

## Report on Visit to Piñon Canyon Maneuver Site (PCMS) October 8, 2010

Our tour of PCMS began with a short meeting at the on-site headquarters area at 9:00 AM. Among those present were PCMS staff, including archeologists and PCMS staff Pam Miller, Mark Owens, and Wayne Thomas (Pam's new boss and NEPA/NHPA specialist); CHS-OAHP staff Shina DuVall and Dan Corson; Peterson AFB assignee Tim \_\_\_\_\_; and CCPA representatives Lucy Bambrey and myself (Diane Rhodes). Fort Carson staff began the meeting by explaining that a training exercise called "Warhorse Rampage" held in August 2010, involving the 2nd brigade of the 4th infantry, entered some areas of the PCMS where cultural resources surveys had not yet occurred, or where trainees were unaware of sites. This was the first time that Fort Carson had held mechanized training across open ground at PCMS in ten years. Unfortunately the compliance process for the August training failed, and Fort Carson staff need to reevaluate how to handle such operations in the future.

During the exercise tanks established fighting positions on the high ground by bulldozing large holes some 8 to 12 feet (2.4 m to 3.7 m) deep and 65 to 96 feet (20 to 30 meters) long. After the exercise was over, the holes were refilled and the ground leveled. In some areas bedrock is only 7.9 to 15.7 inches (20 to 40 centimeters) below the ground surface so the rock was excavated as well. Thirteen trenches were dug (6 on the south end of the project area and 7 on the north). Two of the trenches in the southern end were dug in unsurveyed areas without any cultural resource monitoring or permits; seven areas in the north end also lacked digging process permits. Pam explained that normally a digging request would have been rejected for areas that had not been surveyed. She and her staff help plan for exercises in surveyed areas. Upon learning about the training, the archeologists inspected the sites.

Overall Pam and her staff looked at 224 sites in the training area; they examined sites previously defined as "needs data" as well as those sites eligible for the National Register. During the exercise 39 sites were impacted (e.g. damage is defined as breach of a site boundary by the training exercise). The damaged sites were not in the unsurveyed area. To check for potential damage staff drove the tank tracks. Because the exercise was conducted in rainy weather, tank tracks left deep ruts (up to about 2 feet deep in some areas). They hope to have surveyed the rest of the currently unsurveyed 4,000 acres by spring. They plan to do a Section 106 compliance action to conduct a controlled burn in areas containing prehistoric sites to better identify sites and site resources. They hope to survey Lockwood Canyon by spring also.

Types of impacts were defined as ranging from no impact (dry compacted grass <4 cm deep and no site disturbance), moderate impact (ca. 10 cm depth disturbance on or near a site feature), high impact (>20 cm and perhaps over a feature). They checked the site forms to help evaluate whether there was damage to site features. They do not think that there were high impacts to sites; they have examined five sites and found no damage to archeological resources. Some new features were revealed by Mother Nature but no new features were exposed by the training.

What went wrong? The garrison commander is still investigating. Pam indicates that, in an attempt to keep the location of exercises secret from the public, the Army failed to let the soldiers know of the compliance procedures. In the future they plan to identify some of the National Register eligible

archeological sites on paper maps (but not all sites). At the end of the day no one would be able to take the maps with them. For tanks, the weapons platform will have on-the-ground digital locations for sites so that soldiers know where not to hit. Sites needing evaluation and needing data would also be in the digital system. Staff will have cultural resources information during the planning process at the Brigade level. They will fence some sites; there are about 70 sites that need fences and about 350 need data. They cannot fence all sites so they will do those that are at greatest risk. No fences were breached during the August exercise. Unfortunately at night fences are less effective; they will consider using boulders. Tank drivers know not to drive between two stakes with reflectors (cyber stakes). They will talk to trainers to see what is most effective.

Canyons as training areas are being considered. Soldiers would dismount from vehicles and walk outside the road. The Army would change their approach to incorporate cultural sites into planning for a training area. There are fewer fenced sites in the walk-in only areas. Would put cyber stakes around the sites to give visual as well as digital identification. They do not identify what types of sensitive resources are on the maps. All of the tracked vehicles and command vehicles have digital equipment.

How does planning for maneuvers relate to Section 106? Training is an undertaking but there are all sorts of training (e.g. firing at a firing range requires no Section 106--it is an established facility with previous 106). They have also already consulted with ACHP (see their web site) for the SDZ (surface danger zone) concluding that no bullets would go outside the fan zone. They mitigate by design to avoid resources. While the ranges are active, they do not go out there (e.g. UXO/safety concerns). When ranges are active, they are exempted from Section 106.

SHPO staff noted that the Army should do the little stuff in the PA first, and that compliance for training across open land differs from convoys on existing roads. The concept of the PA covers a wide range of actions and site types. The PA is important because SHPO office sees far too many single requests that could have been handled in a PA.

Pam indicated that the PA is done and ready for internal review. They will have to discuss it internally. Timing makes it difficult for them to conduct Section 106 in a timely manner (e.g. too often training planning occurs on site or just a week before). At the brigade level it is a bit longer. As an event gets bigger, more things are involved. However, remember that all training is not identical; some training activities dig holes and some do not. They are looking at the digging exercises; sometimes these have very short notice and they'll need to consult. SHPO staff urges them to have a PA that is easy to understand and that clearly defines what is important.

At the 20th of September meeting, the Army met with the public and took them on a tour. There were 30 to 40 people there, including public interest reps, Senator Udall's office, Jean Aguerre [sic], but no CPI. The Army has included tribes such as the Jicarilla in consultations. Many of the folks that attended the meeting expressed interest in natural resources--asking how the Army would rehab tank ruts, repair maneuver damage, make sure holes are filled in.

IMCOM-- RC funds full time observers (contractors) throughout the year to do ITAM and L Rehab?????????. They collect data all year on natural resources, document damage, and make

recommendations re: rehabilitation (adding soil, reseeding, etc.). They may rehab an area each time or otherwise harden the site. FOBs (forward operating bases) are areas best suited for use. The commander decides what training occurs and the RC guys know the best places. They use 50 mm ammunition and below in designated ranges; also 203 grenade launchers. The weaponry is not true high explosives.

Pam indicated that we will go north first to OP4 where two trenches were cut. They have looked at the various ranch structural resources on the PCMS for safety and integrity but there are some that need repairs. The Army will see if it's economically feasible to use these buildings for training. However they plan no aggressive training in those facilities; they could? do? have a headquarters facility set up for communications. The ranch buildings are part of their backlog but they treat them gently; they are not included in an "attack situation." The Army would go through consultation for these structures.

We left for the tour at about 10:20. Mark (our driver) explained that Wayne Thomas takes a more holistic view of the world than most and is most appreciative of cultural resources.

We drove through Range 9. Mark reviewed some of the area history and archeology. Army planners want to get into the canyons to practice canyon training because the terrain is similar to Afghanistan. Wayne was able to obtain funding to survey Lockwood Canyon. The recent training was in "hasty attack" mode.

Enroute to the first stop, straight lines (ruts) from tanks could be observed running across the grasslands in many areas. Re: cultural resources: the Army has been working with the US Forest Service on the dinosaur tracks. Bruce Shumaker dug a big allosaurus in PCMS. A branch of the Santa Fe Trail ran along the north boundary of the cantonment. The Army needs more time to evaluate the trail. The Barlow and Sanderson Stage Line also ran thru PCMS. Shina indicated that Astro\_\_\_\_\_[sic] is working on a visual effects analysis of Otero and Las Animas counties, especially sites like the Santa Fe Trail. No Section 106 has yet been done on the training action; that needs to be done. The Kiowa and Jicarilla have visited the PCMS but have not, as yet, expressed an interest in collecting plants. A possible conflict exists between collecting plants for cultural purposes and protecting plants that may be sensitive (threatened or endangered).

The following pictures were taken at the first stop--an area where tank defoliation occurred.



Looking NE across partially restored area.



Looking SE from edge of tank area; note slight rise that provided line of sight protection for the tank.



Looking NW from W edge of tank area.

When choosing where a tank defoliation will occur they have three levels where a vehicle would be hidden--completely, turret high, or? They use 70 ton Abrahams which can fire accurately at 70 mph. The military also use Bradley's.

We went next to site5LA 8694, a NR eligible historic site with a collapsed dugout, well, and stone features. The site has suffered moderate disturbance from erosion and mechanized military vehicles.



Stone lined well at site 5LA8694.



Projectile point found at 5LA8694.





Roof members from collapsed dugout.



Tank tracks in vicinity of 5LA8694.



Tank damage to one of the features at 5LA8694.

We drove to site 5LA9188. The site form indicates that this prehistoric site containing chipped and ground stone tools and debitage is not eligible for the NR due to almost complete disturbance (in the past) by tracked vehicle maneuvers. During evaluation of the site, three new features were identified.



Tracked vehicle ruts near site 5LA9188.



Newly discovered features (5LA9188) are in the background.



Mark Owens (center) describing site features at 5LA9188 to Dan Corson and Tim \_\_\_\_\_.

The following pictures show tracked vehicle ruts that have been troweled smooth/faced by PCMS archeologists to check for any potential subsurface resources. No resources were seen.



We next travelled to site 5LA4940 (below).



Site 4940, looking NNE. We had lunch here. Mark Owens noted that there are numerous teepee rings at the heads of the canyons. The Apache have interests here. The Air Force practices touch and go at PCMS. DU did site forms for the fenced areas on PCMS.





More ruts near 5458.

We then drove to the Cowboy Springs site (no site form for this one at CHS?). PCMS staff will see that CHS gets a copy of the form.



Looking SE at Cowboy Springs.



Some of the historic inscriptions at Cowboy Springs.



More inscriptions.



Stream at base of historic inscriptions



The above photograph is a view to the NE of Cowboy Springs. The Bridge Fire went through this area two years ago, helping to reveal prehistoric check dams.

The Army has classes for contractors and the military; these include modules on cultural resources conservation. The Cheyenne and the Jicarilla have sacred sites at PCMS. The Army is working on a cooperative agreement with Native Americans.

We drove through several IED "villages" -- modern structures erected to simulate Afghan buildings. The Army expects to use more of PCMS. Sites are being re-evaluated on a piece by piece basis (e.g. the archeologists visit sites after each training program to evaluate effects of that training). They have to figure out how to deal with ca. 400 sites before next summer, including deciding how to deal with mitigation measures in the PA.

SHPO suggests creative integration. Don't get mired down in eligibility discussion and move forward with mitigation measures. Assume adverse effects and anticipate what kind of mitigation could be implemented so agreement can be reached on mitigation. CCPA can help and has helped the Army learn that training IS an undertaking. CCPA should write a letter also. They assisted by meeting on the AAP at Fort Carson, writing a letter on the process. The current Colonel stresses transparency.



Looking SSE at one of the fenced sites.

Drove to site 5LA2316, a historic site with several features, including a partial stone shelter for livestock.



Looking north at architectural remains at site 5LA2316.

Late in the day, the remainder of the tour group left and Mark took Tim, Lucy, and I to the Hogback to see the petroglyphs.