

Site OE-70

(Unnamed)

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ATTACHMENT

70-A	Evaluation of Previous Work Checklist
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SITE OE-70 (UNNAMED)

3.70 Site OE-70 (Unnamed)

A summary report for Site OE-70 is provided below. This report consists of two parts. The first part, contained in Sections 3.70.1 through 3.70.5, includes a presentation and assessment of archival data. Specific elements include a review of site history and development, evaluation of potential ordnance at the site, a summary of previous ordnance and explosives (OE) investigations, and a conceptual site model. The above-mentioned information was used to support the second part of this report, which is the Site Evaluation (Section 3.70.6). The Site Evaluation was conducted in accordance with the procedures described in the *Final Plan for Evaluation of Previous Work (HLA, 2000)* and may restate some information presented previously. The Site Evaluation discusses the evaluation of the literature review process (Section 3.70.6.1) and evaluation of sampling process(es) (Section 3.70.6.2). These discussions are based upon information from standardized literature review and sampling review checklists (Attachment 70-A). Section 3.70.7 provides conclusions and recommendations for the site. References are provided in Section 3.70.8.

3.70.1 Site Description

Site OE-70 is approximately 14 acres in size and is located on the southeastern side of the former Fort Ord (Fort Ord), south of Oil Well Road (Plate 70-1). An area encompassing Site OE-70 (Area AO) was identified as an area that contained firing berms during interviews conducted with former Fire Chief Mr. Fred Stephani as part of the Fort Ord Archive Search Report (ASR; *U.S. Army Engineer Division, Huntsville [USAEDH], 1997*).

3.70.2 Site History and Development

The following presents a summary of the site history and development that is based on archival research and review of historical training maps and aerial photographs. Plates have been prepared that present pertinent features digitized from historical training maps and scanned aerial photographs reviewed by Harding ESE. It should be noted that minor discrepancies between source maps, combined with the natural degradation of older source maps and photographs, has resulted in misalignment of some map features. In addition, camera angle and lens distortion introduced into older aerial photographs, combined with changes in vegetation and site features over time may contribute to the misalignment of some map features with respect to the aerial photographs.

1940s Era

This site lies within a tract of land purchased from private landowners by the government after July 1940 (*Arthur D. Little, Inc. [ADL], 1994*). Review of 1940s era documentation including historical maps and aerial photographs indicate no specific training sites were in use in the area. Area "AO" was reportedly used as a training area prior to 1948 (*USAEDH, 1997*). The following identifies the results of the 1940s historical review.

- The 1945 and 1946 training maps show no features or training sites in the Site OE-70 vicinity (*U.S. Army [Army], 1945a and 1946*).

- An aerial photograph from 1945 shows no features or disturbed areas with the site boundary (Army, 1945b).

1950s Era

No training areas are shown in this location on 1950s Fort Ord training facilities maps.

- The 1954 and 1956 training maps show Site OE-70 within the training area for the “Division Artillery” (Army, 1954 and 1956).
- The 1957 and 1958 training maps show Site OE-70 within the larger general training area for the “1st Brigade” (Army, 1957 and 1958). The mission of the 1st Brigade was to conduct basic combat training (Army, 1968).

1960s Era to Present

Review of 1960s through 1980s training maps show that no specific training areas are present within or near the site area. The 1964 through 1972 (Army, 1964 and 1972) training maps indicate that Site OE-70 is included within a larger training area “R (G-3).” On Army maps from 1976 through 1987 (Army, 1976 and 1987), the site lies with the larger training area “N (1st brigade).” More specific data are provided below:

- An aerial photograph from March 13, 1969, shows no indication of a defined training area. It appears that construction of the “El Toro Housing” is ongoing (outside the Fort Ord boundary, approximately 3,000 feet from the site).
- The 1975 and 1978 aerial photographs show no features or cleared areas. The “El Toro Housing” is clearly evident outside of Fort Ord’s boundary.
- Site OE-70 is within the Noise Buffer Zone and within the larger training area “N” (1st brigade) on Ranges and Training Area Overlay maps from 1978 through 1987 (Army, 1978). Almost all of Site OE-70 is included within the Noise Buffer Zone. Within the Noise Buffer Zone, “No firing of Blank Ammo: Pyrotechnics, Explosives or simulators” was allowed.

Proposed Future Land Use

Site OE-70 lies on undeveloped property that was transferred to the Bureau of Land Management (BLM) in 1996. Future reuse of this area will be habitat reserve under the jurisdiction of the BLM (U.S. Army Corps of Engineers [USACE], 1997). The property is open to the public for hiking, biking, and horseback riding with use restricted to marked trails.

3.70.3 Potential Ordnance based on Historical Use of the Area

Based on evidence from interviews indicating the presence of firing berms in this area, it is expected that small arms ammunition was used within the site. No evidence has been found that would indicate use of OE or pyrotechnics.

3.70.4 History of OE Investigations

The following describes the OE investigations that have been conducted at Site OE-70.

1997 Revised Archives Search Report (ASR)

The purpose of the archives search conducted at Fort Ord was to gather and review historical information to determine the types of munitions used at the site, identify possible disposal areas, identify unknown training areas and recommend follow-up actions. The archives search was conducted in accordance with U.S. Army Corps of Engineers guidance (*USAESCH, 1995*). The archives search included a Preliminary Assessment/Site Investigation (PA/SI) consisting of interviews with individuals familiar with the sites, visits to previously established sites, reconnaissance of newly identified training areas, and the review of data collected during sampling or removal actions. Requirements for preparation of an ASR are described in Section 2.0 of this report.

An area encompassing Site OE-70 (Area AO) was identified as a suspected OE site during interviews conducted as part of a Fort Ord archive search (*USAEDH, 1997*). Mr. Stephani stated that area AO was used as a training area prior to 1948 and that there is evidence of firing berms in the flat area.

No sampling of Site OE-70 for OE has occurred. A site reconnaissance was conducted in 1995 by a USACE Unexploded Ordnance (UXO) Safety Specialist. The site visit involved walking a portion of the site and sweeping the path walked using a Schonstedt Model GA-52/C magnetometer for detection of surface and subsurface ferrous anomalies. A map of the area covered by the site reconnaissance performed for Area AO (Site OE-70) is not included with the Risk Assessment Code (RAC) worksheets. No OE items or evidence of OE were encountered during the site walk. Additionally, no evidence was found to support the use of Site OE-70 as an impact area (e.g., fixed targets, fragmentation, fuzes, or projectile cases). On the basis of the reconnaissance performed, no further OE-related investigation was recommended in the ASR (*USAEDH, 1997*).

2001 Basewide Range Assessment

Site OE-70 was investigated as part of a basewide range assessment (BRA) for small arms and multi-use ranges currently being conducted at Fort Ord. The assessment of Site OE-70 for potential hazardous and toxic waste included data review, site reconnaissance, and mapping of the site. For the BRA, the areas of investigation were identified as Historical Areas (HA). Site OE-70 was identified as HA-200. Prior to conducting the site reconnaissance, a review of historical maps and aerial photographs was conducted. Areas of interest (e.g., training area boundaries, disturbed vegetation areas, and roads) were identified and their locations (way points) loaded into a Global Positioning System (GPS) unit. The site reconnaissance was conducted by a two-person team that included an OE Specialist and a second team member trained in OE recognition. The site reconnaissance included walking portions of the site and navigating to the way points using a GPS unit (Plate 70-2). Only expended blank small arms ammunition was found during the site reconnaissance conducted at HA-200. Non OE-scrap (concertina wire) and a pit were also observed.

2003 Site Walk

A site walk was conducted at Site OE-70 on October 23, 2003. The site walk consisted of walking a portion of the site and visually inspecting the path and area immediately surrounding it for evidence of OE. The path walked was recorded using a GPS unit. No ordnance related items or evidence of the use of OE were found during the site walk performed at Site OE-70. Expended blank small arms ammunition was observed. A description of the site walk is included as an attachment to Appendix C of this report.

3.70.5 Conceptual Site Model

Conceptual site models (CSMs) are generally developed during the preliminary site characterization phase of work to provide a basis for the sampling design and identification of potential release (functioning of the OE item; e.g., detonation) and exposure routes. CSMs usually incorporate information regarding the physical features and limits of the area of concern (the site), nature and source of the contamination (in this case OE), and exposure routes (potential scenarios that may result in contact with OE).

A review of site-specific information including a literature search of aerial photographs, maps, technical manuals, and field observations did not identify any specific training locations/areas within the boundary of Site OE-70. A CSM for this site is provided on Plate 70-3. It is provided to help evaluate the adequacy of the investigation completed to date and to identify potential release and exposure pathways.

3.70.5.1 Training Practices

Training practices are discussed below to provide information on the types of OE that may have been used at the site and the possible location of OE potentially remaining at the site.

Maneuver Area

This site is within larger troop maneuver areas identified on Fort Ord training maps. A maneuver area may have included using the site for squad patrols. Squads conduct three types of patrols: reconnaissance, combat and tracking (*Army, 1992*). Each patrol includes specific objectives using infantry troops, sometimes with engineer support, to gather information or conduct combat operations. Combat patrols would include the use of blank ammunition and possibly pyrotechnics (signals).

No evidence was found and no indications were observed that would identify the type of OE (if any) that could have been used at Site OE-70.

According to interviews, there were firing berms at the site. Training maps and Fort Ord historical documents provide no evidence that indicates the type of ammunition that would have been used at the firing berms. From 1978 through base closure the use of blank ammunition, pyrotechnics, explosives or simulators was prohibited in this area.

Evidence of expended blank small arms ammunition found during the 2001 reconnaissance supports the use of the area for general maneuver training.

3.70.5.2 Site Features

The site was identified through interviews as having firing berms. No other training features have been identified from literature review. The site lies adjacent to the former Fort Ord boundary and is predominantly within grasslands. The 1978 through 1987 Army maps indicate that almost all of Site OE-70 is within a Noise Buffer Zone. Within the Noise Buffer Zone “No firing of Blank Ammo: Pyrotechnics, Explosives or simulators” was allowed.

3.70.5.3 Potential Sources and Location of OE

No evidence was found to indicate what type of training, associated with the firing berms may have occurred. Because this site lies within a larger maneuver area the possibility exists that pyrotechnics

(signals) may have been used here prior to 1978. However, no evidence of the use of pyrotechnics or other OE (e.g., fragmentation, fuzes, projectile casings) was observed during site reconnaissance. The only evidence of training observed at Site OE-70 was the presence of expended blank small arms ammunition, non-OE scrap (concertina wire) and an open pit.

3.70.5.4 Potential Exposure Routes

This site is within land transferred to the BLM and is open to the public for hiking, biking, and horseback riding. Use is restricted to marked trails. The public has had access to this area for approximately 6 years. To date, no instances of OE items being found by the public in this area have been reported. Because no OE items were discovered during site reconnaissance, or reported previously, it is unlikely that a potential exposure by the public to OE exists at this site.

3.70.6 Site Evaluation

The available data (e.g., archival and reconnaissance data) regarding Site OE-70 were reviewed and evaluated according to procedures described in the Final Plan for Evaluation of Previous Work (HLA, 2000). The evaluation process is documented through the completion of a series of checklists. Copies of the checklist are provided as Attachment 70-A. This section presents a summary of the results of the checklist evaluation. It is divided into two sections, an assessment of the literature review and an assessment of the reconnaissance performed at the site.

3.70.6.1 Literature Review

Type of Training and OE Expected

As part of the archives search, an interview was conducted with Mr. Fred Stephani. Mr. Stephani served as a Fort Ord fire fighter from 1942 until 1944 at which time he left the Fort Ord fire department and joined the Army. Mr. Stephani returned to the Fort Ord fire department in 1947 where he worked until he retired as Fire Chief in 1978. According to Mr. Stephani, Area "AO" was reportedly used as a training area prior to 1948. Mr. Stephani also stated that, "There is evidence of firing berms in the flat area." No training areas are shown in this area on any of the Fort Ord training facilities maps. The 1964 through 1972 training maps indicate that Site OE-70 is included within a larger training area "R (G-3)." Evidence of training is limited to expended blank small arms ammunition non-OE scrap (concertina wire) and a pit found during the 2001 BRA site reconnaissance.

Subsequent Use of the Area

Based on interviews, this area was used prior to 1948 and apparently, there is evidence of firing berms within the site area. The land that includes Site OE-70 was transferred to the BLM in 1996 and will remain undeveloped. The land is open to the public for recreational use such as hiking, biking, and horseback riding.

Establishment of Site Boundaries

According to the ASR, Area AO (Site OE-70) was identified during interviews with Mr. Stephani. No specific training areas or features are shown in the site vicinity on any Fort Ord training facilities maps. Aerial photographs show no structures, permanent features, or clear indications of a defined training area. The review of aerial photographs does not provide evidence that could be used to establish site boundaries.

Summary of Literature Review Analysis

A review of Fort Ord-specific documentation including training facilities maps and plans, aerial photographs, and the Archives Search Report indicates that Site OE-70 was included within larger training and maneuver areas. No specific training activities are identified within Site OE-70. An interview conducted as part of the archives search indicated that there was “evidence of firing berms in the flat area.” A site walk conducted as part of the archives search found no evidence to support the use of Site OE-70 as an impact area. On the basis of the literature review no further OE-related investigation is warranted.

3.70.6.2 Preliminary Assessment/Reconnaissance Review

This section describes the items that were found during reconnaissance and how these items support historical information concerning past use of the site. The site boundaries are assessed in terms of the items found. Discussions regarding the reconnaissance methods and quality control measures used during the site investigation are also presented in this section.

Three site field evaluations have been conducted at Site OE-70. A site reconnaissance was conducted in 1995 by a USACE UXO Safety Specialist. The object of the evaluation was to determine whether sites identified during the ASR Preliminary Assessment/Site Investigation (PA/SI) required further action. The second evaluation was conducted in 2001 as part of the Fort Ord BRA. Site OE-70 was identified during interviews as an area that includes firing berms. The site reconnaissance was conducted to determine whether sampling for residual lead associated with small arms ammunition use was warranted. The third reconnaissance, conducted in October 2003, was performed to fill gaps in reconnaissance efforts conducted previously at this site.

Reconnaissance Methods Discussion

The site reconnaissance conducted in 1995 was completed as part of the PA/SI phase of the archives search for known and suspected OE sites at Fort Ord. Several areas of potential ordnance use were identified based on information gathered during interviews conducted as part of the PA/SI. Site OE-70 was identified as Area “AO” and was reportedly used as a training area prior to 1948. The ASR states that there is evidence of firing berms in the flat area.

A USACE UXO Safety Specialist walked a portion of the site visually searching the path walked while simultaneously searching for subsurface OE using a magnetometer. No evidence of OE including small arms ammunition was encountered during the site walk of the area. No evidence of fragmentation, fuzes, or projectile cases was observed. No evidence of other types of training or use as an impact area was identified as a result of reconnaissance. The USACE UXO Safety Specialist assigned Site OE-70 a Risk Assessment Code (RAC) score of 5, which indicates that no further OE-related investigation is necessary. The recommendation of no further OE-related investigation was reviewed by the Ordnance and Explosives Mandatory Center of Expertise (MCX) and Design Center (Army Corps of Engineers Huntsville Division [CEHND]). The CEHND reviewed the recommendation and agreed that no further OE-related investigation was necessary at Site OE-70 (*USAEDH, 1997*).

The Fort Ord BRA reconnaissance was conducted in 2001. The site reconnaissance was conducted by a two-person team that included an OE specialist and a second member trained in OE recognition. Prior to conducting the site reconnaissance, historical features were identified from training maps and aerial photographs and their locations entered into a GPS unit (way points). The team then conducted the site visit using a magnetometer to detect OE as they navigated to the way points. The path of the site walk

was recorded digitally with the GPS unit. The following features or items were required to be mapped if present based on a visual search of the site as part of the BRA reconnaissance: 1) targets; 2) firing lines; 3) range fan markers; 4) survey bench marks; 5) areas of stained soil that could indicate petroleum hydrocarbon or bulk explosives contamination; 6) OE or OE scrap; 7) potential sample locations based on, a) the presence of spent ammunition (lead) (accumulations of 1 to 10 percent and areas exceeding 10 percent), or b) accumulations of OE or OE scrap; 8) other training related features (e.g., fighting positions, fox holes, etc.); and 9) areas of thick vegetation that could limit access to the investigation area. The path walked during the 2001 reconnaissance is shown on Plate 70-2. Evidence of expended blank small arms ammunition was found during the site walk. Based on the absence of features including targets; range markers; berms; and OE such as projectiles, pyrotechnics, and high explosives, no further action for chemical residue was recommended for Site OE-70 under the Fort Ord BRA.

The most recent site reconnaissance involved walking a portion of the site and performing a visual survey of the path walked as well as the area immediately surrounding the path. The site walk team also carried a GPS unit to record the path of the reconnaissance. No ordnance related items or evidence of the use of OE were found during the site walk performed at Site OE-70. Expended blank small arms ammunition was observed. A description of the site walk is included as an attachment to Appendix C of this report.

Site Boundaries Review

The boundary of Site OE-70 was established through the archives search, which included interviews and site visits. The review of aerial photographs and training maps provided no additional information that would help define the site boundary. No specific training locations were identified from the two site reconnaissance conducted at Site OE-70, and there is no indication the site boundary should be modified.

Quality Assurance/Quality Control

The site reconnaissance conducted as part of the PA/SI was performed in accordance with USACE guidance (*USACE, 1995*). The site reconnaissance is conducted to look for evidence of past ordnance use. Visible evidence found during the site reconnaissance provides information on the type, extent, and magnitude of ordnance present. Physical features that may be present at a former site include impact craters caused by penetrating ordnance, the presence of OE and/or OE scrap on the ground surface, and soil staining associated with the use of bulk explosives. Upon completion of the reconnaissance at each site a Risk Assessment Code (RAC) worksheet was completed and submitted to the Mandatory Center of Expertise (MCX) and Design Center (CEHND) as required (*USACE, 1995*).

Although the Fort Ord BRA is not a part of the OE program, many of the Data Quality Objectives (DQOs) identified for the Site Assessment Phase of the BRA investigation are the same DQOs established for the site reconnaissance phase of the current OE site investigation program being implemented at the former Fort Ord (*Parsons, 2001*). The DQOs for the BRA and the OE investigation program identify similar inputs to the decisions used to help answer questions regarding historical site use and to define the boundaries of the area of use. The DQOs for the OE investigation program site reconnaissance identify various inputs to the decision such as compilation of historical information regarding potential OE at the site (e.g., the review of interview records, field notes, aerial photographs, and historic maps). The DQOs for the BRA historical review identified similar sources of information including the review of interview records, historical maps, and aerial photographs. As part of the DQOs for a site inspection conducted for the OE investigation program, documentation of the type and location of OE and OE scrap if found is recorded. As part of the DQOs for the BRA site reconnaissance the quantity, type and location of OE and OE scrap found is also recorded. Both programs include using the results of the site inspections to determine if additional work (i.e., sampling for OE and chemicals

associated with OE) is necessary. The Fort Ord BRA was conducted in accordance to the Basewide Range Assessment Work Plan (*IT Corporation [IT], 2001*).

For this site the following conclusions can be made regarding the quality of the reconnaissance data:

- The site reconnaissance conducted at Site OE-70 for the ASR was conducted in accordance with USACE guidance
- The data collected and observations made by the UXO Safety Specialist are useful because no OE or OE scrap was found, supporting the conclusions that OE was not used during training at Site OE-70 and that no further OE-related investigation is necessary
- The BRA work conducted at Site OE-70 met the DQOs established for that program. Many of the DQOs from the BRA are the same DQOs that are currently in use for the OE investigation program
- The data collected and observations made by the BRA and site walk teams conducting the reconnaissance at Site OE-70 are useful because no OE or OE scrap was found, which further supports the conclusion that no further OE-related investigation is necessary at Site OE-70.

3.70.7 Conclusions and Recommendation

The following section presents conclusions and recommendations for this site based on analysis of data associated with historical information and reconnaissance events performed at the site.

3.70.7.1 Conclusions

Site Use and Development

- Site OE-70 was identified as a training area that included the use of firing berms, through an interview conducted during the PA/SI. Expended blank small arms ammunition found during the BRA reconnaissance event supports the use of this site as a general maneuver training area.
- This site is within land that is under the jurisdiction of the BLM and is to be maintained as habitat reserve. Since the reuse of the property that includes Site OE-70 will continue as habitat reserve, the chance encounter of OE by the public is not likely.

Reconnaissance Evaluation

To date, no intrusive grid sampling has been conducted at this site. Based on evidence from the literature review and results from site reconnaissance events, no sampling is necessary.

- The data collected during the site reconnaissance conducted within Site OE-70 support the conclusion that OE were not used in this area.
- The observations made during the site walk at Site OE-70 are useful because no evidence of OE was observed, which supports the conclusion that no further OE-related investigation is necessary at this site.
- Although the site reconnaissances conducted at Site OE-70 did not include walking the entire site, the quantity and quality of the information generated is sufficient to make an informed decision regarding

the site. The investigation (site reconnaissance) was sufficient to confirm that OE was not used at Site OE-70. Additionally, because OE was not used at Site OE-70, further effort to refine the site boundaries or conduct 100 percent sampling of the site would not add significantly to the understanding of the site or change the conclusions of this report.

3.70.7.2 Recommendations

Based on the review of existing data:

- It is not anticipated that OE will be found at Site OE-70, and no further OE-related investigation is recommended. However, because OE were used throughout the history of Fort Ord, the potential for OE to be present at Site OE-70 cannot be ruled out.
- Site OE-70 meets Track 1 Category 1 conditions because no evidence was found to indicate that OE was used here.

Upon approval of the proposed remedy (no further OE-related investigation), Site OE-70 will be incorporated into the basewide OE RI/FS 5-year review schedule. The purpose of the “5-year review” is to determine whether the remedy at Site OE-70 continues to be protective of human health and the environment. The 5-year review will also document any newly identified site-related data or issues identified during the review, and will identify recommendations to address them as appropriate.

3.70.8 References

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ATTACHMENT

70-A

**ATTACHMENT 70-A
EVALUATION OF PREVIOUS WORK: SITE OE-70
EVALUATION CHECKLIST PART 1: LITERATURE REVIEW**

Yes No Inconclusive

TYPE OF TRAINING AND OE EXPECTED

1. Is there evidence that the site was used as an impact area (i.e., fired OE such as mortars, projectiles, rifle grenades or other launched ordnance)?

	No	
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Sources reviewed and comments

According to the ASR the site was identified during interviews with former Fire Chief Mr. Fred Stephani and was in use prior to 1948. The boundary shown on the Stephani Interview Map is slightly larger than the site boundary provided in the ASR. No specific training areas are shown in this location on any of the Fort Ord training maps. This site is within larger Training and Maneuver areas on the training maps, Division Artillery and 1st Brigade ('50s), Area R ('60s), Area N (1st brigade) in the '70s and '80s. A noise buffer zone was established on the southeast side of Fort Ord by January 1978. Almost all of Site OE-70 is included in the noise buffer zone. Within the noise buffer zone "(No Firing of Blank Ammo: Pyrotechnics, Explosives or simulators)" was allowed.

2. Is there historical evidence that training involved use of High Explosive (HE) or Low Explosive (LE) items?

	No	
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Sources reviewed and comments

No specific weapons use is discussed. Mr. Fred Stephani interview, RAC sheet for Site AO, Revised Archives Search Report (ASR), USAEDH 1997; Review of Fort Ord facilities and training maps.

3. Is there historical evidence that training involved use of pyrotechnic and/or smoke producing items (e.g., simulators, flares, smoke grenades) but not explosives?

	No	
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Sources reviewed and comments

No evidence of OE was found during the site Recon (Fred Stephani interview, RAC sheet for Site AO, Revised Archives Search Report (ASR), USAEDH 1997; Review of Fort Ord facilities and training maps).

**ATTACHMENT 70-A
EVALUATION OF PREVIOUS WORK: SITE OE-70
EVALUATION CHECKLIST PART 1: LITERATURE REVIEW**

Yes No Inconclusive

DEVELOPMENT AND USE OF THE SURROUNDING AREA

4. Does subsequent development or use of the area indicate that OE would have been used at the site?

		Inconclusive
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Sources reviewed and comments

No development has occurred.

5. Does use of area surrounding the site indicate that OE would have been used at the site?

		Inconclusive
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Sources reviewed and comments

Nothing immediately adjacent. Closest sites are the Tank Gunnery Range (Sites OE-32A, -32B, and -32C) and the Land Navigation Area. Firing at the Tank Gunnery Range would have been away from the Site OE-70

ESTABLISHMENT OF SITE BOUNDARIES

6. Is there evidence of training areas on aerial photographs that could be used to establish boundaries?

	No	
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Sources reviewed and comments

No clear indication of a defined training area. No structures or permanent features (3/13/69; 12/17/75; 6/16/78; 3/25/86; 11/4/88; 10/4/89).

7. Is there evidence of training on historical training maps that could be used to establish boundaries?

	No	
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Sources reviewed and comments

No training areas are shown in this location on any of the Fort Ord maps. According to the ASR, the area was identified during interviews with Fred Stephani. The boundary shown on the Stephani Interview Map (Area AO) is slightly larger than Site OE-70.

**ATTACHMENT 70-A
EVALUATION OF PREVIOUS WORK: SITE OE-70
EVALUATION CHECKLIST PART 1: LITERATURE REVIEW**

Yes No Inconclusive

8. Should current boundaries be revised?

		Inconclusive
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Sources reviewed and comments

The boundary shown on the Stephani Interview Map (Area AO) is approximately 39 acres compared to 14 acres for the Site OE-70 boundary. However, no evidence of OE found during recon.

RESULTS OF LITERATURE EVALUATION

Does the literature review provide sufficient evidence to warrant further investigation?

	No	
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Comments

Training maps provide no evidence that indicate use of OE at the site.

References

- USAEDH, 1997. Revised Archives Search Report, Former Fort Ord, California, Monterey County, California. Prepared by US Army Corps of Engineers St. Louis District.
- Risk Assessment Procedures For Ordnance And Explosive Waste (OEW) Sites (RAC Sheet), Site AO, November 14, 1995.
- Training Facilities, August 1945.
- Fort Ord Training Areas and Facilities, December 20, 1956.
- Stephani Interview Map, generated from a 1995 interview with former Fort Ord Fire Chief Fred Stephani.
- Field training Areas and range Map, April 27, 1964.
- Ranges and Training Area Overlay, November 15, 1987.
- Training Areas That Cannot Be Used at The Same Time, Circa 1954.
- Ranges And Training Area Overlay, Revised July 15, 1976
- Ranges And Training Area Overlay, Revised June 1, 1977
- Ranges And Training Area Overlay, Revised January 1978
- Ranges And Training Area Overlay, Revised March, 1980
- Ranges And Training Area Overlay, Revised June 1, 1981
- Ranges And Training Area Overlay, Revised April 1, 1982

ATTACHMENT 70-A
 EVALUATION OF PREVIOUS WORK: SITE OE-70
 EVALUATION CHECKLIST PART 2: RECONNAISSANCE EVALUATION

Yes No Inconclusive

1. Is there evidence that the site was used as an impact area (i.e., fired OE such as mortars, projectiles, rifle grenades or other launched ordnance)

	No	
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Sources reviewed and comments

Based on the RAC sheet (RAC sheet for Site AO), the 2001 Basewide Range Assessment (BRA) site reconnaissance, and the 2003 site walk.

2. Is there evidence that training involved use of High Explosive (HE) or Low Explosive (LE) items?

	No	
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Sources reviewed and comments

Based on the RAC sheet (RAC sheet for Site AO), the 2001 Basewide Range Assessment (BRA) site reconnaissance, and the 2003 site walk.

3. Is there evidence that training involved use of pyrotechnic and/or smoke producing items (e.g., simulators, flares, smoke grenades) but not explosives?

	No	
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Sources reviewed and comments

Based on the RAC sheet (RAC sheet for Site AO), the 2001 Basewide Range Assessment (BRA) site reconnaissance, and the 2003 site walk.

4. Does subsequent development or use of the area indicate potential that OE would have been used at the site?

		Inconclusive
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Sources reviewed and comments

No development of this area has occurred.

5. Does use of area surrounding the site indicate that OE would have been used at the site?

	No	
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Sources reviewed and comments

Nothing immediately adjacent. Closest sites are the Tank Gunnery Range (Sites OE-32A, -32B, and -32C) and the Land Navigation Area. Firing at the Tank Gunnery Range would have been away from Site OE-70.

EVALUATION OF PREVIOUS WORK: SITE OE-70
EVALUATION CHECKLIST PART 2: RECONNAISSANCE EVALUATION

	Yes	No	Inconclusive
6. Is there evidence of training areas on <u>aerial photographs</u> that could be used to establish site boundaries?	<input type="checkbox"/>	No	<input type="checkbox"/>

Sources reviewed and comments
No clear indication of a defined training area. No structures or permanent features (12/17/75; 6/16/78; 3/25/86; 11/4/88; 10/4/89; 7/6/92).

7. Is there evidence of training on <u>historical training maps</u> that could be used to establish boundaries?	<input type="checkbox"/>	No	<input type="checkbox"/>
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Sources reviewed and comments
No training areas are shown in this location on any of the Fort Ord Training Facilities Maps.

8. Was sampling and/or reconnaissance performed within appropriate area?	Yes	<input type="checkbox"/>	<input type="checkbox"/>
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Sources reviewed and comments
Based on the BRA and the 2003 site walk. No map was included for Site AO (RAC sheet for Site AO).

9. Does reconnaissance indicate OE and/or ordnance-related scrap are present at the site?	<input type="checkbox"/>	No	<input type="checkbox"/>
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Sources reviewed and comments
Evidence of OE at the site is limited to expended blank small arms ammunition found during the 2001 BRA (RAC sheet for Site AO, 2001 BRA, and the 2003 site walk).

10. Were the type(s) of items found consistent with the type of training identified for the site?	Yes	<input type="checkbox"/>	<input type="checkbox"/>
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Sources reviewed and comments
Evidence of OE at the site is limited to expended blank small arms ammunition found during the 2001 BRA (RAC sheet for Site AO, 2001 BRA, and the 2003 site walk).

11. Were the type(s) of items found consistent with the era(s) in which training was identified?	<input type="checkbox"/>	<input type="checkbox"/>	Inconclusive
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Sources reviewed and comments
Evidence of OE at the site is limited to expended blank small arms ammunition found during the 2001 BRA (RAC sheet for Site AO, 2001 BRA, and the 2003 site walk).

EVALUATION OF PREVIOUS WORK: SITE OE-70
EVALUATION CHECKLIST PART 2: RECONNAISSANCE EVALUATION

Yes No Inconclusive

12. Was HE fragmentation found?

	No	
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Sources reviewed and comments

RAC sheet for Site AO, 2001 BRA, and the 2003 site walk.

13. Was HE found?

	No	
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Sources reviewed and comments

RAC sheet for Site AO, 2001 BRA, and the 2003 site walk.

14. Was LE found?

	No	
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Sources reviewed and comments

RAC sheet for Site AO, 2001 BRA, and the 2003 site walk.

15. Were pyrotechnics found?

	No	
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Sources reviewed and comments

RAC sheet for Site AO, 2001 BRA, and the 2003 site walk.

16. Were smoke producing items found?

	No	
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Sources reviewed and comments

RAC sheet for Site AO, 2001 BRA, and the 2003 site walk.

17. Were explosive items found (e.g. rocket motors with explosive components, fuzes with explosive components)?

	No	
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Sources reviewed and comments

RAC sheet for Site AO, 2001 BRA, and the 2003 site walk.

EVALUATION OF PREVIOUS WORK: SITE OE-70
EVALUATION CHECKLIST PART 2: RECONNAISSANCE EVALUATION

18. Do items found in the area indicate training would have included use of training items with energetic components?

Yes	No	Inconclusive
Yes		

Sources reviewed and comments

Expended blank small arms ammunition found during the 2001 BRA and 2003 site walk (RAC sheet for Site AO and 2001 BRA).

19. Were items found in a localized area (possibly the remnants of a cleanup action)?

	No	
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Sources reviewed and comments

Evidence of OE at the site is limited to expended blank small arms ammunition found during the 2001 BRA and 2003 site walk (RAC sheet for Site AO and 2001 BRA).

20. Is it appropriate to divide the site into sectors to focus on areas of common usage, similar topography and vegetation, and/or unique site features?

	No	
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Sources reviewed and comments

No evidence was found on training maps or aerial photographs that could have been used to establish site sectors.

21. Should site boundaries be revised?

	No	
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Sources reviewed and comments

Site OE-70 was established from interviews with Mr. Fred Stephani conducted as part of the ASR. Evidence of OE was limited to expended blank small arms ammunition. No evidence of pyrotechnics or high explosives were found during both site reconnaissance events. As a result, site boundaries should remain unchanged.

22. Has the field data been collected and managed in accordance with quality control standards established for the project?

		Inconclusive
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Sources reviewed and comments

EVALUATION OF PREVIOUS WORK: SITE OE-70
EVALUATION CHECKLIST PART 2: RECONNAISSANCE EVALUATION

	Yes	No	Inconclusive
Data collected for the Basewide Range Assessment (BRA) was managed in accordance the DQOs established in the Basewide Range Assessment Work Plan (IT, 2001). The site reconnaissance conducted as part of the PA/SI was in performed in accordance with USACE guidance (USACE, 1995). RAC sheet documentation includes a record of what was found. No map of the USACE OE site walk is available.			

EVALUATION OF PREVIOUS WORK: SITE OE-70
EVALUATION CHECKLIST PART 2: RECONNAISSANCE EVALUATION

Yes No Inconclusive

Result of Reconnaissance Evaluation

Does the reconnaissance evaluation provide sufficient evidence to warrant further investigation?

	No	
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Comments

No evidence of an impact area or the use of high explosives.
No further OE-related investigation based on the site reconnaissance conducted at this site.

References

USAEDH, 1997. Revised Archives Search Report, Former Fort Ord, California, Monterey County, California. Prepared by US Army Corps of Engineers St. Louis District.
Risk Assessment Procedures For Ordnance And Explosive Waste (OE) Sites (RAC Sheet), 1995. Site AO, November 14.
U.S. Army Corps of Engineers (USACE), 1995. Procedures For Conducting Preliminary Assessments At Potential Ordnance Response Sites. ETL 1110-1-165, April.
IT Corporation (IT), 2001. Basewide Range Assessment Work Plan And Contractor Quality Control Plan Small Arms And Multi-Use Ranges Fort Ord, California. Revision C. January 26.