd manager position was handled in other barns and what other supporting roles are helpful for maintaining a sustainable barn. However, we recognize that most of the personnel in the unit are and will remain soldiers, so we also took an in-depth look at the current use of military personnel in the unit and examined how the Caisson Detachment (and the Army more broadly) could best support and use personnel to succeed at their mission. On the topic of training, we examined the training of soldiers, both in horsemanship and riding (broadly and postilion), and the training of horses in basic riding, driving, and the postilion style.

Personnel

Herd Manager

A herd manager is responsible for the care, safety, and well-being of a designated group of horses. Specific areas of oversight can include feeding, veterinary care, farrier care, exercise, and training. The herd manager position was highlighted as a pivotal role in 23 of our interviews,¹ but it is an extremely difficult position to fill successfully. Achieving academic

¹ In our interviews, we asked herd manager, Caisson Detachment, and equine experts about what roles were critical for management of the barn (Equine expert [B5], interview with the authors, May 14, 2024; Current or former manager of an equine herd [D1], interview with the authors, March 15, 2024; Equine expert [B2], interview with the authors, March 25, 2024; Current or former U.S. Army command or staff or U.S. government staff [E4], interview with the authors, July 3, 2024; Current or former caisson command or staff [C6, C7], interview with the authors, May 20, 2024; Current or former caisson command or staff [C12], interview with the authors, July 18, 2024; Current or former manager of an equine herd [D8], interview with the authors, June 11, 2024; Current or former caisson command or staff [C5], interview with the authors, March 27, 2024; Current or former manager of an equine herd [D7], interview with the authors, June 4, 2024; Current or former caisson command or staff [C10], interview with the authors, June 6, 2024; Equine expert [B3], interview with the authors, March 27, 2024; Current or former manager of an equine herd [D4],

success in an equine management or related graduate degree does not always translate to a herd manager who has the barn experience to be successful in the role, and barn management experience does not always translate to a herd manager who is willing to incorporate new equine science into the performance of their role. The Army had a previous herd manager who operated under serious budget constraints and who was cited as lacking relevant experience. Our interviews revealed mixed opinions on the impact of this herd manager on the herd's overall health; there were concerns about the horses procured,² the handling of feeding the horses,³ the quality of farrier care,⁴ and the integration of the veterinary staff.⁵

In replacing this herd manager, the Army previously sought to find a new herd master through committee hiring. However, several interviewees reported that the position, as laid out in the previous hiring, was expected to do too many things, and this expectation led to an untenable position that no one could fill.⁶ The herd master that was hired at this time had more experience, especially in academic equine science, but struggled with the barrage of responsibilities from different quarters and had friction with other caisson stakeholders.⁷ Following the loss of this herd manager and as of this writing, the Army has been working to hire a herd manager into a modified position in which some of the former responsibilities

interview with the authors, May 14, 2024; Veterinarian [A2], interview with the authors, March 26, 2024; Veterinarian [A3], interview with the authors, March 28, 2024; Current or former caisson command or staff [C9], interview with the authors, June 5, 2024; Veterinarian [A7], interview with the authors, June 10, 2024; Equine expert [B12], interview with the authors, June 4, 2024; Current or former caisson command or staff [C1, C2, C3, C4], interview with the authors, March 19, 2024; Equine expert [B8], interview with the authors, May 23, 2024).

² Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Equine expert (B10), interview with the authors, May 29, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024.

³ Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Veterinarian (A5), interview with the authors, May 22, 2024.

⁴ Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Veterinarian (A2), interview with the authors, March 26, 2024.

⁵ Veterinarian (A7), interview with the authors, June 10, 2024.

⁶ Veterinarian (A4), interview with the authors, May 15, 2024; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024; Current or former manager of an equine herd (D4), interview with the authors, May 14, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024.

⁷ Veterinarian (A2), interview with the authors, March 26, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024.

have been dispersed to other support staff positions. This new request demonstrates that, to avoid overwhelming the herd manager with different and competing duties, there might need to be multiple staff positions in the barn that can provide much-needed support to the herd manager.⁸

Other Skilled Personnel

Before May 2023, soldiers served most other roles in the barn, including farriers, trainers, and grooms. Farriers are specialists in equine hoof care, including trimming and shoeing, if necessary. Soldiers were given farrier training through a 12-week workshop led by an external farrier,⁹ but the brevity of this training presents a considerable risk. Being a farrier is a highly specialized skill, expertise is built over many years, and horse health relies heavily on the continued health of their hooves. As several interview respondents said—“no hoof, no horse.”¹⁰

The Caisson Platoon had multiple riding instructors and horse trainers previous to May 2023, although both the lead riding instructor and the lead horse trainer left the Caisson Platoon in early 2023. During the interregnum, soldiers were bridging the gap until a new riding instructor and horse trainer were hired.¹¹

As of this writing, education has expanded considerably; the Caisson Detachment now contracts its riding instruction from external stables and horse training from consultants. Additionally, the Caisson Detachment has shifted toward the use of a contracted farrier. Using a contracted farrier with more experience is a significant step forward for equine health, although some noted that this farrier did not have draft horse-specific expertise,¹²

⁸ Equine expert (B1), interview with the authors, March 7, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024; Equine expert (B3), interview with the authors, March 27, 2024; Veterinarian (A7), interview with the authors, June 10, 2024; Equine expert (B8), interview with the authors, May 23, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Current or former U.S. Army command or staff or U.S. government staff (E4), interview with the authors, July 3, 2024.

⁹ Veterinarian (A2), interview with the authors, March 26, 2024; Current or former caisson command or staff (C8), interview with the authors, August 19, 2024.

¹⁰ Current or former U.S. Army command or staff or U.S. government staff (E4), interview with the authors, July 3, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024.

¹¹ Current or former caisson command or staff (C1), interview with the authors, March 19, 2024; Current or former caisson command or staff (C17), interview with the authors, August 15, 2024.

¹² Draft horses are breeds adapted to pulling heavy loads. Draft breeds can be crossbred with smaller, sportier breeds to produce draft crosses, which, ideally, possess the calm temperament associated with drafts while having greater athleticism. Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Veterinarian (A7), interview with the authors, June 10, 2024; Current or former caisson command or staff (C14), interview with the authors, June 14, 2024.

and there were concerns that the farrier regularly required the horses to be sedated to handle them.¹³ Sedation is not unheard of in farrier work, and it is used in other comparative herds but to a less significant extent.¹⁴

The Caisson Detachment has also sought external equine advisors who, as of this writing, were participating in the Caisson Detachment renovation and curriculum revision efforts but had not yet completed the formal governmental hiring process. For example, the Caisson Detachment is consulting external experts from the U.S. Equestrian Federation to build a strategic plan that will include more detail about how to use civilian and contractor support. They are also creating a curriculum aimed at building internal equine expertise to work toward the Caisson Detachment's ultimate goal of rebuilding some of their internal capabilities in a safe and sustainable manner.¹⁵

Throughout the history of the unit, veterinarian support for the caisson horses came from the Veterinary Corps. The three most recent veterinarians all had equine experience, although interviewees noted that the veterinarians who were supervising them did not always possess similar expertise, and there were some concerns that some of this equine expertise might be the wrong type—for example, expertise in equine surgery seemed an ill fit when the horses largely needed equine sports medicine support. Although this is a valid concern, several interview respondents also noted the rarity of equine veterinarians in general.¹⁶

Findings: Personnel

Traditional Army Hiring Is Fundamentally at Odds with How Equine Experts Are Usually Hired

Multiple interview respondents noted that hiring through USA Jobs would not be a successful or effective way to hire the right equine experts for the caisson herd.¹⁷ U.S. government-mandated veteran preference might make it difficult to hire the best candidate. More importantly, respondents explained that a USA Jobs posting would be unlikely to reach

¹³ Veterinarian (A7), interview with the authors, June 10, 2024; Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

¹⁴ Equine expert (B13), interview with the authors, August 16, 2024.

¹⁵ Equine expert (B4), interview with the authors, May 8, 2024.

¹⁶ Veterinarian (A6), interview with the authors, June 5, 2024; Current or former manager of an equine herd (D2), March 29, 2024; Veterinarian (A5), interview with the authors, May 22, 2024; Equine expert (B2), interview with the authors, March 25, 2024.

¹⁷ Current or former manager of an equine herd (D2), interview with the authors, March 29, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Equine expert (B8), interview with the authors, May 23, 2024.

equine experts, who are typically hired through networks of existing experts or recruited from top universities.¹⁸ The Caisson Detachment is working hard to hire more equine experts, but finding the right language and recruitment strategy has posed a continuing challenge.¹⁹

Hiring a Herd Manager Will Be a Challenging Process That Is Exacerbated by a Lack of Consensus Around Desired Qualifications

Several interview respondents noted that hiring for the Caisson Detachment's herd manager position would continue to be a very difficult endeavor. In addition to the difficulties of being a part of the military with its corresponding bureaucratic hurdles, the barn has a clear—and significant—mission, restricted facilities, and niche traditions. All these obstacles require expertise to navigate. As discussed earlier in this chapter, the Army is looking for an incredibly specific individual, and many of these types of professionals are unlikely to be comfortable with searching or applying for a job through federal hiring resources.²⁰ Furthermore, having excellent references from equine experts was also seen as key in the hiring process.²¹

Interviewees offered mixed suggestions about herd manager characteristics, but there was some overlap. Six interviewees suggested the need for previous experience managing a herd (especially in a similar barn with working animals),²² five interviewees suggested a possible animal husbandry or equine graduate degree as a requirement,²³ and fourteen interview-

¹⁸ Current or former manager of an equine herd (D2), interview with the authors, March 29, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Equine expert (B8), interview with the authors, May 23, 2024.

¹⁹ Current or former caisson command or staff (C8), interview with the authors, August 19, 2024.

²⁰ Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Current or former U.S. Army command or staff or U.S. government staff (E4), interview with the authors, July 3, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Veterinarian (A8), interview with the authors, July 22, 2024.

²¹ Equine expert (B8), interview with the authors, May 23, 2024; Current or former U.S. Army command or staff or U.S. government staff (E4), interview with the authors, July 3, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024; Equine expert (B3), interview with the authors, March 27, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024.

²² Current or former caisson command or staff (C11), interview with the authors, June 10, 2024; Equine expert (B1), interview with the authors, March 7, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Equine expert (B12), interview with the authors, June 4, 2024.

²³ Equine expert (B1), interview with the authors, March 7, 2024; Veterinarian (A4), interview with the authors, May 15, 2024; Current or former manager of an equine herd (D2), interview with the authors,

ees suggested extensive experience (around ten years) with horses.²⁴ Despite this overlap, it is difficult to weight these characteristics. Other respondents specifically pushed back on characteristics that they had seen associated with the herd manager position. For example, three interviewees argued that a graduate degree was not always meaningful.²⁵ Additionally, in relation to the herd manager position, three interviewees suggested that Army expertise should come from other personnel who would work in concert with the herd manager rather than having a herd manager with Army experience.²⁶

Certain Highly Specialized Roles Should Be Filled Only by Experienced Civilians or Contractors

Although there was a variety of suggestions for what other possible civilian or contractor roles might benefit the Caisson Detachment, some roles were frequently mentioned: 18 interviewees

March 29, 2024; Veterinarian (A1), interview with the authors, March 8, 2024—although this respondent noted that, with previous pursuits, it still had not worked out; Veterinarian (A3), interview with the authors, March 28, 2024.

²⁴ Equine expert (B1), interview with the authors, March 7, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Current or former manager of an equine herd (D2), interview with the authors, March 29, 2024; Current or former manager of an equine herd (D1), interview with the authors, March 15, 2024; Equine expert (B2), interview with the authors, March 25, 2024; Current or former caisson command or staff (C6, C7), interview with the authors, May 20, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Equine expert (B3), interview with the authors, March 27, 2024; Current or former manager of an equine herd (D4), interview with the authors, May 14, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Equine expert (B12), interview with the authors, June 4, 2024.

²⁵ Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Equine expert (B12), interview with the authors, June 4, 2024.

²⁶ Current or former manager of an equine herd (D4), interview with the authors, May 14, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

suggested a farrier,²⁷ 26 suggested a horse trainer,²⁸ and 12 suggested a riding instructor.²⁹ For the farrier role, experts emphasized the importance of extensive experience, including experience with draft horses. They asserted that soldiers could not—or should not—take on the role of farrier without having the necessary years of education and experience.³⁰ Several equine experts explained that farrier tasks are so highly specialized that draft horse farriery could

²⁷ Equine expert (B1), interview with the authors, March 7, 2024; Veterinarian (A4), interview with the authors, May 15, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Equine expert (B2), interview with the authors, March 25, 2024; Current or former U.S. Army command or staff or U.S. government staff (E4), interview with the authors, July 3, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Veterinarian (A3), interview with the authors, March 28, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Veterinarian (A7), interview with the authors, June 10, 2024; Equine expert (B4), interview with the authors, May 8, 2024; Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024.

²⁸ Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024; Current or former manager of an equine herd (D6), interview with the authors, May 17, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Current or former manager of an equine herd (D4), interview with the authors, May 14, 2024; Equine expert (B12), interview with the authors, June 4, 2024; Current or former caisson command or staff (C11), interview with the authors, June 10, 2024; Veterinarian (A8), interview with the authors, July 22, 2024; Current or former manager of an equine herd (D1), interview with the authors, March 15, 2024; Current or former U.S. Army command or staff or U.S. government staff (E4), interview with the authors, July 3, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Equine expert (B12), interview with the authors, June 4, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Veterinarian (A7), interview with the authors, June 10, 2024; Veterinarian (A1), interview with the authors, March 8, 2024; Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024; Equine expert (B8), interview with the authors, May 23, 2024; Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; (A2), interview with the authors, March 26, 2024.

²⁹ Veterinarian (A8), interview with the authors, July 22, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024; Current or former manager of an equine herd (D6), interview with the authors, May 17, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Equine expert (B2), interview with the authors, March 25, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Equine expert (B12), interview with the authors, June 4, 2024; Equine expert (B4), interview with the authors, May 8, 2024.

³⁰ Veterinarian (A6), interview with the authors, June 5, 2024; Current or former U.S. Army command or staff or U.S. government staff (E4), interview with the authors, July 3, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Equine expert (B4), interview with the authors, May 8, 2024.

differ considerably from farrier tasks for smaller horses, but other experts disagreed, suggesting that the overall length of experience as a farrier was more important than the type of experience.³¹

For comparison, the NYPD Mounted Unit and the RCMP Musical Ride each have full-time civilian farriers as part of their staff. These are highly experienced and skilled personnel who work with the units' horses daily and know them well. In an interview, one of the NYPD Mounted Unit's farriers captured the critical nature of his position:

I look at [the horses] every day. . . . They [can] grow out of balance. . . . My job is to balance the foot to the horse, his spinal cord and skeletal structure, so when it lands, it lands as flat and as comfortably as possible. I can also hear it. I can hear the footfall and hear when they are working too hard or when they are not landing as flat as they should be. I also pay attention to their walk, I can see that, I can almost feel that.³²

The King's Troop reshoes their horses approximately once every three weeks.³³ Budweiser maintains several farriers on contract, but it tries to ensure that farriers regularly work on the same horses. Budweiser can also fly farriers around the country, as needed, to attend to horses requiring emergency hoof or shoe care.³⁴

A horse trainer with driving experience was suggested as the best fit for the caisson herd, but interview respondents also cautioned that many of the trainers who would be a best fit for this scenario were unlikely to want to move to an urban area long-term. Although only a few interviewees suggested having an in-house saddler, several stressed the importance of having a contracted saddler to regularly adjust the saddles and make sure they are properly fitted to the horses.³⁵ Because a horse's body can fluctuate based on the amount of exercise it gets, interviewees suggested a range of timelines for saddle fitting, from one to four times a year, depending on the amount of work the horses are performing.³⁶ A smaller number of

³¹ Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Equine expert (B13), interview with the authors, August 16, 2024.

³² Albert Dickenson, "NYPD Farrier Marcus Martinez Always Stays Busy," *American Farriers Journal*, April 26, 2022.

³³ Equine expert (B13), interview with the authors, August 16, 2024.

³⁴ Authors' site visit, St. Louis, Missouri, July 19, 2024.

³⁵ Equine expert (B9, B10), interview with the authors, May 29, 2024; Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Equine expert (B12), interview with the authors, June 4, 2024; Current or former caisson command or staff (C6, C7), interview with the authors, May 20, 2024; Current or former caisson command or staff (C11), interview with the authors, June 10, 2024; Equine expert (B1), interview with the authors, March 7, 2024.

³⁶ Equine expert (B9, B10), interview with the authors, May 29, 2024.

interviewees suggested other roles: A nutritionist,³⁷ an acupuncturist,³⁸ a sports medicine expert,³⁹ a facilities manager,⁴⁰ and hired civilian grooms were roles mentioned by three interviewees each.⁴¹ The Caisson Detachment has begun onboarding a facilities manager at the time of this writing.

Many of the Civilian Positions Could Be Contracted or Part-Time, If Deemed Necessary

While studying peer working herds, we found that the teams surrounding them are often supplemented by part-time and contract positions. The Budweiser Clydesdales are supported by a team of contracted farriers, local veterinarians, a nutritionist (as part of their Purina sponsorship), a head herd consultant who is a Clydesdale expert and veterinarian, and several sports medicine practitioners, as needed.⁴² The U.S. Park Police work with a contracted farrier, a contracted veterinarian, a part-time nutritionist, and a contracted groom for stall cleaning; their riding instructors and horse trainers are not contracted or part-time.⁴³ The ARNORTH Caisson Section has a civilian herd manager and trainer, its veterinary care is provided by the Army Veterinary Corps, and, historically, a riding-specific instructor has not been needed.⁴⁴ As these cases show, inclusion of civilians or part-time contracted labor as a source of expertise, institutional memory, and support is well-accepted and key in other peer working herds, especially those in which longevity might be an issue.

³⁷ Equine expert (B8), interview with the authors, May 23, 2024; Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024.

³⁸ Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Equine expert (B12), interview with the authors, June 4, 2024; Equine expert (B2), interview with the authors, March 25, 2024.

³⁹ Veterinarian (A6), interview with the authors, June 5, 2024; Veterinarian (A5), interview with the authors, May 22, 2024; Equine expert (B2), interview with the authors, March 25, 2024.

⁴⁰ Current or former caisson command or staff (C10), interview with the authors, June 6, 2024; Veterinarian (A7), interview with the authors, June 10, 2024; Current or former caisson command or staff (C11), interview with the authors, June 10, 2024.

⁴¹ Equine expert (B12), interview with the authors, June 4, 2024; Current or former U.S. Army command or staff or U.S. government staff (E1), interview with the authors, June 12, 2024; Veterinarian (A8), interview with the authors, July 22, 2024.

⁴² Ann Glavan, "Behind the Stall Door with: The Budweiser Clydesdales," *Chronicle of the Horse*, December 8, 2015; Authors' site visit, St. Louis, Missouri, July 17, 2024; Authors' site visit, St. Louis, Missouri, July 19, 2024; Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴³ U.S. Park Police staff, interview with the authors, June 3, 2024.

⁴⁴ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

Veterinarians and Their Integration into the Rank Structure Will Continue to Be an Issue for the Caisson Detachment

Interview respondents emphasized that the Caisson Detachment was facing difficulties with veterinary support for a few major reasons. First, veterinary staff in the Army are heavily tasked and often not equine specialists.⁴⁵ Interview respondents had concerns that the Army Veterinary Corps is broadly focused on MWDs or spread too thin.⁴⁶ Second, the Caisson Detachment has hired equine veterinarians thus far, but respondents worried about the alignment of their expertise with the actual job of the horses.⁴⁷ Third, integration between veterinarians and caisson personnel was improving at the time of this research; still, the coordination between them was not always well synchronized. This led to two issues: friction when veterinary treatments were not coordinated with other caisson members and tensions and/or a lack of communication when veterinarian rank was too low (and it was difficult to get leadership to listen to concerns) or too high (and others with contact with the horses felt they could not give additional information to the veterinarians).⁴⁸

The King's Troop handled veterinary integration differently. The unit has one equine veterinarian, who is an officer, and one veterinary technician.⁴⁹ The veterinarian staff fall under the unit command structure but maintain separate authority: Clinical decisions cannot be overruled unless they are appealed up to another veterinarian.⁵⁰ The King's Troop faced similar needs with integration and coordination between the veterinarian staff and unit members, but they have found ways to fulfill those needs.⁵¹

⁴⁵ Few veterinarians specialize in equestrian science. The American Veterinary Medical Association noted that, in 2021, only 3.8 percent of all veterinarians specialized in equine practice. It also noted that equine practice was more dangerous, lower paid, and required significant additional knowledge on equine nutrition, care, and appropriate equine facilities (Coco Lederhouse, "LMU Introduces Equine Education Program to Increase Number of Veterinarians Working with Horses," *American Veterinary Medical Association News*, January 19, 2023).

⁴⁶ Equine expert (B2), interview with the authors, March 25, 2024; Veterinarian (A8), interview with the authors, July 22, 2024.

⁴⁷ Equine expert (B2), interview with the authors, March 25, 2024; Veterinarian (A5), interview with the authors, May 22, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Veterinarian (A8), interview with the authors, July 22, 2024.

⁴⁸ Veterinarian (A7), interview with the authors, June 10, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Current or former manager of an equine herd (D6), interview with the authors, May 17, 2024; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024.

⁴⁹ King's Troop staff, interview with the authors, June 21, 2024.

⁵⁰ King's Troop staff, interview with the authors, June 21, 2024.

⁵¹ Equine expert (B14), interview with the authors, August 16, 2024.

Rank Affects How Personnel Are Treated in the Unit

Several interview respondents discussed similar issues for civilian personnel, whom they saw as receiving less respect than those with a military background.⁵² This sometimes led to suggested changes, often from equine experts, being summarily dismissed. Moreover, individuals with knowledge about equine care reported feeling afraid to speak up about bad practices or mistreatment of horses because they feared losing their rank or contractor status.⁵³ Having a protected or anonymous reporting system should be considered to ensure that issues can be reported without fear of reprisal.⁵⁴

Soldiers' Longevity in Position Is a Pivotal and Continual Issue and Drives Their Levels of Expertise, for Both the Caisson Detachment and Other Army Equid Units

Equine expertise is developed over a long period of time—experts had a hard time agreeing on an exact timeline but were united in their opinion that staying in the unit for two to three years does not allow soldiers to develop the skills necessary to properly care for and maintain equines without supervision.⁵⁵ Some interviewees mentioned that having soldiers stay in

⁵² Veterinarian (A5), interview with the authors, May 22, 2024; Current or former U.S. Army command or staff or U.S. government staff (E2), interview with the authors, June 28, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Current or former manager of an equine herd (D4), interview with the authors, May 14, 2024.

⁵³ Equine expert (B17), interview with the authors, August 20, 2024.

⁵⁴ Although not a rigorous or extended analysis, several interview respondents mentioned linked concerns about gender making it more difficult to receive respect (Current or former U.S. Army command or staff or U.S. government staff [E9], interview with the authors, August 12, 2024; Current or former manager of an equine herd [D5], interview with the authors, May 16, 2024; Veterinarian [A8], interview with the authors, July 22, 2024; U.S. Park Police staff, interview with the authors, June 3, 2024); of the interview respondents that discussed chain-of-command and respect issues, all mentioned female personnel as the ones most likely to face these obstacles (Veterinarian [A7], interview with the authors, June 10, 2024; Equine expert [B10], interview with the authors, May 29, 2024; Veterinarian [A6], interview with the authors, June 5, 2024; Veterinarian [A5], interview with the authors, May 22, 2024; Veterinarian [A2], interview with the authors, March 26, 2024; Current or former caisson command or staff [C13], interview with the authors, July 3, 2024; Current or former U.S. Army command or staff or U.S. government staff [E2], interview with the authors, June 28, 2024).

⁵⁵ Veterinarian (A6), interview with the authors, June 5, 2024; Equine expert (B10), interview with the authors, May 29, 2024; Equine expert (B6), interview with the authors, May 17, 2024; Current or former manager of an equine herd (D2), interview with the authors, March 29, 2024; Veterinarian (A5), interview with the authors, May 22, 2024; Equine expert (B8), interview with the authors, May 23, 2024; Current or former U.S. Army command or staff or U.S. government staff (E4), July 3, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Current or former caisson command or staff (C5), interview with the authors, March 27, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Current or former manager of an equine herd (D4), interview with the authors, May 14, 2024; Equine expert (B12), interview with the authors, June 4, 2024; Equine expert (B4), interview with the authors, May 8, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024.

the unit for five to eight years would help to improve some of the challenges associated with shorter tenures.⁵⁶ Without expertise from the soldiers themselves, it is key to have a backbone of equine expertise in the unit coming from civilian or contracted support.

Evidence from case studies also showed the importance of career longevity to building internal expertise and institutional knowledge. The majority of U.S. Park Police officers stay in the mounted unit for their entire careers, and many eventually take on unit leadership roles as they gain skills and experience.⁵⁷ The same trend occurs in the private sector: Budweiser's Clydesdale handlers often spend years or decades in their positions and take on more responsibility over time.⁵⁸ The current ranch manager for Budweiser's breeding and training facility took the position after eight years as a hitch team handler and ten years running Clydesdale operations at one of the smaller facilities; her predecessor had been the ranch manager for more than 35 years.⁵⁹ King's Troop interview respondents discussed how 50 percent of their personnel had ten years or more with the unit and suggested that it would be impossible to safely run their unit without their most tenured soldiers.⁶⁰ In the NYPD Mounted Unit, the officers can stay with the unit indefinitely.⁶¹ They are matched with a horse after they finish their training, and these partnerships often last for the horse's full career.⁶² Officers in the RCMP Musical Ride have a customary three-year rotation.⁶³ After completing a seven-month training program, new officers are matched with a horse for a full year, including the

⁵⁶ Veterinarian (A8), interview with the authors, July 22, 2024; Current or former caisson command or staff (C8), interview with the authors, May 21, 2024; Current or former manager of an equine herd (D6), interview with the authors, May 17, 2024; Current or former manager of an equine herd (D9, D10), interview with the authors, August 16, 2024; Equine expert (B13, B14, B15, B16), August 16, 2024; Veterinarian (A9), interview with the authors, August 16, 2024.

⁵⁷ U.S. Park Police staff, interview with the authors, June 3, 2024.

⁵⁸ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁵⁹ Asonta Benetti, "I'm a Ranch Manager for the Budweiser Clydesdales. I Have to Be on Call 24/7, but It's Totally Worth It," *Business Insider*, May 20, 2022; Sarah Newell, "The Mother of All Breeding Farms: Warm Springs Ranch," *St. Louis Magazine*, April 1, 2016.

⁶⁰ Current or former manager of an equine herd (D9, D10), interview with the authors, August 16, 2024; Equine expert (B13, B14, B15, B16), interview with the authors, August 16, 2024; Veterinarian (A9), interview with the authors, August 16, 2024.

⁶¹ Corey Kilgannon, "Central Park Detective Retires with the Horse He Rode in On," *New York Times*, February 28, 2019.

⁶² Lauren Cook, "NYPD Mounted Unit: Meet the Horses That Patrol NYC's Streets," *amNewYork Metro*, September 16, 2016; Alice Collins, "'Ten Foot Cops': A Glimpse Inside New York City's Mounted Police Unit," *Noëlle Floyd*, April 10, 2020.

⁶³ In recent years, broad RCMP staffing shortages have meant some Musical Ride officers are kept in the unit past their three-year terms (National Program Evaluation Services, *Evaluation of the RCMP's Musical Ride*, RCMP, October 2023, p. 29).

winter training season and the tour season.⁶⁴ Each Musical Ride officer is responsible for their horse's care, including feeding, grooming, stall cleaning, and stable maintenance.⁶⁵

Unfortunately, although longer assignments for the soldiers of the Caisson Detachment is desirable from the standpoint of developing equine experience and expertise, it is probably incompatible with current Army career progression. The E-2s and E-3s who make up the majority of the Caisson Detachment need time to develop in their primary military occupational specialty (MOS) before advancing to NCO rank.⁶⁶ The Caisson Detachment is exploring several options for increasing soldier longevity, including pilot programs that would allow for the education of specific soldiers who would stay in position for several more years after the traditional two-to-three-year tenure.⁶⁷

The Creation of a Military Occupational Specialty for Army Horsemen Is an Appealing Idea in Theory But May Be Difficult to Operationalize in Practice

Several interview respondents expressed or acknowledged the idea of creating an equine MOS to extend the longevity of the soldiers in the Caisson Detachment.⁶⁸ This could be an attractive option in terms of providing in-depth training and greater experience to the soldiers. However, creating and managing an equine MOS would be difficult in practice. Most importantly, there are very few soldiers authorized by Army documents as part of units with horses. These consist of the Caisson Detachment at JBMHH with 51 enlisted soldiers organized on an MTOE and a detachment of the 3rd Infantry Regiment at Joint Base San Antonio (JBSA) with eight enlisted soldiers organized on an augmentation TDA.⁶⁹ Although there are several other horse units in the Army, they are all provisional and rely on volunteers and borrowed military manpower for the soldiers in the units. Department of the Army Pamphlet 611-21, Section 9-4 notes that an "MOS should apply to at least 75 authorized duty positions. MOS that fall [sic]

⁶⁴ RCMP, "Riders and Horses," webpage, last updated August 30, 2024d.

⁶⁵ RCMP, "The Life of a Musical Ride Horse: Part 3," video, last updated March 29, 2021e.

⁶⁶ Soldiers who do not plan to reenlist might be extended in the position until the end of their current enlistment. This could mitigate, to some extent, the lack of soldier equine expertise, but it would not solve the issue.

⁶⁷ Current or former caisson command or staff (C10), interview with the authors, August 19, 2024.

⁶⁸ Veterinarian (A7), interview with the authors, June 10, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Current or former U.S. Army command or staff or U.S. government staff (E1), interview with the authors, June 12, 2024.

The Army bandsmen have been offered as a model for an Army equine MOS, but this model might not be an appropriate peer. There are 25 Army bands in the active force and nearly 70 more in the National Guard and Army Reserve, which equates to more than 1,000 Army musicians (U.S. Army Bands, "Organizations," interactive map, undated).

⁶⁹ There are four soldiers in the Caisson Detachment who have nonriding or leadership positions, and these are not included in the 51 enlisted soldiers mentioned.

below this authorization level through force structure changes or other actions should be considered for merger with other MOS and/or deletion.”⁷⁰ This section also explains that exceptions to the minimum number can be made if training for the position requires an exceptionally long time.⁷¹ Elsewhere in this report, we make recommendations concerning the time required to train equine skills, but to date, soldiers in the Caisson Detachment receive only 12 weeks of training at the start of their assignment. Thus, justifying an MOS exception for fewer than 75 authorized duty positions could be a challenge.

Importantly, if soldiers in authorized positions as horsemen had their own MOS, their opportunities for advancement over the course of their careers would be limited. This is exacerbated by the fact that the grade structure in Army equine units at JBMHH and JBSA are already skewed toward lower-ranking soldiers.⁷² This grade structure imbalance could be mitigated by authorizing a unit with a more senior grade structure, but Army leadership would need to determine that the skills required of soldiers with an equine MOS merit a unit whose personnel are primarily NCOs. The grade structure imbalance could also be mitigated if there were a career management field (CMF) of grouped MOSs similar enough in terms of skills that soldiers with an equine MOS could easily transfer to other MOSs and assignments using the similar MOSs in the group.⁷³ However, the skills associated with equine management and use are unique in the Army, and no other MOSs seem related enough to group with an equine MOS.⁷⁴

In addition to the limited opportunities afforded to equine MOS soldiers and NCOs, there are other costs. Creating an MOS would require that the U.S. Training and Doctrine Command (TRADOC) establish a training curriculum and doctrine development practices. This could be mitigated by leveraging contracted civilian resources, but some structure in TRADOC will still be required. Similarly, Human Resources Command (HRC) would need to establish an office to manage the careers, development, and assignments of equine soldiers. This might be a limited effort, given the small number of personnel, but it is still a cost.⁷⁵

⁷⁰ Department of the Army Pamphlet 611-21, *Military Occupational Classification and Structure*, Headquarters, Department of the Army, December 20, 2022, Section 9-4.

⁷¹ Department of the Army Pamphlet 611-21, 2022, Section 9-4.

⁷² In the Army’s equine units at JBMHH and JBSA, soldiers in the ranks of E-3 and E-4 represent 69 percent of the enlisted grade structure. Across the Army, soldiers at these ranks represent 43 percent of the enlisted ranks (Statista, “Total Military Personnel of the United States Army for Fiscal Years 2022 to 2024, by Rank,” dataset, undated). Moreover, there are no E-8s or E-9s assigned to these units.

⁷³ Department of the Army Pamphlet 611-21, 2022, Section 9-3(2).

⁷⁴ The MOS for MWD handlers might serve as a similar MOS, but the uses of MWDs are much different than MWEs at JBMHH and JBSA. Dogs and horses require very different training and care. Other than bringing a passion for animals, a soldier moving from the Caisson Detachment to an MWD unit would essentially be starting from the beginning.

⁷⁵ HRC organizes enlisted soldier management in its Talent Alignment and Development Directorate, which is further divided into CMF divisions. Each CMF division manages soldiers in MOSs aligned with the CMF (U.S. Army Human Resources Command, “Enlisted Management,” webpage, July 26, 2024). It is

Not All Soldiers Choose to Be in the Caisson Detachment for the Horses, Which Promotes a Stable Less Focused on Proper Horse Care

Several interview respondents noted that soldiers did not always join the Caisson Detachment because they wished to work with animals. Other reasons cited for joining were boredom with other duties, incentive pay, conflict with individuals in their current units, and curiosity.⁷⁶ Previous Caisson Detachment employees cited this as an issue, explaining that soldiers were not always ready to sacrifice for what is an extremely demanding job.⁷⁷ Although every effort should be made to create incentives—economic and promotional—to draw the best soldiers to the Caisson Detachment, several personnel from comparative cases stressed the importance of bringing in soldiers who genuinely wanted to be around and care for horses. Although prior equine experience is not a requirement for the NYPD Mounted Unit, the selection process for new officers is competitive and rigorous.⁷⁸ Prospective officers often spend years on a waiting list for the opportunity to join the unit and work with the horses.⁷⁹ The King's Troop indicated they recruited from groups with farming or equine backgrounds, and selectively chose soldiers who were truly interested and invested in equine care.⁸⁰

Recommendations: Personnel

The Caisson detachment should continue on the path of its recent equine expert hiring and continue to invest in equine expertise. From a practical standpoint, hiring additional barn managers or civilian grooms could improve the Caisson Detachment's personnel challenges. The core capabilities of military personnel would still be used, while the barn managers or civilian grooms could offer additional, day-to-day supervision, support, and equine expertise to the soldiers caring for the herd. Experts should, as much as possible, be encouraged to offer their opinions, and creating an anonymous or formalized reporting system could help facilitate this.

Enhance flexibility in hiring processes for the Caisson Detachment, especially for managerial positions. There is a need to work beyond the federal hiring system to the greatest

not obvious which CMF division an equine MOS would fall under, suggesting that there is not a position that could easily absorb the additional management requirements. Thus, HRC would, at a minimum, need to train an existing manager to take on equine MOS soldiers, or place an additional manager in the position with the appropriate knowledge of the MOS.

⁷⁶ Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Veterinarian (A5), interview with the authors, May 22, 2024; Veterinarian (A6), interview with the authors, June 5, 2024.

⁷⁷ Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Current or former caisson command or staff (C17), interview with the authors, August 15, 2024.

⁷⁸ Collins, 2020.

⁷⁹ Angelica Acevedo, "An Inside Look at the Queens Branch of the NYPD's Mounted Unit," QNS, August 29, 2017.

⁸⁰ Current or former manager of an equine herd (D9, D10), interview with the authors, August 16, 2024.

extent possible. One expert recommended holding informational and/or recruiting events at universities with equine science programs to attract talent into Army roles.⁸¹ It might also make sense to seek expertise at farm or equine events, as the King's Troop does.⁸²

Interviewees stressed that even more care in hiring was necessary for the position of herd manager. Several respondents suggested the same type of committee hiring that the Army pursued last time.⁸³ A probation period was also recommended.⁸⁴ Several respondents also suggested using existing networks of equine experts to recruit better candidates for the herd manager position.⁸⁵

Hire or contract expert civilians to perform the roles off farrier, saddler, riding and horse trainer, and groom/stable manager roles. At this time, these tasks should not be performed in-house by military personnel. This is particularly true in the case of farriery, which is an extremely skilled task having critical implications for overall horse health and welfare. Strategies for hiring civilians for the Caisson Detachment, and the methods that are most successful, should be written and codified to offer hiring practice guidance to other Army equid units. Should the Caisson Detachment develop further internal expertise, this guidance could be revisited with an external assessment.

Consider collaborating with peer working herds. The case study of the King's Troop demonstrates how this can ameliorate issues with coordination between herd stakeholders, such as veterinarians and unit members, using technical solutions, such as shared clinic applications and programs.⁸⁶

Further explore the intricacies of creating a separate MOS for Army horsemen. If these prove to be insurmountable, the Army should identify other methods of enhancing soldier longevity in the Caisson Detachment and contemplate greater reliance on contracted and/or reservist solutions to enhance the unit's overall equine expertise.

⁸¹ Equine expert (B4), interview with the authors, August 13, 2024.

⁸² Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

⁸³ Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Veterinarian (A8), interview with the authors, July 22, 2024.

⁸⁴ Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024.

⁸⁵ Current or former manager of an equine herd (D2), interview with the authors, March 29, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Equine expert (B8), interview with the authors, May 23, 2024.

⁸⁶ Equine expert (B14), interview with the authors, August 16, 2024.

Try to recruit soldiers with a passion for equine care and welfare. These soldiers can benefit the Caisson Detachment by helping personnel focus on healthy horses and proper care.

Training

The Caisson Detachment is faced with a dual challenge when it comes to training: It requires both robust riding instruction for soldiers, often with little to no equine experience, and training for the horses themselves in a complex traditional riding style.

Before 2023, much of this training was done internally with a postilion horse trainer and a riding instructor who were supported by several enlisted personnel. During this period, knowledge was passed institutionally from more-senior soldiers, including long-term civilian personnel and individuals who had previously been in the Caisson Detachment and returned as civilians.⁸⁷ Several major issues were identified with this training at the time.

Because of budget restrictions on procurement, the horses coming into the Caisson Detachment often had very little previous training. Greener horses are cheaper—a fact that made training a significant challenge and led to injuries for both personnel and horses.⁸⁸ The Caisson Detachment soldiers noted that, after the loss of the horse trainer in 2023, they lacked internal horse training experience. To compensate, they tried to “implant” horses that lacked full training into existing teams so that these horses could learn by osmosis from more-experienced horses.⁸⁹

The instruction of the soldiers was equally problematic; the system was flawed by instructional support provided by individuals with little experience, a training style that was poorly aligned with the Caisson Detachment’s mission and herd, and a cowboy culture.⁹⁰ For example,

⁸⁷ Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Current or former caisson command or staff (C16), interview with the authors, August 1, 2024.

⁸⁸ Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Veterinarian (A3), interview with the authors, March 28, 2024.

⁸⁹ Current or former caisson command or staff (C1, C2), interview with the authors, March 19, 2024.

⁹⁰ In this case, *cowboy culture* indicates an inappropriate riding style that is ill-fitted to the horses and a lack of care for more-basic horsemanship, with added implications of disregard for the rules and careless or reckless behavior. Veterinarian (A4), interview with the authors, May 15, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Veterinarian (A3), interview with the authors, March 28, 2024; Veterinarian (A1), interview with the authors, March 8, 2024; Current or former manager of an equine herd (D6), interview with the authors, May 17, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Equine expert (B3), interview with the authors, March 27, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024; Current or former caisson command or staff (C8), interview with the authors, May 21, 2024; Equine expert (B2), interview with the authors, March 25, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Current or former caisson command or staff (C11), interview with the authors, June 10, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Current or former manager of an equine herd

many interviewees mentioned that previous training focused on working horses in tight circles while cantering and galloping.⁹¹ Not only was this counterproductive to the type of mission required of the horses (walking and occasionally trotting in a straight line) and not well-aligned with the type of horse the Caisson Detachment favors, but it also caused injuries to the horses and soldiers.⁹² Training also focused on Western-style riding, which is counter to the postilion riding style required of caisson horses and soldiers.⁹³ Additionally, training was abbreviated and focused heavily on riding, providing less time for postilion training and a lack of a focus on basic horsemanship.⁹⁴ Furthermore, the riding style taught to soldiers was deemed inappropriate and nontraditional with regard to proper equestrian techniques. For example, soldiers were taught to coerce horses through abrupt movements, bending the horse's neck at extreme angles to turn them, and to make excessive use of the spurs rather than learning communication techniques that are more effective and less aggressive.⁹⁵ Other types of equine instruction were also problematic. Farrier work was done in-house, and farrier training consisted of a 12-week workshop with some supervision from a more senior—but no longer hands-on—farrier.⁹⁶ This led to considerable and serious equine health issues.

The considerable reforms that began in 2023 introduced major shifts in the Caisson Detachment; both personnel instruction and horse training were outsourced to contractors who were overseen and supported by Caisson Detachment civilian personnel. Horse teams were taken to driving experts to train them toward the mission, and after two successful workshops, more were planned.⁹⁷ Interview respondents in and outside the Caisson Detach-

(D5), interview with the authors, May 16, 2024; Veterinarian (A5), interview with the authors, May 22, 2024; Current or former manager of an equine herd (D4), interview with the authors, May 14, 2024; Equine expert (B17), interview with the authors, August 20, 2024.

⁹¹ Veterinarian (A4), interview with the authors, May 15, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024; Current or former caisson command or staff (C11), interview with the authors, June 10, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024.

⁹² Equine expert (B5), interview with the authors, May 14, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Current or former caisson command or staff (C11), interview with the authors, June 10, 2024.

⁹³ Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024; Equine expert (B3), interview with the authors, March 27, 2024.

⁹⁴ Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Current or former caisson command or staff (C5), interview with the authors, March 27, 2024; Veterinarian (A7), interview with the authors, June 10, 2024.

⁹⁵ Equine expert (B17), interview with the authors, August 20, 2024.

⁹⁶ Veterinarian (A2), interview with the authors, March 26, 2024; Current or former U.S. Army command or staff or U.S. government staff (E4), interview with the authors, July 3, 2024; Current or former caisson command or staff (C8), interview with the authors, August 19, 2024.

⁹⁷ Current or former caisson command or staff (C11), interview with the authors, June 10, 2024.

ment supported the horse trainers employed as experts in their field and praised them as good choices to offer foundational driving instruction for the horses.⁹⁸ Postilion rider training was also contracted out to expert or RCMP-led workshops.⁹⁹

On the personnel training side, the Caisson Detachment, as of this writing, is working with a local stable to provide basic horsemanship courses. There are differing opinions on the utility of the current outsourced riding instruction, but equine experts strongly support tapping external expertise to conduct further riding and horsemanship instruction.¹⁰⁰ Although some interviewees were strongly supportive of the current riding instructors,¹⁰¹ others were concerned about the alignment of their class focus with the duties that would be required of the soldiers.¹⁰² The majority of stakeholders who discussed the contracted stable held positive views toward it, though, and the stable appears willing to dynamically update its curriculum to reflect expert advice—a significant mark in its favor.¹⁰³ In general, it will be a difficult task to identify appropriate postilion instruction long term because the Caisson Detachment mission requires a trainer with niche expertise in its traditional style.

Nonetheless, current horsemanship training is being conducted in consultation with external equine experts. The Caisson Detachment is also modifying this training by keeping track of which modules are and are not working.¹⁰⁴ It has created more than 90 new SOPs that consider what should be covered in these introductory training courses.¹⁰⁵ As of this writing, the basic curriculum was being used for the first time and in a state of iteration and revision.¹⁰⁶ The new curriculum focuses more heavily on basic foundations, including horse psychology, handling, body language, and riding.¹⁰⁷ The Caisson Detachment has also

⁹⁸ Equine expert (B5), interview with the authors, May 14, 2024; Equine expert (B4), interview with the authors, May 8, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Current or former caisson command or staff (C11), interview with the authors, June 10, 2024; Veterinarian (A5), interview with the authors, May 22, 2024.

⁹⁹ Current or former caisson command or staff (C8), interview with the authors, August 19, 2024.

¹⁰⁰ Equine expert (B4), interview with the authors, May 8, 2024.

¹⁰¹ Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024; Current or former caisson command or staff (C8), interview with the authors, May 21, 2024.

¹⁰² Current or former caisson command or staff (C11), interview with the authors, June 10, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024.

¹⁰³ Current or former caisson command or staff (C2), interview with the authors, March 19, 2024; Current or former caisson command or staff (C8), interview with the authors, May 21, 2024; Current or former caisson command or staff (C10), interview with the authors, June 6, 2024; Equine expert (B4), interview with the authors, August 13, 2024; Equine expert (B17), interview with the authors, August 20, 2024.

¹⁰⁴ Equine expert (B17), interview with the authors, August 20, 2024; Equine expert (B4), interview with the authors, August 13, 2024.

¹⁰⁵ Equine expert (B17), interview with the authors, August 20, 2024.

¹⁰⁶ Equine expert (B4), interview with the authors, August 13, 2024.

¹⁰⁷ Current or former caisson command or staff (C8), interview with the authors, August 19, 2024.

proposed a strategic plan that covers future use of external versus internal expertise in training and offers a more developed and lengthier curriculum that includes a basic, intermediate, and advanced course.

Findings: Training

Longevity Is Critical for the Robust Development of Horsemanship and Riding Skills, and Caisson Personnel Do Not Have the Time to Develop Significant Equine Expertise

Many interview respondents worried that the length of time proposed for training was too short. Most equine experts indicated that they would still consider soldiers novices after ten or twelve weeks of training, and that comfort with horses—including developing an awareness about how to safely handle them—might require months or even years.¹⁰⁸ In comparison, the RCMP and King's Troop conduct around six months of training before a soldier is considered a horseman.¹⁰⁹ Other interviewees noted that it can take years before someone can be considered an expert rider or horseperson.¹¹⁰ For example, although Budweiser Clydesdale drivers are able to drive an eight-horse team after four to six months of training, it generally takes at least three years of practice before they are considered good drivers.¹¹¹ The training expansion and the introduction of basic, intermediate, and advanced courses is a step toward encouraging further expertise.

The Caisson Detachment Is Not Yet Ready to Train Internally, but the Selection of Appropriate Contracted Trainers Appears to Have Been Successful Thus Far

Experts, including those that had already advised the Caisson Detachment, indicated that the unit did not yet have the internal expertise to support in-house training—either for its soldiers or its horses—and advised that it should maintain externally contracted training for at least the next two years.¹¹² Experts advising the Army are exploring a three-stage model that includes a phased approach to prescribe reliance on civilian expertise. Phase 1—the current stage—uses considerable civilian support for procurement, tack, equipment, and training.¹¹³

¹⁰⁸ Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Current or former caisson command or staff (C8), interview with the authors, May 21, 2024; Equine expert (B5), interview with the authors, May 14, 2024.

¹⁰⁹ King's Troop staff, interview with the authors, June 21, 2024; Melanie Huggett, "The RCPM Musical Ride," *Horse Journals*, February 21, 2021.

¹¹⁰ Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Equine expert (B5), interview with the authors, May 14, 2024.

¹¹¹ Authors' site visit, St. Louis, Missouri, July 19, 2024.

¹¹² Equine expert (B4), interview with the authors, May 8, 2024.

¹¹³ Equine expert (B4), interview with the authors, May 8, 2024.

Having soldiers train other soldiers is difficult to support considering the current longevity of soldiers in the unit.

The Content of the Personnel Training Regimen Matters, but Other Working Herds Provide Helpful Guidance to Structure Caisson Rider and Horsemanship Training

Several external working herds indicated a willingness to share their training materials with the Caisson Detachment. Compared with the Caisson Detachment's materials, the U.S. Park Police's training materials focused more on time in the saddle, comprehensive horse care, and preparation for a variety of situations.¹¹⁴

Interview respondents also had several suggestions for necessary or helpful topic areas to include in basic horsemanship coursework. They suggested that caisson training should focus more on horsemanship, basic awareness and treatment of common equine injuries, horse care and the psychology of horses, trailering, horse grooming and maintenance, stall maintenance, and proper techniques for tacking horses.¹¹⁵ The curriculum outline provided by the U.S. Park Police, included in Appendix A, could be a helpful model. The King's Troop also indicated a willingness to share their extensive documentation, likely including training documentation, on the Army's request.

All Army equid units could benefit from further codification and standardization of basic horsemanship coursework, although more-advanced riding and training curriculum needs are likely to require diversification and nuance to match the diverse missions of these units.

Recommendations: Training

Continue to lean on external contracted training for both the horses and riders of the Caisson Detachment until such time as the detachment develops or hires more internal equine expertise. Moving forward, other possible options would be to partner with other working herds in the area (such as the U.S. Park Police) or work with sister organizations (such as the King's Troop) to aid in and pool resources for training. An external assessment from equine experts should be the deciding factor when determining whether the Caisson Detachment's internal expertise is strong enough to transition training internally.

¹¹⁴ U.S. Park Police staff, interview with the authors, June 3, 2024; Authors' site visit, Washington, D.C., June 3, 2024; Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

¹¹⁵ Current or former U.S. Army command or staff or U.S. government staff (E1), interview with the authors, June 12, 2024; Current or former caisson command or staff (C8), interview with the authors, May 21, 2024; Equine expert (B8), interview with the authors, May 23, 2024; Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Veterinarian (A7), interview with the authors, June 10, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Equine expert (B11), interview with the authors, May 30, 2024.

The revised caisson training appears to include more basic horsemanship skills, and caisson training should include more horsemanship skills if it does not already. These skills include horse care (e.g., grooming, identifying lameness and injuries), horse psychology and body language, and trailering instruction, if they are not already included in the next iteration of the curriculum.¹¹⁶

The Army should tailor the tasks expected of soldiers to their skill levels and training. The Army is working on its training to enhance soldiers' knowledge base and experience levels with equestrian activities over time. Until personnel solutions can be devised to ensure the longevity of caisson soldiers' experience in the detachment, these uniformed soldiers will have very limited *time in position* in equine training terms, and that means frontloading necessities and tailoring tasks required of the soldiers to the tasks they are taught.

Consider more exchange or side programs with other working herds. The equine units that we studied tended to benefit when they were able to share resources with other working herds. There could be opportunities for the Caisson Detachment to take a similar approach and explore more-extensive interactions with other working herds. For example, local organizations (such as the U.S. Park Police, with which the Caisson Detachment has already done some training exchanges) were enthusiastic at the prospect of deepening their relationships with the Caisson Detachment.¹¹⁷ Additionally, international organizations, such as the King's Troop, do significant work with other herds supporting the development of their standards and indicated a willingness to help support the Caisson Detachment.¹¹⁸ These exchanges might also serve as an incentive for the soldiers while encouraging socialization with their horses and deepening their equestrian skills. There might be additional corresponding opportunities, though perhaps on a shorter duration, for veterinarians to engage with other working herds. Both forms of exchange would have the added positive externality of building additional lines of communication with working herds that face similar restrictions and barriers and can offer aid or best practices.

¹¹⁶ With the caisson curriculum in revision as of this writing, it is highly likely that more of these topics are now covered.

¹¹⁷ U.S. Park Police staff, interview with the authors, June 3, 2024.

¹¹⁸ King's Troop staff, interview with the authors, June 21, 2024.

Materiel and Facilities

In general, materiel and facilities are key for the successful execution of any Army mission, but in the case of the Caisson Detachment, materiel and facilities pose some of the Army's most-considerable obstacles. Improving herd procurement is at the very core of what the Army must achieve to rebuild the Caisson Detachment to a sustainable operational level, and the Caisson Detachment's facilities pose one of the major obstacles with which they must contend during such rebuilding. Other critical materiel considerations relate to the Caisson's tack and equipment selections and its sourcing of feed for the horses, both of which have a daily impact on the well-being of the caisson herd. On the topic of facilities, we looked at the historical development and the consolidation of the Caisson Detachment stables and also kept pace, to the extent possible, with the rapidly changing facility choices and facility renovation projects of the contemporary Caisson Detachment.

Materiel

In the area of materiel, we focused on horse procurement, tack and equipment, and procurement of equine feed (both hay and grain). Each of these aspects of materiel is considered in this section.

Findings: Materiel

Horse Procurement

Budget was a long-term issue for the Caisson Detachment, and it was felt especially acutely in horse procurement; a low budget for horses led to horses coming in at inappropriate ages with inappropriate training and existing health issues and concerns.¹ The Caisson Detachment's sharply limited budget also prevented the purchase of new horses when required, so horses could not retire by the time they reached the age or health status when they required

¹ Current or former caisson command or staff (C1, C2, C3), interview with the authors, March 19, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

rest.² Budget restrictions and a lack of equine expertise led to a herd with many horses that were ill suited to perform the mission (whether because of age, injury, or some other reason). Still, these horses were forced to face the mission's demanding work schedule. Thus, a limited procurement budget posed a consistent, ongoing issue for sustainable herd health and led to horses that were more prone to injury.

After the Caisson Detachment's budget was increased in the FY 2023 NDAA, it had the budget to pursue younger, healthier, and more-experienced horses. However, difficulties with lack of internal equine expertise led to mixed signals on the type of horses that should be purchased. Notably, interview respondents widely agreed that the recent purchase of several young Friesian horses was not aligned with the type of horses best suited to the caisson mission: The breed is too temperamental and not easily trained for this advanced mission set; their necks are high and, thus, not suited for pulling a caisson wagon; and they have significant veterinary issues because of inbreeding.³ Many respondents also expressed doubt over the need and cost-effectiveness of purchasing horses from abroad.⁴

Breed Characteristics and Fit for the Mission (e.g., Age, Temperament, Color, and Soundness) Are Critical Components of a Viable Caisson Horse Procurement Strategy

Interview respondents had considerable thoughts on what type of horse the Caisson Detachment should procure moving forward. The caisson mission requires a very specific type of horse because it is very demanding, especially in the heavily seasonal weather of Arlington, Virginia. It requires that horses pull a heavy wagon while bearing a rider, something that is especially difficult for the wheel horses (those that serve as the brakes of the caisson wagon because they are positioned closest to the wagon itself). Because of these demands, the mission requires horses with substantial strength, especially considering the weight of the caisson wagon. Additionally, the duty the horses perform is part of a solemn ceremony and steeped in tradition, which requires a calm horse, one unlikely to spook or act up during the proceedings.

Interviewees agreed that a hardy draft breed with a cool temperament that comes in the approved Caisson Detachment colors—grey or black—would be ideal.⁵ Experts additionally suggested that having all black horses might make it easier to switch horses between teams,

² Veterinarian (A1), interview with the authors, March 8, 2024; Current or former caisson command or staff (C14), interview with the authors, June 14, 2024.

³ Veterinarian (A7), interview with the authors, June 10, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Veterinarian (A5), interview with the authors, May 22, 2024; Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024.

⁴ Veterinarian (A4), interview with the authors, May 15, 2024; Veterinarian (A3), interview with the authors, March 28, 2024.

⁵ *Cool temperament* means a horse with a calm, dependable, unflappable demeanor. Horses with a hot temperament are more likely to be quick, eager, and excitable.

reduce the chance of skin cancer in caisson horses, and scope horse purchasing.⁶ Twelve of the interviewees suggested Percherons or Percheron crosses, making that the breed most often suggested.⁷ All horse breeds have positive and negative attributes, and selection of the appropriate breed typically depends on being the best fit for the task at hand. Percherons have longer lifespans and are known for their strength, stamina, and cool and friendly demeanors.⁸ They also often come in the appropriate color—black. They are prone to a few health issues, notably equine polysaccharide storage myopathy (a muscle disease)⁹ and respiratory diseases, such as *roaring* (a disease caused by paralysis of the larynx).¹⁰ Because of their size, a major downside is the especially acute need to alter saddles and tack to reflect the breadth of their backs; and because of their bulk, they have larger dietary requirements.

With Percherons or other draft-mixes in mind, interviewees generally suggested that it would be best to purchase horses between the ages of six and eight, with an average suggested age of eight to nine and an upper age bound of six to thirteen years.¹¹ This range must

⁶ Veterinarian (A1), interview with the authors, March 8, 2024; Current or former caisson command or staff (C5), interview with the authors, March 27, 2024.

⁷ Veterinarian (A1), interview with the authors, March 8, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Veterinarian (A7), interview with the authors, June 10, 2024; Equine expert (B4), interview with the authors, May 8, 2024; Current or former manager of an equine herd (D6), interview with the authors, May 17, 2024; Equine expert (B1), interview with the authors, March 7, 2024; Veterinarian (A5), interview with the authors, May 22, 2024; Equine expert (B8), interview with the authors, May 23, 2024; Veterinarian (A3), interview with the authors, March 28, 2024; Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024; Current or former U.S. Army command or staff or U.S. government staff (E2), interview with the authors, June 28, 2024; Current or former caisson command or staff (C5), interview with the authors, March 27, 2024.

There were other suggestions about breed types but with far less consensus. One participant recommended Clydesdales, but another recommended against. Two participants recommended Shires, but another recommended against. And two participants recommended Morgans crossed with Percherons (Current or former caisson command or staff [C9], interview with the authors, June 5, 2024; Veterinarian [A5], interview with the authors, May 22, 2024; Veterinarian [A1], interview with the authors, March 8, 2024; Veterinarian [A3], interview with the authors, March 28, 2024; Current or former caisson command or staff [C5], interview with the authors, March 27, 2024; Current or former manager of an equine herd [D6], interview with the authors, May 17, 2024).

⁸ Percheron life expectancy is typically between 25 and 30 years (British Percheron Horse Society, “Characteristics of the British Percheron Horse,” webpage, undated).

⁹ B. A. Valentine, K. M. Credille, J.-P. Lavoie, S. Fatone, C. Guard, J. F. Cummings, and B. J. Cooper, “Severe Polysaccharide Storage Myopathy in Belgian and Percheron Draught Horses,” *Equine Veterinary Journal*, Vol. 29, No. 3, May 1997, pp. 220–225.

¹⁰ Jeffrey E. Brakenhoff, Susan J. Holcombe, Joe G. Hauptman, Holly K. Smith, Frank A. Nickels, and John P. Caron, “The Prevalence of Laryngeal Disease in a Large Population of Competition Draft Horses,” *Veterinary Surgery*, Vol. 35, No. 6, August 2006, pp. 579–583.

¹¹ The following purchase ages and age ranges for horses were suggested by respondents:

- between ages eight and thirteen (Veterinarian [A1], interview with the authors, March 8, 2024)
- broke horses between ages ten and twelve (Current or former manager of an equine herd [D1], interview with the authors, March 15, 2024)

be taken with some nuanced consideration because draft horses mature more slowly than other horse breeds. Recognizing the Caisson Detachment's current lack of equine expertise, especially internal expertise with horse driving training, many experts recommended that the Caisson Detachment target horses who already possess driving experience.¹² One interview respondent noted that it was easier to train riding into green or partially broke horses as opposed to training driving.¹³

Other equine units also emphasize soundness and temperament when making procurement decisions.¹⁴ The U.S. Park Police require horses to be sound, five to fifteen years old, and well-trained under saddle,¹⁵ recognizing that green horses need more training and experience than the unit can provide. All newly purchased U.S. Park Police horses must complete a trial period to ensure a good fit with the unit.¹⁶ At Fort Sam Houston, current standards recommend procuring horses with both riding and driving experience for the Caisson Section.¹⁷ Similarly, another Army equine unit, Fort Cavazos, also looks to acquire horses that are already trained.¹⁸

Specialized Equine Veterinary Inspection Is an Equally Critical Aspect of the Horse Procurement Process, but It Must Be Conducted by Appropriate Veterinary Personnel
Looking more broadly at the horse procurement process, experts suggest formalizing the process with equine veterinary approval (the Caisson Detachment already has a formal process, so this process should be maintained) and in consultation with the equestrian community and updating the process to make sure it covers the most-necessary items.¹⁹ Experts

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- age 7 (Equine expert [B2], interview with the authors, March 25, 2024)
 - between ages six and twelve (Current or former caisson command or staff [C6], interview with the authors, May 20, 2024, and Veterinarian [A3], interview with the authors, March 28, 2024)
 - between ages six and eight (Equine expert [B12], interview with the authors, June 4, 2024; Current or former caisson command or staff [C1, C2, C3, C4], March 19, 2024)
 - ages six to seven (Equine expert [B4], interview with the authors, May 8, 2024).

¹² In this case, driving experience indicates a horse that has previously been trained in being hitched to a wagon, cart, carriage or other vehicle by means of a harness. Equine expert (B2), interview with the authors, March 25, 2024; Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

¹³ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

¹⁴ *Soundness* refers to a horse with no hoof- or leg-related concerns. Horses are considered sound if they are not lame or do not have a significant history of lameness.

¹⁵ *Under saddle* refers to a horse being ridden.

¹⁶ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

¹⁷ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

¹⁸ Current or former U.S. Army command or staff or U.S. government staff (E6), interview with the authors, July 17, 2024.

¹⁹ Current or former U.S. Army command or staff or U.S. government staff (E1), interview with the authors, June 12, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Current or former manager of an equine herd (D6), interview with the authors, May 17, 2024; Current or former manager of an equine herd (D1), interview with the authors, March 15, 2024; Current or former

also suggest an equine veterinarian should be included and given the ability to veto decisions about horses that are not a good fit for the unit.²⁰ It is, therefore, especially important that only equine veterinarians with experience conducting prepurchase exams are given procurement-related responsibilities.²¹ Veterinarians should be competent and experienced riders if they are also expected to ride the horses they examine.²² Careful procurement of only horses with manageable health concerns will lessen the burden on staff, especially veterinary staff, in the Caisson Detachment, and ensure that the horses are less likely to need care that is outside the Caisson Detachment's natural ability to provide. Some interview respondents also mentioned that procurement budgets must be broad enough to ensure the procurement of healthy horses that can perform the caisson mission.²³

Army Budget Processes Can Make It Difficult to Get Horses and, Sometimes, Medication in a Timely Manner

Several interview respondents noted difficulty in doing animal procurement in a timely fashion,²⁴ an issue the Caisson Detachment has already noted and is working to address with a broker system.²⁵ More worrisome, herd managers and veterinarian staff had mixed experiences with procurement, with some having issues getting horse medication or other key supplies and some noting that the system was set up for MWDs and their common medication types.²⁶

manager of an equine herd (D8), interview with the authors, June 11, 2024; Equine expert (B2), interview with the authors, March 25, 2024; Veterinarian (A7), interview with the authors, June 10, 2024.

²⁰ Veterinarian (A3), interview with the authors, March 28, 2024; Veterinarian (A7), interview with the authors, June 10, 2024; Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Veterinarian (A8), interview with the authors, July 22, 2024.

²¹ An interview participant pointed out that non-equestrian veterinarians might have difficulty making appropriate procurement decisions (Current or former manager of an equine herd [D6], interview with the authors, August 14, 2024).

²² Current or former manager of an equine herd (D6), interview with the authors, August 14, 2024.

²³ Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024; Equine expert (B1), interview with the authors, March 7, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Equine expert (B12), interview with the authors, June 4, 2024; Equine expert (B4), interview with the authors, May 8, 2024.

²⁴ Current or former manager of an equine herd (D6), interview with the authors, May 17, 2024; Current or former U.S. Army command or staff or U.S. government staff (E7), interview with the authors, July 23, 2024; Current or former caisson command or staff (C10), interview with the authors, August 19, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024.

²⁵ Current or former caisson command or staff (C10), interview with the authors, August 19, 2024.

²⁶ Current or former U.S. Army command or staff or U.S. government staff (E7), interview with the authors, July 23, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Veterinarian (A6), interview with the authors, June 5, 2024.

Tack and Equipment

The Caisson Detachment faced similar issues and concerns about lack of equine expertise in its tack purchasing efforts prior to 2023. Saddles were adjusted and harnesses were made in-house,²⁷ and ill-fitting saddles were one of the major health concerns noted by several reviews of the Caisson Detachment. SMEs noted that rubs and sores on horses' backs were because of poorly fitting saddles.²⁸ Although the Caisson Detachment has, again, hurried to procure new and better-fitted saddles, a lack of equine expertise led to mixed signals regarding the best type of saddles to use, and the first attempted purchase of saddles was not well aligned with the caisson mission.²⁹ The Caisson Detachment reassessed its saddle needs and, as of this writing, was purchasing custom, Western-style saddles.

Tack May Need to Be Frequently Adjusted and Refitted and Should Be Customized to Fit Individual Horses

To closely examine the subject of caisson tack, we consulted with several expert saddlers. Saddlers differed in opinion on the particular brands that they would recommend, but, in general, they indicated that the traditionally used, historically accurate McClellan saddles were likely inappropriate to continue using.³⁰ Modern horses and draft horses have broader backs, and the narrow tree of the McClellan saddle makes it a difficult fit,³¹ especially for the broad back of a draft-mix (the horses most recommended for the caisson mission). In general, the saddlers suggested looking toward military or police saddles,³² saddles that were made to be used for several hours in a row,³³ and saddles that are adjustable and customizable to fit

²⁷ Current or former caisson command or staff (C16), interview with the authors, August 1, 2024.

²⁸ Veterinarian (A3), interview with the authors, March 28, 2024; Equine expert (B2), interview with the authors, March 25, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Veterinarian (A5), interview with the authors, May 22, 2024; Current or former caisson command or staff (C5), interview with the authors, March 27, 2024; Current or former U.S. Army command or staff or U.S. government staff (E3), interview with the authors, June 28, 2024; Equine expert (B10), interview with the authors, May 29, 2024.

²⁹ The saddles purchased were made for short-term wear and, therefore, ill suited to long periods of time in the saddle, which the Caisson Detachment requires (Equine expert (B9), interview with the authors, May 29, 2024).

³⁰ Veterinarian (A2), interview with the authors, March 26, 2024; Equine expert (B9), interview with the authors, May 29, 2024; Current or former U.S. Army command or staff or U.S. government staff (E6), interview with the authors, July 17, 2024; Equine expert (B1), interview with the authors, March 7, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024.

³¹ The tree is the underlying framework of the saddle.

³² Equine expert (B9, B10), interview with the authors, May 29, 2024; Veterinarian (A2), interview with the authors, March 26, 2024.

³³ Equine expert (B9), interview with the authors, May 29, 2024; Current or former manager of an equine herd (D4), interview with the authors, May 14, 2024; Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

the horse rather than the rider.³⁴ Although other organizations (such as the King's Troop) use older-style saddles without adjustable trees, they purchase their horses to make sure the horses' back lengths align with the older-style saddles. They also regularly switch out their use of these saddles for adjustable and adjusted civilian saddles.³⁵

Saddlers and herd managers of working herds often noted that saddles need to be regularly adjusted. Just as humans might gain or lose weight and need to tailor their clothes accordingly, horses might gain or lose weight, and, over time, saddles need to be tailored to their changing bodies.³⁶ Saddle refitting was recommended by respondents or conducted among peer working herds anywhere from every two months to once per year with minor adjustments using padding or other methods in between. The U.S. Park Police have saddles refitted at least every six months,³⁷ while the saddler for the King's Troop comes to check their saddles approximately every four months.³⁸ Best practices for driving horses are similar: Each individual Budweiser Clydesdale has a harness fitted for it at the beginning of its career on the hitch team, and the fit of this harness is checked and adjusted as needed over time.³⁹

Equine Nutrition and Feed Sourcing

Horse Nutrition Is a Significant Driver of Overall Equine Health, and Other Working Herds Provide Strong Models for Sourcing Stable Supplies of High-Quality Grain and Hay

The supply of adequately nutritious horse feed is another critical materiel concern for the Caisson Detachment. Multiple interviewees reported that caisson horses have been fed low-quality hay over time, reportedly because the Army faced difficulties in finding a consistent supply of high-quality hay.⁴⁰ Previously, hay was not inspected for quality before being fed to the caisson

³⁴ Equine expert (B9, B10), interview with the authors, May 29, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Equine expert (B12), interview with the authors, June 4, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Current or former caisson command or staff (C6, C7), interview with the authors, May 20, 2024; Equine expert (B1), interview with the authors, March 7, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024.

³⁵ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024; Equine expert (B14), interview with the authors, August 16, 2024.

³⁶ Equine expert (B9, B10), interview with the authors, May 29, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Equine expert (B12), interview with the authors, June 4, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Current or former caisson command or staff (C6, C7), interview with the authors, May 20, 2024; Equine expert (B1), interview with the authors, March 7, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024.

³⁷ U.S. Park Police staff, interview with the authors, June 3, 2024.

³⁸ Equine expert (B14), interview with the authors, August 16, 2024.

³⁹ Authors' site visit, St. Louis, Missouri, July 17, 2024.

⁴⁰ Veterinarian (A6), interview with the authors, June 5, 2024; Current or former caisson command or staff (C16), interview with the authors, August 1, 2024.

horses.⁴¹ Although a lack of supply and vendor difficulties were both cited as the reason for procuring low-quality hay for the caisson herd, case study evidence contradicts this assertion.

Other peer working herds can offer strong lessons for sourcing quality feed for the caisson horses. Budweiser prioritizes optimal nutrition for its Clydesdales, ensuring that they are all fed timothy hay from the same hay farm in Idaho each year, all year round. This single farm ships hay to all of the Budweiser Clydesdales' static and deployed locations throughout the country, and, purportedly, Budweiser has never faced a supply issue when sourcing hay from this farm.⁴² With approximately 175 horses each eating 40 to 60 pounds of hay per day, Budweiser's yearly demand for hay is nearly 1,500 tons.⁴³ The Caisson Detachment has previously purchased around 180 tons of hay each year, so it could be possible for the Army to similarly partner with a willing hay farm to provide quality hay year-round.⁴⁴ Budweiser also partners with Purina to develop custom grain formulations for the Clydesdale herd.⁴⁵ As each horse has specific nutritional needs—a traveling hitch horse consumes a different diet than a gestating mare—a Purina nutritionist provides additional support to ensure individual nutritional health.⁴⁶ The King's Troop depends on a contracted nutritionist from the company who supplies their feed, but the nutritionist comes regularly and tailors feed to the King's Troop horses.⁴⁷

Recommendations: Materiel

Pursue horse procurement at a slow, careful pace, purchasing only horses that will thrive in the Caisson Detachment environment. Horses, if treated well, can give the unit a decade of service. Every purchase is, therefore, important and should not be taken lightly, even if it slows the process by which the Caisson Detachment returns to full capabilities. **Look for horses who are**

- Percheron or Percheron mix
- black
- between the ages of six and eight⁴⁸

⁴¹ Veterinarian (A1), interview with the authors, March 8, 2024.

⁴² Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴³ Glavan, 2015; Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁴ Current or former caisson command or staff (C16), interview with the authors, August 1, 2024.

⁴⁵ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁶ *Mare* refers to a female horse. Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁷ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

⁴⁸ As of this writing, the Caisson Detachment is retiring out a significant portion of its herd. So, for now, buying horses that broadly range in age could help to avoid retiring a large amount of the herd at the same time in around a decade. These specific age-related purchasing decisions are critical and should be considered when applying this general guideline regarding the ages of horses purchased.

- generally healthy or with only maintenance-related health concerns
- of cool temperament
- experienced with driving, if possible.

It is critical to note that these horses might not be appropriate for every Army equid unit—this horse mixture was chosen particularly for the Caisson Detachment and its unique mission.

Optimize procurement processes and structures to continue to ensure that Army equine veterinarian staff have an integrated role with decisionmaking power in the procurement process.

Obtain tack that is suited to the mission and each horse of the Caisson Detachment. Tack should be adjusted every six months at a minimum.

Explore opportunities to partner with specific suppliers of top-quality hay and grain. This can help ensure optimal equine nutrition for the herd.

Facilities

The History of Joint Base Myer–Henderson Hall and the Fort’s Equine Tradition

During the U.S. Civil War, a large complex of forts and other entrenchments were established in Northern Virginia. This was done as part of the effort to defend Washington, D.C. and protect the bridges over the Potomac River that were needed for the Union Army of the Potomac to prosecute the war in Northern Virginia. Two of these installations, Forts Whipple and Cass, sat on the real estate that ultimately became JBMHH.⁴⁹

Following the war, federal infantry and artillery units continued occupation of the forts.⁵⁰ In 1869, General A. J. Myer, founder of the U.S. Army Signal Corps, moved the Signal Training School to Fort Whipple, where it remained for 17 years.⁵¹ In 1881, Fort Whipple was renamed Fort Myer following General Myer’s death in 1880.⁵²

Fort Myer’s equine tradition began in 1887 when troops from the 4th and 6th U.S. Cavalry Regiments occupied Fort Myer.⁵³ Over the next several decades, Fort Myer was rebuilt into a cavalry post and modernized military facility. The new construction included stables for hundreds of horses; a row of stable buildings remains today, with two buildings (233 and 236)

⁴⁹ Samuel A. Batzli, *Fort Myer, Virginia: Historic Landscape Inventory*, U.S. Army Corps of Engineers, USACERL Technical Report 98/97, June 1998, pp. 22–23.

As part of the 2005 Base Realignment and Closure process, Fort Myer was joined with the Marine Corps’ Henderson Hall to form JBMHH.

⁵⁰ Batzli, 1998, p. 32.

⁵¹ Batzli, 1998, p. 32.

⁵² Batzli, 1998, pp. 32–35.

⁵³ Batzli, 1998, p. 42.

still used as stables for the Caisson Detachment.⁵⁴ At the time that Fort Myer was transforming into a cavalry post, there were approximately 100 acres of pastureland available.⁵⁵

Building activities during the 1920s and 1930s began to threaten available pastureland, but Fort Myer's status as a cavalry post kept pasture reduction to a minimum.⁵⁶ However, the cavalry mission at Fort Myer came to an end with the approach of World War II and, by 1942, the U.S. Cavalry branch itself was eliminated.⁵⁷ The transition of Fort Myer away from a cavalry post and the requirements of the war led to further development of the fort and the ultimate elimination of pastureland, which was redeveloped for other purposes.⁵⁸

Most of the stable buildings on Fort Myer were repurposed during or after the war.⁵⁹ Only two barns remain—each with a turnout area of about a quarter acre—to provide facilities for the Caisson Detachment horses when they are at JBMHH for ceremonial duties. According to interview respondents inside and outside the Caisson Detachment, these constrained facilities have been a longer-term and major obstacle to the continued health of the herd.⁶⁰ With such a large herd, this inadequate space was often layered with inches of mud and manure that had not been removed.⁶¹ The size and condition of the turnout space were

⁵⁴ Batzli, 1998, pp. 42–45.

⁵⁵ Batzli, 1998, p. 42.

⁵⁶ Batzli, 1998, p. 47.

⁵⁷ Swafford Johnson, *History of the U.S. Cavalry*, Bison Books, 1985, p. 177.

⁵⁸ Until recently, a small parcel of land was used for turnout at JBMHH along Route 50. However, repair and construction work on Route 50 changed drainage patterns, making this parcel unsuitable as a turnout for the caisson horses (Current or former caisson command or staff [C6], interview with the authors, May 20, 2024). Ten acres at Fort Belvoir were used until very recently to rest and pasture horses not on duty. However, there was not enough pasture at Fort Belvoir for the size of the herd, which meant both that the conditions were crowded and that the pasture itself was not rested (i.e., allowed to regrow between grazing events). Environmental conditions at Fort Belvoir prevent expansion of the pasture, and the pasture was closed when the horses were moved to NEC (Current or former caisson command or staff [C4], interview with the authors, March 19, 2024; U.S. Army Public Affairs, “Media Roundtable on Continued Suspension of Caisson Operations,” transcript, April 12, 2024).

⁵⁹ It is unclear when the stable buildings were repurposed, but it was at least two decades ago. Fort Myer maps dating back to the early 2000s indicate only the two current stables were being used as stables back then.

⁶⁰ Veterinarian (A6), interview with the authors, June 5, 2024; Current or former manager of an equine herd (D2), interview with the authors, March 29, 2024; Current or former caisson command or staff (C8), interview with the authors, May 21, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024.

⁶¹ Veterinarian (A6), interview with the authors, June 5, 2024; Current or former caisson command or staff (C14), interview with the authors, June 14, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

both cited by interview respondents as a major concern for the horses' well-being.⁶² There were additional issues with seasonal flooding of some of the limited turnout, which meant that it was unusable during some seasons.⁶³ This seasonal flooding and mud continued to be an issue even after 2007 when renovations were made to help drainage in the turnout.⁶⁴ There were an additional ten acres of land at Fort Belvoir for horses on R&R,⁶⁵ but this turnout space had similar issues with mud and pasture quality because of the large number of horses there. The historical barns themselves were also an issue. The barns had small stalls, which became an increasingly significant problem as the Caisson Detachment shifted to procuring larger draft horses.⁶⁶ The historical nature of the barns also meant that renovation and construction in general was extremely costly and required significant bureaucratic wrangling to achieve.

As of this writing, the barns were being renovated to make the stalls bigger and address air flow and basic structural problems.⁶⁷ This will be a costly and slow process because of their historical status.⁶⁸ Although renovation could ameliorate stable-specific issues, it cannot address the larger issue of insufficient turnout, which has only become more limited with the closing of Fort Belvoir and one of the other historically used lots because of the risk they posed to the horses.⁶⁹ While the stalls are being renovated, the Caisson Detachment plans to

⁶² Veterinarian (A3), interview with the authors, March 28, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Veterinarian (A4), interview with the authors, May 15, 2024; Current or former manager of an equine herd (D2), interview with the authors, March 29, 2024; Current or former caisson command or staff (C8), interview with the authors, May 21, 2024; Veterinarian (A1), interview with the authors, March 8, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Current or former caisson command or staff (C7), interview with the authors, May 20, 2024; Equine expert (B6), interview with the authors, May 17, 2024; Veterinarian (A2), interview with the authors, March 26, 2024.

⁶³ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁶⁴ Current or former caisson command or staff (C9), interview with the authors, June 5, 2024.

⁶⁵ Equine expert (B1), interview with the authors, March 7, 2024; Current or former caisson command or staff (C8), interview with the authors, August 19, 2024.

⁶⁶ Equine expert (B8), interview with the authors, May 23, 2024; Veterinarian (A4), interview with the authors, May 15, 2024; Veterinarian (A1), interview with the authors, March 8, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Veterinarian (A3), interview with the authors, March 28, 2024.

⁶⁷ Current or former caisson command or staff (C2), interview with the authors, March 19, 2024, but echoed in other Army literature.

⁶⁸ Current or former caisson command or staff (C2), interview with the authors, March 19, 2024, but echoed in other Army literature.

⁶⁹ Dangerous turnout conditions for the herd's health included flooding, deep mud, and lack of manure removal.

use temporary stabling on JBMHH to continue to implement its mission. It has also identified some additional acreage to provide turnout.⁷⁰

Some interview respondents suggested repurposing more local acreage for turnout, but it is unlikely that the base commander would approve such a large shift. Several respondents said that pasture creation is much more difficult than it appears, and it is unlikely extensive acreage could easily be adapted.⁷¹ Pasture maintenance for a herd of this size is also a considerable chore. To compensate for limited pasture acreage on the base, some interview respondents suggested a mechanical hot walker,⁷² but they also expressed concerns that soldiers could not use it safely without constant supervision from an equine expert.⁷³ Turnout issues have been temporarily resolved by the horses spending the bulk of their time at the NEC. Interview respondents uniformly praised the NEC, especially its barn manager, and the careful attention it was giving to rehabilitating the horses.⁷⁴ As of this writing, the Caisson Detachment was considering whether it would continue to contract out its horse facilities, purchase property for contractors to run, or purchase property for Army personnel to run.

Findings: Facilities

The Caisson Detachment Facilities Pose a Considerable and Continuing Challenge to Sustainable Herd Health, and Army Acquisition of (or Continued Contracting of) Additional Rest and Relaxation Facilities with Greater Land Area Is Necessary

The Caisson Detachment's facilities are far too small to support the herd and cannot be easily expanded because of the surrounding urban environment. They also require careful maintenance because of their historical nature. The Caisson Detachment has identified and made use of external pasturing and stabling at the NEC, and it is making every effort to formalize a longer-term plan for external pasturing and stabling. Experts were mixed on the safety

⁷⁰ Current or former caisson command or staff (C8), interview with the authors, August 19, 2024.

⁷¹ Veterinarian (A4), interview with the authors, May 15, 2024; Veterinarian (A2), interview with the authors, March 26, 2024.

⁷² A *hot walker* is a mechanical device used to automatically walk horses in a circle.

⁷³ Equine expert (B6), interview with the authors, May 17, 2024; Equine expert (B4), interview with the authors, May 8, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024.

⁷⁴ Veterinarian (A6), interview with the authors, June 5, 2024; Veterinarian (A5), interview with the authors, May 22, 2024; Veterinarian (A1), interview with the authors, March 8, 2024; Current or former manager of an equine herd (D6), interview with the authors, May 17, 2024; Current or former caisson command or staff (C6), interview with the authors, May 20, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Veterinarian (A3), interview with the authors, March 28, 2024; Veterinarian (A7), interview with the authors, June 10, 2024.

and possibility of using trailering long-term to transport the horses from the NEC or similar facilities, which are roughly an hour from JBMHH. Several suggested that using trailering long-term was safe but that it required handlers and horses who were well trained to handle trailering. They also suggested that incorporating trailering as part of a routine for the horses would reduce stress.⁷⁵ Still, the distance does put additional burdens on both the personnel and the horses because of the commute.

For the shorter term, horses should not be kept in the JBMHH barns at all during renovations because of hazardous conditions.⁷⁶ Temporary stabling might be appropriate for a brief period. Most organizations do not use temporary stabling for more than six weeks in a row because of sanitation concerns, but some facilities use more-durable options for a few months at a time.⁷⁷ The most-recent plans assume temporary stabling will be used for the next one to two years.⁷⁸ The Army has begun working with a contracted company that regularly provides stabling for large equine competition grounds across the world and is well positioned to provide longer-term stabling.⁷⁹

Evidence from Case Studies Emphasizes the Importance of Adequate and Properly Maintained Turnout Space for Equine Facilities

The U.S. Park Police, whose operations are even more affected by space constraints than the Caisson Detachment, are an example of horse-first practices that prioritize turnout.⁸⁰ U.S. Park Police horses stabled on the National Mall are rotated between their stalls and small dry paddocks, which are designed to drain water and are cleaned frequently.⁸¹ These simple paddock maintenance measures eliminate the preventable risks that the caisson facilities posed to the caisson herd. To mitigate the minimal turnout space, the National Mall barn has large windows and low stall doors so horses can see each other and get maximum exposure to the outside.⁸² Horses are also exercised outdoors with competent riders in their daily

⁷⁵ Veterinarian (A4), interview with the authors, May 15, 2024; Current or former caisson command or staff (C8), interview with the authors, May 21, 2024; Equine expert (B8), interview with the authors, May 23, 2024; Equine expert (B2), interview with the authors, March 25, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Equine expert (B5), interview with the authors, May 14, 2024; Current or former manager of an equine herd (D7), interview with the authors, June 4, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024.

⁷⁶ Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024.

⁷⁷ Equine expert (B4), interview with the authors, August 13, 2024.

⁷⁸ Equine expert (B4), interview with the authors, August 13, 2024.

⁷⁹ Equine expert (B4), interview with the authors, August 13, 2024.

⁸⁰ Authors' site visit, Washington, D.C., June 3, 2024.

⁸¹ U.S. Park Police staff, interview with the authors, June 3, 2024.

⁸² Authors' site visit, Washington, D.C., June 3, 2024.

work.⁸³ Horses are only turned out, not exercised, on their days off.⁸⁴ Access to turnout is also prioritized for the Budweiser Clydesdales, especially for the traveling hitch teams. These teams spend nights at local equine facilities, and turnout availability is prioritized when selecting these facilities.⁸⁵ If turnout is not available, horses are hand walked outdoors for at least 45 minutes per day.⁸⁶

Case Studies Also Demonstrate the Importance of Equine Expertise and a Horse-First Philosophy When Designing, Renovating, and Using Facilities

A horse-first philosophy means prioritizing the horse, its health and comfort, before other mission and resource efficiencies where necessary. Aligning facilities with equine needs first is key to sustainable herd health. The Budweiser facilities, from stalls to trailers, were specifically designed for the large size of draft horses.⁸⁷ This ensures comfort and safety for both horses and handlers in daily operations. Renovation of the U.S. Park Police facility on the National Mall accounted for the unique needs of a working equine facility. The tack room is climate-controlled to help leather tack last longer, for example, and the designated medical stall has an attached run so horses receiving medical care have turnout.⁸⁸ However, appropriate facilities do not negate the need for deep equine expertise to correctly manage herd health. For example, horses enjoying large grass pastures have different nutritional needs than horses that are mostly stabled or turned out in dry lots. At Fort Sam Houston, unregulated access to spring grass without other dietary changes led to instances of mild to severe laminitis—a condition where the tissues that bond a horse’s hoof to its pedal bone become inflamed and weakened—in the caisson horses.⁸⁹

Recommendations: Facilities

Consider either continuing to contract with an external offsite entity within trailering distance of JBMHH (such as the NEC) or purchasing offsite facilities nearby and hiring a contracted organization to operate them. Such a decision will help to stabilize the situation of the caisson facilities in the near term. It is unlikely that the Army will have sufficient in-

⁸³ U.S. Park Police staff, interview with the authors, June 3, 2024.

⁸⁴ U.S. Park Police staff, interview with the authors, June 3, 2024.

⁸⁵ Authors’ site visit, St. Louis, Missouri, July 17, 2024.

⁸⁶ *Hand walking* refers to handlers leading horses from the ground at the walk, usually for controlled exercise. Authors’ site visit, St. Louis, Missouri, July 17, 2024.

⁸⁷ Authors’ site visit, St. Louis, Missouri, July 17, 2024; Authors’ site visit, Boonville, Missouri, July 18, 2024; Authors’ site visit, St. Louis, Missouri, July 19, 2024.

⁸⁸ U.S. Park Police staff, interview with the authors, June 3, 2024.

⁸⁹ Current or former U.S. Army command or staff or U.S. government staff (E9), interview with the authors, August 12, 2024.

house equine expertise in the foreseeable future for military personnel to successfully operate such a facility.

Deliberately and with extensive oversight, provide temporary stabling of the herd for a brief period near ANC and JBMHH for the operational portion during stable renovations. Temporary stabling will appropriately house the caisson horses, but it will likely require additional personnel for care and maintenance. This option should not be followed for any significant period without a plan in place for extensive cleaning and maintenance.

Maintain a horse-first philosophy when developing, modifying, and using equine facilities for the Caisson Detachment and other Army equid units. This means making sure that facilities are, first and foremost, sized to the horses. Facilities should also provide for the horses' natural needs and prioritize the horses' comfort and health.

Recommendations and Conclusions

In this report, we review the Army's recent efforts to rebuild the 3rd U.S. Infantry Regiment's Provisional Caisson Detachment and devise a plan to efficiently and effectively improve the health and fitness of the Caisson Detachment that will enable the detachment to resume regular operations at ANC in a sustainable fashion when ready. In doing so, this report documents our assessment of the overall management and taskings of the Caisson Detachment in recent years and offers recommendations to address gaps and operational deficiencies based on our study findings. The findings and recommendations in this report are based on an extensive literature review, more than 65 interviews with a variety of equine experts and relevant Army personnel, six case studies of comparable working equine herds, and both domestic and international site visits to related equine facilities. Multiple interviewees asked the questions presented in this section,¹ and possible modernization options were taken from our discussions with equine experts. Here, we close the report with additional considerations for Army leadership as they plan for the future of the Caisson Detachment.

Does the Caisson Tradition Need to Be Army-Run?

First and foremost, it is worth considering whether the Army should be engaged in maintaining ceremonial equine traditions. The caisson tradition is an important offering to the family of military veterans. It is steeped in tradition and an integral part of what makes ANC full military honors funerals unique. Interview respondents echoed articles on the topic and said that, for family members, the caisson tradition was key to their closure, and it offered a

¹ Veterinarian (A5), interview with the authors, May 22, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Veterinarian (A8), interview with the authors, July 22, 2024; Current or former U.S. Army command or staff or U.S. government staff (E9), interview with the authors, August 12, 2024; Current or former manager of an equine herd (D8), interview with the authors, June 11, 2024; Equine expert (B8), interview with the authors, May 23, 2024; Veterinarian (A2), interview with the authors, March 26, 2024; Equine expert (B2), interview with the authors, March 25, 2024.

dignified departure for the deceased veteran.² To family members and friends, the caisson tradition is a clear valuing of the sacrifice of their loved ones.³

In 1957, the U.S. Department of Defense tried to discontinue the use of horses in the caisson funerals because of the cost, but public outcry was so significant that the order was rescinded in fewer than two months. The rescinding official said, “I believe that the economy effected, while desirable, is outweighed by the intangible values which are involved in continuing the traditional horse drawn caisson in the funeral service honoring our hero dead at Arlington National Cemetery.”⁴ Despite this heavy precedence, the question of whether the caisson tradition needed to be Army-run was still posed by multiple respondents during our research project.

The question is particularly salient in the modern era of multitheater and highly technical deployability requirements for the Army, especially given the Army’s current resource-constrained environment. Although the caisson tradition is extremely important to U.S. veterans and their families and carries immense patriotic symbolism, it requires *significant and continuing* financial investment. Much of this report assumes that the Army will maintain a Caisson Detachment per the requirements set forth in Section 366 of the NDAA for FY 2024; however, Congress should recognize, at the outset, the trade-offs inherent in such a requirement.

Performing the caisson mission well will be a resource-intensive undertaking over the short and long terms, especially while maintaining strong equine health standards amid the realities of the present-day personnel and facilities laydown of the U.S. Army. Horses and proper horse care are expensive. Expertise (including hiring appropriate expertise) is expensive, especially considering the amount of civilian expertise that would be required if the herd were to grow to meet the demanding tempo of six funerals per day. The personnel who are used in this mission are personnel that cannot be used elsewhere; furthermore, any additional personnel must be drawn from other missions when required—for example, if the caisson herd should grow.

Fundamentally and in many ways, the Army is not set up for the mission of equine care. Soldiers are being asked to prepare for infantry careers while all their training and time—needfully—is being directed toward equine care and learning.⁵ Their incentives are focused on the completion of missions and not yet on the health of their herd. The Caisson Detachment is being pressed to prioritize herd health, but the broader Army is being pressed to prioritize very different warfighting needs, and those pressures trickle down to the Caisson Detachment. The Army budgeting and contracting system is difficult for equine experts to

² Equine expert (B12), interview with the authors, June 4, 2024; Ferdinando, 2014.

³ Current or former caisson command or staff (C18), interview with the authors, September 3, 2024; Ferdinando, 2014.

⁴ Carney, 2018.

⁵ Current or former caisson command or staff (C3), interview with the authors, March 19, 2024; Current or former caisson command or staff (C17), interview with the authors, August 15, 2024.

quickly navigate when they need to procure horses or get relevant medications in a timely fashion.⁶ The Army hiring system is not suited to the flexible and network-based reality of how equine experts are often hired.⁷ Without consistent and systematic change in how the Army system is applied to the Caisson Detachment, which seems unlikely, the personnel of the Caisson Detachment will consistently be asked to swim upstream against the status quo of the Army system.

If the Army chooses to end the Caisson Detachment's mission as it is currently executed, the next immediate step would be to explore other options to offer relief and gratitude to the bereaved families of fallen heroes. This might mean a caisson ceremony that is entirely contracted out to external actors,⁸ or it might mean a hard conversation about what other options can be offered to give the veterans who wished for this type of funeral a ceremony that honors their service.

If the Army chooses to continue the Caisson Detachment's mission as it is currently executed, the next few sections discuss what other possible changes could or should be implemented. Importantly, Congress should be prepared to commit to *consistent, long-term, and significant* resourcing of the Caisson Detachment at a level that would allow it to guarantee the health and care of the equines executing its solemn duty.

How Can the Caisson Tradition Be Modernized to Facilitate a More Manageable Herd Size or Operational Tempo?

If the Caisson Detachment's ceremonial mission continues, there are other solutions that could be explored with an eye toward modernizing the caisson tradition, easing the burden of the caisson ceremony, and allowing easier and sufficient resourcing to maintain herd health.

The Caisson Detachment could eliminate riding completely and shift toward a driving-only style. This would reduce strain on the horses and, combined with the additional suggestion of purchasing lighter wagons, reduce the number of horses on each hitch.⁹ Two to four draft horses should be capable of pulling a lightened wagon with a casket on it, especially if they are not also carrying riders. Such a strategy could result in a caisson team of six to seven horses total, including alternates, which could reduce the necessary herd size

⁶ Veterinarian (A6), interview with the authors, June 5, 2024; Current or former U.S. Army command or staff or U.S. government staff (E9), interview with the authors, August 12, 2024.

⁷ Current or former caisson command or staff (C13), interview with the authors, July 3, 2024; Equine expert (B4), interview with the authors, May 8, 2024. For more information about the challenges of the Army hiring system, see the Personnel section in Chapter 3.

⁸ This might mean turning to such contractors as the ones that the Caisson Detachment had on reserve for a possible state funeral when there was no trained squad capable of answering that call (Current or former manager of an equine herd (D6), interview with the authors, May 17, 2024).

⁹ Equine expert (B2), interview with the authors, March 25, 2024.

to between 24 and 28 horses overall. A smaller, nonpostilion caisson team would be a significant break with tradition and the Army might be reluctant to pursue such a strategy. However, this option is worth serious consideration because of the potential benefits for both horses and riders in terms of the reduced injury risk. Moreover, a smaller herd size would significantly reduce the expenses of maintaining the herd, the number of personnel needed, and the facilities space required. It would also allow for the herd to live more comfortably in the limited space and urban environment of JBMHH. Eliminating the postilion riding style would also significantly reduce training expenses for both soldiers and horses. Experienced postilion trainers, whether for horse or rider, are much more difficult to find than either riding or driving trainers. Training horses and riders in postilion is also more challenging and time-consuming than training them in riding or driving alone; as one expert equestrian interviewee put it, postilion riding “is the most advanced style of riding or driving you could do.”¹⁰

The Caisson Detachment could redesign the caisson to a more lightweight style. This would need to be carefully stress-tested, but using a lighter carriage and fewer horses could offer similar benefits as those mentioned previously: a smaller overall herd size and fewer facilities, personnel, and resources required to maintain it. Interview respondents who had contact with the military families requesting the Caisson Detachment stressed that the families were usually requesting the horses—not a specific wagon or style.¹¹

The Caisson Detachment could offer fewer caisson funerals. Although it would require several tough decisions on eligibility or wait times, it is possible to limit the Caisson Detachment to two missions per day by redesigning the ANC full honors funeral to limit caisson eligibility requirements (or offer a modified waitlist). Eligibility is a difficult and nuanced problem. Eligibility has been expanded over time.¹² Decreasing eligibility again, however, risks creating the impression of haves and have nots in terms of military funeral honors or breaking implicit promises made to military families.¹³ A modified waitlist could offer hybrid options for full honors funerals to families who wish to have their loved ones buried sooner. Hybrid options, such as offering full honors funerals with an alternative conveyance, are already being used because the Caisson Detachment has been suspended. Preliminary signs have shown that, during the suspension, most families have opted for this over a longer wait time for the caisson ceremony.¹⁴ Such alternatives and modifications would, again, allow for fewer missions per day and, correspondingly, a smaller herd size and fewer facilities, personnel, and resources required to maintain it.

¹⁰ Current or former manager of an equine herd (D6), interview with the authors, May 17, 2024.

¹¹ Current or former caisson command or staff (C18), interview with the authors, September 3, 2024.

¹² In 1984, it was expanded to Medal of Honor recipients, and in 2009, to those killed in action.

¹³ Current or former caisson command or staff (C18), interview with the authors, September 3, 2024.

¹⁴ Current or former caisson command or staff (C18), interview with the authors, September 3, 2024.

The Caisson Detachment could shift to fully contracted horse care support while continuing to use soldiers as riders. The detachment could retain the tradition of the caisson, and its current operational tempo, but shift care of the horses entirely to contractors with more equine expertise. These contractors would need to be carefully vetted, but this would significantly shift the burden off the soldiers and allow them to focus their Caisson Detachment training time toward perfecting their riding skills. There might be other additional options, such as allowing retired or reservist personnel to ride, which could also allow for a deeper draw on existent expertise in the military.

Whether the Army decides to implement any of these modernization techniques or continue with the caisson mission as it is currently executed, we still have several recommendations that are summarized in the next section and laid out in much more detail in the previous chapters.

What Ground-Level Improvements in Caisson Detachment Structure and Operations Should Be Implemented?

The Caisson Detachment must create a horse-first stable, and Congress must resource the unit properly to maintain that stable. The horses of the Caisson Detachment *are the mission*. The horses are entitled to safety, health, and a living environment that will allow them to thrive. Additionally, without investment in their health, happiness, safety, and training, it is unlikely that the Caisson Detachment will be able to safely conduct even two to four funeral ceremonies per day in the longer term. A well-treated, well-trained caisson horse is one that will be able to meet the aesthetic and formal standards of the caisson procession, deliver the mission calmly, and keep itself and its rider safe. A poorly treated, poorly trained caisson horse is an ethical issue, a liability to the U.S. Army, and a danger to itself and its rider. As an interview respondent noted: These horses represent the military, and they represent our country—they should look and be healthy.¹⁵

A horse-first stable is one that puts equine welfare above and beyond mission efficiency or resource efficiency. We recognize that this would be difficult for the Army to do in a resource-constrained environment. The Caisson Detachment must continue its shift away from a culture that sacrifices animal welfare in exchange for an idealized image of riding for the Caisson Detachment (a culture that was noted in several interviews)¹⁶ to one that is centered on treating the horses with respect. A horse-first stable means recognizing that

¹⁵ Current or former caisson command or staff (C18), interview with the authors, September 3, 2024.

¹⁶ Veterinarian (A5), interview with the authors, May 22, 2024; Equine expert (B3), interview with the authors, March 27, 2024; Current or former manager of an equine herd (D4), interview with the authors, May 14, 2024; Equine expert (B17), interview with the authors, August 20, 2024.

horses are not materiel (like a carriage),¹⁷ allowing horses to be horses, and treating them as specialized personnel with their own wants, desires, and entitlement to a happy and healthy life. To foster such a culture, the Caisson Detachment will need enforced internal or external consequences for inadequate horse care. Furthermore, to achieve such cultural shifts, it is important to continue to integrate more equine experts into the Caisson Detachment, a point on which we elaborate in the next recommendation.

A horse-first stable also requires Congress to commit to significant, consistent resourcing of the detachment so the Army can foster this sort of environment for the horses. Many of the issues observed over time in the barn were caused by lack of resourcing, including procurement of cheaper horses ill suited to the job, an unwillingness to retire horses who might be past their working years, hay that was unsuitable as feed, fewer personnel than were needed to properly maintain the herd, challenges obtaining medications for horses in a timely manner, and other issues maintaining tack and facilities.¹⁸

Keeping horses in a healthy and sustainable manner will never be a low-cost endeavor, and trying to make it one invites shortcuts, likely at the equines' expense. Accordingly, the Army should purchase and renovate facilities with a perspective that is always focused foremost on the horses and their needs. When designing, choosing, or renovating equine facilities with adequate comforts, considerations must include the length of trailering that will be required, adequate turnout, appropriate stall sizes, and other carefully thought-out decisions.

The Caisson Detachment must install and maintain a backbone of autonomous and empowered equine expertise. Considering the brief tenure of soldiers in the Caisson Detachment, it is key that the Army hire more civilian or contracted equine expertise. The detachment is already making strong progress in this direction, and it might consider adding even more equine expert positions as it moves forward. Having multiple equine expert voices in the institution helps to offer checks and balances so no single expert can take the Caisson Detachment off course.

Just as importantly, the Caisson Detachment must make organizational and cultural shifts to empower and enable equine expert decisionmaking. Civilians feel it is more dif-

¹⁷ We recognize that, in Chapter 4 and elsewhere, we classify such issues as horse procurement within the larger category of materiel. However, this classification reflects current Army DOTMLPF framework—not our own taxonomy.

¹⁸ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024; Veterinarian (A6), interview with the authors, June 5, 2024; Current or former U.S. Army command or staff or U.S. government staff (E8), interview with the authors, July 29, 2024; Current or former manager of an equine herd (D1), interview with the authors, March 15, 2024; Current or former caisson command or staff (C12), interview with the authors, July 18, 2024; Current or former caisson command or staff (C15), interview with the authors, July 19, 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024; Veterinarian (A7), interview with the authors, June 10, 2024; Current or former U.S. Army command or staff or U.S. government staff (E10), interview with the authors, August 12, 2024.

difficult to be heard by those with rank.¹⁹ Additionally, as seen in other peer working herds, civilians find it difficult to give soldiers orders without respecting their rank.²⁰ Contractors might also understandably worry that, if they complain, they will no longer be allowed to offer services to the Caisson Detachment. Protecting these voices and considering their viewpoints is key to moving forward. There should be formalized structures to report concerns, preferably anonymously.

Finally, although the Caisson Detachment is making important steps forward in progressing the training offered to their soldiers and horses through external contractors, it is key that the detachment continues to contract out riding and driving instruction for at least the next two years.²¹ In general, external equine experts advised that the Army still use considerable civilian support for procurement, tack, equipment, and training because it currently does not have the internal equine expertise to handle these alone.²² Having external experts focused on soldier training remains important even if equine expertise is present in other personnel (as it is in the soldiers who handle the horses day to day). In the longer term, providing additional training for soldiers and searching for alternative methods to encourage their longevity, as the Caisson Detachment is already attempting, could be helpful for reinforcing civilian and contracted expertise.

The Caisson Detachment should reinforce and formalize regular internal and external assessment. The Caisson Detachment is already undergoing regular internal review by the Army Equid Committee, although several interview respondents suggested that this review would be more helpful if guidelines were further codified and captured the nuance between different equine units.²³ Within the Caisson Detachment, the detachment should consider having a more formalized morning inspection of horses, as the Belgium National Police does, or at least quick checks by leadership before exercises, as the King's Troop does.²⁴ The King's Troop, in general, serves as an instructive example here; it undergoes external assessments and implements regular, dynamic updates to its processes and horse care to meet external guidance from the British Horse Society, and it licenses soldier instructors, soldier farriers, and soldier saddlers through external organizations.²⁵ The King's Troop works with the British Horse Society, an organization that has extensive and impressively detailed guidance in

¹⁹ For more information, see the "Rank Affects How Personnel Are Treated in the Unit" finding in the personnel section of Chapter 3.

²⁰ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

²¹ Equine expert (B4), interview with the authors, May 8, 2024.

²² Equine expert (B4), interview with the authors, May 8, 2024.

²³ Current or former U.S. Army command or staff or U.S. government staff (E7), interview with the authors, July 23, 2024; Equine expert, email discussion with the authors on the future of the Caisson Detachment, April 23, 2024.

²⁴ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

²⁵ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024; Equine expert (B13, B15), interview with the authors, August 16, 2024.

its National Equine Welfare Council compendium.²⁶ External assessment could offer a critical source of expertise for the Caisson Detachment and, as a bonus, integrate transparency into its operations to assure the public of its continued success. The American Association of Equine Practitioners has called for external assessments of caisson herd health and well-being every four months.²⁷

For a compiled list of our findings and recommendations organized by DOTMLPF framework area, please see Table 5.1.

Conclusion

The Army caisson tradition is a beautiful one, intended to honor and support the families of those who have sacrificed all for their country. Many veterans have directly indicated the caisson tradition is the only way they wish to have their funerals held.²⁸ However, if the Army wishes to continue this tradition, it must do so in a way that is safe and sustainable for the horses who are being asked to carry out this solemn duty. We have documented three paths the Army can pursue to ensure safe and sustainable caisson missions: altering older tactics to reflect new best practices based in equine science, modernizing the detachment entirely, and shifting to an entirely contracted solution. No single path is without costs. This report aims to support that decisionmaking and, in some small way, lead to a better future for both the horses and personnel of the Caisson Detachment and the bereaved families whose family members have sacrificed their lives for the United States.

²⁶ This documentation could be helpful to the Caisson Detachment because it covers everything from stall size to basic care needs.

²⁷ Equine expert (B4), interview with the authors, August 13, 2024.

²⁸ Drew F. Lawrence, "Anguish, Uncertainty: 66 Families Wait to Bury Loved Ones Amid Suspension of Horse-Drawn Funeral Services at Arlington," *Military.com*, May 31, 2024.

TABLE 5.1

Findings and Recommendations for the Army Caisson Detachment's Ground-Level Operations

DOTMLPF Framework Area	Findings	Recommendations
Doctrine	<ul style="list-style-type: none"> • Flexibility is sometimes necessary. The Caisson Detachment's operating procedures set strict standards for horse care and maintenance and mission procedures. Equine experts noted the need for more flexibility in the guidelines to address horses who are in pain, disabled, or behaving abnormally. • Outdated care manuals. The most recent guide on military horse care, riding, and maintenance is the 1942 <i>Field Artillery Mounted Instruction</i> manual. Other units have developed SOPs, but the Caisson Detachment's SOP is from 2015. 	<ul style="list-style-type: none"> • Update the Caisson Detachment's SOP. There is a need for guidance regarding day-to-day barn operations and ways to improve coordination and integration between stakeholders in the Caisson Detachment. Areas that require more equine expertise should be left flexible. • Update doctrine, documentation, and SOPs regularly. Equine and animal science is always evolving, so it is important to regularly consult with equine experts to account for changing standards and best practices. Confer with unit personnel as well to be sure that current requirements and challenges are addressed. • Update and codify standards of equine care across Army equine units, but remember that flexibility is necessary. Army equine units have different missions and might require nuanced guidance when it affects these missions.
Organization and Leadership	<ul style="list-style-type: none"> • The Caisson Detachment has two primary missions with little overlap in personnel requirements: (1) conducting funeral ceremonies and (2) deploying as a combat unit, if necessary. Both missions require deep learning and full-time effort to maintain readiness. • The only officer authorized for the platoon by the MTOE is a Chief Warrant Officer 2. This position is classified as an automotive maintenance technician. 	<ul style="list-style-type: none"> • Consider changing the Caisson Detachment authorization. Moving the detachment from an MTOE to an augmentation TDA will focus the unit almost exclusively on the ceremonial mission and care of the horses. • Increase unit size to correspond with any increase in the operational tempo of the detachment. Soldiers are already overstretched and are frequently forced to split their time between two missions. More or longer duties can lead to dangerous gaps in training and horse care. • When possible, turn to civilian equine experts. Address the issues affecting how civilians are treated and ensure that supervisors support civilian experts' efforts. • Make the Caisson Detachment commander a field grade officer with equine knowledge. Doing so can help to provide effective oversight, leadership, and authority for the mission. • Stabilize the Caisson Detachment leadership position for at least four years. This will allow leaders to gain necessary experience and will reduce horse care and mission management issues. Encourage the leader to attend equine education courses, and/or look for commanders with equine experience to join the unit.

Table 5.1—Continued

DOTMLPF Framework Area	Findings	Recommendations
Personnel	<ul style="list-style-type: none"> • Traditional Army hiring is fundamentally at odds with how equine experts are usually hired. USA Jobs postings are unlikely to reach top equine experts, who are typically hired through networks of existing experts or recruited from top universities. • The herd manager position has proved hard to fill. This critical position requires knowledge of equine science and deep experience with horses. It also requires the ability to work with Army and civilian staff. To date, the Army has reduced job responsibilities to draw more applicants. • More equine expertise is necessary. Until May 2023, soldiers acted as farriers, horse trainers, and grooms. Currently, the Army has contracted civilians to assist with these tasks and is consulting external experts to find ways to build up internal expertise. • Rank affects how personnel are treated in the unit. Individuals with lower ranks or civilian status often feel that they receive less respect than those of higher rank or with military backgrounds. Individuals with knowledge of equine care often feel afraid to speak up about bad practices or mistreatment of horses because of fear of losing their rank or contractor status. • Soldiers' longevity in caisson positions is a continual issue undermining levels of equine expertise, both for the Caisson Detachment and for other Army equid units. Staying in the unit for two to three years does not allow soldiers to develop the necessary skills to properly care for and maintain equines without supervision. • Not all soldiers choose to be in the Caisson Detachment for the horses, which undermines a horse-first stable ethos. Some reasons cited for joining were boredom with other duties, incentive pay, conflict with individuals in their current units, and curiosity rather than an interest in working with animals. 	<ul style="list-style-type: none"> • Continue to invest in external equine expertise hiring. This is especially important for key positions, such as farriers and horse training roles. Experts should, as much as possible, be encouraged to offer their opinions—perhaps through a formalized or anonymous reporting system. • Take a flexible approach for all Caisson Detachment manager positions. The Army can adopt a committee hiring strategy that uses trusted equestrian expert networks. Adopting a hiring model that includes a mandatory probationary period with formalized assessment is also recommended. • A separate MOS for Army horsemen will be difficult but deserves further study. If this proves to be too challenging, consider identifying other methods of enhancing soldier longevity in the Caisson Detachment and relying more on contracted and/or reservist personnel to enhance overall equine expertise in the unit. • Consider collaborating with peer working herds. Other herds indicated interest in offering aid, and exchanges might prove to be a powerful transmitter of best practices from other organizations facing similar concerns. • Try to recruit soldiers with a passion for equine care and welfare. These soldiers can provide benefits to the Caisson Detachment in helping personnel focus on healthy horses and proper care.

Table 5.1—Continued

DOTMLPF Framework Area	Findings	Recommendations
Training	<ul style="list-style-type: none"> • Longevity is critical for the robust development of horsemanship and riding skills. Experts noted that the Army’s ten-week training period was too short to learn the necessary horse-related skills and safety measures. In comparison, the RCMP conducts more than seven months of training before an individual is considered skilled. • Horsemanship and rider training are not yet in-house capabilities. Interviewees indicated that there was not yet the internal expertise to support in-house training by the Caisson Detachment and advised that it should maintain externally contracted training for at least the next two years. • Several external working herds indicated willingness to share their training materials with the Caisson Detachment. Local organizations, such as the U.S. Park Police (with which the Caisson Detachment has already done some training exchange) were enthusiastic about deepening the relationship. International organizations, such as the King’s Troop, do significant work with other herds supporting the development of their standards and indicated willingness to help support the Caisson Detachment. 	<ul style="list-style-type: none"> • Allow soldiers to provide support under the eye of an in-house equine expert supervisor. Soldiers’ roles can be tailored to enhance and reflect their knowledge base and experience levels. Until personnel solutions can be devised to ensure the longevity of the caisson soldiers’ experience in the detachment, soldiers will have very limited <i>time in position</i> in equine training terms. • Continue to lean on external contracted training for both the horses and riders until the detachment develops or hires more internal equine expertise. Other possible options would be to partner with other working herds in the area or work with sister organizations to aid in and pool resources for training. • Continue to include more horsemanship skills in caisson training, including horse care (e.g., grooming, identifying lameness and injuries), horse psychology and body language, and trailering instruction. • Consider more exchange or side programs with other working herds. Other Army equine units have more-extensive contact, which allows them to share resources.

Table 5.1—Continued

DOTMLPF Framework Area	Findings	Recommendations
Materiel	<ul style="list-style-type: none"> • Breed characteristics and mission fitness are critical when procuring new horses. Errors in horse procurement have challenged the detachment in the past. Budget limitations led to the continued use of old horses in need of retirement, which caused injuries. • Specialized equine veterinary inspection is a critical aspect of the procurement process but must be conducted by appropriate veterinary personnel. Careful procurement of only horses with manageable health concerns will lessen the burden on staff, especially veterinary staff, in the Caisson Detachment, and ensure that horses are less likely to need care that is outside the Caisson Detachment's natural ability to provide. • Army budget processes can make it difficult to purchase horses—and sometimes medication—in a timely manner. Horse procurement in the civilian market is usually done much more quickly. • Quality tack that is customized for individual horses and frequently adjusted and refitted is critical. Poorly fitting saddles previously led to rubs and sores on horses' backs, which was noted as a major health concern in reviews of caisson operations. As of this writing, the Caisson Detachment had purchased new tack. • Horse nutrition is a significant driver of overall equine health. Prior to the deaths of two caisson horses in 2022, they had been fed low-quality hay, reportedly because the Army had difficulties finding a consistent supply of high-quality hay. 	<ul style="list-style-type: none"> • Pursue horse procurement at a slow, careful pace, and secure only those animals that will thrive in the Caisson Detachment environment. Horses, if treated well, can give the unit a decade of service. Because of this, every purchase is important and should not be taken lightly, even if it slows the process by which the Caisson Detachment returns to its full capabilities. • Look for horses with specific qualities. Interviewees agreed that the Army should choose strong, calm, and friendly Percheron or Percheron-mix horses for caisson operations, especially those between the ages of six and eight. Caisson horses are traditionally black or gray but procuring an all-black herd will allow horses to be easily swapped should the need arise. When purchased, horses should be healthy or have only maintenance-related health concerns, be of cool temperament, and have some driving experience, if possible. • Ensure that Army equine veterinarian staff have integrated procurement decisionmaking roles. Not all Army veterinarians have equine expertise, which is critical to selecting the healthiest, most-capable horses. • Suit tack to the mission and to the individual horses. The tack should be adjusted every six months at a minimum. • Optimize procurement processes and structures to continue to ensure that Army equine veterinarian staff have an integrated role with decisionmaking power in the procurement process. • Explore opportunities to partner with specific suppliers of top-quality hay and grain. This can help ensure optimal equine nutrition for the herd.

Table 5.1—Continued

DOTMLPF Framework Area	Findings	Recommendations
Facilities	<ul style="list-style-type: none">• Facilities still pose considerable challenges to herd health, but the Army is actively seeking solutions. Fort Myer is too small to support a large herd and cannot be expanded because of its urban environment. The barns, although under renovation, will remain a restrictive factor in the long term. The Caisson Detachment, as of the time of this writing in mid-2024, was contracting external facilities and making every effort to formalize a longer-term plan for external pasturing and stabling.• Adequate and properly maintained turnout space is critical for equine facilities. Paddock maintenance measures eliminate such preventable risks as inadequate exercise or consumption of sand and gravel.• Equine expertise and a horse-first philosophy should be prioritized when designing, renovating, and using facilities. Prioritizing the horse, horse health, and horse comfort is key to sustainable herd health.	<ul style="list-style-type: none">• Continue to contract with an offsite entity within trailering distance of Fort Myer, or purchase offsite facilities nearby but contract out horse care. Offsite facilities should be operated by contracted personnel because the Army needs to build up sufficient expertise to operate such a facility.• The temporary stabling of the herd near Fort Meyer during stable renovations should be conducted deliberately. Notably, this effort will likely require additional personnel for care, cleaning, and maintenance.• Maintain and follow a horse-first philosophy when developing, modifying, and using equine facilities. This means that all decisions should be focused on equine health and well-being and in line with evidence-based best practices rooted in recent equine science.

Detailed Case Studies

To better understand the challenges of managing a working equine herd and opportunities for improvement, we conducted six comparative case studies of U.S. and international working equine herds. Our case studies focused on the ARNORTH Caisson Section, the King's Troop Royal Horse Artillery, the U.S. Park Police, the NYPD Mounted Unit, the RCMP Musical Ride, and the Budweiser Clydesdales. In our review of each study presented in this appendix, we examine DOTMPLF elements and present lessons learned.

U.S. Army North Caisson Section

Introduction

The ARNORTH Caisson Section is part of the Military Funeral Honors Platoon at Fort Sam Houston, located in San Antonio, Texas. The Caisson Section performs funeral honors at Fort Sam Houston National Cemetery and occasionally participates in community outreach events.¹ The ARNORTH Caisson Section is the case most similar to the Caisson Detachment. As the only two U.S. Army caisson units, both operate within the same organizational structure and have the same mission. U.S. Army doctrine dictates other similarities, such as the use of postilions, traditional tack and equipment, and historical equine-related protocols. Although it has operated since March 2002, the ARNORTH Caisson Section has been paused several times because of staffing shortages and other issues.²

Two key differences between the U.S. Army caisson units are mission scope and facility size. The ARNORTH Caisson Section has a drastically smaller scope than the Caisson Detachment and does not face the same space-related constraints. As of this writing, the ARNORTH Caisson Section included ten horses, seven soldiers, and one civilian employee.³ The funeral route is considered light duty, stretching only one-half mile, and the caisson conducts no more than

¹ ARNORTH, "Military Funeral Honors Platoon-Caisson Section," webpage, undated.

² ARNORTH Caisson Section member, email discussion with the authors on ARNORTH caisson operations, August 20, 2024.

³ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024; Current or former caisson command or staff (C17), interview with the authors, August 15, 2024; Current or former U.S. Army command or staff or U.S. government staff (E10), interview with the authors, August 12, 2024.

one funeral per day.⁴ Additionally, there is ample space for the herd: The ARNORTH facility has 22 acres of pasture and 15 stalls. Five additional stalls are planned for construction.⁵

The Caisson Section has ten horses, nine of which can participate in funeral missions.⁶ Most are draft-cross geldings,⁷ and they range in age from four to fourteen.⁸ In FY 2015, the Caisson Section completed 63 missions.⁹ In 2018, the unit completed 54 missions across southern Texas.¹⁰

U.S. Army North Caisson Doctrine, Organization, and Leadership

The unit follows an SOP manual written by the current platoon sergeant and last updated in January 2024.¹¹ The SOP covers procedures for funeral honors at Fort Sam Houston, including the noncaisson sections. The SOP will be updated in 2025 to account for any changes or new information since the previous version.¹² The unit uses the 1942 U.S. Army *Field Artillery Mounted Instruction* manual for guidance on horse care and handling.¹³

The Caisson Section is designed to comprise eight soldiers and two civilian experts. When fully staffed, the caisson includes a platoon sergeant, caisson operations NCO, section leader, five military horsemen, a civilian horse trainer, and a civilian herd manager.¹⁴ As of August 2024, five of the eight platoon slots were filled.¹⁵ This staff shortage is a significant burden for the unit personnel, who handle a wider variety of facility management tasks than those at JBMHH.¹⁶ Eligibility for skilled roles within the unit is based solely on

⁴ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁵ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁶ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁷ *Gelding* refers to a castrated male horse.

⁸ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁹ ARNORTH Public Affairs, “Breaking Bob: Training the New Funeral Honors Platoon Caisson Section Horse,” Joint Base San Antonio, April 25, 2016.

¹⁰ Timothy Hickman, “Newest Member of the Fort Sam Houston Caisson Makes His Debut,” Joint Base San Antonio, February 21, 2019.

¹¹ Headquarters and Headquarters Battalion, ARNORTH, *Fort Sam Houston Funeral Honors Platoon: Standard Operating Procedures*, January 1, 2024.

¹² Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

¹³ Current or former caisson command or staff (C17), interview with the authors, August 15, 2024.

¹⁴ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

¹⁵ Current or former caisson command or staff (C17), interview with the authors, August 15, 2024.

¹⁶ Current or former caisson command or staff (C17), interview with the authors, August 15, 2024; Current or former U.S. Army command or staff or U.S. government staff (E2), interview with the authors, June 28, 2024.

the number of funeral missions a soldier has completed.¹⁷ Some soldiers seem able to stay in their roles for several years: In 2016, the then–Section Rider had been at Fort Sam Houston for six years.¹⁸ Leadership has an outsized amount of influence in the unit, which leads to a system without checks and balances in cases of disagreement around horse care or soldier well-being.¹⁹ There is no formalized, protected way to register concerns with the unit, which raises the possibility of reprisal.²⁰

U.S. Army North Caisson Personnel and Training

Historically, ARNORTH soldiers have completed training with the Caisson Detachment before coming to Fort Sam Houston,²¹ and most ARNORTH caisson soldiers come directly from a caisson assignment.²² As a result, there was no riding instructor as of May 2024.²³ Multiple interview respondents reported that the training of personnel at JBMHH contributed to problems at Fort Sam Houston, whether because of insufficient training and preparation or an unwillingness to deviate from improper processes learned at JBMHH.²⁴

Training for soldiers at Fort Sam Houston has evolved over time. In 2013, reports depicted a largely informal, unstructured training that failed to adequately prepare soldiers for new and difficult riding skills, asking them to perform highly skilled tasks (for instance, to gallop) very early on in their riding education.²⁵ Soldiers were allowed to train others after completing 75 missions, even though training for new riders encompassed skills not practiced in

¹⁷ Current or former U.S. Army command or staff or U.S. government staff (E9), interview with the authors, August 12, 2024.

¹⁸ ARNORTH Public Affairs, 2016.

¹⁹ Current or former caisson command or staff (C17), interview with the authors, August 15, 2024; Current or former U.S. Army command or staff or U.S. government staff (E9, E10), interview with the authors, August 12, 2024; Veterinarian (A8), interview with the authors, July 22, 2024.

²⁰ Current or former U.S. Army command or staff or U.S. government staff (E9, E10), interview with the authors, August 12, 2024.

²¹ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

²² Current or former U.S. Army command or staff or U.S. government staff (E2), interview with the authors, June 28, 2024; Current or former caisson command or staff (C17), interview with the authors, August 15, 2024.

²³ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

²⁴ Veterinarian (A8), interview with the authors, July 22, 2024; Current or former caisson command or staff (C17), interview with the authors, August 15, 2024; Current or former U.S. Army command or staff or U.S. government staff (E9), interview with the authors, August 12, 2024.

²⁵ L. A. Shively, “Fort Sam Houston Caisson Section Serves, Reveres, Comforts,” Joint Base San Antonio, November 22, 2013.

caisson missions.²⁶ In 2017, training lasted six to eight weeks and focused on equitation.²⁷ By 2020, new soldiers were required to have previous equine training, presumably with the Caisson Detachment.²⁸ By 2021, safety training for soldiers was introduced by a former platoon sergeant.²⁹ Caisson soldiers are involved with training and desensitizing the horses.³⁰ Soldiers are also responsible for checking each horse's vital signs and overall well-being every other week.³¹ The unit veterinarian, although on call, is not always immediately available; thus, soldiers handle first aid and could be responsible for larger medical issues until the veterinarian can take over.³²

The current herd manager is a certified veterinary technician with personal horse experience.³³ The herd manager is responsible for herd health, including pre- and postmission checks on each horse, feed, and maintenance of medical records and baselines for the herd.³⁴ As of this writing, the horse trainer position was empty.³⁵ The unit's previous horse trainer had experience with driving, including longlining, dressage, hunters, and jumpers.³⁶ ARNORTH's current staff veterinarian is not an equine veterinarian but consults regularly with equine veterinarians in the Army Reserve.³⁷ The caisson veterinarians typically do not have equine expertise or experience; this has led to veterinary guidance that was later contradicted by equine veterinarians.³⁸ The caisson veterinarian has access to two discretionary

²⁶ Shively, 2013.

²⁷ *Equitation* refers broadly to the art of riding but is used in specific reference to the rider's position and ability to ride correctly and effectively. Tiffany Huertas, "Caisson Horses Train Constantly for Military Funerals," *KSAT*, August 10, 2017.

²⁸ Lori A. Bultman, "Caisson Platoon Honors Fallen Heroes," Joint Base San Antonio, March 6, 2020.

²⁹ Lauren Padden, "U.S. Army North Caisson Platoon Sergeant Takes Final Ride," Joint Base San Antonio, August 3, 2021.

³⁰ *Desensitizing* is the process of gradually exposing a horse to unfamiliar and potentially frightening situations. Horses used in parades, for example, must be desensitized to crowds, small projectiles, loudspeakers, etc. Joint Base San Antonio, Texas, "The Horseman—A U.S. Army Caisson Platoon Story," video, October 17, 2023; Current or former caisson command or staff (C17), interview with the authors, August 15, 2024.

³¹ Joint Base San Antonio, Texas, 2023.

³² Joint Base San Antonio, Texas, 2023.

³³ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

³⁴ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

³⁵ Current or former U.S. Army command or staff or U.S. government staff (E9, E10), interview with the authors, August 12, 2024.

³⁶ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

³⁷ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

³⁸ Current or former U.S. Army command or staff or U.S. government staff (E9), interview with the authors, August 12, 2024.

funding sources: nonappropriated funds and appropriated funds through a Government Purchase Card.³⁹ Farrier care is provided by a contracted farrier.⁴⁰

U.S. Army North Caisson Materiel and Facilities

ARNORTH has several horse procurement, training, and herd requirements. Horses procured by the caisson should be four- to six-year-old black draft cross geldings, 15.2 hh to 16.2 hh tall,⁴¹ weighing 1,200 to 1,600 pounds, of a similar appearance to the other horses, and fully trained to ride and drive.⁴² Harness training is prioritized if horses with both riding and driving experience are not available.⁴³ And only one mare is allowed in the herd at any point; there were none as of June 2024.⁴⁴ These requirements have changed over time. In 2016, the caisson purchased a two-year-old Percheron stallion to be started under saddle and eventually trained for caisson missions.⁴⁵

A 2019 plan sought to replace most of the caisson horses over two years.⁴⁶ By 2021, eight new horses had been procured and ten horses retired to adoption homes because of age or medical concerns.⁴⁷ Multiple horses in the caisson herd were donated by the Uniformed Veterinarian Medicine Association, an organization of retired military veterinarians.⁴⁸ The caisson typically uses donated funds to purchase horses, which can lead to rushed or inappropriate

³⁹ Current or former U.S. Army command or staff or U.S. government staff (E2), interview with the authors, June 28, 2024.

⁴⁰ Current or former caisson command or staff (C17), interview with the authors, August 15, 2024; Current or former U.S. Army command or staff or U.S. government staff (E9), interview with the authors, August 12, 2024; Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁴¹ Horses are measured in *hands*, which is abbreviated *hh* after a numerical measurement. One hand is equivalent to four inches. A 14.3 hh horse is 14 hands (56 inches) and three inches tall at the withers (or base of the mane).

⁴² Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁴³ *Harness training* refers to preparing a horse to be driven in a harness, usually while pulling something. Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁴⁴ Headquarters and Headquarters Battalion, ARNORTH, 2024.

⁴⁵ *Stallion* refers to an intact (not castrated) male horse. Stallions can be more difficult to handle than geldings and must be closely supervised around mares. ARNORTH Public Affairs, 2016.

⁴⁶ Hickman, 2019.

⁴⁷ Padden, 2021.

⁴⁸ Hickman, 2019.

purchases if donors are eager to see their money spent.⁴⁹ A caisson veterinarian can advise on whether a horse should be purchased, but they do not have decisionmaking power.⁵⁰

The caisson facility includes 15 stalls and 22 acres of grass pasture.⁵¹ Pastures are maintained by the caisson soldiers according to Fort Sam Houston's Pasture Management SOP, published in March 2024.⁵² Five additional stalls are under construction,⁵³ and the stable was refurbished in 2019.⁵⁴

McClellan saddles are used for funeral ceremonies in accordance with tradition. The Caisson Section typically buys saddles off the rack.⁵⁵ Half pads are not allowed to be used with ceremonial tack because they do not match historical standards.⁵⁶ There has been discussion of working with a saddle fitter or making custom saddles for each horse,⁵⁷ but, as of May 2024, saddles were not being fitted for individual horses.⁵⁸ Western saddles are used when the unit is not performing funeral honors.⁵⁹ There are concerns about the safety of tack because of its age, lack of upkeep, and the difficulty of maintaining historical equipment.⁶⁰ As of 2021, the unit used a 100-year-old caisson.⁶¹ The section uses a nine-horse trailer to transport horses and equipment in a single vehicle.⁶² It was custom built in 2021 to accommodate

⁴⁹ Current or former U.S. Army command or staff or U.S. government staff (E2), interview with the authors, June 28, 2024.

⁵⁰ Current or former U.S. Army command or staff or U.S. government staff (E2), interview with the authors, June 28, 2024.

⁵¹ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024; Current or former U.S. Army command or staff or U.S. government staff (E2), interview with the authors, June 28, 2024.

⁵² Current or former caisson command or staff (C17), interview with the authors, August 15, 2024; Department of the Army Staff, "Policy Letter: Pasture Management SOP," memorandum for record, Department of the Army, March 31, 2024a.

⁵³ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁵⁴ Lauren Padden, "JBSA–Fort Sam Houston Caisson Team Dedicates Horse in Sergeant Major of the Army's Name," Joint Base San Antonio, June 25, 2019.

⁵⁵ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁵⁶ *Saddle pads* are heavy fabric pads placed under the saddle. Additional pads in specific shapes and weights, often called *half pads*, can be used to alleviate some saddle fit issues. Current or former U.S. Army command or staff or U.S. government staff (E9), interview with the authors, August 12, 2024.

⁵⁷ *Saddle fitters* are professionals trained to evaluate how well a saddle fits a horse and adjust the saddle as needed.

⁵⁸ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁵⁹ SA Live, "Rodeo Spotlight: The Caisson Platoon and the San Antonio Stock Show and Rodeo," video, February 10, 2023.

⁶⁰ Current or former U.S. Army command or staff or U.S. government staff (E9, E10), interview with the authors, August 12, 2024.

⁶¹ Bultman, 2020.

⁶² Headquarters and Headquarters Battalion, ARNORTH, 2024.

the unit's needs; air conditioning and temperature control allow the herd to travel comfortably and rest inside the trailer when not working.⁶³

Lessons Learned from the U.S. Army North Caisson Section

An ideal ARNORTH herd would have 20 horses in it: two teams of eight horses each, plus four horses transitioning into or out of the working teams.⁶⁴ The four unassigned horses might include newly acquired horses, ones nearing retirement, and ones needing medical attention. Having these additional slots would build in flexibility to handle unforeseen circumstances (e.g., if a horse on a working team came up lame, another horse could take its place). This model could be useful for the Caisson Detachment when considering herd size and composition.

The Caisson Section's adherence to tradition can prove challenging when attempting to apply civilian expertise in specific cases. Expert saddle fitters, for example, are unfamiliar with the McClellan saddles, which have remained unchanged from their historical form despite subsequent decades of tack-related research and innovation.⁶⁵ The rarity of postilion riding makes finding experienced trainers difficult, if not impossible. The Caisson Section has instead hired trainers with both riding and driving experience, the same experience they look for when procuring horses.⁶⁶

The majority of ARNORTH Caisson Section soldiers come to Fort Sam Houston after an initial assignment to the Caisson Detachment.⁶⁷ This suggests that soldiers are interested in staying in equine-related roles after their first caisson assignment.⁶⁸ It also indicates that the quality of training in the Caisson Detachment has direct implications for the quality of both U.S. Army caisson units. Training for riders is not a priority at Fort Sam Houston, for example, because most soldiers have already completed it at JBMHH.⁶⁹ As a result, inadequate training at JBMHH is likely to result in poorly prepared personnel across the U.S. Army equine enterprise.

The ARNORTH caisson leadership maintains communication with other mounted Army units, which includes occasional discussions at equine sites.⁷⁰ The Caisson Detachment has

⁶³ Ashlind House, "U.S. Army North Caisson Platoon Receives New Horse Trailer," Joint Base San Antonio, June 9, 2021.

⁶⁴ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁶⁵ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁶⁶ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁶⁷ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁶⁸ Current or former caisson command or staff (C1, C2, C3, C4), interview with the authors, March 19, 2024; Current or former caisson command or staff (C17), interview with the authors, August 15, 2024.

⁶⁹ Current or former caisson command or staff (C17), interview with the authors, August 15, 2024.

⁷⁰ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

been described as minimally involved in this group, however.⁷¹ Further correspondence among all units could be helpful to codify best practices; such collaboration could compensate for the units' limited bandwidths.

The ARNORTH Caisson Section made improvements following internal Army investigations in 2022. Reinspection around 18 months later found improvement in many areas and others needing more work.⁷² Personnel seem to be driving both positive and negative change. Some benefits might have come from new non-equine veterinary staff who were willing to seek advice from experienced equine veterinarians in the Army Reserve.⁷³ Personnel from TOG, including Caisson Section leadership, were also identified as a significant part of the problem.⁷⁴ Former TOG soldiers were described as resisting improvements and “bringing Arlington problems down here.”⁷⁵ Caisson Section soldiers are also overworked because of consistent understaffing problems.⁷⁶ There were extremely polarized opinions on leadership, with some interview respondents describing leadership as “corrupt,” “toxic,” and prone to overlooking or overruling suggestions to improve horse and soldier well-being.⁷⁷

The ARNORTH Caisson Section is a well-suited comparative case for the Caisson Detachment, given their many shared characteristics, apparently similar and different problems, and their varying approaches to address their problems.

King's Troop Royal Horse Artillery

Introduction

Like the Caisson Detachment, the King's Troop Royal Horse Artillery is an army unit that performs ceremonial functions and relies on multiple styles of horsemanship and riding—both individually mounted and combined mounted and driving styles. However, in contrast to the Caisson Detachment, King's Troop soldiers often stay with the unit for the length of

⁷¹ Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁷² Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁷³ Veterinarian (A8), interview with the authors, July 22, 2024.

⁷⁴ Veterinarian (A8), interview with the authors, July 22, 2024; Current or former U.S. Army command or staff or U.S. government staff (E2), interview with the authors, June 28, 2024; Current or former caisson command or staff (C17), interview with the authors, August 15, 2024; Current or former U.S. Army command or staff or U.S. government staff (E9, E10), interview with the authors, August 12, 2024.

⁷⁵ Current or former U.S. Army command or staff or U.S. government staff (E2), interview with the authors, June 28, 2024.

⁷⁶ Current or former caisson command or staff (C17), interview with the authors, August 15, 2024; Current or former caisson command or staff (C7), interview with the authors, May 20, 2024.

⁷⁷ Current or former caisson command or staff (C17), interview with the authors, August 15, 2024; Current or former U.S. Army command or staff or U.S. government staff (E9, E10), interview with the authors, August 12, 2024.

their career and do not rotate out every two or three years, thus maximizing institutional knowledge and minimizing the number of potential injuries to both humans and horses. King's Troop horses are also regularly exposed to a variety of exercises to keep them engaged and well-rounded. This is very different from the extremely consistent exercise that the Caisson Detachment's horses experience walking only on pavement for funerals.⁷⁸

The King's Troop Royal Horse Artillery (also known as *The Troop*) is a mounted ceremonial saluting battery and is part of the Household Troops. The Troop, in its current form, has been in existence since 1946 and became the King's Troop in 1947;⁷⁹ however, its origins go back "to 1793 and the formation of the Royal Horse Artillery."⁸⁰ This British Army unit is based at Woolwich Barracks in London and is responsible for firing gun salutes for a variety of official occasions, including royal birthdays. Part of these ceremonial functions is the Musical Drive, which "is one of the most impressive displays of horsemanship in the world involving high risk, complex choreographed moves with split-second timing."⁸¹ The Musical Drive involves six teams of six horses each. Each team pulls a limber (or horse-drawn carriage) and a World War I state saluting gun (also known as *13-pounder* for "the weight of the shot").⁸² The six teams of horses, riders, limbers, and cannons execute "intricate manoeuvres, choreographed to music" with high precision.⁸³

The unit also provides "a gun carriage and a team of black horses for state and military funerals."⁸⁴ When The Troop is part of official parades, because of its status as "the senior unit of the British Army,"⁸⁵ The Troop is treated with the highest respect and takes the lead, with its position taking "precedence over all other regiments in the regular forces of the British Army,"⁸⁶ including over the Household Cavalry.⁸⁷

⁷⁸ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

⁷⁹ King's Troop R. H. A. Association, homepage, undated; Army Cadets, "What Being an Army Farrier Is Really Like," June 18, 2024.

⁸⁰ "King's Troop Royal Horse Artillery: A Legacy of Equestrian Excellence and Ceremonial Precision," *BFBS Forces News*, April 26, 2023.

⁸¹ British Army, "The King's Troop Royal Horse Artillery Declared Fit for the King!" webpage, March 14, 2023b.

⁸² King's Troop R. H. A. Association, undated; UK Ministry of Defence, "King's Troop RHA Moves into State-of-the-Art Facilities in Woolwich," February 8, 2012; British Army, "Horses Visit the Beach with King's Troop, Royal Horse Artillery," webpage, September 20, 2019.

⁸³ "King's Troop Royal Horse Artillery," 2023.

⁸⁴ UK Ministry of Defence, 2012.

⁸⁵ British Army, 2023b.

⁸⁶ King's Troop R. H. A. Association, undated.

⁸⁷ The Household Cavalry traditionally comes first in the British Army's order of precedence. National Army Museum, "Royal Horse Artillery," webpage, undated.

The Troop has 140 horses, of which 120 are located in Woolwich, and 20 are at the Defence Animal Training Regiment in Melton Mowbray, Leicestershire.⁸⁸ Of the 120 horses at Woolwich Barracks, 13 are “officers’ chargers and the rest ‘ride and drive’ [horses].”⁸⁹ Alongside the 120 horses, The Troop had approximately 140 personnel as of August 2024.⁹⁰ The unit’s personnel consists of mounted gunners, gun team drivers, farriers, saddlers, tailors, and logisticians.⁹¹

A notable feature of The Troop is the utmost care it shows toward the horses, which always come first and are the object of numerous checks and inspections.⁹² The King’s Troop has built a culture that is centered on the horses; personnel are carefully chosen to care for and handle them, and the unit is subject to significant, regular internal and external assessment. The horses are weighed weekly, and the unit understands that each horse is unique and has its own dietary and farriery needs. Guidance for the care of their horses is regularly updated and comes from the British Horse Society, an equine charity that promotes the health and safety of horses in the UK.⁹³ The Troop has personnel who care for and check on the horses around the clock.⁹⁴

King’s Troop Doctrine, Organization, and Leadership

The main documentation elements that guide The Troop’s activities can be found in the unit’s standard and regimental orders as well as the PAM-40, their relevant British Army regulatory standards, which is the unit’s go-to document for the Musical Drive and any parade format.⁹⁵ In addition to the written documents, a lot of the knowledge that governs the day-to-day activities of the unit is based on individual institutional knowledge, and it gets passed down through both daily practice and in consultation with Army reservists and former members of the King’s Troop.⁹⁶

⁸⁸ Current or former manager of an equine herd (D9, D10), interview with the authors, August 16, 2024; Liz Falkingham, “The King’s Troop Royal Horse Artillery: The Guns, the Troopers and the Musical Ride,” *Horse and Hound Magazine*, April 30, 2023.

⁸⁹ Falkingham, 2023.

⁹⁰ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

⁹¹ Falkingham, 2023.

⁹² Current or former manager of an equine herd (D9, D10), interview with the authors, August 16, 2024.

⁹³ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024; British Horse Society, homepage, undated.

⁹⁴ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

⁹⁵ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024. Although this document is sensitive, the King’s Troop indicated that it might be willing to share it directly with the Caisson Detachment, if requested.

⁹⁶ Current or former manager of an equine herd (D9, D10), interview with the authors, August 16, 2024.

The King's Troop falls under the Headquarters London District of the British Army. In terms of command and control for stable and herd management, the unit has three sections, and each section is commanded by a captain. A sergeant, who must have equine qualification and have gone through courses on horse care, management, and welfare, oversees a subsection (or subdivision) with approximately 16 horses.⁹⁷ Before becoming squadron leaders, these personnel must be experienced riders with riding instruction training.⁹⁸

The unit's veterinarian manages the herd's welfare and is a veterinarian by training first and an army officer second. Existing policy is that the veterinarian acts independently from the chain of command when it comes to making decisions about the horses' health because the commander is not a trained veterinarian and does not have the appropriate qualifications to determine which decision is best for the horses' well-being.⁹⁹ Soldiers are not permitted to do ceremonial work without the veterinarian present, and the veterinarian serves as the final say on all health-related decisions,¹⁰⁰ although decisions can be appealed to a more senior veterinarian in the Army Vet Corps, if necessary.¹⁰¹

For parades, and especially when performing the Musical Drive, The Troop is organized in six gun teams; each team (referred to as a subdivision) has six horses that pull one of the six World War I 13-pounder field guns and the limber.¹⁰² The limber and the 13-pounder weigh in total some 1.5 tons and have no brakes.¹⁰³ The color of horses in the six subdivisions gradually shifts from "light bays in A Sub-division, to blacks in F Sub-division."¹⁰⁴ In addition to the driving horses, the unit also has 13 chargers, which are the officer's horses and are not part of a subdivision. There is always at least one soldier at the stables tending to the horses.¹⁰⁵

King's Troop Personnel and Training

According to our research team's interviews conducted with Troop personnel, the unit currently has 140 personnel, although it is structured to have around 178. It currently has 140 horses, 120 of which are at the Woolwich facility. The other 20 horses are at a training facility in Melton Mowbray. Similar to the U.S. Army and the RCMP, the British Army is also

⁹⁷ Current or former manager of an equine herd (D3), interview with the authors, April 23, 2024.

⁹⁸ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

⁹⁹ Current or former manager of an equine herd (D3), interview with the authors, April 23, 2024.

¹⁰⁰ Veterinarian (A9), interview with the authors, August 16, 2024.

¹⁰¹ King's Troop staff, interview with the authors, June 21, 2024.

¹⁰² UK Ministry of Defence, 2012.

¹⁰³ British Army, 2023b.

¹⁰⁴ Falkingham, 2023.

¹⁰⁵ Current or former manager of an equine herd (D9), interview with the authors, August 16, 2024.

struggling with recruitment and retention, although the soldiers are hopeful that a recent salary increase will help with recruitment and retention efforts.¹⁰⁶

In addition to the soldiers who are part of various divisions and subdivisions of the unit (including the regimental headquarters and the stables), there are also soldiers in other support functions, such as tailors for uniforms, saddlers who make all tack in-house, farriers, an artificer or engineer who looks after the guns at the gun park, a core veterinarian officer, and a veterinary technician who work at the veterinary clinic. Most of The Troop's soldiers stay with the unit for their whole careers. After spending a few years with the unit, soldiers have the option to train to become farriers or join the veterinary corps. The unit also has several riding instructors, including 20 regimental riding instructors who are responsible for basic-level instruction and teaching soldiers how to ride, and 12 advanced regimental riding instructors who teach the riders how to drive the horses and about the more intricate and difficult maneuvers that they execute as part of the Musical Drive.¹⁰⁷ Soldiers are not permitted to ride greener horses without two riding instructors present.¹⁰⁸

The soldiers who join The Troop usually come from the Royal Regiment of Artillery, but some join the unit directly. Soldiers undergo a careful selection process, including demonstrating a record of "dedication to duty and commitment to excellence."¹⁰⁹

Most soldiers who join The Troop have an equine or farming background, although some come with no prior equine experience. Soldiers who join the unit without prior riding or equestrian experience go through at least 17 weeks of training and acquire advanced equestrian skills by the time they begin performing in public ceremonies.¹¹⁰ Those with no prior equestrian experience are cleared as riders only after a personalized assessment by a riding instructor.¹¹¹ The unit's commander does not necessarily come in with equine expertise and is often a generalist who oversees the SMEs under his or her command, although it was stressed that the commander entrusts these experts with equine decisions.¹¹²

Soldiers undergo two phases of basic military training. Phase 1 occurs at Pirbright, Winchester, or Harrogate, and Phase 2 occurs at the Royal School of Artillery at Larkhill. Once soldiers complete both phases, they are assigned a subsection with the King's Troop.¹¹³

¹⁰⁶ Current or former manager of an equine herd (D9, D10), interview with the authors, August 16, 2024.

¹⁰⁷ Current or former manager of an equine herd (D3), interview with the authors, April 23, 2024.

¹⁰⁸ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

¹⁰⁹ "King's Troop Royal Horse Artillery," 2023; King's Troop Foundation, "About The Troop," webpage, undated.

¹¹⁰ Current or former manager of an equine herd (D9), interview with the authors, August 16, 2024.

¹¹¹ Equine expert (B16), interview with the authors, August 16, 2024.

¹¹² British Army, 2023b; King's Troop staff, interview with the authors, June 21, 2024.

¹¹³ Army Cadets, 2024.

The basic training course lasts several months, and the syllabus includes a variety of topics ranging from basic horse anatomy to trailering.¹¹⁴ The soldiers are trained to care for the horses and are responsible for them.¹¹⁵ For example, soldiers are taught large animal rescue, how to give medication to horses, when to call a veterinarian, and all the details of head-to-hoof horse care. Riding personnel are also expected to master trailering skills with both small and large trailers.¹¹⁶

To take part in high-visibility ceremonial events, such as a coronation parade, new riders need to pass the Advanced Mounted Gunner Pass Out horsemanship test with high marks.¹¹⁷ In the context of their duties, the soldiers also develop skills as “master horsemen” and are responsible for training the remounts (new, young horses).¹¹⁸

Remounts are trained at the Defence Animal Training Regiment (DATR) in Melton Mowbray, Leicestershire.¹¹⁹ DATR is part of the Royal Army Veterinary Corps and is responsible for overseeing the training of military working animals, including maintaining authority over procurement and training of horses for the King’s Troop.¹²⁰

Horses are trained with experienced riders.¹²¹ The initial training process of the remounts usually takes around two months. The remounts have two chances to pass this part of the training process, and it involves them demonstrating walking, trotting, and cantering abilities before moving on to train with a rider.¹²² At the completion of their initial training at Melton Mowbray, the remounts are transferred to the Woolwich facility where they finish their training with riders.¹²³ The unit’s soldiers first train the remounts to get used to the harness. After the horses’ finish basic training, they begin training together with more-mature horses that have experience pulling the 13-pounder. This helps them get used to the sensation of pulling the cannon;¹²⁴ however, not every horse makes it to this level.¹²⁵ Because the horses

¹¹⁴ King’s Troop staff, interview with the authors, June 21, 2024.

¹¹⁵ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

¹¹⁶ King’s Troop staff, interview with the authors, June 21, 2024.

¹¹⁷ Rosie Laydon and Xenia Zubova, “Young Riders Pass Tough Test as King’s Troop Prepare for Coronation Day,” *BFBS Forces News*, April 26, 2023.

¹¹⁸ London International Horse Show, “Behind-the-Scenes with the King’s Troop Royal Horse Artillery,” September 15, 2023.

¹¹⁹ Falkingham, 2023.

¹²⁰ British Army, “Defence Animal Training Regiment,” webpage, undated-a.

¹²¹ King’s Troop staff, interview with the authors, June 21, 2024.

¹²² Equine expert (B16), interview with the authors, August 16, 2024.

¹²³ Falkingham, 2023.

¹²⁴ London International Horse Show, 2023.

¹²⁵ King’s Troop staff, interview with the authors, June 21, 2024; Current or former manager of an equine herd (D9), interview with the authors, August 16, 2024.

are raised with trailering, most of them are comfortable with the process.¹²⁶ However, not all of them like trailering and out of six horses, on average, only four make it into the service.¹²⁷

Similar to the way in which soldiers advance in rank over time, the horses are also categorized based on their maturity and proficiency with fulfilling roles within the unit. Horses become MWEs once they have completed training and have participated in two public ceremonial functions. Until that stage, they are categorized as remounts.¹²⁸

Before taking the horses to the busy streets of London, they are gradually desensitized and eased into the practice of city walking. The horses go on the road after only a few months at the Woolwich facility and after they get to know the riders. They initially walk around smaller roads and gradually move to busier streets.¹²⁹ As part of the desensitizing process, especially in preparation for a large public event (such as a coronation or state funeral), the horses are exposed to sudden loud noises (such as the sounds of guns, pipes, and drums).¹³⁰ They are additionally desensitized over time to city traffic, noises, and residents by exercising around the more-sedate areas of Woolwich before being exposed to the rush of downtown London.¹³¹

Given the importance of keeping the horses mentally engaged, the unit consistently varies their training and exercise schedules. Besides the weekday rehearsals and ceremonial functions in which they participate as part of their day-to-day work, the horses often participate in a variety of cross-country events, such as showjumping, which are intended to keep them alert and entertained.¹³² In addition to the mental stimulation that horses need, the variety of events in which they take part also ensures that they are well rounded physically.¹³³

Farriers play a key role in the health of The Troop's horses. Because the unit's horses are consistently performing in ceremonial parades, they require "heavy shoes to walk on hard Tarmac carrying a soldier in heavy ceremonial state uniform," and their feet need consistent specialist care, including the forging of "specialist remedial shoes."¹³⁴ Farriers receive certi-

¹²⁶ King's Troop staff, interview with the authors, June 21, 2024. Multiple percentages were given as the failure rate of horses from the unit; this was the highest success rate we heard.

¹²⁷ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

¹²⁸ London International Horse Show, 2023.

¹²⁹ Equine expert (B15), interview with the authors, August 16, 2024.

¹³⁰ Rosie Laydon, "King's Troop Prepared in Case of Any Coronation Procession Disruptions," *BFBS Forces News*, April 27, 2023.

¹³¹ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

¹³² Army Cadets, 2024.

¹³³ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

¹³⁴ Julian Perreira, "If the Shoe Fits: How Army Farriers Keep Household Cavalry Horses Fit and Healthy," *BFBS Forces News*, March 1, 2023.

fications from external organizations as farriery is a regulated profession in Britain.¹³⁵ The British Army sees this as an investment in a person, and the commitment of service is a way to retain the personnel whose skills they developed.¹³⁶

Farriers are mainly developed internally from within the unit. Like everyone else in the unit, the farriers are also riders and are mounted soldiers first. Once they are capable riders and have served in the unit for at least two years,¹³⁷ the soldiers may apply to attend a specialty school.¹³⁸ Army farrier courses take approximately three years to complete. Student farriers learn about horse anatomy and how to diagnose and treat common anatomical health problems. They will also learn metalwork skills to create and fit horseshoes correctly and safely.¹³⁹ After completing their three-year apprenticeship at DATR and passing their apprenticeship exams,¹⁴⁰ the soldiers become certified military farriers. On retirement from the British Army, the farriers have the experience and the required credentials to transition into a second career in the civilian world, and a level of education and licensing that is rare for civilian farriers to achieve.¹⁴¹

The Troop's farriers change horseshoes on each horse approximately every three weeks, but they also do much more than that.¹⁴² They engage in regular hoof care and trim and recondition the horses' feet.¹⁴³ Farriers change the horseshoes on nine to ten horses a day.¹⁴⁴ To become a military farrier, a soldier needs to be physically fit and have a confident and calm demeanor around the horses. The soldier also needs to "understand horse anatomy, conformation, gait and behaviour" and recognize that each horse has not only its individual hoof and shoeing needs but also its own unique personality.¹⁴⁵ Horses are rarely sedated for work on their shoes; of the approximately 120 horses at the Woolwich facilities, only three need

¹³⁵ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024; echoed in Equine expert (B13), interview with the authors, August 16, 2024.

¹³⁶ Equine expert (B13), interview with the authors, August 16, 2024.

¹³⁷ Pereira, 2023.

¹³⁸ Authors' site visit, London, UK, August 16, 2024.

¹³⁹ Pereira, 2023.

¹⁴⁰ Nick Rennie, "New Farrier Abbie Makes British Army History," *Melton Times*, May 8, 2024.

¹⁴¹ Equine expert (B13), interview with the authors, August 16, 2024; Pereira, 2023.

¹⁴² Equine expert (B13), interview with the authors, August 16, 2024.

¹⁴³ Isaac Ashe, "Army Appoints Whitwell Woman as First Female Military Farrier," BBC News, May 11, 2024; British Army, "The Kings Troop Royal Horse Artillery Prepare for Her Majesty the Queen's Funeral," webpage, September 11, 2022.

¹⁴⁴ Equine expert (B13), interview with the authors, August 16, 2024.

¹⁴⁵ Army Cadets, 2024.

sedation for shoeing.¹⁴⁶ Continual efforts are made to get horses better acclimated to shoeing and move away from sedation.¹⁴⁷

The Troop also has an on-site veterinarian officer and a technician. The veterinarians who join the unit usually have prior knowledge of horses but no riding experience. The veterinarians are part of the Royal Army Veterinary Corps, which provides services for all military working animals, including MWDs. The veterinarians also support The Troop with “the procurement, training and maintenance of Military Working Horses and input to their ceremonial programmes.”¹⁴⁸ The veterinarians are closely involved in the day-to-day life of the unit, and most—if not all—of the ceremonial activities that involve horses need to be observed by the veterinarian.¹⁴⁹

Like the farriers, the unit’s saddlers join The Troop initially as riders before starting their three-year apprenticeship as saddlers. After completing the training and becoming qualified as a saddler, it takes at least another three years of practicing the craft to become a master saddler. As of this writing, the unit (until recently) had a master saddler, one of the two that the UK Ministry of Defense employs. The Troop’s master saddler is responsible for maintaining the regiment’s saddlery for 170 personnel and 120 horses and for the “training of and the safety of all horses and personnel when riding in harness.”¹⁵⁰ The master saddler not only produces saddlery items for the unit but also maintains and repairs the leather saddles. The most recent master saddler had to retire from the unit, and there was a brief gap that was filled by the previous master saddler stepping back in. This is, as King’s Troop personnel noted, a consistently used safety net: The institutional knowledge of veterans is held in reserve, and The Troop maintains relationships with these veterans so they can be called on if gaps arise.¹⁵¹

The Troop also employs a master tailor who oversees “the correct dressing and turn-out of the whole regiment in key duties and performances.”¹⁵² As of September 2023, the soldier that filled the master tailor position had been in that role for ten years, another sign of the longevity of personnel in key expert positions.¹⁵³

¹⁴⁶ Equine expert (B13), interview with the authors, August 16, 2024.

¹⁴⁷ Equine expert (B13), interview with the authors, August 16, 2024.

¹⁴⁸ British Army, “Royal Army Veterinary Corps,” webpage, undated-b; Veterinarian (A9), interview with the authors, August 16, 2024.

¹⁴⁹ Veterinarian (A9), interview with the authors, August 16, 2024.

¹⁵⁰ British Army, “‘Selfless and Professional’ Master Saddler Stunned by MBE News,” webpage, January 12, 2023a.

¹⁵¹ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024; Equine expert (B14), interview with the authors, August 16, 2024.

¹⁵² London International Horse Show, 2023.

¹⁵³ London International Horse Show, 2023.

King's Troop Materiel and Facilities

King's Troop horses are procured from Cork County, Ireland, and they “are selected to be a certain type and range of colours.”¹⁵⁴ The Army Horse Purchasing Committee, part of DATR, oversees the procurement process. The committee typically procures the horses in bulk (15 to 25 horses twice a year) through a broker.¹⁵⁵ For the horse procurement process, The Troop receives support from DATR and The Troop's veterinarians.¹⁵⁶ Temperament is a key factor in procurement decisions. On average, only five horses from the procurement make it through the veterinarian and temperament checks that take place during the first few years. Horses are not bought earlier than age four or five because of the time it takes for such horses to muscularly and skeletally develop.¹⁵⁷ Additionally, different horse breeds mature at different rates. They train for one year outside the unit and stay with the unit for an average of ten years. There are four ways for the horses to retire: (1) early retirement for medical reasons; (2) retirement during the training phase because they are not training well, do not have the right temperament, or do not like the work; (3) in rare cases, euthanasia in the aftermath of an accident; and (4) regular retirement around age 15, when they start showing signs of wear and need lighter exercise. They typically live for ten more years afterward, until around age 25.¹⁵⁸

Since 2012, the King's Troop Royal Horse Artillery has been located at the Woolwich Barracks in London. This state-of-the-art facility was built because of a public-private partnership between the Defence Infrastructure Organisation and the company Morgan Sindall. The £16 million, 2.2-hectare facility was purposefully designed by Scott Brownrigg and built to accommodate equestrian training.¹⁵⁹ It involved the “demolition of existing buildings as well as [the] conver[sion of] one of them into an indoor riding school.”¹⁶⁰ The facility's outdoor areas are approximately 31,000 square meters and are dedicated to outdoor exercise, parades, and a gun park for the regiment's cannons. The indoor areas measure approximately 10,500 square meters, and they serve as offices and workshops, including the unit's headquarters, pharmacy, and forge. The stables and all-weather exercise and training areas are designed to house 140 horses.¹⁶¹

¹⁵⁴ Falkingham, 2023.

¹⁵⁵ Veterinarian (A9), interview with the authors, August 16, 2024—although lately they have faced issues with inflation and cost of horses.

¹⁵⁶ Current or former manager of an equine herd (D3), interview with the authors, April 23, 2024; King's Troop staff, interview with the authors, June 21, 2024.

¹⁵⁷ Current or former manager of an equine herd (D3), interview with the authors, April 23, 2024.

¹⁵⁸ King's Troop staff, interview with the authors, June 21, 2024.

¹⁵⁹ Scott Brownrigg, “King's Troop Royal Horse Artillery,” webpage, undated.

¹⁶⁰ UK Ministry of Defence, 2012.

¹⁶¹ UK Ministry of Defence, 2012; Current or former manager of an equine herd (D3), interview with the authors, April 23, 2024.

The facility was also designed with sustainability as a key feature. The hot water and heating system is based on “renewable energy derived from horse manure collected on-site,”¹⁶² and “solar chimneys for natural stack ventilation of the stables, rainwater harvesting and sustainable urban drainage systems to minimise energy consumption on site, together with the recycling of redundant structures into the new indoor riding school.”¹⁶³ The King’s Troop is often pulled deeper into London to perform its work and uses temporary stabling in several locations around the city. It handles its own temporary stabling, but rarely stables the horses for longer than a few weeks, allowing it to sidestep concerns about longer-term temporary stabling and the cleaning issues that poses. Additionally, the unit has stricter cleaning procedures in place during temporary stabling, and there is a near constant mucking of stalls.¹⁶⁴ The unit partially handles the difficulties of restricted space in these temporary stables through a formalized exercise routine in which The Troop exercises a subsection of the herd at a time, hand-led by a mounted rider (generally two horses to a rider) through city streets.¹⁶⁵

Each horse also receives a different feeding regimen that is customized to its needs. The unit has a contract with Saracen Horse Feeds. A Saracen representative comes every month to check on all the horses and, in consultation with the veterinarian, creates a feeding plan for each horse.¹⁶⁶

The Troop uses two types of saddles: a military saddle and a civilian riding saddle. The military saddles are not adjustable. For this reason, the King’s Troop makes an effort to procure only horses with back lengths that will fit the saddles, and the saddles fit approximately 90 percent of the current herd’s horses.¹⁶⁷ The military saddles are not tailored specifically to the horses because it is not possible to adjust their tree; however, pads are inserted under the saddle to ensure a better fit and more comfort for the horse.¹⁶⁸ The military saddle is in use only three days a week and during the ceremonial mission, while civilian (i.e., new) saddles are used the remaining three days.¹⁶⁹ Civilian saddles are contracted out to the Ideal Saddle Company, an international maker of civilian saddles. They are custom fit to the horses and are adjusted regularly;¹⁷⁰ the unit’s saddlers keep a close watch on both the

¹⁶² UK Ministry of Defence, 2012.

¹⁶³ Scott Brownrigg, “Behind the Design of the King’s Troop Royal Horse Artillery in Woolwich,” May 5, 2023.

¹⁶⁴ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

¹⁶⁵ King’s Troop staff, interview with the authors, June 21, 2024; Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

¹⁶⁶ Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024; King’s Troop staff, interview with the authors, June 21, 2024.

¹⁶⁷ Equine expert (B14), interview with the authors, August 16, 2024.

¹⁶⁸ Equine expert (B14), interview with the authors, August 16, 2024.

¹⁶⁹ King’s Troop staff, interview with the authors, June 21, 2024.

¹⁷⁰ Equine expert (B14), interview with the authors, August 16, 2024.

rider's and the horse's weight to ensure that the saddle is well fitted, and the master saddler visits every four months.¹⁷¹

Lessons Learned from the King's Troop

Lessons from the King's Troop case study that could inform the future practices of the Caisson Detachment include the focus that both military and civilian personnel place on the health and well-being of horses and the horse-first ethos that they embrace. Most of the King's Troop personnel joined the unit to pursue their passion for horses and appreciate having the opportunity to work daily with the animals.

The importance placed on the well-being of the horse is also reflected in the role that the veterinarian plays and the fact that the veterinarian has the final say in all matters related to the health of horses, with a codified appeal process should disagreements occur. Facilities, nutrition, exercise, and consistent farrier work all speak to the focus that the King's Troop places on equine health. Furthermore, The Troop ensures that farriers and saddlers have the time and education to become highly qualified craftsmen with standardized certifications that are recognized in the civilian world. This has the added benefit of offering an incentive to the soldiers because they can use their skills to pursue a second career in equine care after they retire from their military service with the unit. Their procedures are carefully calibrated to put the needs of the horses first, even when it requires dynamic updates or shifts to their traditions.

Although difficult to adopt for the Caisson Detachment model, the King's Troop also highlights the importance of having soldiers in their positions for the long term. Interview respondents indicated that, if those with a decade or more of experience were removed, the unit would be half the size it currently is, and soldiers said it would instantly become more dangerous to run.¹⁷² Although soldiers might be unable to stay in the Caisson Detachment for the long term, this is a strong argument for recruiting long-term institutionalized equine expertise when possible and making a priority of maintaining it.

The important role of continually updated documentation, consultation with unit reservists and external experts, and external assessment should also be carefully considered by the Caisson Detachment. Although continual assessment does have a bandwidth cost, transparency and external support demonstrate credibility, ensure continual institutionalized safeguards for horse care, and reassure the public of the safety and welfare of the horses at the King's Troop.

¹⁷¹ Equine expert (B14), interview with the authors, August 16, 2024.

¹⁷² Current or former manager of an equine herd (D10), interview with the authors, August 16, 2024.

U.S. Park Police

Introduction

Like the Caisson Detachment, Washington, D.C.-based U.S. Park Police operations are constrained by limited space and an urban environment. The unit was established in 1934 with one horse rented from a local stable.¹⁷³ It has maintained a presence on the National Mall since 1976.¹⁷⁴ The current herd consists of 21 horses at two locations: seven stabled on the National Mall and fourteen at Edgewater Stables in nearby Rock Creek Park.¹⁷⁵ Unlike caisson units, the horses are only ridden and do not pull a wagon or caisson. The U.S. Park Police's primary activities are patrols and public outreach, although they occasionally participate in funeral ceremonies or Color Guard.¹⁷⁶

The Park Police are particularly successful with training, personnel, and efficient use of limited facilities. The 11-week training course is longer than the Caisson Detachment's current training course and the curriculum is much more comprehensive, including both significant saddle time and unmounted learning. Most U.S. Park Police officers remain with the Mounted Patrol for their entire careers and take on greater responsibilities within the unit as they develop expertise.¹⁷⁷ Although facility space is very limited, the U.S. Park Police emphasize turnout, outdoor exercise, and rest time for the herd.

U.S. Park Police Doctrine, Organization, Leadership, and Budget

Members of the Mounted Patrol are officers or sergeants under the unit commander (lieutenant).¹⁷⁸ Above the lieutenant is a captain, major, deputy chief, and chief.¹⁷⁹ The current unit commander is an SME; the roles above them are not.¹⁸⁰ This lack of expertise can complicate decisionmaking, particularly regarding immediate costs versus expertise-informed long-term planning, but the relatively small size of the organization allows for easier escalation of issues up the chain of command.¹⁸¹

¹⁷³ Voice of America, "New Police Horse Stables Open on National Mall in Washington," video, September 1, 2023.

¹⁷⁴ Voice of America, 2023.

¹⁷⁵ U.S. Park Police staff, interview with the authors, June 3, 2024.

¹⁷⁶ U.S. Park Police staff, interview with the authors, June 3, 2024.

¹⁷⁷ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

¹⁷⁸ U.S. Park Police staff, interview with the authors, June 3, 2024.

¹⁷⁹ U.S. Park Police staff, interview with the authors, June 3, 2024.

¹⁸⁰ U.S. Park Police staff, interview with the authors, June 3, 2024.

¹⁸¹ U.S. Park Police staff, interview with the authors, June 3, 2024.

The unit commander proposes an FY budget every March, which is then reviewed, edited, and approved by the chief.¹⁸² Once the funding amount is confirmed, the unit commander has discretion over spending for the FY.¹⁸³ This allows for flexibility and quick decisionmaking at the operational level when needed. Contracts are based on fixed spending but include a built-in buffer for any sudden changes.¹⁸⁴ As the SME, the unit commander has discretion over the unit's personnel, facilities, herd, and fleet.¹⁸⁵ The unit commander role is usually filled by a qualified lieutenant from the executive command staff.¹⁸⁶

The U.S. Park Police maintains a detailed collection of information, including a handbook for officers, as part of its personnel training.¹⁸⁷ These materials cover comprehensive horse care, stable and riding protocols, and general equine best practices.¹⁸⁸ The full contents are not available to the public. The unit uses a text message chain and maintains a whiteboard and logbook in both barns to coordinate daily operations, such as feed instructions and any medical concerns.¹⁸⁹

U.S. Park Police Personnel and Training

The U.S. Park Police maintain seven contracts with service providers for veterinary care, farrier care, feed, stall cleaning, bedding,¹⁹⁰ hay, and manure removal.¹⁹¹ A veterinarian and farrier is selected based on their experience and relevant expertise.¹⁹² The unit commander writes each contract.¹⁹³ Officers conduct daily wellness checks on their assigned horses.¹⁹⁴ One officer is assigned to be the veterinary liaison and is responsible for managing medical files, scheduling appointments, and serving as the veterinarian's primary point of contact

¹⁸² U.S. Park Police staff, interview with the authors, June 3, 2024.

¹⁸³ U.S. Park Police staff, interview with the authors, June 3, 2024.

¹⁸⁴ U.S. Park Police staff, interview with the authors, June 3, 2024.

¹⁸⁵ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024; U.S. Park Police staff, interview with the authors, June 3, 2024.

¹⁸⁶ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

¹⁸⁷ Authors' site visit, Washington, D.C., June 3, 2024.

¹⁸⁸ Authors' site visit, Washington, D.C., June 3, 2024.

¹⁸⁹ U.S. Park Police staff, interview with the authors, June 3, 2024; Authors' site visit, Washington, D.C., June 3, 2024.

¹⁹⁰ *Bedding* refers to the material between the stall floor and the horse (e.g., wood shavings, straw, or wood pellets).

¹⁹¹ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

¹⁹² U.S. Park Police staff, interview with the authors, June 3, 2024.

¹⁹³ U.S. Park Police staff, interview with the authors, June 3, 2024.

¹⁹⁴ U.S. Park Police staff, interview with the authors, June 3, 2024.

within the unit.¹⁹⁵ The veterinarian's truck has mobile supplies that can accommodate colic cases and X-rays.¹⁹⁶ Equine veterinarians are available by phone at all hours.¹⁹⁷ Officers can call the veterinarians or text with pictures to get immediate advice when needed.¹⁹⁸

U.S. Park Police personnel training is an 11-week course focused on producing competent riders and horse handlers.¹⁹⁹ Students spend eight hours each day combining hands-on skills practice, including handling all daily stable chores, with classroom learning. The course has been developed and restructured over time, beginning in the 1980s, to remain current with industry standards and scientific expertise.²⁰⁰ The course usually takes place once a year.²⁰¹ Officers must be able to walk, trot, canter, and jump small jumps, including without stirrups,²⁰² by the end of the course.²⁰³ They are also expected to be capable of daily horse care, first aid, and basic medical care.²⁰⁴ Health-related training covers vital signs, signs of illness, first aid, basic medical care (e.g., administering injections), and understanding when to call a veterinarian.²⁰⁵ Significant time is devoted to trailering horses because active patrol horses stationed at Edgewater Stables are trailered almost daily.²⁰⁶ Officers practice loading and unloading horses, driving and parking the trailer, and handling trailer-shy horses.²⁰⁷ They also try standing in the trailer while it's driven to better understand the need for slow and careful driving.²⁰⁸ Officers go through a 180-day evaluation on the job once they complete the training course.²⁰⁹ Three-week refresher courses are occasionally offered to strengthen riding skills.²¹⁰

¹⁹⁵ U.S. Park Police staff, interview with the authors, June 3, 2024.

¹⁹⁶ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

¹⁹⁷ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

¹⁹⁸ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

¹⁹⁹ U.S. Park Police staff, interview with the authors, June 3, 2024; Authors' site visit, Washington, D.C., June 3, 2024.

²⁰⁰ U.S. Park Police staff, interview with the authors, June 3, 2024.

²⁰¹ U.S. Park Police staff, interview with the authors, June 3, 2024.

²⁰² *Stirrups* are attached to the saddle and hold the rider's foot.

²⁰³ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

²⁰⁴ U.S. Park Police staff, interview with the authors, June 3, 2024; Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

²⁰⁵ Authors' site visit, Washington, D.C., June 3, 2024.

²⁰⁶ U.S. Park Police staff, interview with the authors, June 3, 2024.

²⁰⁷ Authors' site visit, Washington, D.C., June 3, 2024.

²⁰⁸ U.S. Park Police staff, interview with the authors, June 3, 2024.

²⁰⁹ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

²¹⁰ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

TABLE A.1

Park Police Training Course Outline

	Unmounted Sessions	Mounted Sessions
Week 1	<ul style="list-style-type: none"> • Horse psychology • Grooming • Conformation and points of the horse • Tack; tacking and untacking • Rider seat and hands • Rider aids • Gaits • Stable chores 	<ul style="list-style-type: none"> • Mount and dismount • In-hand walk and trot • Walk • Halt • Turning • Two-point position
Week 2	<ul style="list-style-type: none"> • Anatomy • Gait transitions • Dressage basics • First aid • Groundwork • Stable vices • Stable management • Deworming • Sickness and disease • Punishment, corrections, and rewards 	<ul style="list-style-type: none"> • Groundwork • Leg yield, sidepass, and turn on the forehand • Trot • Bridging and neck rein
Week 3	<ul style="list-style-type: none"> • Body conditioning • Trailering (loading, unloading, and driver training) • Colors and breeds • Written examination • Horse and tack inspection 	<ul style="list-style-type: none"> • Outdoor arena • Ride with double reins • Trot without irons • Canter • Rein-back • Lateral movement • Riding evaluation
Week 4	<ul style="list-style-type: none"> • Lunging • Age estimation • Riding in weather conditions • Trail riding 	<ul style="list-style-type: none"> • Canter without irons • Ground poles • Ride with curb chain • Sitting trot • Pulley rein • Emergency dismount
Week 5	<ul style="list-style-type: none"> • Clipping and trimming • Mane and tail care • Sheath cleaning • Written examination • Horse and tack inspection 	<ul style="list-style-type: none"> • Flexion • Extended trot • Extended canter • Spurs • Trail riding • Formations • Two-point canter • Riding evaluation
Week 6	<ul style="list-style-type: none"> • Jumping • Unsoundness • Bathing • Stretching 	<ul style="list-style-type: none"> • Ground pole gymnastics • Crossrails • Gallop outdoors • Hand gallop • One-handed riding
Week 7	<ul style="list-style-type: none"> • Written examination • Horse and tack inspection 	<ul style="list-style-type: none"> • Solo riding • Riding evaluation

Table A.1—Continued

	Unmounted Sessions	Mounted Sessions
Week 8	<ul style="list-style-type: none">• Hoof care• Euthanasia	<ul style="list-style-type: none">• Gymnastics• City riding in pairs• Bareback riding• Endurance ride
Week 9	<ul style="list-style-type: none">• Horse and tack inspection	<ul style="list-style-type: none">• Riding evaluation• Obstacles
Week 10	<ul style="list-style-type: none">• Ponying	<ul style="list-style-type: none">• Night riding• Patrol practice
Week 11	<ul style="list-style-type: none">• Final written examination• Final horse and tack inspection	<ul style="list-style-type: none">• Final riding evaluation

SOURCE: Features information from authors' site visit, Washington, D.C., June 3, 2024.

The general structure of the horsemanship course is outlined in Table A.1. Training sessions specific to the Mounted Patrol, such as use of firearms, have been removed. Each week's skills build on each other (e.g., students learn to trot in week two and continue trotting in all subsequent weeks).

U.S. Park Police Materiel and Facilities

The U.S. Park Police herd currently comprises 21 mares and geldings ages six to twenty-two.²¹¹ It includes full drafts and draft crosses, Thoroughbreds, warmbloods, and a mustang.²¹² The ideal age is approximately 11 years, and horses spend around 15 years in the working herd.²¹³ The U.S. Park Police require procured horses to be five to fifteen years old, sound, and well trained to walk, trot, and canter.²¹⁴ Horses with jumping experience are preferred.²¹⁵ All horses must have a trial period with the U.S. Park Police before being purchased.²¹⁶ The unit was working on a herd longevity plan as of June 2024.²¹⁷ Once they are ready to begin patrol, each horse is paired with an officer of appropriate skill level and

²¹¹ U.S. Park Police staff, interview with the authors, June 3, 2024.

²¹² U.S. Park Police staff, interview with the authors, June 3, 2024.

These are all different horse breeds. These breeds are well-suited to the Park Police's needs. All possess the necessary level of athleticism for ridden patrol missions, and their range in height and build can accommodate riders of different sizes.

²¹³ U.S. Park Police staff, interview with the authors, June 3, 2024.

²¹⁴ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

²¹⁵ U.S. Park Police staff, interview with the authors, June 3, 2024.

²¹⁶ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

²¹⁷ U.S. Park Police staff, interview with the authors, June 3, 2024.

experience.²¹⁸ These partnerships are indefinite. Any assignment changes are usually the result of an injury or retirement, either horse or rider, or an ill-suited match of horse and rider.²¹⁹ The unit commander, in coordination with the veterinarian, determines when a horse is ready for retirement.²²⁰ Horses are retired no later than age 24.²²¹ Retired horses are cared for by the U.S. Park Police until a new home is identified for them through a selective process, and then they are monitored for the rest of their lives.²²²

The U.S. Park Police use Stübben saddles assigned and fitted to individual horses.²²³ A saddle fitter from Stübben checks the saddles at least twice a year and makes adjustments as needed—such as replacing worn billets or reflocking saddles—to account for changes in saddle fit.²²⁴ The Stübben saddles, although an upfront expense, last 20 to 25 years when cared for correctly.²²⁵ All officers ride in Super Seer road-grade riding helmets, which provide protection from curbs and other road-related hazards that regular riding helmets do not.²²⁶ Horses are transported in two-horse trailers.²²⁷

The facility on the National Mall was reopened in 2023 after a yearlong, \$18 million renovation.²²⁸ The renovation was funded by private donations, which facilitated its rapid construction and attention to environmental sustainability.²²⁹ Its 14 stalls—a mix of 12 ft by 12 ft and 12 ft by 14 ft—currently house seven horses.²³⁰ Horses are turned out individually or in pairs in two small dry lots.²³¹ The barn has two heated washracks, three grooming areas with crossties, aisle crossties, and a heated medical stall with private turnout.²³² The tack room is climate-controlled to protect the leather.²³³ The stalls and turnout areas have automatic

²¹⁸ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

²¹⁹ U.S. Park Police staff, interview with the authors, June 3, 2024.

²²⁰ U.S. Park Police staff, interview with the authors, June 3, 2024.

²²¹ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

²²² Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

²²³ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

²²⁴ *Billets* are straps on a saddle that attach to the girth. *Reflocking* refers to replacing or adding padding (flocking) to the panels of a saddle. U.S. Park Police staff, interview with the authors, June 3, 2024.

²²⁵ U.S. Park Police staff, interview with the authors, June 3, 2024.

²²⁶ U.S. Park Police staff, interview with the authors, June 3, 2024.

²²⁷ Authors' site visit, Washington, D.C., June 3, 2024.

²²⁸ U.S. Park Police staff, interview with the authors, June 3, 2024.

²²⁹ U.S. Park Police staff, interview with the authors, June 3, 2024; Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

²³⁰ U.S. Park Police staff, interview with the authors, June 3, 2024.

²³¹ Authors' site visit, Washington, D.C., June 3, 2024.

²³² U.S. Park Police staff, interview with the authors, June 3, 2024.

²³³ U.S. Park Police staff, interview with the authors, June 3, 2024.

waterers and elevated hay feeders to prevent horses from ingesting bedding or footing.²³⁴ The renovation added eco-friendly features, such as permeable surfaces to prevent horses from standing in water or runoff from draining into the river.²³⁵

Edgewater Stables has 24 stalls (with 14 currently occupied), one outdoor round pen, and a large dry lot (approximately 60 ft by 120 ft) for turnout.²³⁶ The barn includes a tack room, grooming racks with crossties, and aisle crossties.²³⁷ The indoor arena is attached to the barn and can be viewed from the upstairs classroom, allowing students to watch activities in the arena.²³⁸

Lessons Learned from the U.S. Park Police

The Caisson Detachment would benefit from adopting the U.S. Park Police's overarching horse-first mentality when approaching all equine-related decisions.²³⁹ U.S. Park Police training, for example, is built around two main themes: understanding the *why* of everything being taught and understanding the follow-on effects of any action.²⁴⁰ This helps create patient and thoughtful handlers who, in turn, can make independent decisions as needed for the good of their horses. Standard procedures are also based on horse well-being. Each horse works a maximum of four hours per day; in hot or cold weather, they work for a maximum of two two-hour blocks with a rest break in between.²⁴¹ In particularly hot weather, horses patrol for a maximum of 30 minutes at a time.²⁴² Water is always available at city fountains.²⁴³ Horses have two to three days off per week, which they spend in turnout.²⁴⁴

U.S. Park Police officers are allowed to remain in the unit indefinitely, which facilitates the development of subject-matter expertise within the unit. Officers can progress within the unit and take on greater responsibilities as they gain knowledge and experience. One sergeant oversees each stable location and reports to the lieutenant who is responsible for all unit operations.²⁴⁵

²³⁴ Authors' site visit, Washington, D.C., June 3, 2024.

²³⁵ U.S. Park Police staff, interview with the authors, June 3, 2024.

²³⁶ Authors' site visit, Washington, D.C., June 3, 2024; Current or former manager of an equine herd (D5), interview with the authors, August 27, 2024.

²³⁷ Authors' site visit, Washington, D.C., June 3, 2024.

²³⁸ Authors' site visit, Washington, D.C., June 3, 2024.

²³⁹ U.S. Park Police staff, interview with the authors, June 3, 2024.

²⁴⁰ U.S. Park Police staff, interview with the authors, June 3, 2024.

²⁴¹ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

²⁴² U.S. Park Police staff, interview with the authors, June 3, 2024.

²⁴³ U.S. Park Police staff, interview with the authors, June 3, 2024.

²⁴⁴ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

²⁴⁵ U.S. Park Police staff, interview with the authors, June 3, 2024.

U.S. Park Police training develops competent and self-sufficient riders in a short amount of time. Anecdotally, a Caisson Detachment soldier who recently completed the U.S. Park Police training found it very helpful.²⁴⁶ Compared with Caisson Detachment–provided training, the U.S. Park Police focuses much more on time in the saddle, horse health and well-being, and all-around horsemanship.²⁴⁷ U.S. Park Police training also prepares officers for situations that they *might* encounter, not only those that they *will* encounter. Officers are not expected to jump on patrol, for example, but they are introduced to jumping during training so they will be comfortable jumping, if the need arises.²⁴⁸

New York Police Department Mounted Unit

Introduction

Similar to the Caisson Detachment, the NYPD's Mounted Unit is located in an urban environment with minimal space for its comparable herd of around 50 horses. Nicknamed the *10-Foot-Tall Cops*, the NYPD Mounted Unit is one of the largest mounted units in the United States.²⁴⁹ It was established in 1858.²⁵⁰ The unit, which falls under the NYPD Special Operations Bureau, has broad responsibilities:

Mounted unit officers are normally assigned to patrol duties, but also play an important public relations role in police and community relations. The Mounted Unit is an effective crime deterrent and often is used for crowd control at demonstrations, protests, concerts, sporting events, and parades throughout the city.²⁵¹

In the past decade, the size of the unit has ranged from 50 to 55 horses, similar to the original size of the Caisson Detachment, and consists of around 100 law enforcement officers and civilian personnel.²⁵² Horses are housed in four stables in Manhattan, Queens, Brooklyn, and the Bronx.²⁵³ The unit patrols all boroughs of New York City, except for Staten Island.²⁵⁴ Only officers ride the horses. Mounted police officers often have greater mobility and speed

²⁴⁶ Current or former manager of an equine herd (D5), interview with the authors, May 16, 2024.

²⁴⁷ Authors' site visit, Washington, D.C., June 3, 2024.

²⁴⁸ U.S. Park Police staff, interview with the authors, June 3, 2024.

²⁴⁹ Michael Cooper, "Police Horses Are Diminished in Number, but Not Presence," *New York Times*, February 15, 2011.

²⁵⁰ Collins, 2020.

²⁵¹ NYPD, "Special Operations," webpage, undated.

²⁵² Kilgannon, 2019.

²⁵³ Alison Fox, "NYPD Mounted Unit Graduates Horses Named for Fallen Officers," *amNewYork Metro*, June 7, 2018.

²⁵⁴ Collins, 2020.

through urban environments than officers in cars.²⁵⁵ They are also highly visible to the public and benefit from their vantage point on horseback.²⁵⁶ The NYPD mounted unit, unlike the Caisson Detachment, does only mounted work.

The unit has faced several problems around its use and care of horses. The Mounted Unit has been the subject of multiple allegations, including lawsuits, around members of the public being injured by police horses on duty.²⁵⁷ There have also been cases of spooked horses getting loose from their handlers and running through the city.²⁵⁸ In a 2006 lawsuit, the NYPD alleged that the owner of a farm housing retired NYPD horses was abusing the horses in their care.²⁵⁹ The farm's owners accused New York City of not providing funding for the horses' upkeep.²⁶⁰ The case was dropped in 2007 when the horses were moved off the farm.²⁶¹

A separate issue arose in 2010 when a news story reported on the Mounted Unit commander ordering the euthanasia of three retired horses.²⁶² Thirty retired horses were being moved from a farm after its owner, along with the NYPD Mounted Unit supervisor, were convicted of bid rigging to win the retirement care contract.²⁶³ The three horses were put down after the unit commander and a private veterinarian agreed that they were not healthy enough to travel more than 300 miles to a new home.²⁶⁴ The NYPD conducted an internal investigation and concluded that euthanasia was the humane choice.²⁶⁵ The internal report also listed numerous severe ailments for all three horses, ages 14, 17, and 21, but did not address the source of these or any previous medical intervention.²⁶⁶

²⁵⁵ "NYPD Mounted Unit Headquarters Moves To Manhattan's West Side," CBS News, November 21, 2015.

²⁵⁶ Collins, 2020.

²⁵⁷ Examples include New York Civil Liberties Union, "NYPD to Adopt Policies Protecting Right to Protest to Settle NYCLU Lawsuit," press release, April 15, 2008; Christopher Dunn, Arthur Eisenberg, Donna Lieberman, Alan Silver, and Alex Vitale, *Arresting Protest*, New York Civil Liberties Union, April 2003; Benjamin Weiser, "3 Trampled by Police Horses Reach Settlement with City," *New York Times*, January 11, 2001; Pat Raia, "NYPD Sued over Alleged Horse Bite," *The Horse*, August 24, 2015; "Caught on Video: NYPD Mounted Unit Tries to Break Up Brawl in Times Square," CBS News, December 9, 2020; and Michael Cooper, "96 Arrested During Rally Protesting Gay Man's Killing in Wyoming," *New York Times*, October 20, 1998.

²⁵⁸ Examples include "Mounted Patrol Horse Throws Off NYPD Officer, Runs Wild Through Times Square," CBS News, March 2, 2016; and "NYPD Horses Break Free from Officers, Gallop Through Streets of Brooklyn," ABC7 New York, February 12, 2021.

²⁵⁹ Joe Schumacher, "Greener Pastures for Retired NYPD Horses," *Gothamist*, March 7, 2008.

²⁶⁰ "Legal Fight Continues over Care of Retired NYC Police Horses," *The Horse*, October 31, 2006.

²⁶¹ "Retired NYPD Police Horses Moved from Alleged Bad Care," *The Horse*, March 25, 2007.

²⁶² Sean Gardiner, "Horse Inquiry Clears Police," *Wall Street Journal*, May 28, 2010.

²⁶³ Gardiner, 2010.

²⁶⁴ Gardiner, 2010.

²⁶⁵ Gardiner, 2010.

²⁶⁶ Reporting by the *Wall Street Journal*, which obtained the report, listed several examples: "The NYPD veterinarian found that the three horses had 'chronic and extreme leg and/or hoof ailments,' each was 'stall-

New York Police Department Mounted Unit Doctrine, Organization, Leadership, and Budget

The unit is organized into four troops with respective stables in Manhattan, Queens, Brooklyn, and the Bronx. Manhattan is home to Troop B, the largest troop, and the Mounted Unit headquarters.²⁶⁷ According to one source, the unit has 20 civilian staff, including the farriers.²⁶⁸ The Mounted Unit is under the Special Operations Bureau, which is led by the chief of special operations.²⁶⁹ Other Special Operations units include the Aviation Unit, Harbor Unit, Emergency Service Unit, and Strategic Response Unit.²⁷⁰ The unit's commanding officer is an inspector.²⁷¹ This is, presumably, an equal rank to the commanding officers of other Special Operations units. The unit's last publicly available operating budget was more than \$8 million in 2020.²⁷²

New York Police Department Mounted Unit Personnel and Training

The Mounted Unit prefers to hire officers without horse experience because it wants to instill in them a standardized style of riding and horse care.²⁷³ This preference was echoed in the Caisson Detachment because there were concerns of new riders coming in with "bad habits" from previous instruction.²⁷⁴ However, such a policy poses the risk of having less equine expertise indigenous to the organization.

Officers must have at least three years of patrol experience and pass an interview and physical test to join the unit.²⁷⁵ The selection process is highly competitive: Many officers are on a waiting list for years after applying.²⁷⁶ A single source suggests that the interview

bound,' underweight and had lesions 'akin to bed sores' that the report states were 'characteristic of being down for long periods of time.' The report also lists in detail the ailments that each horse was suffering such as Kelly [the 21 year old horse] having a 'crippled leg' that reduced its movement to a 'pitiable hopping sham-ble,' as well as a partially paralyzed face and a 'severe' septic abscess on the left-rear leg" (Gardiner, 2010).

²⁶⁷ Matt A. V. Chaban, "Next Residents of a Luxury Building: Police Horses," *New York Times*, April 14, 2014.

²⁶⁸ Lee Gabay, "All Roads Lead Home," *New York Lifestyles Magazine*, 2017.

²⁶⁹ NYPD, undated.

²⁷⁰ NYPD, undated.

²⁷¹ NYPD Special Ops, "Congratulations Inspector Barry Gelbman. Today, Inspector Gelbman was promoted in recognition of his outstanding work as the Commanding Officer of the Mounted Unit. Thank you for your tremendous dedication and hard work in helping keep #NYC safe," post on the X platform, August 26, 2022.

²⁷² Linda Poon, "When Police Horses Become Targets for Budget Cuts," *Bloomberg*, June 29, 2020.

²⁷³ Collins, 2020.

²⁷⁴ Equine expert (B17), interview with the authors, August 20, 2024.

²⁷⁵ Collins, 2020.

²⁷⁶ Acevedo, 2017.

process looks for candidates who are not afraid of horses, love being around animals, and have a “positive attitude and strong work ethic.”²⁷⁷ If true, this matches what other cases, such as the King’s Troop, look for in personnel without equine experience. One report from 1994 lists a 7- to 13-percent acceptance rate for new officers.²⁷⁸ Most officers stay with the unit until their retirement.²⁷⁹ Newly selected officers go through three to six months of intensive horsemanship training at the unit’s Pelham Bay Park training facility.²⁸⁰ Officers spend five to six hours per day riding and exercising.²⁸¹ They also learn barn safety, grooming, tacking, and basic horse care.²⁸² Training is led by other Mounted Unit officers.²⁸³ External training or experience is not required for trainers. One officer training both horses and riders had no horse experience before spending seven years in the unit.²⁸⁴ As of May 2024, six officers were currently in training.²⁸⁵

Every officer in the unit is paired with a horse. After officers graduate from the basic horsemanship course, they ride all the available horses in the unit until a good match is found based on skills, experience, and personality.²⁸⁶ Apart from injury or other extenuating circumstances, horse and rider partnerships last for the horse’s full career.²⁸⁷ This helps build trust between horse and rider, which is “crucial for the demands that are placed on the pair and the unpredictable nature of the job.”²⁸⁸

²⁷⁷ Gabriele Holtermann, “‘Ten Foot Cops’: A Behind-the-Scenes Look of the NYPD’s Most Popular Unit,” *amNewYork Metro*, May 31, 2024.

²⁷⁸ Susan Vigilante, “The Ten-Foot-Tall Officer,” *City Journal*, Winter 1994.

²⁷⁹ Andrew Jacobs, “A New Crime Fighter, for \$10 in Hay and Oats,” *New York Times*, April 18, 2006.

²⁸⁰ Collins, 2020; Holtermann, 2024.

²⁸¹ Collins, 2020.

²⁸² Holtermann, 2024; Cook, 2016.

²⁸³ Holtermann, 2024; Vigilante, 1994; Tricia McDermott, “The Horse Force,” CBS News, May 24, 2006.

²⁸⁴ Holtermann, 2024.

²⁸⁵ Holtermann, 2024.

²⁸⁶ Cook, 2016; Collins, 2020.

²⁸⁷ Collins, 2020.

²⁸⁸ Collins, 2020.

The unit also employs three full-time professional farriers.²⁸⁹ One farrier joined the unit in 2008 and has more than 20 years of experience.²⁹⁰ In the words of one of the farriers on the importance of his job:

I look at [the horses] every day. . . . They [can] grow out of balance. . . . My job is to balance the foot to the horse, his spinal cord and skeletal structure, so when it lands it lands as flat and as comfortably as possible. I can also hear it. I can hear the footfall and hear when they are working too hard or when they are not landing as flat as they should be. I also pay attention to their walk, I can see that, I can almost feel that.²⁹¹

In 2017, the unit's two full-time farriers were the only full-time police department farriers in the United States.²⁹² Information about the unit's veterinary provider or other civilian personnel is not publicly available.

Newly purchased horses receive six to eighteen months of training before beginning patrol duty.²⁹³ Training occurs primarily at the Pelham Bay Park facility.²⁹⁴ Horses are also exposed to other parts of the city, including practice rides through Times Square and Central Park.²⁹⁵ Training focuses on desensitizing horses to the patrol environment. Horses are exposed to sudden movement, busy traffic, and recordings of various loud noises that they are likely to encounter when patrolling in an urban environment.²⁹⁶

New York Police Department Mounted Unit Materiel and Facilities

The size of the unit's herd has decreased over the past three decades, seemingly because of budget issues. There were 150 officers and 130 horses in the unit in 1994.²⁹⁷ By 2006, this number dropped to between 75 and 80 horses.²⁹⁸ Unit leadership planned to purchase at least 75 more horses to grow the unit to a total of 160 horses and officers by 2009.²⁹⁹ In 2011, how-

²⁸⁹ Eyewitness News ABC7NY, "NYPD's Mounted Horse Unit: Meet the People Who Care for the Horses," video, July 16, 2018; Wendy Corr, "Wyoming Horse Is Now Police Officer in New York Police Department's Mounted Patrol," *Cowboy State Daily*, October 31, 2022.

²⁹⁰ Dickenson, 2022; News 12, "How the NYPD's Finest Horses Prep to Patrol the City," video, April 20, 2022.

²⁹¹ Dickenson, 2022.

²⁹² "Behind the Scenes with the NYPD's Elite Mounted Unit," CBS News, October 8, 2017.

²⁹³ Elle McLogan, "Officers on Horseback: An Inside Look at the NYPD Mounted Unit," CBS News, November 10, 2017; Collins, 2020.

²⁹⁴ Jacobs, 2006.

²⁹⁵ Collins, 2020.

²⁹⁶ Jacobs, 2006; Cook, 2016; Corr, 2022; Holtermann, 2024.

²⁹⁷ Vigilante, 1994.

²⁹⁸ Jacobs, 2006; McDermott, 2006.

²⁹⁹ McDermott, 2006; Jacobs, 2006.

ever, further decreases in size—down to 79 officers and 60 horses—were attributed to budget issues.³⁰⁰ The herd size has stayed between 50 and 55 horses from 2015 to 2024.³⁰¹

Potential Mounted Unit horses must be 15.3 hh to 16.2 hh (approximately 5 ft 3 in. to 5 ft 5 in. at the shoulder), five to ten years old, trained under saddle, and geldings.³⁰² Each horse's temperament ultimately determines whether they will be able to face the challenges of operating in a crowded urban environment surrounded by people who often touch the horses as they patrol.³⁰³ Horses typically work for five to six hours at a time, four to six days per week.³⁰⁴ Officers spend approximately eight hours per day with their assigned equine partner and are responsible for grooming and tacking.³⁰⁵ Horses are trailered around the city, as needed, to access specific patrol posts.³⁰⁶ Horses are typically retired after ten years of work.³⁰⁷ Once retired, the NYPD pays for their continued care.³⁰⁸

Historically, the NYPD purchased its horses before briefly turning to donated horses as a cost-cutting measure.³⁰⁹ Reporting from 1994 lists height (over 15 hh, or 5 ft at the shoulder), soundness, good temperament, and successful completion of a probationary period as requirements for donated horses.³¹⁰ The unit returned to purchasing its own horses under NYPD Police Commissioner Raymond Kelly to better select for the necessary skills and characteristics, prioritizing a calm and brave temperament.³¹¹ Procurement is handled by members of the unit, who select five to six horses at a time on purchasing trips.³¹² The horses are then evaluated during one to two weeks of initial training.³¹³ Approximately one in every five procured horses are a good fit for the unit and continue their training; the others are returned to the original seller.³¹⁴ In 2020, the NYPD partnered with the Bureau of Land Management

³⁰⁰ Cooper, 2011.

³⁰¹ Barbara Goldberg, "New York Police Horses, '10-Foot Cop' Key to City's High Alert," Reuters, November 23, 2015; "Behind the Scenes with the NYPD's Elite Mounted Unit," 2017; Poon, 2020; Holtermann, 2024.

³⁰² Collins, 2020.

³⁰³ Collins, 2020.

³⁰⁴ Corr, 2022; NYPD, "Meet the NYPD Horseshoer," video, April 6, 2022.

³⁰⁵ "Behind the Scenes with the NYPD's Elite Mounted Unit," 2017.

³⁰⁶ Corr, 2022.

³⁰⁷ Kilgannon, 2019.

³⁰⁸ Acevedo, 2017.

³⁰⁹ Vigilante, 1994.

³¹⁰ Vigilante, 1994.

³¹¹ Cooper, 2011.

³¹² Cook, 2016.

³¹³ Cook, 2016.

³¹⁴ Jacobs, 2006.

to procure formerly wild mustangs for the herd.³¹⁵ The mustangs had been captured by the Bureau of Land Management and gentled (i.e., tamed) in a program run by a Nevada correctional prison before being sent to New York for training as police horses.³¹⁶

The Mounted Unit maintains four stables across New York City. The Bronx stable has a paddock for turnout.³¹⁷ The Troop F barn is in Cunningham Park.³¹⁸ With the exception of the Manhattan facility, there is no other publicly available information on the NYPD stable facilities and their conditions. The Manhattan stables and Mounted Unit headquarters are on the ground floor of the Mercedes House, a luxury apartment building on the Far West Side.³¹⁹ The facility advertises “special flooring,” a “high-tech ventilation system,” and a “state-of-the-art hayloft,” although the details of these features are not provided.³²⁰ Opened in 2015, the facility covers 26,000 square feet and cost approximately \$30 million to construct.³²¹ The barn has 27 stalls,³²² wash stalls, and an indoor arena used for exercise and turnout.³²³ The arena has small windows at the sidewalk level.³²⁴ Since the stable facilities are below street level, the horses live entirely indoors. As one of the building architects explained, “We’re essentially building a barn, which is usually an open-air structure, inside a much larger building.”³²⁵ The facility is home to approximately half of the unit’s herd.³²⁶

Farrier care is handled by the unit’s three full-time professional farriers. The farriers primarily work out of the Manhattan facility but also have access to a mobile farrier unit.³²⁷ This \$100,000 mobile unit allows the farriers to handle urgent situations wherever the horse is located, in the same manner that most farriers travel to their clients.³²⁸ High-quality hoof care is particularly important for the Mounted Unit horses because they spend six to eight

³¹⁵ Chris Welch, “NYPD Turns to Wild Mustangs for Next Crop of Mounted Unit,” FOX 5 New York, March 6, 2020.

³¹⁶ Corr, 2022.

³¹⁷ Christa Lesté-Lasserre, “Horses in Uniform,” *The Horse*, March 4, 2021.

³¹⁸ Acevedo, 2017.

³¹⁹ Chaban, 2014.

³²⁰ Chaban, 2014.

³²¹ Fran Jurga, “The Urban Equine’s Most Hazardous Duty: Police Horses in the Global War on Terror and Crime,” *Equus Magazine*, March 10, 2017; Goldberg, 2015.

³²² We estimate the stalls to be approximately 10 ft by 10 ft in size but do not have confirmation of this measurement. News 12, 2022.

³²³ Lesté-Lasserre, 2021; Collins, 2020.

³²⁴ Chaban, 2014.

³²⁵ Chaban, 2014.

³²⁶ “Behind the Scenes with the NYPD’s Elite Mounted Unit,” 2017.

³²⁷ AP Archive, “Caring for NYPD’s Equine Patrol,” video, July 31, 2018.

³²⁸ “Behind the Scenes with the NYPD’s Elite Mounted Unit,” 2017.

hours per day, five to six days per week, patrolling on hard street surfaces.³²⁹ The horseshoes are “designed with New York’s physical environment in mind, with the addition of Drill Tech, a titanium strip that’s molded to three points of the horseshoe to give it extra grip and protection from debris.”³³⁰ The farriers check horses’ hooves and reshoe them every three to five weeks.³³¹

Tack is custom made for each horse by a local cobbler.³³² The unit historically used McClellan saddles but seems to have modernized its tack in the last few decades.³³³ All officers wear helmets when mounted, both in training and on patrol.³³⁴

Lessons Learned from the New York Police Department Mounted Unit

The lack of publicly available information on the NYPD Mounted Unit’s practices makes it difficult to draw out lessons learned from the case because we lack external or objective data. Most accessible information is from secondary media sources, many of which rely on information provided by the Mounted Unit itself and might not have the equine expertise to identify inaccuracies. Some lessons could still be useful for the Caisson Detachment, however.

The NYPD Mounted Unit seems to understand the importance of high-quality, consistent, and personalized farrier care in ensuring horse well-being. It employs professional farriers to handle all hoof-related care and customizes shoes to the unit’s specific needs. Additionally, the longevity of its farriers likely encourages awareness of the horses’ individual needs.

The selection of officers could provide useful lessons for the Caisson Detachment. The Mounted Unit accepts only officers with patrol experience and requires an application, interview, and physical test. Acceptance is not guaranteed, and many officers are on a wait list for months or years before joining the unit. The competitiveness, rigor, and length of the selection process likely filters out less motivated or qualified officers, and some sources indicate that officers are selected for their desire to work with equines. Once accepted, officers can remain in the Mounted Unit for the rest of their careers, which could help build institutional knowledge. Long-term pairing of horses with riders could also encourage a sense of personal responsibility for individual horses.

Like the Caisson Detachment, the Mounted Unit faces space constraints in housing its herd and has not found a solution for turnout. Horses at the Manhattan stables, where approximately half the herd is kept, live below street level in a fully indoor facility. The horses

³²⁹ NYPD, 2022.

³³⁰ “NYPD Horseshoers Are Essential for Horse Health, Happiness,” *American Farriers Journal*, May 20, 2018.

³³¹ NYPD, 2022.

³³² Collins, 2020.

³³³ Vigilante, 1994.

³³⁴ NYPD, “Getting Back on the Horse,” video, July 25, 2017; Eyewitness News ABC7NY, 2018; News 12, 2022.

are in seemingly small stalls, have minimal room for indoor exercise, and lack access to outdoor turnout.

Royal Canadian Mounted Police Musical Ride

Introduction

The RCMP Musical Ride is a specialized RCMP unit that conducts performances and ceremonial duties. The unit consists of up to 32 riders, all police officers, who perform mounted formations and drills set to music with tempos that match a horse's trot and canter.³³⁵ It has a broad mandate: "The Musical Ride supports front-line police operations by building positive relationships, supporting recruiting efforts and promoting the RCMP's image in communities in Canada and around the world."³³⁶ The Musical Ride has its origins in the late 19th century when one of the RCMP's predecessors, the Northwest Mounted Police, began performing cavalry drills in 1887 as a means of entertainment and demonstrating riding skills.³³⁷

The Musical Ride spends six months per year—from May to October—touring across Canada and internationally, performing at 40 to 50 locations annually.³³⁸ The unit owns approximately 200 horses.³³⁹ The RCMP has bred its own horses since 1939.³⁴⁰ It has two facilities: a breeding farm in Pakenham, Ontario, and the Musical Ride stables in Ottawa, Ontario.³⁴¹ Similar to the Caisson Detachment, Musical Ride officers stay with the unit for a limited amount of time. They also rarely have previous horse experience. The unit seems to have successfully accounted for this personnel turnover by using civilian expertise and retaining officers in leadership roles beyond their initial tours of duty.

The Musical Ride has faced several issues in the last decade around treatment of personnel and horses. In 2013, a former Musical Ride member sued the federal government and 13 Musical Ride members over claims of hazing, sexual assault, and sexual harassment.³⁴² An internal investigation, according to the lawsuit, took no action against the alleged perpetrators.³⁴³ The

³³⁵ RCMP, "The Musical Ride," webpage, last updated August 30, 2024e; "RCMP Musical Ride," CBC News, March 10, 2005.

³³⁶ RCMP, 2024e.

³³⁷ "The Role of the RCMP Horse in the Past 150 Years," *Gazette*, RCMP, June 26, 2024.

³³⁸ RCMP, "Discover the Musical Ride," video, last updated March 29, 2021b.

³³⁹ Huggett, 2021.

³⁴⁰ RCMP, "RCMP Horse Breeding Program," webpage, last updated August 30, 2024c.

³⁴¹ RCMP, 2024e.

³⁴² Tu Thanh Ha, "Female Former Member of RCMP Musical Ride Suing over Alleged Hazing, Harassment," *Globe and Mail*, May 21, 2013.

³⁴³ Ha, 2013.

lawsuit also accused a Musical Ride member of horse abuse.³⁴⁴ A settlement was announced in 2017 after the RCMP tried unsuccessfully to have the case thrown out.³⁴⁵

In 2016, the Musical Ride's riding master was removed from the position over allegations of horse abuse.³⁴⁶ Media sources reported that serious allegations had been raised when the officer was first considered for the position in 2014: "Multiple sources said they were 'shocked' [that the officer] was promoted to riding master, but that whistleblowing within the force proved 'dangerous' and 'futile.'"³⁴⁷ The same officer had previously been named in the 2013 sexual assault lawsuit.³⁴⁸ The officer was reassigned outside the Musical Ride but remained on active duty.³⁴⁹ In 2018, the RCMP told the media that the investigation had been completed the previous year and the officer had retired; no disciplinary action is known to have happened.³⁵⁰ A separate C\$1.1 billion (Canadian dollars) lawsuit in 2018 accused the RCMP of bullying, intimidation, and harassment and included claims from a plaintiff's time in the Musical Ride in the 1990s.³⁵¹

In 2023, the RCMP National Program Evaluation Services conducted an internal evaluation of the Musical Ride.³⁵² It concluded that, "overall, the Musical Ride provides value for the RCMP. In order to maximize that value, the RCMP needs to apply a more strategic approach to the Musical Ride and ensure it is resourced appropriately."³⁵³ The report praised the unit's efficient operation and public relations value but noted staffing shortages and inadequate rider well-being as areas for improvement.³⁵⁴

³⁴⁴ According to media reporting, "The court filing also says she [the former Musical Ride member suing the government] saw one of her alleged harasser[s], Sergeant Kevin Baillie, penetrate a mare in heat with a broom handle" (Ha, 2013).

³⁴⁵ "RCMP Reaches Sexual Assault Settlement with Former Musical Ride Member," CBC News, April 6, 2017.

³⁴⁶ "RCMP Officer Removed from Musical Ride over Horse Abuse Allegations," CTV News, March 6, 2017.

³⁴⁷ "RCMP Officer Removed from Musical Ride over Horse Abuse Allegations," 2017.

³⁴⁸ "RCMP Officer Removed from Musical Ride over Horse Abuse Allegations," 2017.

³⁴⁹ Joanne Laucius, "RCMP Riding Master Reassigned Following Horse Abuse Allegations," *Ottawa Citizen*, March 9, 2017.

³⁵⁰ Taylor Blewett, "Musical Ride–Bred Horses Slated for Largest-Ever RCMP Foundation Auction," *Ottawa Citizen*, August 31, 2018.

³⁵¹ Alina Polianskaya, "Royal Canadian Mounties Face Billion Dollar Lawsuit over Claims of Bullying," *Independent*, June 25, 2018.

³⁵² Evidence included 32 stakeholder interviews, document review, an internal survey, and performance data (RCMP, "Summary of the Evaluation of the RCMP's Musical Ride," October 2023d).

³⁵³ National Program Evaluation Services, 2023, p. 5.

³⁵⁴ National Program Evaluation Services, 2023.

Royal Canadian Mounted Police Musical Ride Organization, Leadership, and Budget

The Musical Ride is part of the Musical Ride and Heritage Branch of the RCMP. The unit is led by a superintendent who serves as the officer in charge of the Musical Ride and Heritage Branch.³⁵⁵ The superintendent also oversees multiple sections of the Musical Ride and Heritage Branch, including Remount, Saddler, Farrier, Musical Ride Class Section, Equitation Remount Training Section, Stables, Musical Ride Section, and Client Services.³⁵⁶ Other leadership roles include the officer in charge of the Musical Ride (currently held by an inspector) and the riding master (currently held by a sergeant major).³⁵⁷ As of September 2024, the unit had four Musical Ride instructors (sergeants and corporals) and 19 other members (constables).³⁵⁸ Around half of the supervisory positions designated for corporals were vacant as of October 2023 because of persistent staffing shortages.³⁵⁹

According to the most-recent data available, in the FY that ran from April 1, 2021, to March 31, 2022, Musical Ride expenditures were approximately C\$11.7 million, which represents 0.22 percent of the more than C\$5 billion in overall annual net expenditures by the RCMP.³⁶⁰ Tour costs, not including salaries, account for around C\$1.5 million of this spending.³⁶¹

The Musical Ride has adequate documentation governing its operations, according to the RCMP internal evaluation.³⁶² The report found “clear processes and procedures that contribute to the safety and successful execution of the program” and noted that “Senior management interviewees indicated that the Musical Ride organizational structure is appropriate, straightforward and effective when fully staffed.”³⁶³ Areas for improvement included remedying the staffing shortage, which contributed to inefficiency and ineffectiveness, and implementing performance measurement procedures to better inform planning.³⁶⁴

³⁵⁵ National Program Evaluation Services, 2023.

³⁵⁶ National Program Evaluation Services, 2023.

³⁵⁷ RCMP, 2024d.

³⁵⁸ RCMP, 2024d.

³⁵⁹ National Program Evaluation Services, 2023.

³⁶⁰ National Program Evaluation Services, 2023.

³⁶¹ National Program Evaluation Services, 2023.

³⁶² National Program Evaluation Services, 2023.

³⁶³ National Program Evaluation Services, 2023, p. 24.

³⁶⁴ National Program Evaluation Services, 2023, p. 4.

Royal Canadian Mounted Police Musical Ride Personnel and Training

The Musical Ride is staffed by officers from RCMP detachments across the country. A fully staffed unit consists of 32 riders.³⁶⁵ As of August 2024, only 26 officers were part of the Musical Ride.³⁶⁶ The broader Musical Ride and Heritage Branch has 84 total positions: 52 positions for regular members, although only 37 of these were filled as of October 2023, and 32 positions for public service employees.³⁶⁷ On tour, the Musical Ride is staffed by 39 RCMP officers, four contracted truck drivers, one bus driver, and one farrier.³⁶⁸

Prospective Musical Ride members do not need equine experience to apply but must have worked on the force for at least two years.³⁶⁹ In past years, the Musical Ride has received hundreds of applications each year—800 officers applied in 2010—for 32 spots open to new officers.³⁷⁰ These selected officers then go through a preliminary five-week basic equitation course, after which less than one-half (13 officers in 2023) are chosen to join the unit and move forward to a six-month training course.³⁷¹ Officers typically stay with the Musical Ride for three years, with one-third of the riders meant to rotate out yearly as new riders join.³⁷² Policies around multiple tours of duty are not publicly accessible, but evidence suggests that officers can return to the Musical Ride after “a few years of police work.”³⁷³ Musical Ride instructors, who are still part of the unit, seem able to remain indefinitely; some current riders have been instructors for up to 11 years.³⁷⁴

Recent staffing shortages have affected the unit, however: It has not welcomed a full class of 32 new officers since 2018.³⁷⁵ Although 168 new officers have expressed interest in the Musical Ride in the past few years, only three joined in 2023 and four in 2024.³⁷⁶ This is the result of broader recruitment issues across the RCMP; widespread understaffing means that

³⁶⁵ National Program Evaluation Services, 2023.

³⁶⁶ RCMP, 2024d.

³⁶⁷ National Program Evaluation Services, 2023.

³⁶⁸ RCMP, “Hosting the Musical Ride,” webpage, last updated August 10, 2023c.

³⁶⁹ RCMP, 2024d.

³⁷⁰ David Byrd, “Canadian Mounties’ Musical Ride Combines Precision, Tradition,” *Voice of America*, February 24, 2010.

³⁷¹ RCMP, “Ex-Musical Ride Horseman’s Thrilling Experience,” June 12, 2023b.

³⁷² National Program Evaluation Services, 2023.

³⁷³ Travis Poland, “Making Better-Formed Officers: Musical Ride Strengthens Key Police Skills,” *Gazette*, RCMP, Vol. 81, No. 1, January 2, 2019.

³⁷⁴ RCMP, 2024d.

³⁷⁵ Catharine Tunney, “Empty Saddles: The RCMP’s Recruitment Crisis Is Threatening the Celebrated Musical Ride,” *CBC News*, July 4, 2024.

³⁷⁶ National Program Evaluation Services, 2023.

divisions are reluctant to release their officers to the Musical Ride.³⁷⁷ Although application numbers have dropped over the years, interest in the Musical Ride remains; to alleviate the Musical Ride's staffing shortages, a 2023 internal evaluation suggested focusing on increasing officer releasability from RCMP divisions.³⁷⁸ The lack of new members has also forced some officers to stay with the Musical Ride past the standard three-year tour of duty.³⁷⁹ These extended tours were found to contribute to low morale and increase the risk of physical injury.³⁸⁰ The RCMP's internal evaluation noted, "The mental and physical well-being of Musical Ride members has suffered in recent years and is contributing to low morale. Evidence suggests this is a pervasive issue which requires attention from management."³⁸¹

Training for new riders includes the preliminary five-week basic equitation course and a subsequent six-month training course for those selected to join the unit.³⁸² Officers ride twice a day for five days per week.³⁸³ Retired Musical Ride horses are used for training, which lets new riders learn on safe and experienced horses.³⁸⁴ Each rider is paired with a Musical Ride horse in the winter for the coming year, and these partnerships are maintained during tour practice and the touring season.³⁸⁵ Riders are responsible for their horse's care at home and on tour. These duties include feeding, grooming, cleaning stalls, cleaning the barn, tacking, cleaning tack, and warming up and cooling down horses.³⁸⁶ Offseason, riders and horses continue training to stay fit and build their skills for the upcoming tour season.³⁸⁷

Civilian personnel include a saddler, eleven stable hands, two farriers, a breeding farm manager, an assistant breeding farm manager, tour staff, and horse trainers.³⁸⁸ The saddler helps maintain and repair tack.³⁸⁹ They also create some leather equipment, but saddles are procured separately.³⁹⁰ The stable hands handle horse care, stable management, and facilities maintenance; they are also responsible for all after-hours care.³⁹¹ The herd's health is moni-

³⁷⁷ National Program Evaluation Services, 2023.

³⁷⁸ National Program Evaluation Services, 2023.

³⁷⁹ Justin Sibbet, "RCMP Musical Ride Facing Challenges Ahead," *Lethbridge Herald*, July 6, 2024.

³⁸⁰ National Program Evaluation Services, 2023.

³⁸¹ National Program Evaluation Services, 2023.

³⁸² RCMP, 2023b.

³⁸³ Poland, 2019.

³⁸⁴ RCMP, "The Life of a Musical Ride Horse: Part 4," video, last updated March 29, 2021f.

³⁸⁵ RCMP, 2024d.

³⁸⁶ RCMP, "A Day in the Life of a Musical Ride Member," video, last updated March 29, 2021a; RCMP, 2021e.

³⁸⁷ RCMP, 2021e.

³⁸⁸ National Program Evaluation Services, 2023.

³⁸⁹ Huggett, 2021.

³⁹⁰ "5 Facts About the RCMP Musical Ride," CBC News, July 26, 2013; Huggett, 2021.

³⁹¹ National Program Evaluation Services, 2023.

tored by the officers and civilian staff.³⁹² A veterinarian conducts weekly visits and provides additional care, as needed.³⁹³

Two full-time farriers work for the unit. One farrier travels with the Musical Ride on tour and the other is based at the Musical Ride Stables.³⁹⁴ Farriers must have several years of experience and pass both a written and technical test before being hired.³⁹⁵ Horses are typically reshod every four to six weeks.³⁹⁶

The Pakenham breeding farm is run by a farm manager and assistant manager. The manager is responsible for all breeding operations, including being on call for all births.³⁹⁷ They also manage the other employees, handle equipment and supplies, and grow the farm's hay.³⁹⁸ The current manager previously held part-time and full-time roles at the breeding farm.³⁹⁹ The former manager retired after 40 years with the Musical Ride.⁴⁰⁰ Equine science knowledge is prioritized: The former manager was sent to Colorado State University's equine program after being hired and took additional courses in Alberta and Texas to keep their knowledge current.⁴⁰¹

The Musical Ride horse trainers are all civilians. Corporals in the unit used to serve as the trainers.⁴⁰² The unit's internal evaluation found this policy change successful, noting that the switch to civilians "has enhanced the consistency and quality of basic training for young horses (remounts) and reduced the program's reliance on RMs [regular members]."⁴⁰³ Trainers are responsible for running two five-week equitation courses and one six-month course each year and training the Musical Ride horses, including training the horses to pull carriages for ceremonial duties.⁴⁰⁴

Horse training begins at the Pakenham stables. Young foals learn to be handled calmly and practice trailering. Staff also start desensitizing them to the various conditions that they

³⁹² Laucius, 2017; RCMP, 2024c.

³⁹³ RCMP, 2024c.

³⁹⁴ National Program Evaluation Services, 2023.

³⁹⁵ RCMP, "Discover the Musical Ride Farrier Shop," video, last updated March 29, 2021c.

³⁹⁶ RCMP, 2021c.

³⁹⁷ Megan Gillis, "Musical Ride Mounts in the Making and the Manager Who Dreamed of Raising Them," *Ottawa Citizen*, May 31, 2018.

³⁹⁸ Tracy Hanes, "RCMP Breeding Program," *Horse Sport*, January 3, 2016; Amelia Thatcher, "Pride of the Musical Ride: RCMP Farm Manager Set to Retire After 40 Years," *Gazette*, RCMP, April 20, 2016.

³⁹⁹ Gillis, 2018.

⁴⁰⁰ Thatcher, 2016.

⁴⁰¹ Thatcher, 2016.

⁴⁰² National Program Evaluation Services, 2023.

⁴⁰³ National Program Evaluation Services, 2023.

⁴⁰⁴ National Program Evaluation Services, 2023.

might experience as Musical Ride horses.⁴⁰⁵ At three years old, young horses move to the Musical Ride stables in Ottawa for at least three years of full-time training.⁴⁰⁶ These horses, called remounts (i.e., replacement mounts), are trained under saddle and further desensitized to the performance environment.⁴⁰⁷ The young horses are also taught to jump under saddle, and horses with an aptitude for driving could be trained to pull a carriage.⁴⁰⁸ Turnout is prioritized as the horses continue to mature.⁴⁰⁹ Suitable horses join the Musical Ride once they are at least six years old and fully grown.⁴¹⁰ They are then paired with a rider for continued training from January to May before beginning the tour season.⁴¹¹

Royal Canadian Mounted Police Musical Ride Materiel and Facilities

The Musical Ride stables in Ottawa are the training facility and main base for the active Musical Ride horses. The current facility was built in 1993.⁴¹² Although facility specifics are not publicly available, the stables seem to include at least one large outdoor arena, extensive pasture space, and a large barn with wash and grooming stalls.⁴¹³ The Pakenham stables, which opened in 1968, are home to the breeding program and house 50 to 85 horses at any time.⁴¹⁴ The Musical Ride horses are kept at host facilities while on tour. There are strict requirements for these venues and staff conduct site visits to ensure they are met.⁴¹⁵ Requirements include minimum sizes and specifications for performance spaces, a water source, 36 to 38 stalls, access to a local large-animal veterinarian, manure disposal, and space for trailers.⁴¹⁶

All Musical Ride horses come from the breeding program. Eligible horses must be between 16 hh and 17.3 hh (5 ft 3 in. to 5 ft 9 in. at the shoulder), black, and have a suitable temperament for travel and performances.⁴¹⁷ Both mares and geldings are allowed.⁴¹⁸ The breeding

⁴⁰⁵ Gillis, 2018.

⁴⁰⁶ RCMP, “The Life of a Musical Ride Horse: Part 2,” video, last updated March 29, 2021d.

⁴⁰⁷ RCMP, 2021d.

⁴⁰⁸ RCMP, 2021d.

⁴⁰⁹ RCMP, 2021d.

⁴¹⁰ RCMP, 2021e.

⁴¹¹ RCMP, 2021e.

⁴¹² RCMP, “History of the RCMP Musical Ride,” webpage, last updated July 5, 2024a.

⁴¹³ RCMP, 2021a.

⁴¹⁴ Thatcher, 2016; RCMP, 2024c.

⁴¹⁵ RCMP, 2023c.

⁴¹⁶ RCMP, 2023c.

⁴¹⁷ Gillis, 2018; RCMP, 2024c; RCMP, “This Winterlude, the Stable Doors Are Open for the RCMP Musical Ride Open House and Community Food Drive,” press release, January 23, 2023a.

⁴¹⁸ RCMP, 2024d.

program began in 1939 because of the difficulty of finding enough black horses with the right characteristics for the then-mounted police.⁴¹⁹ The RCMP initially bred Thoroughbreds, but introduced Hanoverians in 1989 to improve color, conformation, and calm temperament in the bloodlines.⁴²⁰ Approximately 15 broodmares and two stallions are part of the program.⁴²¹ Horses that do not meet the requirements for the Musical Ride are sold at an auction, with these funds used in part to buy licensed Hanoverian mares and stallions.⁴²² Mares must be black, around 16.1 hh (5 ft 4 in. at the shoulder), have “a good temperament and good ride-ability,” and score at least a seven at an official breed inspection.⁴²³ Around 15 to 20 foals are born each year.⁴²⁴

The Musical Ride will offer horses for auction when it has at least six that are not eligible to join the unit, usually because they are the wrong color or not calm enough for the performance environment.⁴²⁵ Auctions happen every one to two years and proceeds are used for the Musical Ride.⁴²⁶ The minimum bid is C\$2,000, and horses are typically sold for C\$12,000 to C\$14,000 but can be sold for up to C\$35,000.⁴²⁷ The Musical Ride has measures in place to ensure that buyers are reputable and the horses will have good homes.⁴²⁸ If horses cannot be sold at the auction and do not meet Musical Ride requirements, such as retired horses, they are offered for adoption.⁴²⁹ Historically, horses could only be donated to charities, nonprofits, or other government organizations, but a policy change in 2022 allowed adoptions to the public.⁴³⁰ In 2023, the Musical Ride closed adoption applications because of the overwhelming response—more than 1,000 applications in 24 hours.⁴³¹ References and a site visit are required for potential adopters, who are chosen by an independent selection committee.⁴³²

⁴¹⁹ RCMP, 2024c.

⁴²⁰ Hanes, 2016; RCMP, 2024c.

⁴²¹ RCMP, 2024c.

⁴²² Hanes, 2016.

⁴²³ Hanes, 2016.

⁴²⁴ “RCMP Horse Breeder Handing over Reins After 4-Decade Ride,” CBC News, July 8, 2017.

⁴²⁵ RCMP, 2024c; Dave Charbonneau, “Bidding Underway for RCMP Musical Ride–Bred Horses,” CTV News, October 3, 2022.

⁴²⁶ RCMP, 2024c.

⁴²⁷ Charbonneau, 2022.

⁴²⁸ RCMP, 2024c.

⁴²⁹ RCMP, “Divestment of Horses Program,” webpage, last updated August 30, 2024b.

⁴³⁰ RCMP, 2024c.

⁴³¹ Alana Pickrell, “New Option for Retired RCMP Musical Ride Horses Generates Canada-Wide Interest,” CTV News, December 14, 2023.

⁴³² “Musical Ride Veteran Alaska Will Have His Pick of Greener Pastures,” CBC News, December 25, 2024.

There is no set duration for a horse's Musical Ride career. The veterinarian determines when each horse is ready for retirement based on its health and well-being.⁴³³ Horses often retire around 15 to 17 years of age, after approximately 10 years of work.⁴³⁴ They often become part-time school horses helping to train new riders or are adopted out for relaxed second careers, such as working as equine therapy horses.⁴³⁵

The Musical Ride uses specially modified Stübben saddles purchased from Germany.⁴³⁶ These saddles were designed for the Musical Ride after numerous tests of other saddles failed to find a model suitable for both dressage and jumping.⁴³⁷ Riders wear helmets during training and uniform hats for performances.⁴³⁸

Lessons Learned from the Royal Canadian Mounted Police Musical Ride

Despite the relatively short time that officers spend in the Musical Ride—only one year longer than Caisson Detachment soldiers—they are capable of more-advanced riding and horsemanship. This indicates that the Musical Ride's extensive training, totaling more than seven months, is successfully producing competent riders and handlers. Pairing horses and riders for a full year might also help build trust and confidence between them. The use of civilian trainers and the retention of Musical Ride instructors beyond the initial three-year tour likely contribute to this success by maintaining institutional knowledge. The Musical Ride also offers training for other mounted police units on a regular basis; the Caisson Detachment might consider sending soldiers to this training and/or consulting with the Musical Ride trainers.⁴³⁹

The Musical Ride case suggests interesting lessons around the use of civilian expertise. The RCMP's internal evaluation found only positive effects of having all civilian horse trainers.⁴⁴⁰ Other roles with critical expertise, such as the breeding farm manager, are also held by civilians, many of whom stay in their roles for decades. Long-term civilian-held positions likely play an essential role in maintaining best practices and institutional knowledge as officers rotate in and out.

Due to staffing shortages, unit leadership briefly considered turning to civilians to fill vacant riding spots, similar to proposals that have been made for the Caisson Detachment. Internal evaluators rejected this idea, however, arguing that there is a "strong rationale for

⁴³³ "Musical Ride Veteran Alaska Will Have His Pick of Greener Pastures," 2024.

⁴³⁴ RCMP, 2021f.

⁴³⁵ RCMP, 2021f.

⁴³⁶ "5 Facts About the RCMP Musical Ride," 2013.

⁴³⁷ "5 Facts About the RCMP Musical Ride," 2013.

⁴³⁸ "Musical Ride Veteran Alaska Will Have His Pick of Greener Pastures," 2023.

⁴³⁹ RCMP, "Mounted Police Seminar," webpage, last updated November 6, 2023e.

⁴⁴⁰ RCMP, 2023d.

the continued use of RCMP regular members . . . as riders.”⁴⁴¹ It is also important to note that officers continue to express interest in joining the Musical Ride but have been kept from doing so by their own short-staffed divisions.⁴⁴² Evaluators suggested the increased use of civilian staff instead for nonriding roles to lessen the burden on officers and support their mental and physical well-being.⁴⁴³ For example, civilian contractors were hired to handle horse care and exercise for the full November 2022 to January 2023 winter season.⁴⁴⁴ Four contractors were hired to help care for the horses on tour in 2023, which let officers have more time off.⁴⁴⁵ The evaluation notes that hiring these contractors “appears to be having a positive impact on Musical Ride members, and management is planning to increase to six contractors for the 2024 tour.”⁴⁴⁶ The use of civilians is also meant to give officers more capacity to maintain their policing skills and support other RCMP needs.⁴⁴⁷ If the Caisson Detachment cannot bring in civilian contractors for riding roles, it might consider a similar model to have soldiers perform only ceremonial riding duties and hire experienced civilians for all other responsibilities.

Budweiser Clydesdales

Introduction

Similar to the Caisson Detachment, the Budweiser Clydesdales—which is composed of several ceremonial hitch teams used for corporate marketing and public engagement for the Budweiser brand—are a well-known symbol of their organization that attract significant public attention. The Budweiser herd includes horses at three facilities and three traveling teams. As the breeding and main training facility, Warm Springs Ranch in Boonville, Missouri, is home to between 75 and 100 horses. Grant’s Farm in St. Louis, Missouri, has approximately 35 horses, including young horses in initial training and retirees. The St. Louis Brewery also houses five to six horses. Three teams of ten horses each—eight hitch horses and two alternates—travel the country for event appearances.⁴⁴⁸ Traveling teams spend approximately 320 days per year on the road.⁴⁴⁹ All Budweiser horses are Clydesdales bred by the company.

⁴⁴¹ RCMP, 2023d.

⁴⁴² RCMP, 2023d.

⁴⁴³ RCMP, 2023d.

⁴⁴⁴ RCMP, 2023d.

⁴⁴⁵ RCMP, 2023d.

⁴⁴⁶ National Program Evaluation Services, 2023.

⁴⁴⁷ National Program Evaluation Services, 2023.

⁴⁴⁸ Glavan, 2015.

⁴⁴⁹ Glavan, 2015.

The Budweiser Clydesdale team has found innovative solutions to space constraints and urban operations that could help inform Caisson Detachment planning. Horses at the urban St. Louis Brewery are frequently rotated among other facilities with ample turnout space. Horses on the traveling hitch teams stay overnight at local stables, most of which have turnout available.

Handlers used to ride the Clydesdales in training, but the practice was discontinued by company leadership to prevent riding-related injuries.⁴⁵⁰ Horses are now only driven. The Caisson Detachment might want to consider transitioning to a driving-only model to lessen the training burden on soldiers and reduce preventable injuries from riding.

Budweiser has a history of supporting the U.S. military and veterans. Budweiser has partnered with Folds of Honor, an organization providing educational scholarships to families of fallen and disabled servicemembers and first responders, for 14 years.⁴⁵¹ Anheuser-Busch, Budweiser's parent company, has released annual limited-time patriotic-themed packaging with a portion of profits benefiting Folds of Honor for the past decade.⁴⁵² In 2009, Anheuser-Busch received the Secretary of Defense Outstanding Public Service award in recognition of the company's "public service in support of men and women in uniform."⁴⁵³

Their successful operations seem to be based on deeply institutionalized practices, a long-standing organizational culture, and reliance on equine expertise. As a result, the organization can function well with a small number of general staff. Six to seven handlers, for example, handle all breeding, training, and daily operations at Warm Springs Ranch. Horse experience is not required for new handlers; they are trained on the job by senior staff and are not responsible for highly specialized duties (such as veterinary and farrier care).

Budweiser Clydesdales' Doctrine, Organization, and Leadership

Horse handlers use a handbook written specifically for the Budweiser Clydesdales by the head herd consultant, a veterinarian and Clydesdale expert at the University of Tennessee.⁴⁵⁴ This handbook is not available to the public.

The organizational structure for Clydesdale operations is not publicly available. Public-facing policy decisions, such as the 2023 decision to stop docking horses' tails,⁴⁵⁵ seem to

⁴⁵⁰ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁴⁵¹ Budweiser, "#SipToSupport Military Families," webpage, undated; Folds of Honor, "About Us," webpage, undated.

⁴⁵² Anheuser-Busch, "The Iconic Budweiser Clydesdales Embark on National Tour as Brand Releases Patriotic Packaging to Support Folds of Honor," press release, May 13, 2024.

⁴⁵³ Anheuser-Busch, "Anheuser-Busch Receive Prestigious Secretary of Defense 'Outstanding Public Service' Award," press release, May 16, 2009.

⁴⁵⁴ Authors' site visit, St. Louis, Missouri, July 17, 2024.

⁴⁵⁵ This decision is explained in more detail in the Lessons Learned section.

be made by Anheuser-Busch executives.⁴⁵⁶ The two larger facilities are confirmed to have a facility-level manager: the director of Clydesdale operations at Grant's Farm and the ranch manager at Warm Springs Ranch.⁴⁵⁷

Budweiser Clydesdales' Personnel and Training

Each traveling hitch team of ten horses is accompanied by seven handlers, at least two of whom are trained drivers.⁴⁵⁸ The handlers are responsible for all horse care, including driving the horse trailers, handling basic medical and farrier needs, and grooming horses for events and performances.⁴⁵⁹ Two drivers—one lead and one assistant—drive the wagon at events.⁴⁶⁰ The traveling horses are monitored overnight by hired security guards when staying in temporary stalls or public areas.⁴⁶¹ At Warm Springs Ranch, the ranch manager lives onsite and is on call year-round.⁴⁶² The current ranch manager spent eight years as a hitch team handler and ten years managing Clydesdale operations at Grant's Farm before taking the position at Warm Springs Ranch.⁴⁶³ Six to seven full-time horse handlers are responsible for the herd's daily care, breeding operations, and horse training.⁴⁶⁴ Guest tours, which include limited interaction with the horses, are run by 15 part-time tour guides.⁴⁶⁵ The current director of Clydesdale operations at Grant's Farm was a hitch team driver on the East and West Coast hitches.⁴⁶⁶

All Clydesdale handlers need a commercial driving license to operate the semis used to transport horses.⁴⁶⁷ Equine expertise is not required for new handlers, but most hires have prior horse experience.⁴⁶⁸ To become hitch team drivers, horse handlers complete a four- to six-month intensive training program.⁴⁶⁹ Training includes practicing with lines attached

⁴⁵⁶ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁵⁷ Authors' site visit, Boonville, Missouri, July 18, 2024; Authors' site visit, St. Louis, Missouri, July 17, 2024.

⁴⁵⁸ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁵⁹ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁶⁰ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁶¹ Glavan, 2015.

⁴⁶² Benetti, 2022.

⁴⁶³ Benetti, 2022.

⁴⁶⁴ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁶⁵ Benetti, 2022.

⁴⁶⁶ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁴⁶⁷ Benetti, 2022.

⁴⁶⁸ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁶⁹ Carla Lake, "15 Facts About the Budweiser Clydesdales for Your Super Bowl Sunday," *Horse Nation*, February 1, 2015; Authors' site visit, St. Louis, Missouri, July 17, 2024.

to bicycles to simulate the feel of handling individual lines for each horse.⁴⁷⁰ New drivers must be able to control two bicycles before driving two horses, then four bicycles before four horses, and so on until they can drive the full eight-horse team.⁴⁷¹ Anecdotally, new drivers have the technical skills to drive an eight-horse hitch after six months but need at least three years of experience to be considered a good driver.⁴⁷² Each wagon has a lead driver and an assistant driver who alternate driving responsibility, especially during long events.⁴⁷³ If needed, a more experienced driver is flown in for locations with particularly challenging routes or event demands.⁴⁷⁴

The Clydesdales receive highly specialized and expert farrier care from contracted farriers. Shod horses are trimmed and reshod every six to eight weeks.⁴⁷⁵ All nonshod horses—mares, foals, stallions, and any horses not being regularly driven—have their hooves trimmed regularly.⁴⁷⁶ Hoof care is overseen by the head farrier, an experienced draft farrier based in Wisconsin.⁴⁷⁷ Each horse is trimmed and shod by the same farrier throughout its career to ensure consistency.⁴⁷⁸ The hitch teams travel with basic farrier supplies to handle minor issues, such as a horse losing a shoe, but a farrier is flown in to the team's location for anything more serious.⁴⁷⁹

The herd's health and well-being are overseen by head herd consultant Steve Adair, a veterinarian and Clydesdale expert based at the University of Tennessee.⁴⁸⁰ Each facility has established partnerships with local equine veterinarians for routine veterinary care (e.g., dental checks and teeth floating,⁴⁸¹ routine vaccinations, and deworming).⁴⁸² The St. Louis brewery stables, for example, tend to have a local veterinarian onsite weekly for checkups.⁴⁸³

⁴⁷⁰ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁷¹ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁴⁷² Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁴⁷³ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁷⁴ For example, some locations require drivers to make tight turns without full visibility of the lead horses. Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁴⁷⁵ Authors' site visit, St. Louis, Missouri, July 17, 2024.

⁴⁷⁶ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁷⁷ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁴⁷⁸ Authors' site visit, St. Louis, Missouri, July 17, 2024.

⁴⁷⁹ Authors' site visit, St. Louis, Missouri, July 17, 2024.

⁴⁸⁰ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁴⁸¹ *Teeth floating* refers to routine dental maintenance for horses that involves removing the sharper enamel points in horse teeth via filing them down.

⁴⁸² Authors' site visit, St. Louis, Missouri, July 17, 2024; Authors' site visit, Boonville, Missouri, July 18, 2024; Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁴⁸³ Authors' site visit, St. Louis, Missouri, July 17, 2024.

All young geldings receive a full physical exam on their return to Warm Springs Ranch for harness training.⁴⁸⁴ If care is needed for hitch horses when traveling, local veterinarians consult with Dr. Adair on individual horses' medical history and considerations.⁴⁸⁵

Young Clydesdales typically begin training once weaned, at approximately six months old. All weanlings—both colts and fillies—move to Grant's Farm for three to four years of initial training.⁴⁸⁶ They learn basic ground manners (e.g., leading, standing quietly, picking up hooves) and become accustomed to public interaction through public facility tours, photo ops, and supervised guest encounters.⁴⁸⁷ Only colts are trained for the hitch teams. They are introduced to the training harness at Grant's Farm and evaluated throughout their training.⁴⁸⁸ Colts with good marks on all necessary skills then return to Warm Springs Ranch.⁴⁸⁹ Young horses are partnered with a retired hitch horse to begin harness training, which ensures a calm and experienced horse in each pair.⁴⁹⁰ Horses are trained to wear the full harness and drive with long lines.⁴⁹¹ After that, they begin learning to pull a lightweight sled.⁴⁹² They are first driven in pairs and then subsequently as teams of four, six, and eight, after which they begin pulling the wagon.⁴⁹³ All horses are trained in each pulling position and on each side and then assigned to a specific position based on size and temperament.⁴⁹⁴ Harness training takes around one year, and most horses are ready to join the hitch team at approximately five years old.⁴⁹⁵ Once horses complete their training, they travel with the hitch teams for an initial period to assess their suitability for travel and public events.⁴⁹⁶ Horses are then assigned to appropriate open spots on the hitch teams.⁴⁹⁷

⁴⁸⁴ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁸⁵ Authors' site visit, St. Louis, Missouri, July 17, 2024.

⁴⁸⁶ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁴⁸⁷ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁴⁸⁸ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁴⁸⁹ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁴⁹⁰ Authors' site visit, St. Louis, Missouri, July 17, 2024.

⁴⁹¹ *Long lines* are long reins or longe-like lines used by a handler on the ground.

⁴⁹² Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁹³ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁹⁴ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁹⁵ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁴⁹⁶ Authors' site visit, St. Louis, Missouri, July 17, 2024.

⁴⁹⁷ Authors' site visit, St. Louis, Missouri, July 19, 2024.

Budweiser Clydesdales' Materiel and Facilities

Only geldings with four white stockings, a white blaze, and a black mane and tail are eligible for the traveling teams. They must also be taller than 18 hh (72 inches tall at the shoulders), more than 2,000 pounds, and older than four. Horses begin training as weanlings (at approximately six months old) and are fully trained as hitch horses by age four to five.⁴⁹⁸ Hitch horses often retire after approximately ten years of work; all are retired by age 18 at the latest.⁴⁹⁹ Mares are typically bred for seven to eight years.⁵⁰⁰ Warm Springs Ranch is home to around 50 broodmares, and approximately 25 are bred each year.⁵⁰¹ Working horses and those in training are groomed daily and bathed weekly;⁵⁰² pastured horses are groomed and bathed at least once a month.⁵⁰³

Fitted pieces of tack are assigned to individual horses; other parts of the harness are assigned to the team.⁵⁰⁴ Harness collars are supplemented with pads, as needed, to ensure a correct fit.⁵⁰⁵ Each hitch harness weighs about 130 pounds and is handmade by Shanahan Harness Shop in Huntsville, Ohio.⁵⁰⁶ A full set of eight hitch harnesses costs approximately \$100,000 and takes one year to make.⁵⁰⁷ Harnesses last between ten and twelve years with proper maintenance.⁵⁰⁸ Young horses are trained in biting rigs and lighter collars than those that are used for the hitch teams.⁵⁰⁹ Training harnesses are also used by the hitch teams to quickly and easily move horses around while traveling.⁵¹⁰ Hitch horses, including those in

⁴⁹⁸ Authors' site visit, St. Louis, Missouri, July 17, 2024.

⁴⁹⁹ Authors' site visit, St. Louis, Missouri, July 17, 2024.

⁵⁰⁰ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁵⁰¹ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁵⁰² Hitch horses are also bathed and braided before every performance or event.

⁵⁰³ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁵⁰⁴ Authors' site visit, St. Louis, Missouri, July 17, 2024.

⁵⁰⁵ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁵⁰⁶ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁵⁰⁷ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁵⁰⁸ Each harness is cleaned and polished after every use. Harnesses are taken apart twice a year for deep cleaning (authors' site visit, St. Louis, Missouri, July 19, 2024).

⁵⁰⁹ A *bitting rig* is a training harness often used to introduce horses to being driven. Training collars weigh 40 pounds and 60 pounds; the hitch collar weighs 80 pounds (authors' site visit, St. Louis, Missouri, July 19, 2024).

⁵¹⁰ Authors' site visit, St. Louis, Missouri, July 19, 2024.

training and any others pulling in a harness, are shod with leather pads and Drill-Tec metal grips for traction on pavement.⁵¹¹ The wagon weighs 7,800 pounds.⁵¹²

Facilities for the hitch teams depend on their travel. The horses travel in two 50-foot trailers equipped with air conditioning, padded floors, and monitoring cameras.⁵¹³ The teams have hay and water accessible in the trailers, take daily travel breaks every two hours, and stay overnight at local farms.⁵¹⁴ The teams do not travel more than 200 miles in a day.⁵¹⁵ Most events are hosted by established partners, or located near established partner facilities, most of which have turnout available.⁵¹⁶ If turnout is not available, the horses are hand walked for at least one hour. Each team travels with portable stalls that can be constructed if no local facilities are available.⁵¹⁷

The rest of the Budweiser herd is split among three facilities: Warm Springs Ranch in Boonville, Missouri; Grant's Farm in St. Louis, Missouri; and the St. Louis Brewery in St. Louis, Missouri. The three hitch teams are also based at these facilities when not traveling. Table A.2 shows the key characteristics of each facility.

Lessons Learned from the Budweiser Clydesdales

Decisions related to personnel, facilities, and materiel at Budweiser stables indicate that each horse's individual well-being is prioritized over other considerations. Veterinary and farrier care is provided by specialists (e.g., experienced draft farriers) and continuity in care is emphasized (e.g., veterinarians coordinate through the head herd consultant). Possible lessons learned for the Caisson Detachment include providing career longevity to retain experienced personnel, using experts for duties requiring significant expertise, and shifting TOG culture to prioritize horses' well-being.

Hitch horses are treated as professional athletes: Each receives a custom routine of joint injections and chiropractic treatment, and horses are frequently sent to St. Louis for one- to two-month vacations, as needed.⁵¹⁸ The large size of the trained herd means that hitch horses can be rotated out regularly without overburdening others. Horses are occasionally sold if they are unsuitable for the hitch team or other jobs. All potential buyers are closely

⁵¹¹ Drill-Tec is tungsten carbide welded onto horseshoes for traction on pavement or other slippery surfaces. Lake, 2015; Glavan, 2015.

⁵¹² Authors' site visit, Boonville, Missouri, July 18, 2024.

⁵¹³ Warm Springs Ranch, "FAQs," webpage, undated; Mark Hughes Cobb, "Spinning a Filly Tale, of Horses and Hitches," *Tuscaloosa News*, December 6, 2022.

⁵¹⁴ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁵¹⁵ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁵¹⁶ Authors' site visit, St. Louis, Missouri, July 17, 2024.

⁵¹⁷ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁵¹⁸ Glavan, 2015; Authors' site visit, St. Louis, Missouri, July 17, 2024.

TABLE A.2

Budweiser Clydesdale Facilities

Characteristics	Warm Springs Ranch	Grant's Farm	St. Louis Brewery
Location	Boonville, Missouri Rural setting	St. Louis, Missouri Rural setting	St. Louis, Missouri Urban setting
Number of horses	Approximately 100 with between 10 and 20 additional horses when hosting the East and/or West Coast hitch teams	Approximately 35	Five to six with ten additional horses when hosting the Midwest hitch team
Herd composition	<ul style="list-style-type: none"> • Breeding stallions • Breeding mares • Foals (zero to six months old) • Hitch horses in training (three to five years old) • Nonhitch working horses • Retirees 	<ul style="list-style-type: none"> • Retirees • Horses in training (six months to four years old) • Hitch horses on breaks • Nonhitch working horses 	<ul style="list-style-type: none"> • Retirees • Hitch horses on breaks • Nonhitch working horses
Turnout and exercise	<ul style="list-style-type: none"> • 300 acres • Four dry lots for stallions • Individual or two-horse runs for stabled horses • Grass pastures • Pastured horses live outside year-round 	<ul style="list-style-type: none"> • Nine grass pastures with run-in sheds • Pastured horses live outside year-round • Small dry lots for nonpastured horses 	<ul style="list-style-type: none"> • 45 minutes of hand walking daily • Morning paddock turnout depending on weather • Two dry lots (one for individual horses and one for one to two horses)
Specific features	<ul style="list-style-type: none"> • Automatic stall waterers • Elevated grain feeders • Hay nets • Large (draft-sized) washrack and crossties 	<ul style="list-style-type: none"> • Automatic stall waterers • Elevated grain feeders • Hay nets • Large (draft-sized) washrack and crossties 	<ul style="list-style-type: none"> • Automatic stall waterers • Elevated grain feeders

SOURCES: Features information from authors' site visit, St. Louis, Missouri, July 17, 2024; authors' site visit, Boonville, Missouri, July 18, 2024; and authors' site visit, St. Louis, Missouri, July 19, 2024.

NOTE: Nonhitch working horses include commercial stars, tour, and photoshoot horses; pastured horses live outside year-round except for pregnant mares ready to foal and newborn foals, which live in foaling stalls.

vetted, and horses are tracked throughout their lives.⁵¹⁹ The sale contract prohibits horses from being resold; they must be returned to Budweiser if their owner cannot keep them.⁵²⁰

Given their size and working demands, the Clydesdales' nutritional needs are carefully considered. All Budweiser Clydesdales are fed timothy hay from the same cutting from the same field, sourced from one farm in Idaho.⁵²¹ This ensures a consistent diet throughout each year, which is particularly important for the traveling horses.⁵²² Hay is always available for the

⁵¹⁹ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁵²⁰ Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁵²¹ Glavan, 2015; Authors' site visit, St. Louis, Missouri, July 19, 2024.

⁵²² Glavan, 2015; Authors' site visit, Boonville, Missouri, July 18, 2024.

traveling teams (e.g., in trailers, while resting).⁵²³ Budweiser partners with Purina for grain and works with a Purina nutritionist to customize feed for each horse's specific nutritional needs.⁵²⁴ The partnership appears to be mutually beneficial because Purina can advertise its support for the iconic Clydesdales.⁵²⁵

As widely known and celebrated figures, the Budweiser Clydesdales are constantly under public scrutiny. In September 2023, Anheuser-Busch announced it would stop docking horses' tails after a report by the People for the Ethical Treatment of Animals revealed the practice and public backlash ensued.⁵²⁶ Following this decision, the Budweiser Clydesdales and Dalmatians received an American Humane Certification, which "identifies that Anheuser-Busch has met American Humane's comprehensive, science-based standards for animal welfare and humane treatment of animals."⁵²⁷ The certification requires an external assessment and continued audits by "an independent Scientific Advisory Committee comprised of world-renowned leaders in the fields of animal science, veterinary medicine, and animal behavior."⁵²⁸

⁵²³ Glavan, 2015.

⁵²⁴ Authors' site visit, Boonville, Missouri, July 18, 2024.

⁵²⁵ Purina Mills, "Research-Backed Nutrition Programs Help Develop Horses for Current and Future Clydesdale Hitches," Purina News, undated.

⁵²⁶ *Docking* refers to the practice of amputating part of a horse's tail, including a section of the bone. It is banned in several countries and condemned by many veterinary experts, including the American Association of Equine Practitioners (see American Association of Equine Practitioners, "Position on Tail Alteration in Horses," webpage, January 1, 2023). Orlando Mayorquin, "Anheuser-Busch Says It Has Stopped Amputating Tails of Budweiser Clydesdales," *New York Times*, September 20, 2023.

⁵²⁷ American Humane, "American Humane Awards Its Coveted Animal Welfare Certification to the World-Famous Budweiser Clydesdales and Dalmatians of Anheuser-Busch," press release, September 20, 2023.

⁵²⁸ American Humane, 2023.

Observations Regarding Budget and Funding Trajectories

Historically, funding the Caisson Platoon appears to have been a relatively low priority in the Army and wider defense community. Prior to FY 2023, the Caisson Platoon's operational budget (i.e., money intended for the purchase of horses, feed, equipment, training, etc.) amounted to an estimated \$1 million to \$1.2 million per year and came out of the 3rd Infantry Regiment's overall operating fund.¹ At that time, the operating budget of TOG in total was about \$5 million.² This funding was drawn from the Army's operations and maintenance budget. Major infrastructure improvements and acquisitions are handled through the Army's military construction budget. After the leaking of the U.S. Army Public Health Command–Atlantic report, which highlighted problems with the Caisson Platoon in February 2022, Congress significantly increased the money available by allocating \$5 million for Caisson Platoon operations in the FY 2023 NDAA.³ This was supplemented by \$1.7 million in internal TOG money, bringing the Caisson Platoon's operational budget to a total of \$6.7 million.⁴ The FY 2023 NDAA provided \$5 million in operations and maintenance funding directly to TOG for Caisson Platoon facility improvements. This money was provided under the Theater Level Assets line of the budget. Another \$15 million was indirectly provided for Caisson Platoon facility improvements through the Facilities Sustainment, Restoration and Modernization line of the operations and maintenance budget.⁵ The Army did not request targeted funding for the Caisson Platoon in FY 2024, and none was provided in the

¹ This could have been an increase over earlier operational budgets. In 2004, the Caisson Platoon's operational budget might have been approximately \$325,000 (\$540,000 in FY 2024 dollars). Data provided to RAND by the 3rd Infantry Regiment in April 2024; Current or former caisson command or staff (C9), interview with the authors, June 5, 2024.

² Current or former caisson command or staff (C12), interview with the authors, July 18, 2024.

³ The FY 2023 NDAA also directed the Army to implement an animal facility sanitation plan and to provide a plan for the housing and care of the TOG's horses. Public Law 117-263, National Defense Authorization Act for Fiscal Year 2023, December 23, 2022.

⁴ Department of the Army Staff, "CAISSON Horse Detachment/Military Working Equines (MWE)—Summary of RAND Initial 30-Day Effort," email shared with the authors, April 3, 2024b.

⁵ Public Law 117-263, 2022.

FY 2024 NDAA. The FY 2024 NDAA, however, did include language prohibiting the elimination of the Caisson Platoon and requesting periodic reports to Congress.⁶

In October 2023, the Military District of Washington submitted an FY 2024 urgent fund request to Headquarters, Department of the Army requesting \$6.9 million in operational funding for the Caisson Platoon of which \$5.4 million was granted. In April 2024, after the TOG had spent \$5.6 million in support of the Caisson Platoon, the FY 2024 urgent fund request was increased to \$9.9 million. In its FY 2025 budget request, the Army asked for \$6.2 million for the Caisson Platoon, which is now the Provisional Caisson Detachment, to support the Army's Military Working Equid Get-Well initiative. This money is intended to fund contract support for stabling, monitoring, and transportation and the hiring of veterinary and equine professional contract personnel.

The Army plans to request a similar amount yearly through FY 2029 for a total of \$31 million. As this amount was based on estimates of FY 2023 requirements, it could increase in the future.⁷

In addition to the operational funding, the Caisson Detachment also requires facilities and infrastructure funding, which is a garrison responsibility and generally provided through U.S. Army Installation Management Command (IMCOM). We have limited insight into the overall facility and infrastructure spending required by the Caisson Detachment, but we provided a few examples here. In FY 2023, Congress provided \$10 million in funding to renovate two Caisson Platoon stables at JBMHH, but this was determined to be enough to renovate only one stable. The second stable was to be renovated with \$6.5 million allocated by IMCOM in FY 2024.⁸ In its FY 2025 budget, the Army is requesting \$8.5 million to purchase approximately 300 acres of horse farm, stating that it needs "acreage for grazing, exercising, and training 100 [MWEs]; facilities to house 50 [MWEs]; accommodations for civilian staff and soldiers; and storage for feed, hay, and equipment."⁹

Operating an equine unit requires several nontraditional expenditures. Table B.1 provides illustrative examples of a few of the contracts that have been let in support of the Caisson Platoon, now the Caisson Detachment, that can be found on the USAspending.gov website.¹⁰ This is neither a complete list, nor is it a detailed budgetary analysis. The listed contracts

⁶ Public Law 118-31, 2023; Department of the Army, *Fiscal Year (FY) 2024 Budget Estimates: Vol. I, Operations and Maintenance*, April 2023.

⁷ Data provided to RAND by the 3rd Infantry Regiment in April 2024; Department of the Army, *Fiscal Year (FY) 2025 Budget Estimates: Vol. I, Operations and Maintenance*, March 2024a.

⁸ It was determined that it would cost \$8 million to renovate one stable with the remaining funds used for other Caisson Detachment-related facility projects. Data provided to RAND by the 3rd Infantry Regiment in April 2024.

⁹ Department of the Army, *Department of the Army Fiscal Year (FY) 2025 President's Budget Submission: Military Construction, Army, Army Family Housing and Homeowners Assistance Fund, Defense*, March 2024b, p. 121; Data provided to RAND by the 3rd Infantry Regiment in April 2024.

¹⁰ USAspending.gov is the official open data source for spending information, including contract awards.

account for \$28.6 million in obligated funds and \$30.1 million in current award amounts. As a number of these contracts are for multiple years, their final values might ultimately differ from the amounts provided here. Repair and rehabilitation of the caisson facilities account for the bulk of this spending; \$16.5 million has been allocated to such work. Another \$4.7 million has been awarded to the NEC for reconditioning and boarding services.¹¹ Because this sum is for expenditures from August 2023 through June 2024 (about ten months), its five-year value is likely to be significantly more. Horse acquisition is also a significant cost, with the platoon spending between \$20,500 and \$49,000 per horse.

¹¹ Equine Endeavors is the holding company of NEC.

TABLE B.1
Illustrative Caisson Platoon and Caisson Detachment Contracts (2022–2024)

Award ID	Description	Dates	Obligated Amount	Current Award Amount	Potential Award Amount
W912DR23C0050	Stables and upper paddocks repairs, Fort Myer, Virginia (Stampede Ventures)	September 21, 2023, to April 28, 2025	\$14,583,314	\$14,583,314	\$14,583,314
W91QV123D0011	MWE reconditioning and boarding services at contractor-owned facility (Equine Endeavors) (five-year IDIQ)	August 1, 2023, to December 31, 2028	\$4,293,850	\$4,782,622	\$4,782,622
W91QV123P9011	Rehabilitation and boarding service for caisson horses	May 10, 2023, to June 21, 2023	\$1,500,000	\$2,100,000	\$2,100,000
W912DR22C0046	Lower paddock renovation, Fort Myer, Arlington, Virginia	September 30, 2022, to May 31, 2025	\$1,949,619	\$1,949,619	\$1,949,619
W91QV123P9005	Rehabilitation services for the caisson horses	May 10, 2023, to November 9, 2023	\$1,350,000	\$1,350,000	\$2,700,000
W91QV124C0014	State funeral equine support services (Express Clydesdales)	February 20, 2024, to April 17, 2024	\$725,236	\$725,236	\$725,236
W91QV120C0012	Horse bedding (R&J Equine Kinetics) (five-year IDIQ)	January 29, 2020, to January 31, 2025	\$506,726	\$506,726	\$533,396
W91QV123C0022	Fort Myer's Hay (Eastern Hay) (five-year IDIQ)	May 1, 2023, to September 30, 2027	\$114,718	\$404,716	\$1,300,000
W91QV124P0031	Riding instruction for Caisson Detachment (Majewski Holding)	April 1, 2024, to 1 July 1, 2024	\$393,250	\$393,250	\$393,250
W91QV123P9003	Rehabilitation and boarding for the horses transported to Ocala, Florida	May 12, 2023, to April 11, 2024	\$200,000	\$391,000	\$623,000
W91QV124C0021	Horse performance training in Ocala, Florida (Express Clydesdales)	March 25, 2024, to April 27, 2024	\$380,916	\$380,916	\$380,916
W91QV123D0009	Corrective trimming and shoeing (Trave Industries) (five-year IDIQ)	June 5, 2023, to December 4, 2028	\$328,600	\$328,600	\$328,600

Table B.1—Continued

Award ID	Description	Dates	Obligated Amount	Current Award Amount	Potential Award Amount
W91QV123P0044	Equine procurement (x6) Netherlands	October 20, 2023	\$289,400	\$289,400	\$289,400
W91QV123P9006	Veterinary services for TOG'S Caisson Platoon	May 10, 2023, to October 31, 2023	\$250,000	\$250,000	\$250,000
W91QV123P9007	Rehabilitation services for caisson horses	June 15, 2023, to June 14, 2024	\$240,000	\$240,000	\$240,000
W91QV123P0064	Method horse training program not to exceed 12 weeks	September 29, 2023, to April 25, 2024	\$148,949	\$148,949	\$148,949
W91QV120P0014	Grain JBMHH or Fort Belvoir Old Guard (Specialized Government Sourcing)	December 10, 2019, to December 4, 2022	\$133,873	\$133,873	\$236,976
W91QV122P0094	Caisson office trailer	September 30, 2022, to January 17, 2023	\$125,408	\$125,408	\$125,408
W91QV123D0010	Horse Contract (True North Enterprises) (five-year IDIQ)	August 1, 2023, to September 30, 2027	\$103,000	\$103,000	\$103,000
W91QV123P0036	Two equine horses	September 1, 2023, to October 15, 2023	\$93,800	\$93,800	\$93,800
W91QV122C0092	55-gallon drum horse shampoo with conditioner (Legend + White Animal Care) (five-year IDIQ)	September 28, 2022, to September 30, 2027	\$93,044	\$93,044	\$245,230
W91QV124C0019	Caisson support for state funeral April 18 to May 1 (Express Clydesdales)	April 15, 2024, to May 1, 2024	\$89,743	\$89,743	\$372,364
W91QV124P0032	Three Percheron crossbred geldings	March 26, 2024	\$61,500	\$61,500	\$61,500
W911S222P0862	Unison buy 1104518—caisson tractor (Gaithersburg Farmers Supply)	July 27, 2022, to February 27, 2023	\$55,650	\$55,650	\$55,650
W91QV123P0046	Horse procurement	October 24, 2023	\$49,000	\$49,000	\$49,000
W91QV124P0011	Horse purchase—Rocket	November 17, 2023	\$35,000	\$35,000	\$35,000

Table B.1—Continued

Award ID	Description	Dates	Obligated Amount	Current Award Amount	Potential Award Amount
W91QV124P0028	Hitch training for Caisson Detachment (Express Clydesdales)	March 19, 2024, to March 22, 2024	\$30,600	\$30,600	\$30,600
W91QV124P0043	Purchase of one horse	April 26, 2024	\$27,750	\$27,750	\$27,750
W91QV124P0037	Caisson Detachment Circle Y saddles (Welhausen)	April 4, 2024, to May 1, 2024	\$26,280	\$26,280	\$26,280
W91QV122A0005	TOG Caisson Platoon clothing (LT Business Solutions) (five-year IDIQ)	May 13, 2022, to May 23, 2027	\$26,243	\$26,243	\$26,243
W91QV123P9000	Trail Rock caisson	April 5, 2023	\$25,000	\$25,000	\$25,000
W91QV122C0097	Caisson pasture management (Violetta Grounds Management)	September 30, 2023, to September 29, 2027	\$18,653	\$18,653	\$214,813
W91QV124D0006	Caisson riding boots (Bootmakers) (five-year IDIQ)	March 1, 2024, to February 28, 2029	\$17,465	\$17,465	\$17,465
W91QV123P9008	Horsemanship training	May 23, 2023, to May 25, 2023	\$15,537	\$15,537	\$15,537
W91QV123P9013	Boarding of caisson horses at NEC	June 9, 2023, to July 5, 2023	\$10,200	\$10,200	\$10,200
W91QV123P9010	Caisson horse transportation to receive rehabilitation	June 4, 2023	\$6,160	\$6,160	\$6,160
W91QV123P9009	Farrier service for the Caisson Platoon horses	May 18, 2023, to June 12, 2023	\$2,500	\$2,500	\$2,500
W91QV123P9012	Farrier service for TOG'S caisson	May 19, 2023, to June 2, 2023	\$2,486	\$2,486	\$2,486

SOURCE: Features data from USAspending.gov.

NOTE: IDIQ = indefinite delivery, indefinite quantity.

Interview Methodology

The study team conducted a series of semistructured interviews with several categories of stakeholders and SMEs (see Table C.1 for a list of these categories). We conducted interviews with both single participants and small groups of stakeholders and SMEs in-person and virtually by video conference in unclassified settings. At the outset of each interview, we explained that interviews were being conducted on a not-for-attribution basis and advised interview subjects that their identities would be protected and anonymized to the extent possible.

To protect interviewees and prevent them from being directly or inadvertently identified, we have assigned each interview with a generic tag (e.g., the generic tag for a veterinarian is A). Any references to data gleaned from interviews that we cite in this report use the assigned tags. We have chosen tags with an eye toward striking a balance—providing readers with enough information to understand the portfolios of those being interviewed without revealing too much detail about interviewee characteristics because that could be used to identify participants.

Within these populations of interest, we identified interview subjects with help from Caisson Detachment leadership and other equine organizations from our cases, followed by snowball sampling. Snowball sampling is a nonprobability-based sampling approach that involves recruiting other interviewees based on the contact network of previous interview

TABLE C.1
Community Category and Number of Interview
Participants

Tag	Community Category	Number of Participants
A	Veterinarian	8
B	Equine expert	17
C	Current or former caisson command or staff	17
D	Current or former manager of an equine herd	10
E	Current or former U.S. Army command or staff or U.S. government staff	18
Total		70

respondents.¹ We did not select interviewees at random but instead intentionally chose them based on (1) their affiliation with the Caisson Detachment or another Army cavalry unit, their expertise in the equine industry, or their equine veterinary expertise, and (2) through snowball sampling in which someone was identified by another interviewee as having relevant experience. We conducted 59 interviews with a total of 70 individuals.

The interviews were guided by a series of semistructured protocols that members of our team developed. The protocols were specifically tailored to speak to the different communities and their different perspectives; we overlapped certain questions where appropriate (Table C.2). The semistructured format allowed participants to expand on adjacent topics and provided enough flexibility for the interview team to ask related follow-on questions.²

After we completed each interview, we cleaned the notes, taking care to ensure that the sentences were fully captured and there were no typos or missing words. In cases where multiple research team members took individual notes, we combined them. Once interviews were complete, we developed a codebook with relevant parent-level codes (i.e., macro-level categories, such as “health of working horses”) and narrower child codes or subcategories (Table C.3). We developed the final codebook through iterative discussion between experts on the team.

Using this codebook, two team members coded the interview data. All interviews were coded. The initial coding process revealed some gaps in the initial coding scheme that we subsequently amended. The results of the coding process revealed themes that informed major findings and recommendations for the study, in concert with the findings of the other data collection methods, such as the literature review.

¹ Albine Moser and Irene Korstjens, “Series: Practical Guidance to Qualitative Research. Part 3: Sampling, Data Collection and Analysis,” *European Journal of General Practice*, Vol. 24, No. 1, January 2018, pp. 9–18.

² Semistructured interviews provide benefits, such as flexibility to include topics beyond the protocol, but have limitations in coding and representativeness. For more discussion of the limitations and benefits of semistructured interviews, please see qualitative methodology sources such as Margaret C. Harrell and Melissa A. Bradley, *Data Collection Methods: Semi-Structured Interviews and Focus Groups*, RAND Corporation, TR-718-USG, 2009.

TABLE C.2

Master Interview Protocol

Question Category	Questions
Introductory question	<ul style="list-style-type: none"> • Would you mind telling us a bit about your background and your position for context?
Health of working horses	<ul style="list-style-type: none"> • What are the current veterinary support standards in the Caisson Detachment OR what are the veterinary support standards in the larger equine community? • What are the service and age requirements for horses in the Caisson Detachment OR among other working herds OR within the larger equine community? • How long do horses typically serve before they are retired from the Caisson Detachment OR among other working herds OR within the larger equine community? • What is the process for retiring horses from the Caisson Detachment? • How many horses are needed to meet the operational requirements for the Caisson Detachment?
Doctrine	<ul style="list-style-type: none"> • What existing doctrine governs the use and care of horses in the Caisson Detachment? • What are the standard operating procedure practices for the care and management of the horses in the Caisson Detachment? • What are the standard practices for the care and feeding of the horses in the Caisson Detachment? • How are the horses conditioned to maintain their fitness for duty for the Caisson Detachment? • What training and experience are required for the soldiers as riders? • What kind of medical training do soldiers receive to care for horses? • Are there any areas of doctrine or practices that you believe require further formalization?
Organization	<ul style="list-style-type: none"> • What are the reporting and assessment requirements within the Caisson Detachment? • How are roles and responsibilities defined within the Caisson Detachment? • What was the impact of designating the Caisson Platoon as Provisional Caisson Detachment?
Training	<ul style="list-style-type: none"> • What is the current training plan for horses? • What is the current training plan for the soldiers as riders and horsemen? • What is the current training plan for those responsible for training horses and riders? • What is the current training plan for stable hands, grooms, and other support staff? • What are the equine industry standards for training of horses and riders? • What processes are in place for assessing and certifying the horses and riders for the caisson mission? • What are the criteria or processes for decertifying horses or riders if they no longer meet caisson mission standards?
Acquisition and equipment	<ul style="list-style-type: none"> • What processes are currently in place for the purchase of horses, and what selection criteria are used? • What tack and equipment are currently available for horses and riders? • What additional equipment is required, or what existing equipment needs upgrading or maintenance? • Is there an acquisition strategy already in place for the horses and equipment? Have you seen or could you provide an acquisition strategy for a comparable herd?

Table C.2—Continued

Question Category	Questions
Personnel	<ul style="list-style-type: none"> • How many positions are required to manage and care for the horses? What are these roles, and are any of them currently outsourced? • Should any of these roles be contracted or outsourced? (e.g., farriers, veterinarians, horse trainers, horse procurement personnel, stable manager, herd manager) • What are the specific roles and responsibilities of positions in the Caisson Detachment? (e.g., farriers, veterinarians, horse trainers, horse procurement personnel, stable manager, herd manager) • What specific knowledge, skills, and behaviors are required for each role within the Caisson Detachment?
Facilities	<ul style="list-style-type: none"> • What issues exist with the previous facility, and are there renovation or retrofitting plans already in place? • How much pasture and grazing land is currently available for the Caisson Detachment horses? • How often do inspections of the facilities occur? How are inspection findings addressed and corrected and under what authority? • What are the minimum standards for the facility, and how do they compare with industry standards?
Concluding questions	<ul style="list-style-type: none"> • Are there any other issues you would like to highlight or discuss? • Are there any questions we should have asked but did not? • Are there any colleagues, organizations, or contacts that you feel would be willing to speak with us and might offer a unique perspective? • Are you able to provide us with any additional documentation related to the issues we discussed today?

**TABLE C.3
Interview Codebook**

Parent Code	Child Code
Health of working horses	<ul style="list-style-type: none"> • Veterinary support standards • Veterinary assessment frequency • Age requirements for working horses • Retirement process and veterinary standards for retirement • Exercise • Nutrition • Previous or current issues with or updates on horse health • If another case, then: health of working horses (vet assessment, minimum age, retirement age) • Stress of trailering • Veterinary and behavioral issues with horses • Other suggestions for horse health (recommendations)
Number of horses to meet requirements; rest and work cycles	<ul style="list-style-type: none"> • Missions that this interviewee thinks horses are currently doing, should do, or are going to do • Number of horses or squads necessary to meet work requirements • Rest and work cycle standards • If another case, then: number of horses in their herd • If another case, then: horse work requirements and rest and work cycles • Breed of horse for the job

Table C.3—Continued

Parent Code	Child Code
Doctrine	<ul style="list-style-type: none"> • Existing or lack of doctrine • Standard processes for horses • Standard procedures for feeding and nutrition • Training protocols for riders and soldiers • Lack of standardization or formalization for protocols • Any other documentation suggested or recommended • If another case, then: their documentation, standards, protocols • Suggestions for the future
Organization	<ul style="list-style-type: none"> • Role distribution among soldiers, veterinarians • Vet integration with unit • Chain of command issues (i.e., platoon to detachment, any position) • Caisson detachment culture • Funding and resource issues • Organizational silos and issues with collaboration • If another case, then: organizational structure
Training	<ul style="list-style-type: none"> • Previous training for horses • Previous training for riders and soldiers; riders' experience and training • Training plan for trainers • Training recommendations or plan for horses • Training recommendations or plan for riders • Impact of failures in training • If another case, then: their training structure, syllabi, personnel
Acquisition and equipment	<ul style="list-style-type: none"> • Current horse procurement procedures and strategies • Recommendations for horse procurement procedures and strategies • Horse procurement selection criteria • Historical or current issues with tack and equipment • Recommendations for tack and equipment • If another case, then: horse procurement, tack acquisition • Previous horse procurement issues
Personnel	<ul style="list-style-type: none"> • Horse care positions • Stable maintenance positions • Soldier positions • Farrier positions and requirements • Veterinarian positions and requirements • Stable and herd manager position • Horse procurement personnel positions and requirements • Civilian, contractor, and military balance (challenges) • If another case, then: horse personnel in their stable • Lack of equine expertise in key positions • Longevity of careers in caisson • Issues with leadership • Trainer position
Facilities	<ul style="list-style-type: none"> • Previous or current facility issues • Facility recommendations, plans, updates and construction • Requirements for horse grazing and turnout • Industry standards for facilities (i.e., stable size, pasture size) • If another case, then: their facilities, any restrictions they face • NEC opinions • Facilities (past)

NOTE: Child codes that begin "If another case" reference comparative case notes, and this code was used only for comparative cases.

Abbreviations

ANC	Arlington National Cemetery
ARNORTH	U.S. Army North
ATP	Army Techniques Publication
C\$	Canadian dollars
CMF	career management field
DATR	Defence Animal Training Regiment
DOTMLPF	doctrine, organization, training, materiel, leadership and education, personnel, and facilities
FY	fiscal year
JBMH	Joint Base Myer–Henderson Hall
JBSA	Joint Base San Antonio
MOS	military occupational specialty
MTOE	modified table of organization and equipment
MWD	military working dog
MWE	military working equine
NCO	noncommissioned officer
NDAA	National Defense Authorization Act
NEC	NOVA Equine Center
NYPD	New York City Police Department
R&R	rest and relaxation
RCMP	Royal Canadian Mounted Police
SME	subject-matter expert
SOP	standard operating procedure
TDA	table of distribution and allowances
TOE	table of organization and equipment
TOG	The Old Guard
USAMDW	U.S. Army for the Military District of Washington

Glossary

arena	a large, sectioned off area for horse riding and training
bedding	usually, organic materials placed on stable floors to provide comfort and support for horses while resting or standing
billets	military assignments detailing the duties, tasks, and required skills for specific position
bitting rig	a training apparatus that helps a horse become accustomed to wearing a bridle and bit
crossies	a type of equipment used to secure a horse between posts or walls, ensuring that the horse remains stable and centered
desensitization	a training method used to reduce a horse's sensitivity to unfamiliar objects or situations, making them more adaptable
docking	amputation of the distal, boney part of a horse's tail
draft	a heavy horse breed built for pulling large loads, typically weighing more than 1,600 pounds and standing taller than 16 hh
draft cross	a horse that is a cross between a draft horse and another breed
driving	hitching equines to a wagon, carriage, cart, or other vehicle by means of a harness
equitation	the skill and practice of riding and horsemanship
farrier	a professional who specializes in equine hoof care, including trimming and shoeing
gelding	a castrated male horse
gravel impaction	a painful condition caused by the ingestion of large amounts of gravel that can accumulate in and damage a horse's gastrointestinal tract
grooming, groom	the act of maintaining a horse's appearance and well-being; a groom is responsible for the horse's daily care
hand (hh)	a measurement unit used to determine a horse's height, measured from the ground to the top of the withers (shoulders)
harness	equipment used to attach a horse to a vehicle or wagon for pulling
harness training, driving training	the process of training horses to pull vehicles using harnesses
jump	the action of a horse and rider clearing an obstacle by jumping over it
lameness	a limb condition causing abnormal movement or posture in a horse, often because of pain or injury

mare	a female horse
McClellan saddle	a riding saddle designed by U.S. Army Captain George B. McClellan and adopted by the Army in 1859
metal grips	metal devices added to horseshoes to improve traction
mounted	refers to riding or sitting on a horse
mustang	a small, hardy wild horse native to North America
pasture	a grassy area suitable for grazing animals
Percheron	a strong draft horse breed, typically gray or black in color
postilion	a rider guiding a horse-drawn coach or chaise while mounted on a horse or one of a pair of horses
reflocking	the process of removing and replacing the wool in a saddle's panels to improve comfort
riding helmets	protective headgear for horse riders
round pen	a circular enclosure used to train horses
saddle fitting	the process of adjusting a saddle to ensure it fits comfortably and effectively on a horse
saddle pads	pads inserted under a saddle to improve its fit and protect the horse's back
soundness	a term referring to a horse's overall health, indicating the horse is free of issues that could affect its performance
spurs	pointed devices attached to a rider's bootheels, used to encourage a horse to move forward
stallion	an uncastrated male horse, often kept for breeding purposes
stirrups	footrests attached to a saddle that provide support and balance for the rider
tack	equipment and accessories used for handling, riding, and caring for horses
teeth floating	routine dental maintenance for horses that involves removing the sharper enamel points in a horse's teeth by filing them down
Thoroughbred	a purebred horse breed known for speed and stamina, often used in racing
tree	the underlying framework of a saddle, designed to distribute a rider's weight more evenly
turnout	a pasture or field where horses can run, play, and socialize freely
under-saddle training	the process of teaching a horse to be ridden
warmblood	an athletic, agile horse that is typically trainable and has a calm temperament, often used in equestrian sports
washrack	an area to wash a horse's legs

Western saddle	saddles specifically designed for Western-style riding
Western-style riding	a type of riding using a Western saddle, a long, upright posture, light rein contact, and, often, a one-handed hold on the reins

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In 2022, the deaths of two horses revealed issues within the U.S. Army Caisson Detachment, which conducts full honor funerals at Arlington National Cemetery. To understand the causes of these issues and develop recommendations for a better path forward, the authors conducted an extensive literature review, interviewed 70 equine experts and Army or government personnel, visited several domestic and international equine facilities, and performed six case studies of equine herds analogous to the Caisson Detachment's herd.

The authors' analysis revealed several findings related to the Caisson Detachment's doctrine, organization and leadership, personnel, training, materiel, and facilities, and the authors developed specific recommendations within these topics. Their findings included problems with resource limitations, a lack of sufficient equine expertise in the unit, and brief tenures and contrasting missions for the Caisson Detachment's soldiers. To address these and other issues, the authors recommend three paths forward for the Army: (1) Rethink Army maintenance of these historic operations, (2) modernize operations in line with recent equine science and best practices, and (3) improve day-to-day operations at the ground level. While each option will present unique costs and challenges for the Army, all three options are undergirded by a horse-first approach to the Army's caisson operations, which is essential to ensure a sustainable future for the Army caisson horses.

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