



**US Army Corps
of Engineers®**
Rock Island District

Defense Environmental Restoration Program
for
Formerly Used Defense Sites
Ordnance and Explosives

FINAL

Archives Search Report

for
the former

CAMP GORDON JOHNSTON

Franklin County, Florida
Project Number I04FL011004
23 June 1997

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DEPARTMENT OF THE ARMY
HUNTSVILLE CENTER, CORPS OF ENGINEERS
P.O. BOX 1600
HUNTSVILLE, ALABAMA 35807-4301

REPLY TO
ATTENTION OF:

CEHNC-OE-DC-D (200-1c)

23 June 1997

MEMORANDUM FOR Commander, U.S. Army Engineer District,
Rock Island, ATTN: CENCR-ED-D (Bob Hoffman),
P.O. Box 2004, Rock Island, IL 61204-2004

SUBJECT: Results of Technical Advisory Group (TAG) Review of
Archives Search Reports (ASR) and Fact Sheets for Defense
Environmental Restoration Program-Formerly Used Defense Sites
(DERP-FUDS).

1. The following ASRs and Fact Sheets have been finalized:

| <u>PROJECT NUMBER:</u> | <u>SITE NAME:</u> |
|------------------------|--------------------------------------|
| B07KS028701 | Wabaunsee Precision Bombing Range #2 |
| I04FL011004 | Camp Gordon Johnston |
| C02NJ097601 | Jeffers Landing Target Area |

2. Strategy for future actions to be taken by the Project
Manager are included in the enclosed fact sheets. Supporting
data for TAG decisions are also included with the fact sheets.

3. Fact sheets and supporting data are to be distributed with
the subject ASRs.

4. Subject projects are considered to be final when enclosed
fact sheets and supporting data are included as a part of the
project package.

5. The POC is Mr. Danny Mardis at 205-895-1797, DSN 760-1797,
and FAX 205-895-1737.

FOR THE DIRECTOR OF ORDNANCE
AND EXPLOSIVES TEAM:

3 Encls

Danny R Mardis
DANNY R. MARDIS
Archives Search Report Manager
for Ordnance and Explosives Team

DISCLAIMER

The purpose of this archives search report is to present the findings of research undertaken for this specific Formerly Used Defense Site (FUDS) property. All of the factual information found during the research is included in this "Findings" volume. Reference may be made in this volume to a separate "Conclusions and Recommendations" volume. In some instances, the Conclusions and Recommendations volume contained recommendations of individuals performing the analysis that may contain inferences or conjecture not supported in subsequent reviews. Because these statements are not always factual in nature, the US Army Corps of Engineers has determined the Conclusions and Recommendations volumes, where they exist, do not necessarily represent the opinion of the USACE and are not available for public release. The Risk Assessment Code (RAC) form that was contained in the Conclusions and Recommendations volume has been inserted in a separate Appendix of this finalized report.

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
for
FORMERLY USED DEFENSE SITES

FINDINGS

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
CAMP GORDON JOHNSTON
FRANKLIN COUNTY, FLORIDA
PROJECT NUMBER IO4FL011004

23 June 1997

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ORDNANCE AND EXPLOSIVES
 ARCHIVES SEARCH REPORT
 FOR
 CAMP GORDON JOHNSTON
 FRANKLIN COUNTY, FLORIDA
 PROJECT NUMBER IO4FL011004

| ACKNOWLEDGEMENTS | | | | |
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ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
CAMP GORDON JOHNSTON
FRANKLIN COUNTY, FLORIDA
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ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
CAMP GORDON JOHNSTON
FRANKLIN COUNTY, FLORIDA
PROJECT NUMBER IO4FL011004

1. INTRODUCTION

a. Subject and Purpose

(1) This report presents the findings of an historical records search and site inspection for ordnance and explosives (OE) located at the former Camp Gordon Johnston, Franklin County, FL (see plate 1 for general location map). The investigation was performed under the authority of the Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP FUDS).

(2) This investigation focused on the 159,348 acres of land that were used as Camp Gordon Johnston. This site was used by the Army for basic and amphibious training from 1942 until 1945. A portion of the land was also used by the the Army Air Force as a gunnery range.

(3) The purpose of this investigation was to characterize the site for potential OE contamination, to include conventional ammunition and chemical warfare material (CWM). This investigation was conducted by experienced ordnance experts through thorough evaluation of historical records, interviews, and on-site visual inspection results.

b. Scope

(1) This report presents the site history, site description, real estate ownership information, and confirmed ordnance presence (prior to and after site closure), based on available records, interviews, site inspections, and analyses. The analyses provide a complete evaluation of all information to assess current day potential ordnance contamination, where actual ordnance presence has not been confirmed.

(2) For the purpose of this report, OE contamination consists of live ammunition, live ammunition components, CWM or explosives which have been lost, abandoned, discarded, buried, fired, or thrown from demolition pits or burning pads. These items were either manufactured, purchased, stored, used, and/or disposed of by the War Department/Department of Defense. Such ammunition components are no longer under accountable record control of any DOD organization or activity.

(3) **Expended** small arms ammunition (.50 cal or smaller) is **not** considered OE contamination. OE further includes "explosive soil" which refers to any mixture in soil, sands, clays, etc., such that the mixture itself is explosive. Generally, 10 per cent of more by weight of OE contamination in a soil mixture is considered explosive soil.

2. PREVIOUS INVESTIGATIONS

a. **Preliminary Assessment**

A Preliminary Assessment of the former Camp Gordon Johnston was conducted for the Jacksonville District (CESAJ) in 1994 (see document E-1). That report qualified 159,348 acres as FUDS-eligible and recommended referral to CEHND for an evaluation of potential OE contamination. Table 2-1 represents an overview of the PA phase. CESAJ can provide additional information.

| TABLE 2-1 DERP-FUDS PRELIMINARY ASSESSMENT PROJECTS | | | | |
|--|---------------|---------------|-----------------------------|-------------------|
| Project Number | DERP Category | Present Phase | Comments | Location |
| I04FL011001 | CON/HTW | | Underground fuel pipelines | Piers 1, 2, and 3 |
| I04FL011002 | HTRW | | Motor pools & bucket plants | Various |
| I04FL011003 | BD/DR | | Cap 12 wells | Barracks area |
| I04FL011004 | OE | SI | Ordnance and explosives | Entire site |

b. **Other Investigations**

The ASR team did not find any other investigations on Camp Gordon Johnston.

3. SITE DESCRIPTION

a. **Existing Land Usage**

(1) Camp Gordon Johnston consisted of 159,348 acres acquired primarily by lease in 1942. This acreage includes 820 acres in Leon and Wakulla Counties that were acquired as a right-of-way for a now-abandoned railroad from the camp to Tallahassee. Except for the Air Force owned 32 acres, the entire site is now under private ownership. Most of the site is uninhabited timberland, though there are some residential areas. These areas are on or near the coast and include Lanark Village, St Teresa, Dog Island, and Alligator Point. In addition, there are

scattered residences all along the coastline. Much of the empty shoreline property is for sale, though large-scale development appears unlikely at the present time. Many of the shoreline residences are occupied part-time.

(2) The former Camp Gordon Johnston property now belongs to over 500 different landowners, though the largest by far is the St Joe Paper Company, which owns about 60,000 acres. Table 3-1 below provides a listing of land usage and property ownership for confirmed and potential areas.

| TABLE 3-1 CURRENT LAND USAGE | | | | | |
|---------------------------------|---------------------------------------|------------------------------|-------------------------|------------|--|
| AREA | FORMER USAGE | PRESENT OWNER | PRESENT USAGE | SIZE/ACRES | COMMENTS |
| A | Bazooka range | St Joe Paper | Timberland | 105 | See plate 5 & photos J-1 thru J-3 |
| B | Grenade court | St Joe Paper | Timberland and asphalt | 98 | See plate 8 & photos J-4 thru J-6 |
| C | Barracks and dump | Lois White | Residential | 1 | See plate 5 & photos J-7 thru J-9 |
| D | Boat Dock | St Joe Paper | Beach | 1 | See plate 8 & photo J-10 |
| E | Artillery impact zone | Rex Lumber Co. | Timberland | 1730 | See plate 6 & photos J-11 and J-12 |
| F | Dog Island | Multiple | Residential & beaches | 1923 | See plate 4 & photos J-13 and J-14 |
| G | Alligator Pt Gunnery Range | Multiple | Residential and beaches | 250 | See plate 9 & photos J-15 and J-16 |
| H | Red, White, & Green Beaches | Multiple | Beaches | 53 | See plate 9 & photo J-17 |
| I | Harbeson City (Spec Training Area #5) | Mark Bane and Maxine Sanborn | Woods | 347 | See plate 5 & photos J-18 and J-19 |
| J | Spec Training Areas 1,2,3,4 | St Joe Paper | Timberland | 460 | See plates 5, 7,8, & 9 and photos J-20 thru J-23 |

TABLE 3-1 (continued)
CURRENT LAND USAGE

| AREA | FORMER USAGE | PRESENT OWNER | PRESENT USAGE | SIZE/ACRES | COMMENTS |
|-----------------------------------|----------------------------|--------------------------------------|--|---------------------|---|
| K | Dump | St Joe Paper | Woods | 160 | See plate 5 & photo J-24 |
| L | Eastern EOD cleared sites | St Joe Paper | Timberland | 3692 | See plate 7 & 9 and photos J-25 thru 30 |
| M | Clearings 1 and 3 | St Joe Paper | Timberland | 324 | See plates 5 & 8 and photos J-31 & J-32 |
| N | Small arms ranges | St Joe Paper Timber Island Realty | Timberland, Proposed residential | 3563 | See plates 4, 6, 8 & photos J-33 and J-34 |
| O | All other land | Multiple | Residential, woods, beaches airfield | 146,640 | See plates 4-9 and photo J-35 |
| P | Off-post EOD cleared sites | St Marks NWR & multiple | Wildlife refuge and residential | 1733 | See plates 4 & 7 and photo 6 J-36 |
| Q | USAF Radar Site | USAF (not FUDS eligible) | Radar site | 33 | See plate 4 |
| Note: All acreage is approximate. | | | | total 161,113 acres | |

b. Climatic Data

(1) The climate of Franklin County is characterized by mild winters and long, warm, and humid summers. The highest temperature recorded was 102° on July 14, 1932, and the lowest was 9° on January 21, 1985.

(2) In the summer, temperatures are moderated by breezes from the Gulf of Mexico and by cumulus clouds, which frequently shade the land without completely obscuring the sun. The average temperature in June, July, August, and September is 80°. Temperatures above 90° occur May through September, but 100° is reached only rarely. In July and August, the warmest months, the average maximum temperature is 88°.

(3) The average relative humidity in midafternoon is about 65 per cent. Humidity is higher at night, and the average at dawn is 85 per cent. The sun shines 65 per cent of the time possible in the summer and 60 per cent in the winter. The prevailing wind is from the north in winter and the south in

summer. The highest average monthly windspeed, 9 miles per hour (mph), occurs in March. The lowest average monthly windspeed, 6.5 mph, occurs in July and August. The highest windspeed recorded was 85 mph in November of 1985 during Hurricane Kate.

(4) The total annual precipitation is about 56 inches. Of this, about 30 inches falls in the summer rainy season, July through September. About 16 inches falls during the winter rainy season, December through April. May, October, and April are generally the driest months. Thunderstorms occur most frequently in the summer, about 4 days a week, and sometimes 3 inches of rain falls within 1 or 2 hours. The heaviest one-day rainfall was 11.7 inches in September, 1932. Although the hurricane season lasts from July through November, most of these storms bypass Franklin County (ref B-49).

c. Topography

(1) The area of the former Camp Gordon Johnston is primarily level, with the land sloping upward away from the coast. The southern and eastern boundaries are the shoreline, and the relief slopes gradually upward. The highest elevation in the county is 52 feet above sea level on a ridge just east of Carrabelle. Northwest of Carrabelle, the area is primarily level, swampy plain. Most of the remaining area is level, wooded land about 25 feet above sea level.

(2) Dog Island is part of the Gulf Barrier Chain, a series of elongated quartz sand islands in the Gulf Coastal Lagoon. It is about 3 miles from Carrabelle. This island has numerous areas of dunes and swales, and the highest elevation is 18 feet in the southern (oceanside) dunes. The average elevation on the island is 6 feet.

(3) Within two miles of the coastline, the average water depth is about 14 feet. There are several reefs and shoals that are visible at low tide, including the Lanark Reef and the Turkey Point Shoal. South of Dog Island, the average water depth increases to about 25 feet (refs B-50 and B-102).

d. Geology and Soils

(1) The bedrock layers are St. Marks, Bruce Creek, and Intracoastal limestones of the Miocene and Pliocene Series. The upper reach of these layers ranges from the surface to about 100 feet below sea level. Above the bedrock are sediments from the Pliocene, Pleistocene, and Holocene Series, which range from about 50 feet above the surface to about 100 feet below sea level.

(2) There are many different soil types found on this site. The most common soils are described below:

(a) The beaches consist of loose, fine sand ranging from gray to white or sand that contains various quantities of broken shells throughout. Much of the sand is flooded by high tides, and all may be flooded by storm tides. On the lanward fringes of Dog Island and Alligator Point are Corolla, Duckston, and Hurricane soils. These soils are have varied drainage and are nearly level to strongly sloping. They support natural vegetation, though the vegetation is sparse on the dunes and side slopes. The water table ranges from a depth of 12 inches down to 42 inches below the surface.

(b) Leon sand (0-2 per cent slopes) is common near the coast and further inland. This poorly drained soil has a surface layer of dark gray sand about 8 inches thick, with a 14 thick inch subsurface layer white sand. The water table ranges from 6 to 12 inches in wet seasons to 40 inches during dry periods. Natural vegetation consists of longleaf pine, slash pine, saw palmetto, gallberry, waxmyrtle, wiregrass, running oak, black titi, and fetterbrush lyonia. The soil is moderately suited for the production of pine trees, though proper site management can increase production. Leon sand is poorly suited for roads and structures because of the wetness.

(c) Scranton sand (0 to 2 per cent slopes) is also common further from the shore. This soil is poorly drained, with a dark gray surface layer about 7 inches thick. The fine sand underlying material is about 80 inches thick. The water table is usually 6 to 18 inches below the surface. The soil is poorly suited to cultivated crops because of the wetness and low fertility. Most areas of this soil are used for the production of pine trees. Like the Leon sand, the Scranton sand is poorly suited for roads and structures because of the wetness (ref B-50).

e. Hydrology

(1) Several freshwater rivers flow through the former camp and drain into the ocean. To the northeast, the Ochlocknee River forms the northern boundary of the camp as well as Franklin County. To the southwest, the Crooked River and the New River merge to form the Carrabelle River. Each of these rivers is fed by smaller perennial and annual streams. There are a few small freshwater ponds in the area. Water for household and commercial use is obtained either from deep municipal wells or on-site shallow wells. Most water systems require substantial aeration to dissipate a high quantity of sulfides in the well water.

(2) The southern and eastern boundaries are the ocean, and the camp had about 35 miles of shoreline in Apalachee Bay and the St George Sound. The clear off-shore waters are used extensively for commercial and recreational boating, commercial fishing and shellfish harvesting, and other recreational activities. The high and low tides to the west (Carrabelle) and the east (Bald Point) are provided in table 3-2 below (refs B-50 and B-102, see document L-8).

| TABLE 3-2 TIDAL INFORMATION | | | | | |
|--------------------------------|----------------------|--|-----------------|----------------|-------------------|
| PLACE | | Height referred to datum of soundings (MLLW) | | | |
| Name | Lat/Long | Mean Higher High Water | Mean High Water | Mean Low Water | Extreme Low Water |
| Carrabelle | 29° 51'N 84° 40'W | 2.6 ft | 2.4' | 0.8' | -2.0' |
| Bald Point | 29° 57'N 84° 20'W | 2.7' | 2.5 | 0.5 | -3.0 |

f. Natural Resources

The Florida Game and Fresh Water Commission provided a list of 15 threatened or endangered species. This list and a map are provided as document F-5. In addition to these listed animals, there are numerous species of alligators and poisonous snakes in the region (ref B-68).

g. Historical/Cultural Resources

The Florida Division of Historical Resources reported that there are 38 archeological sites and no standing historical structures within the boundary of the former Camp Gordon Johnston. This cover letter for this list is provided as document F-4 (ref B-67). The information is summarized in table 3-3 below.

| TABLE 3-3 NATURAL & CULTURAL RESOURCES | | |
|---|------------|------------------|
| Resource Classification | Type | Comments |
| Archeological | 38 sites | See document F-4 |
| Wildlife | 15 species | See document F-5 |
| Historical | None | N/A |

4. HISTORICAL ORDNANCE PRESENCE

a. **Chronological Site Summary**

(1) In April of 1942, the War Department selected Franklin County as the site of an Army amphibious training center initially known as Camp Carrabelle. Site clearing began on July 8, 1942, and construction began two weeks later. Initial contracts for \$10,000,000 were completed in less than 60 days (ref B-30).

(2) The first soldiers arrived September 10, 1942, from Camp Rucker, AL. These were support troops who began preparing the camp for the arrival of the instructor cadre from the Engineer Amphibian Command at Camp Edwards, MA, which was moving its operations to Camp Carrabelle. The 38th Infantry Division was the first unit scheduled for training, arriving in late November. This division completed their training on December 30 (ref B-47).

(3) On January 13, 1943, the post was renamed Camp Gordon Johnston to honor a distinguished cavalry officer. Also in January, the 28th Infantry Division arrived to begin amphibious training. Other smaller units also received amphibious training at the post in early 1943. These included the 6th Communications Squadron, 78th Smoke Generator Company, and the 377th Coast Artillery Battalion (ref B-30).

(4) On June 10, 1943 the Amphibious Training Center was officially disbanded. This was the result of a high level agreement between the Army and the Navy that essentially gave the Navy the amphibious training mission. The 4th Infantry Division received amphibious training at Camp Gordon Johnston in October and November of 1943, but under Navy supervision (ref B-47). Document E-2 provides a complete history of amphibious training at the camp.

(5) In September of 1943, Camp Gordon Johnston was redesignated as an Army Service Forces training center providing basic and unit training for small boat crews, amphibian truck companies, and port construction units. In 1944, a prisoner of war (POW) camp was established for Germans and Italians captured in Africa and Europe (ref B-30). Activities diminished, as the camp released about 50,000 acres west of the New River in late 1944 and early 1945. Training continued, however, and in July of 1945 ten paratroopers died when high winds caused them to miss Dog Island and land in the ocean (see document H-3).

(6) When WWII ended in September of 1945, the number of troops at Camp Gordon Johnston quickly declined. The Navy had

plans to keep the property as an amphibious base, but these plans never developed and the post officially closed on May 1, 1946. The 100,000 remaining acres of leased land were returned to the original owners, and the War Assets Administration began selling the purchased land and about 1,000 buildings (see documents G-2 and G-3). The last property was transferred in 1948, and the Army's role ended (ref B-30).

(7) In 1958, the Air Force reacquired part of the former Camp Gordon Johnston land in Carrabelle and built a gap-filler radar site to detect low-flying enemy aircraft. This site was later expanded to 32 acres, and now serves as a tracking station supporting the Tyndall AFB air-to-air range in the Gulf of Mexico (refs B-62 and B-108). The chronological history of Camp Gordon Johnston is summarized in table 4-1 below.

| TABLE 4-1 SUMMARY OF CHRONOLOGICAL HISTORY | |
|---|--|
| Date | Action |
| July, 1942 | Construction begins on Camp Carrabelle |
| Sept 10, 1942 | First troops arrive at the Amphibious Training Center |
| Nov, 1942 | 38th Infantry Div (ID) begins amphibious training |
| Jan 13, 1943 | Renamed Camp Gordon Johnston |
| June, 1943 | Amphibious Training Center disbands, mission goes to the US Navy |
| Sept, 1943 | Redesignated as Army Service Forces training center |
| Nov, 1943 | Last division (4th ID) completes training |
| 1944 | German and Italian POW camp established |
| Sept, 1945 | War ends, camp activities decline |
| May 1, 1946 | Camp Gordon Johnston officially closes |
| 1948 | All property transferred to private ownership |
| 1958 | Air Forces reacquires 33 acres for radar site |

b. Ordnance Related Records Review

(1) Introduction

(a) Research efforts began with a thorough review of all reports, historical documents, and reference material gathered during the archival search. During this review, an effort was made to focus on areas of potential OE contamination as described in the OE project summary sheet as well as additional areas that were identified during the research.

(b) Camp Gordon Johnston had a variety of ranges and training areas. Some were typical of WWII-era training camps, and others were unique to the amphibious training mission. Although the ASR team obtained a large number of documents, maps, and newspaper articles, these references did not provide precise information on what types of ordnance were used on the various ranges. In addition, no single map showed all the ranges and training areas.

(2) Before the first troops arrived for training, the Army Ground Forces issued a training directive listing the objectives for the amphibious training center. The ordnance-related program was to include "clearing the beach of obstacles, demolitions, etc., the use of smoke for screening, the use of chemicals for contamination purposes, methods of decontamination, air-ground support, anti-aircraft defense, battle firing, firing automatic weapons from cities, and combat in cities." (see document E-2).

(3) Camp Gordon Johnston was built as an amphibious training center, and its layout was planned to ensure maximum utilization of training areas (see plate 2). The main camp (now Lanark Village) was known as the CASC area (see documents L-1 and L-4). The main camp had facilities for the permanent party instructor troops, post headquarters, and headquarters elements of the units temporarily assigned for training. There were also separate camps for each of the three regiments assigned to an infantry division. These were called camps for combat teams 1, 2, and 3 (see documents L-1 and L-5 and photos K-13, K-15, and K-16). The large amount of land available allowed for all three regiments to train together as a division. Document E-2 provides an excellent history of amphibious training activities (ref B-47).

(4) Each of these three combat teams and the main camp had a large clearing about 1000 yards square with cargo net towers, mock-up boats, and outline boats. Clearings 1 thru 4 are shown on document L-3. Each team also had a special training area with "...an obstacle course, grenade and bayonet courses, areaa for judo, knife, and bayonet, hand-to-hand fighting, and

demolitions training sites." Document L-2 is a map of some of the ranges, and it shows a "live grenade court" in the same location where document L-3 shows clearing 2, implying this was the only area where live grenades were thrown. A 1947 aerial photo shows the grenade court and the adjacent parade ground (see photos K-9 thru K-11 and K-16).

(5) Special training area 5:

(a) This site had "facilities for the conduct of all courses involving the use of live ammunition - street fighting, infiltration course, battle firing, and firing from simulated landing craft." This site, shown on documents L-1, L-2, and L-3, was near the former logging town of Harbeson City. The street fighting course used the old town buildings to simulate an enemy village, and troops used live bullets, hand grenades, and booby traps. Each infantry battalion received two days of training in street fighting (see document E-2 and photo K-7a).

(b) Special training area 5 also had a 100 yard long by 150 yard wide infiltration course, where the soldiers crawled under live machine gun fire through trenches, mud, and barbed wire. There were also explosions throughout the course. These explosions were typically a stick of dynamite with an electric blasting cap (see document E-2 and photos K-2 & K-8a).

(c) Special training area 5 included a battle practice course, where soldiers fired all types of rifles and machine guns from the hip (see photo K-6a). In addition, there was a boat firing course to train soldiers in firing machine guns at shore targets from simulated landing craft (see photo K-7a). This course used jeeps and other vehicles on land in place of boats (see document E-2).

(6) Other firing ranges are shown on document L-2. Just north of the main camp was a group of small arms ranges including a double pistol range, a double machine gun range, east and west known distance ranges, and the double anti-aircraft range (see photos K-12 and K-17). This anti-aircraft range used radio-controlled targets (ref B-8). Another known distance range is shown at Turkey Point. There were additional ranges not shown on document L-2: Document L-1 shows a rifle range just west of G Beach, and document L-7 shows an apparent rifle range northeast of the grenade range.

(7) Documents mention the use of tear gas during some of the landing exercises (ref B-46). Building lists show structure T-R-1 as a gas chamber, but this building does not appear on any maps (ref B-79). There is no indication that any CWM was used or stored at Camp Gordon Johnston.

(8) Although the camp used the airfield west of Carrabelle, there is no indication that aircraft with ordnance were ever present. This was designated as an auxiliary strip to Dale Mabry Field, but it was likely an emergency landing field only. It was used as a landing strip for senior officers visiting Camp Gordon Johnston, and there were a few small unarmed spotter planes based there. These aircraft were not capable of carrying machine guns or bombs, though on one occasion they dropped sacks of flour on soldiers (ref B-7).

(9) Amphibious Training Activities:

(a) Document L-1 was extracted from an engineer regiment history, and it is the only source for the locations of training beaches. It shows two beaches near Carrabelle, G beach (what is now Carrabelle Beach) and K beach. Further to the east, past Alligator Point, are Red, White, and Green Beaches. This unit history describes basic training at K Beach, and does not mention the firing of any weapons there (ref B-46). It also shows general photos of beach landings, most without a location (see photos K-3 thru K-5).

(b) The first division to receive amphibious training was the 38th Infantry Division, and one reference described its final exercise at Red Beach (ref B-46). Another reference notes that the troops were moved by boat "...to beaches on Peninsula Point and Lighthouse Point...The beaches were mined and wired, demolitions were planted..." (see document E-2). This implies that simulators and other explosives were used at these beaches in the vicinity of Alligator Point.

(c) References note the frequent use of Dog Island for amphibious landings, though none provide any information on weapons firing (refs B-46 and B-47). Document L-1, an official unit history which shows landing beaches, does not indicate any landing areas on this island. After the amphibious training mission ended, Dog Island continued to be used as a training site for the DUKW crews (see document H-2).

(d) Other references note that the Chemical Warfare Service used Camp Gordon Johnston to develop tactics for using 4.2" mortars to fire smoke projectiles from boats in order to screen their approach from defending soldiers. Troops fired HE and white phosphorous projectiles from landing craft onto the beach, but the target areas are not provided (refs B-34, B-35, and B-47). Another document states that similar experimental testing was conducted using water-borne DUKWs as firing platforms for 4.5" rockets. Again, no location was provided (ref B-110).

(e) Although Camp Gordon Johnston was originally designed as an amphibious training center for infantry divisions, that mission ended in November of 1943 when the 4th Infantry Division completed its training. Only three complete divisions (4th, 28th, and 38th) were to use the facilities. Once the 4th Division left, the mission became training of small boat crews and port construction troops (ref B-30 and B-47). Although this revised mission certainly required use of rifle ranges and probably others, in all likelihood the infantry-specific ranges (street-fighting course, mortar & artillery ranges, etc.) received little use once the infantry divisions left.

(f) References noted the use of simulated items for training when the Amphibious Training Center first opened. In some cases, soldiers used dummy sticks of dynamite and dummy detonators for demolition training. Photo K-9 is not clear enough to determine whether the demolitions are real or simulated. In another case, troops used old ammunition cases and fiber containers filled with sand to simulate moving boxes of live ammunition (ref B-47). One article states that dummy 500 pound bombs and hand grenades were used in a training exercise for amphibious truck drivers (see document H-1).

(10) Alligator Point Gunnery Range

(a) The Army Air Forces built an airfield in Tallahassee in 1941 and named it Dale Mabry Field. Assigned units included the 58th and 338th Fighter Groups. The field was used to train fighter pilots, and the Army built a bombing range at Sopchoppy, about 15 miles north of Camp Gordon Johnston. They also constructed a 100 acre gunnery range at Alligator Point within the boundary of the camp (ref B-16, see document L-3).

(b) References indicate that the Sopchoppy Range was used for HE and practice bombing, while the use of Alligator Point Range was not as clearly spelled out. Alligator Point had 24 air-to-ground targets and 10 strafing targets. The 10 strafing targets were no doubt used for pilots firing the fixed machine guns at ground targets. The presence of 24 air-to-ground targets implies that the aircraft also fired unguided rockets at this range. Although numerous documents referred to storage of munitions and pilot training with bombs and machine guns, there was no mention of rockets (refs B-43 and B-85, see documents F-1 thru F-3).

(c) Dale Mabry Field trained pilots on four types of fighters: the P-39 Airacobra, the P-40 Warhawk, the P-47 Thunderbolt, and the P-51 Mustang. All of these had .50 caliber machine guns, but the P-39 also carried a 37mm cannon. Document F-2 describes incidents at Dale Mabry Field where aircraft

accidentally discharged both .50 caliber and 37 mm weapons on the flight line, implying that both were fired at Alligator Point. The P-47 and the P-51 could mount underwing rocket firing tubes, though there is no evidence to prove they did this at Dale Mabry Field (refs B-38 thru B-41).

(d) One newspaper article described training activities at Dale Mabry Field and the firing of .50 caliber machine guns at Alligator Point. Another noted that the dunes "...are imbedded with thousands of pounds of lead from bullets fired by practicing pilots." Although fighter pilots at other training bases fired HE and inert rockets, it could not be verified that this rocket training was done by aircraft from Dale Mabry Field (refs B-16 and B-18).

(11) Ordnance Removal Actions

(a) There were two known clearances before site closure. The first was performed by Tibbits Contractors and was completed on November 15, 1946 (see documents E-3 and L-7). As shown on document L-7, the first team searched and cleared large areas of Camp Gordon Johnston. There were three areas restricted to grazing use only: The Alligator Point bombing targets, the 105-155mm HE artillery impact area, and the practice and HE bazooka range. This restriction implies that there were hazardous items on the surface that the first team did not remove.

(b) A military team completed the second clearance on August 14, 1947. In their report, they removed the "grazing only" restriction noted above. However, their report states that the second team cleared only the artillery impact area and the bazooka range. There is no mention of their clearing Alligator Point (see document E-4).

(c) The map that accompanied the first clearance (see document L-7) was the only reference proving that HE 105mm and 155mm artillery projectiles were fired, and it shows the cleared impact areas. The same is true for the bazooka, though one photo shows a soldier apparently firing one (see photo K-10). These ranges do not appear on any other maps, and there was no documentation on the firing points or specific weapons used.

(d) This same clearance map (document L-7) raised as many questions as it answered. The map shows that the team cleared 25,000 acres on the western side that is labeled "small arms". Clearing such a large area for small arms does not appear to be a logical use of manpower. In addition, the 25,000 acres included special training #5 area at Harbeson City. Within the special training area were a street-fighting course that used

live grenades as well as an infiltration course that used dynamite sticks (see document E-2). The map implies that the team did not look for these explosive items. In the northeast region, the team cleared some marsh areas where seeing OE would have been extremely difficult. In addition, the clearance forms provided little information on the types of OE found .

(e) The clearance map shows an inaccurate location for the bazooka range. After comparing the location on document L-7 with aerial photograph K-13 and analyzing GPS plots made during the site visit, the ASR team concluded that the bazooka range is actually about 1/2 mile south of where the clearance map shows it to be. This fact casts doubt on the accuracy of the locations all the other cleared areas.

(f) According to the map, the first team visually cleared 250 acres of Alligator Point and restricted the area to grazing only (see document L-7). The map states "Bombing targets, bursting tubes - 100 lb, HE and practice". What they meant by bursting tubes is unknown. Bursting tubes are internal explosive components of bombs or projectiles which set off the main HE charge and are destroyed in a complete detonation. It is extremely unlikely that these separate components would be found on any range, and practice bursting tubes would not have been used on a tactical range. It would appear that someone with limited ordnance knowledge made that notation on the map. It is likely that these "100 lb bursting tubes" were either aerial rockets or bangalore torpedos for reasons stated below.

(g) Aircraft from Dale Mabry Field fired .50 caliber and probably 37mm rounds at Alligator Point. An unexploded 37mm projectile weighs less than 2 pounds, far less than a "100 lb bursting tube" (see document D-8). The Army fired 4.2" HE and WP mortars on Camp Gordon Johnston, but the location was not specified. It is possible that they were fired at Alligator Point. The heaviest of these projectiles weighs about 29 pounds, far less than a "100 lb bursting tube" (see document D-11). Aircraft from Dale Mabry dropped HE and practice bombs at the Sopchoppy Range, and it is remotely possible they also did so at Alligator Point. These bombs weighed 100, 200, or 500 pounds, but are wider and would not likely have been referred to as "bursting tubes" (ref B-55).

(h) Army troops used beaches at Alligator Point for amphibious training. Any realistic training would have included bangalore torpedoes, definitely practice and possibly HE models (see photo K-1). A completely assembled torpedo consisted of ten 5 foot long tubes connected together, with each tube weighing about 14 pounds. However, the soldiers could have used anywhere from 1 to 10 tubes, and 7 tubes would have weighed 98 pounds. It

is possible that the clearance team misidentified banagalore torpedoes as the "100 lb bursting tubes" (see document D-4).

(i) Aircraft from Dale Mabry Field may have fired unguided rockets up to 5" in diameter at Alligator Point, and Army vessels fired 4.5" rockets somewhere on the camp. Typical rockets weighed anywhere from 11 to 134 pounds. The 5" high velocity aircraft rocket (HVAR) weighed 134 pounds, but with propellant expended the weight would be 109 pounds. The 4.5" fixed-fin rocket had practice and HE models that weighed 98 pounds, but with propellant expended the weight would be 84 pounds. It is possible that the team found rockets and mistakenly identified them as "100 lb bursting tubes" (see document D-14).

(j) One of the clearance teams apparently neglected to detonate some cleared ordnance. Mr. Don Wood, property manager for St Joe Paper, reported that in about 1960 he found a pile of fired rockets at the north end of the bazooka range. Around this same time period, a Mr. Pete Jones from the Mobile Corps District used to come around every six months to remove or detonate any OE that had been found since his previous visit. These visits ended in the early 1960s. CESAM could not find any old records of this clearance work (see document I-10).

c. Interviews With Site-Related Personnel

(1) 1942 to 1946

(a) Buddy Riley has lived in Carrabelle all his life, and was about 10 when the camp opened. He shined shoes for soldiers on post and used to visit the airfield. He never saw any fighter or bomber planes at the airfield, only small trainers. On a map he pointed out two rifle ranges that were not shown on historical maps. Mr. Riley said that the soldiers trained on Dog Island (area F). He added that shrimp boats occasionally bring up live ammunition but he didn't know where they found it (see document I-1).

(b) Mrs. Ann Lindsay is a local historian and was in high school during the war. Her father was the county judge, and he performed marriage ceremonies for many soldiers. She said that Harbeson City (area I) was deserted before the camp opened, and the troops used it for a German village. She recalled seeing many paratroopers landing on Dog Island, and was certain they used live ammunition there. Mrs. Lindsay saw many convoys go by her house, but she never saw them towing any artillery weapons. She also said the troops practiced landings on Carrabelle Beach, but she did not recall any use of ammunition (see document I-2).

(c) Mr. John Gilbert joined the Army in late 1942 and was sent to Camp Gordon Johnston for Transportation Corps basic training. He first lived in the Combat Team #2 site, then the main base camp, and finally at Camp Belle (see plate 2). He remembered firing the M1 Garand and Carbine at rifle ranges north of Lanark, but did not fire any other weapons during his training. After basic, he trained as a diesel mechanic at Camp Belle and fixed engines on the landing craft. Mr. Gilbert said the soldiers practiced amphibious landings at Dog Island, St George Island, and Alligator Point. He knew about the airfield but said there were very few small airplanes there. After the war, he returned to his South Carolina home but retired to Carrabelle (see document I-3).

(d) Mr. Wilburn Messer said he joined the Army in 1941, trained as a combat MP, and transferred to Camp Gordon Johnston in late 1942. He recalled crawling under live machine gun fire at the infiltration course, and also fired live ammo at the Harbeson City street fighting course (area I). He said they used 30 and 50 caliber machine guns only at the anti-aircraft range. Mr. Messer also said that he fired rifles and machine guns from Turkey Point at towed targets in the water. He remembered using live and dummy grenades, and said they buried duds on the range (area B). He made practice landings on Dog Island, St George Island, and Alligator Point using blanks only, though the defenders used smoke and tear gas grenades. He recalled going through a tear gas chamber near the magazine area. Mr. Messer also recalled training with CWM at Camp Shelby (MS) but not at Camp Gordon Johnston. He heard that Dog Island and St George Island were used for strafing, and said he found 50 caliber brass on Dog Island (area F). He returned to the area after his discharge, and recalled watching the last soldiers burying "everything", including ammunition, northwest of the magazine area (area K) just before the camp closed (see document I-4).

(e) Mr. Gordon Earhart arrived at the camp in January of 1944 for basic and landing craft training. He recalled using the 1903 Springfield with an attached grenade launcher, firing mostly practice and some HE rounds. He also remembered throwing practice and live grenades. He crawled under live machine gun fire at the infiltration course with explosions going off nearby (area I). In addition, he went through a tear gas chamber but did not recall any CWM training. He did not remember specific locations of his training (see document I-5).

(f) Mr. Carleton Wathen is the mayor of Carrabelle and was a teenager during WWII. He used to see Military Police (MPs) stopping traffic while troops and tanks landed on Carrabelle Beach. He did not see any firing on the beach. He

also watched paratroopers and boats landing on Dog Island, though he didn't see any smoke or explosions. He remembered trucks towing 105mm and 155mm artillery pieces. His family used to drive through the camp, as it was the only road to Tallahassee. They would watch and listen to the aircraft firing machine guns at Alligator Point (area G). He never saw any rockets or bombs dropped from the planes. Mr. Wathen remembered "3 or 4" Taylorcraft spotter planes at the airfield, and he is certain these small aircraft never carried any ordnance. He said that the Army hired local residents to clean up OE in about 1946, and he thought they did a good job (see document I-6).

(2) After Site Closure

(a) Retired Judge B.K. Roberts was one of the two original owners of Alligator Point, and said the Army leased his land for a P-39 Airacobra gunnery range (area G) while he was a legal officer in the Navy. He was paid \$500 per year. When he returned to the area in late 1945, he saw "thousands and thousands" of empty cartridge cases on the beach, so many that swimmers had to wear sneakers. He was told these cases were from 20mm rounds. He said there were strafing target walls built in the sand about two miles west of Lighthouse Point, with crews on the ground maintaining radio contact with the pilots. Judge Roberts never found any live rounds. He added that Army troops used the entire peninsula from Southwest Cape to the western tip for amphibious training (area G and H). He was unaware of any OE found by owners, and he did not know about any range clean-up after the site closed (see document I-7).

(b) Mr. Harry Sanborn was 12 years old when the Army took the family property north of Carrabelle and west of the Crooked River. He said this property was an impact area for .50 caliber bullets fired at drone airplanes, and the bullets caused many problems at lumber mills. He said there were many rifle ranges on the camp, including one south of the airport that was used for rifles and pistols only. He never found any live bullets on his land, but he did recall finding a projectile about 12" long and 4" in diameter with a brass cap on the nose. He turned it over to a man who used to come around in the 1950s to blow up OE. This projectile was on Rex Lumber land between highway 67 and the Crooked River (area E). He said there were 20' craters in the area that have now been filled in and harvested. He has never heard of any tractors getting blown up from old ammo (see document I-8).

(c) Mr. William Louis and his brother bought the deserted Dog Island (area F) in 1948. They found .30 and .50 caliber brass and fired bullets. He also found what he referred to as shrapnel, and described large pieces of artillery rounds

with jagged edges. These were mostly in the middle of the island about 2 miles west of the main dock. He did not recall any Army clearance, nor was he aware of anyone finding live OE (see document I-9).

(d) Mr. Donald Wood has been the St Joe Paper Company property manager in Carrabelle since 1956. His company owns about 50,000 acres of Camp Gordon Johnston land, and he is familiar with all the property and landowners of the former camp. He escorted the site inspection (SI) team on most of his land and provided precise directions to other areas. He said that from 1956 until about 1960, a Mr. Pete Jones used to come around every six months to detonate or remove OE. In one case, Mr. Wood found a pile of bazooka rockets that the original (1947) clearance team collected but forgot to detonate (area A). He has never found OE on the rifle ranges, but he has found expended practice grenades and fragments at the grenade range (area B). He also found a case of projectiles in the sand near the old docks at Combat Team #2 (area D). He has never heard of or found OE in other areas, including Alligator Point, Turkey Point, the artillery impact area, the special training areas, and the areas cleared by EOD. Mr. Wood provided a tremendous amount of information and referred the SI team to numerous knowledgeable individuals (see document I-10).

(e) Mr. Findlay McRay owns the Rex Lumber Company and the property of the former artillery impact area (area E). He said there is no record of anyone finding OE in that area. He added that this land will soon be transferred to the state of Florida for a forest preserve (see document I-11).

(f) Mr. Jesse Smith has been the Carrabelle Police Chief for over 20 years. He knew about the rifle ranges at the German Village in Harbeson City, but he had never heard of any OE recovered in Carrabelle or at the airfield (see document I-12).

(g) Mr. Greg Yancey has lived in Lanark his entire 40 years and used to work for the village water board. He said about 10 years ago he was driving his truck down Massachusetts St when he noticed a metallic object in the road (area C). He said the item was on top of the dirt road and was likely moved there from somewhere else. Mr. Yancey carried the item in his truck all day before notifying authorities. He said the Tyndall AFB EOD unit told him the item was a practice mine that could have blown his hand off (see document I-13).

(h) Mrs. Lois White and her husband set up their modular home in Lanark about 5 years ago. She said they have dug up bottles and ceramic conductors in their yard, and surmised the area may have been a dump (area C). About a year ago, her

husband hit a solid object about 1' down, and described this item as about 2' long with a pointed end and fins. She turned the item over to the County Sheriff. Mrs. White said they have dug power lines and a septic tank as well as gardening without finding any other OE (see document I-14).

(i) TSGT Hicks is one of the EOD technicians at Tyndall AFB. He remembered a call to Lanark about a year ago where they recovered a practice 2.36" rocket round. He said that during the recent (August 4, 1995) call, the team found 7 each 2.36" rockets, of which 5 were identified as practice. The other two were blown in place (see documents E-5 and I-15).

(j) Major Jimmy Williams has been with the Franklin County Sheriff's Department for 19 years. He said that his office gets occasional calls on OE items and they in turn call Tyndall AFB. He remembered that an item washed up on Alligator Point many years ago, but he couldn't provide specific details (see document I-16).

(k) Mr. Gary Cook and Maxine Sandborn own about 100 acres of land at the site of old Harbeson City (area I). He said the trees have been thinned out, but there was still heavy undergrowth near the river. He said that no OE has ever been found on their property (see document I-17).

(j) Mr. Mark Bane owns 200 acres of land just north of old Harbeson City (area I). He is developing this property as the River Bend Plantation and has subdivided the land into 15 lots. None of the owners have begun construction on the 10 lots he has already sold. Mr. Bane said he has walked all over his land and all he has found are old bottles, which he thought were from Harbeson City. He has never found any military-related items (see document I-18).

(k) Mr. Joseph White has been superintendent of the St Marks National Wildlife Refuge for over 22 years and is quite familiar with the marshy area around Thoms Island (areas L and P). He has been to the area many times and has never seen or even heard of any evidence of former military training, including OE (see document I-19).

5. SITE ELIGIBILITY

a. **Confirmed Formerly Used Defense Site**

(1) Former land usage by the Department of War of the 159,348 acres qualified in the FDE was previously confirmed for the site as summarized in section 4a of this report. The site was used as an Army training center and POW camp from 1942 until

1946. All the property was returned to the original owners by 1948.

(2) In 1958, DoD reacquired part of the former Camp Gordon Johnston land in Carrabelle and built an Air Force radar site to detect low-flying enemy aircraft. This site was later expanded to 33 acres, and now serves as a tracking station supporting the Tyndall AFB air-to-air range in the Gulf of Mexico. These 33 acres are not eligible for DERP-FUDS.

(3) The SI team determined that nearby St George Island had also been used for amphibious training by troops from Camp Gordon Johnston. This was not qualified in the existing FDE. However, CESAJ has already qualified this area as the St George Island Bombing Range, site number I04FL006400.

b. Potential Formerly Used Defense Site

The EOD clearance map shows that the clearance team searched some marsh and shoreline to the northeast just west of Ochlocknee Bay as well as property north of the artillery impact zone (area E) (see document L-7). Some of this cleared land is outside the camp boundary (area P) and was therefore not qualified in the FDE.

6. VISUAL SITE INSPECTION

a. General Procedures and Safety

(1) Members of the Assessment Team visited the training areas of the former Camp Gordon Johnston between 24 and 27 July 1995. The primary task of the team was to assess OE presence and potential due to its former usage as an Army training camp. Site inspection was limited to non-intrusive methods; i.e. subsurface sampling was not authorized or performed.

(2) Real estate rights-of-entry were not obtained by the team due to the willingness of the current owners to allow the team to visit their property. As such, control and jurisdiction of the site remained with the owners during this inspection.

(3) A site safety plan was developed and utilized by the assessment team to assure safety from injury during the site inspection of this facility. Prior to the inspection, a briefing was conducted which stressed that OE should only be handled by military EOD personnel (ref B-65).

(4) Prior to the site visit, a thorough review of all available reports, historical documents, texts, and technical ordnance reference materials gathered during the historical

records search portion was made to ensure awareness of potential ordnance types and hazards.

b. Area A: Bazooka Range

(1) This area includes portions of sections 10, 11, 14, and 15. Although the southern edge is with a half-mile of some residences, access is on unimproved trails and a four wheel drive is recommended. Most of the area is timberland with sandy soil, though there are a few small areas where seedlings are growing. The entire site is St Joe property, and the timber has been harvested at least once. A small fresh-water pond, Duck Lake, is within this area. Mr. Don Wood showed us the approximate site at the northern edge of the lake where he found the pile of rockets about 35 years ago.

(2) The team also stopped at a site further to the south, where five 2.36" bazooka rockets were found within about a 50' x 50' area. Some of these were completely on the surface, while others were partially buried. Mr. Wood explained that these items were most likely brought up when the timber was last harvested and the soil disked to about 8" (see photos J-1 thru J-3 and plate 5).

c. Area B: Grenade Court

(1) This area is just east of the intersection of routes 319/377 and 30/98. It is easily accessible and a four wheel drive vehicle is not necessary. The northern section was harvested and disked in 1994, and the new seedlings are very small. The team walked the entire site without finding any trenches or OE (see photo J-4 and plate 8).

(2) In the southern part of this area is a large asphalt parade ground. Some of the pavement has been torn up, but most is intact and there are numerous piles of trash. Mr. Wood took us to the eastern edge of the parade ground and showed where he had found empty practice grenade bodies, but none were observed. He also showed us where he had found fragments, and the team found numerous grenade fragments on the asphalt as well as two expended blank .30 caliber cartridge cases (see photos J-5 & J-6 and plate 8).

d. Area C - Barracks and Dump

(1) This area is in a residential section on the outer edge of Lanark. Mrs. White showed us her back yard where her husband had found the practice rocket round as well as bottles and other trash. Her property is mostly cleared grass, but there

are some wooded areas behind the house. No OE was observed (see photos J-7 & J-8 and plate 5).

(2) Right next to Mrs. White's house is the unpaved street where Greg Yancey found a practice mine. The team walked both sides of the street as well as nearby brushy areas, but no OE was observed (see photo J-9 and plate 5).

e. Area D - Boat Dock

Mr. Wood took us to this area, which is easily accessible from good unpaved road. It is a short walk to the beach where there used to be three long docks. Some pilings for these docks are still visible, as are a few strands of rope and cable. No OE was observed (see photo J-10 and plate 8).

f. Area E - Artillery Impact Zone

This large wooded area is split by route 67, which runs north and south. Several dirt roads go through the area, and the team went to three separate sites at the approximate center of the range. The area is all timberland, and some portions have been harvested, though in most cases vegetation prevents a good view of the surface. Other parts are thick pine trees. No OE was observed (see photos J-11 & J-12 and plate 6).

g. Area F - Dog Island

This island is about 5 miles south of Carrabelle, and it is only accessible by boat or airplane. There is a daily ferry, but it does not carry vehicles. The ferry and charter boats land at the main dock on the eastern end of the island next to the grass airstrip. The main road on Dog Island is loose sand and a four wheel drive is recommended, though getting the vehicle to the island will require advance coordination. Some portions of the island are wooded, while the land near the beaches is primarily thin grass and sand dunes. There are numerous residences on the island. The team did not observe any OE (see photos J-13 & J-14 and plate 4).

h. Area G - Alligator Point Gunnery Range

This is a narrow peninsula about 5 miles long and half a mile wide at the widest. A hard-surface road goes down the center almost to the tip, and there are numerous paved and unpaved side roads. Some of the side roads are unpaved, but four-wheel drive is not necessary. This area has been heavily developed, and there are commercial facilities such as a campground and a marina. There are residential neighborhoods, wooded areas, a nature preserve, grassy dunes, and beaches.

There was no evidence of the former range and no OE was observed (see photos J-15 & J-16 and plate 9).

i. Area H - Red Beach, White Beach, and Green Beach

This contiguous area consists of three separate training beaches east of Alligator Point that were used for amphibious training. From west to east these are Red Beach, White Beach, and Green Beach. These three subsites are similar, with sandy beaches and low, grassy dunes. All are just off a paved road. There is adjacent housing to the west and the east but no in the center. The SI team did not observe any OE in this area (see photo J-17 and plate 9).

j. Area I - Harbeson City (Special Training Area 5)

This area is between the Crooked River and route 67. There are three good unpaved roads through the area, all with locked gates. The northern road leads to the River Bend Plantation, where the lots have been cleared but construction has not begun. The central road is the southern border of River Bend property, and the vegetation is much heavier as one gets closer to the river. The SI team went into the woods to find remnants of Harbeson City, but the extremely thick underbrush made it difficult to see the ground. The team did not find any trace of the city, the ranges, or OE (see photos J-18 & 19 and plate 5).

k. Area J - Special Training Areas 1, 2, 3, and 4

(1) This area consists of four sub-sites. Special training area #1 is on timberland accessible only via sandy trails, and a four-wheel drive is recommended. This sub-site has tall pine trees as well as newly-planted seedlings. There was no evidence of prior military usage, and no OE was observed (see photo J-20 and plate 5).

(2) Special training area #2 is on rural timberland with unpaved trails, though a four-wheel drive is not required. Part of this sub-site is tall forest, while part is recently harvested land. There were piles of trash on a side trail, but these appeared to be recent and not of military origin. No OE or trace of military activity was observed (see photo J-21 and plate 8).

(3) Special training area #3 is also in rural timberland, and a four-wheel is recommended. Like the other sub-sites, part is tall trees and part has been recently harvested. There was a berm for small arms, but Mr. Wood said this was put in by the State Police in the 1950s. There was no evidence of military usage or OE observed (see photo J-22 and plate 9).

(4) Special training area #4 is adjacent to route 319 a few miles east of Lanark south of the ammunition storage area. The only way into this sub-site is on foot through heavy forest with dense undergrowth. The only structure on the land is a Catholic Church, and the remainder is forest. There was no trace of military activity or OE observed (see photo J-23 and plate 5).

l. Area K - Dump

Mr. Curley Messer took us to the approximate site of the dump where he allegedly watched soldiers using bulldozers to dig ditches. This site is northeast of Lanark on the north side of the power lines. The area is primarily thick forest, though there are some cleared portions. There were numerous trash piles on the surface, but these appeared to fairly recent household material. There was no evidence of the ditches or OE (see photos J-24 and plate 5).

m. Area L - EOD Cleared Sites

(1) This area consists of four sub-sites in the eastern region of the former camp identified on the clearance map (see document L-7). Mr. Don Wood of St Joe Paper escorted the SI team through these sites. The largest of these sub-sites is 2,082 acres, and its eastern outline matches the shape of a typical rifle range, though it becomes irregular to the west. This site has numerous sandy trails, and a four-wheel drive is necessary. The land has been harvested twice, and Mr. Wood said all he has ever found was an old DUKW and a mess kit. It is primarily sandy timberland, though there are some marshes to the north. The team found nothing to suggest prior military usage and no OE (see photos J-25 & J-26 and plate 7).

(2) The second sub-site is narrow shoreline south of the Ochlocknee River (the northern shoreline is addressed in Area P below). This sub-site is primarily marshy shoreline, and the EOD clearance must have been a logistical challenge. The southern shoreline requires a four-wheel drive. No trace of military usage or OE was found (see photos J-27 & J-28 and plate 7).

(3) The third sub-site is 520 acres, most of which is a freshwater pond called Metcalf Lake. Although it is close to route 98, a four-wheel drive is required. The timber land has been harvested at least once, and the remainder of the sub-site is marsh and water. The team did not find any OE nor any evidence of military usage (see photo J-29 and plate 9).

(4) The fourth sub-site is a triangular-shaped parcel of 1090 acres. There are numerous sandy trails through this site, and a four-wheel drive is required. It is heavy forest with a

few small hills. Mr. Wood remembered finding a mess kit here many years ago, but no OE. There was no trace of military usage and no OE was observed (see photo J-30 and plate 9).

n. Area M - Clearings 1 and 3

(1) Clearing 1 is located adjacent to a residential area just north of Lanark, west of the main camp parade ground. There are paved roads going to the clearing, but any travel inside is on foot or four-wheel drive. This sub-site is light to heavy timberland with sandy soil. There was no evidence of military usage or OE found (see photo J-31 and plate 5).

(2) Clearing 3 is in an isolated region just north of route 98. There is a solid dirt road that leads in to this sub-site. The timber was harvested several years ago, but the seedlings are growing and there is heavy vegetation. The team did not find any trace of military usage or OE (see photo J-32 and plate 8).

o. Area N - Small Arms Ranges

(1) This area consists of three separate small arms range sites. From east to west they are the airfield rifle range, the main range complex, and the Turkey Point known distance range.

(2) The airfield rifle range is southwest of the airfield just off route 98/319. It is on the edge of a residential area and is easily reached on good dirt roads. We followed the owner to the site but he did not accompany us. The target butt is still present, but there are no signs of the firing lines or any other structures. The site is primarily open sand with some trees and a few piles of trash. No OE was found (see photo J-33 and plate 4).

(3) The main range complex is located about two miles north of Lanark on sandy trails, and a four-wheel drive is recommended. This complex is all St Joe timberland, all of which has been harvested twice and disked to 8". This complex includes the double pistol range, the double machine gun range, the east and west known distance ranges, and the double anti-aircraft range. Mr. Woods took us to all these ranges, and said he has found expended brass and bullets but no live rounds. On some of the ranges, the target butts are still present, while on others there is no trace of the ranges. The team did not observe any OE or brass (see photos J-34 and plate 6).

(4) The Turkey Point known distance range is south of route 98, and the danger zone goes out into the water. The

trails to the firing point are quite sandy, and a four wheel drive is required. The site has heavy forest with thick undergrowth, but the target butt is still visible. At one of the firing points, the team found an expended .30 caliber carbine cartridge case. No OE was observed (see plate 8).

p. Area O - All Other Land

This area consists of all FUDS-eligible property not included in area A through N. It included the main cantonment area, the three combat team areas, the ammunition storage area, beaches, swamps, and timberland. The SI team visited most of this area and did not find any evidence of OE (see photo J-35 and plates 5 thru 9).

q. Area P - Off-Post EOD Cleared Sites

This area was not qualified in the FDE, but was cleared by EOD in 1946. It extends off the official camp boundary into Wakulla County and part of the St Marks National Wildlife Refuge. Most of the sub-site is marshland, and the EOD clearance must have been a logistical challenge. The northeast shoreline has a few residences and is easily accessible. No trace of military usage or OE was observed from the southern or the northern shorelines (see photo J-36 and plates 3 & 7).

r. Area Q - USAF Radar Site

This is the site of the former engineer camp south of Carrabelle called Camp Belle. It is still owned by Tyndall AFB and is used to track aircraft in the Gulf of Mexico. It is not FUDS eligible and was not visited by the SI team (see plate 4).

7. EVALUATION OF ORDNANCE HAZARDS

a. General Procedures

(1) Each subsite was evaluated to determine confirmed, potential, or uncontaminated ordnance presence. Confirmed ordnance contamination is based on verifiable historical evidence, direct witness of ordnance items, or reliable indirect witness. Verifiable historical record evidence consists of ordnance items located on site since site closure and documented by local bomb squads, military Explosive Ordnance Disposal (EOD) Teams, newspaper articles, correspondence, and current findings. Direct witness of ordnance items consists of the site inspection team directly locating ordnance items by visual inspection. Additional field data is not needed to identify a confirmed site.

(2) Potential ordnance contamination is based on a lack of confirmed ordnance presence. Potential ordnance contamination is inferred from records or indirect witness. Inference from historical records would include common practice in range operations at that time which could have allowed present day ordnance contamination. Potential ordnance contamination could also be based on indirect witness or from present day site features. Additional field data is needed to confirm potential ordnance subsites.

(3) Uncontaminated ordnance subsites are based on a lack of confirmed or potential ordnance. There is no reasonable evidence, either direct or inferred, to suggest present day ordnance contamination. Additional field data is not needed to assess uncontaminated ordnance subsites.

b. Area A: Bazooka Range

This area is considered **confirmed**, based the SI team's finding numerous 2.36" rockets on the range (see photos J-1 thru J-3 and documents E-5 & H-6). In addition, the 1946 range clearance map identified this area as a "practice and HE rocket range" (see document L-7), though an aerial photograph shows this in a slightly different location (see photo K-13) and this area includes clearing #4. In 1960, the owner found a pile of rockets that the clearance team had apparently collected but neglected to remove or detonate (see document I-10).

c. Area B: Grenade Court

This area is considered **potential**, based on the SI team's discovery of fragments from HE grenades (see photo J-6). In addition, the 1946 range clearance map identified this area as a grenade range (see document L-7), and a Camp map refers to this area as the live grenade court at clearing #2. Part of this clearing was later paved over for a parade ground, and the exact site of grenade throwing may have been moved within the area. An historical photo shows a soldier throwing a grenade (see document K-11). Two former soldiers remembered throwing live and practice grenades, and one of these claimed that many duds were buried on the range (see documents I-4 and I-5). This burial practice could not be verified by any other source. The owner has found expended practice grenades in this area (see document I-10).

d. Area C - Arizona Street Dump

This area is considered **confirmed**, based on interviews with the owner and an EOD technician who told of the recovery of a practice rocket round (see documents I-14 and I-15). The owner also reported digging up bottles and other trash, and concluded

the area was a dump. Photos and a historical map show only barracks in this location (see documents K-13, K-14, and L-5). Also included in this area is the site where a resident found a practice mine in the street (see document I-13 and photos J-7 thru J-9).

e. Area D - Boat Dock

This area is considered **confirmed**, based on the owner's finding a case of projectiles in the mud several years ago (see document I-10 and photos J-10). It is likely that these items fell into the water during loading/unloading, as there were three docks near this site (see photo K-16).

f. Area E - Artillery Impact Zone

This area is considered **potential**, based on the 1946 range clearance map which identified this area as "105-155mm HE artillery impact area" (see document L-7). The first clearance team declared this area as restricted to grazing only, but the second clearance team withdrew this restriction (see document E-4). One local individual described old craters in the general area, and he remembered finding projectiles (see document I-8). This find could not be verified by any other source. The present owner could not recall anything found in the area (see document I-11).

g. Area F - Dog Island

This area is considered **potential**, based on the interview with a local resident who described finding shell fragments in 1948 (see document I-9). This could not be confirmed by any other source and the area was not cleared by EOD. Two soldiers said they made amphibious landings on Dog Island, but they did not recall the use of artillery (see documents I-3 and I-4). Local residents recalled seeing boats and paratroopers landing on Dog Island, but no smoke or explosions (see documents I-2 and I-6). It is possible that Dog Island was used for experimental firing of mortar and rocket rounds from Army landing craft (see document E-2).

h. Area G - Alligator Point Gunnery Range

This area is considered **potential** based on the 1946 EOD clearance map, which noted finding "bursting tubes - 100 lb, HE and practice" in this area prior to site closure (see document L-7). This area was restricted to grazing only by the first team, but the second team did not withdraw the restriction as it did on the artillery and bazooka ranges (see documents E-3 and E-4). Historical reports refer to this as a gunnery range, and

typical air-to-ground gunnery involved strafing with machine guns and sometimes rocket firing (see documents F-1 and F-2). A resident described finding thousands of empty brass cases on the beach, but no live ammunition (see document I-7). Other references describe amphibious training in the area (see document E-2), and one photo shows training with bangalore torpedoes at an unspecified beach (see document K-1). It is likely that the "bursting tubes" noted on document L-7 were either air-to-ground rockets or bangalore torpedos.

i. Area H - Red Beach, White Beach, and Green Beach

This area is considered **potential**, based on an historical map (see document L-1) and another reference which describes training activities with mines and demolitions on beaches near Lighthouse Point (see document E-2). One photo shows troops using a bangalore torpedo while a mine explodes in the background, but the location on D Beach does not provide a specific area (see photo K-1). It is likely that all three of these beaches were used for practice landings, and some of these landings probably included live and dummy bangalore torpedoes, practice mines, and dynamite/demolition charges.

j. Area I - Harbeson City

This area is considered as **potential**, based on it's use as special training area #5 for various training activities with live ordnance (see document E-2). One of these activities was the battle firing course, which used small arms only (see photo K-6a). This area also had a boat firing course, where troops fired machine guns from trucks which simulated moving boats (see photo K-7b). In addition, there was an infiltration course, where the troops crawled under live machine gun fire while dynamite sticks were exploded nearby (see documents I-4, I-5, and K-2). The troops used the old buildings of Harbeson City as a mock German village, using live bullets, hand grenades, and booby traps (see documents E-2 and K-7a). Although only the infiltration course and the mock German village used HE items, their locations within this area are unknown and the entire area must be considered potentially contaminated.

k. Area J- Special Training Areas 1, 2, 3, and 4

The four sub-sites in this area are considered **potential**, based on records that state their use for grenade and demolition training as well as other non-explosive training such as bayonet and self-defense (see documents E-2 and L-3). Although references (see documents L-2 and L-7) imply that only one site used live grenades (area B described above), other references do not specifically state what ordnance was used in these special

training areas. It is possible that practice grenades, practice mines, and HE demolition items were used in these areas, though nothing has ever been reported. The one practice mine that was found may have come from one of these areas (see document I-13).

l. Area K - Dump

This area is considered **potential**, based on an interview with a former soldier and local resident who claimed to have witnessed the burial of motors, batteries, jeeps, oil drums, desks, and other items, including ordnance, in this general area when the camp closed in 1946 (see document I-4). The presence of this dump was not confirmed by other sources.

m. Area L - EOD Cleared Sites

These four sub-sites are considered **potential**, based on the fact that the first team cleared these sites in 1946 (see document L-7). The locations of these sites do not match the training areas shown on other maps (see documents L-2 and L-3), and other references do not provide any information on their use. There is no data on what these sites were used for, and no OE has been reported. It is possible that one of these sub-sites, the 1090 acres triangle north of Alligator Point, may have been cleared of prematurely fired ordnance meant for the aerial gunnery range (see documents L-3 and L-7).

n. Area M - Clearings 1 and 3

These three sub-sites are considered **uncontaminated**, based on a report that describes their use for amphibious training such as climbing down cargo nets and disembarking simulated boats (see document E-2). Although clearings 2 and 4 were used for ordnance training (see areas A and B above), there is no information to conclude that any ordnance-related training took place on these three sites. No OE was found during the site visit and none has been reported (see document I-10).

o. Area N - Small Arms Ranges

This area is considered **uncontaminated**, based on the site visit, common practice, historical maps, and numerous interviews (see documents I-3, I-8, and I-10). This area includes the airfield rifle range, the main range complex, and the Turkey Point known distance range. All available information indicated that only small arms (.50 caliber and below) were used at these ranges, and only fired bullets have been recovered (see document I-10).

p. Area O - All Other Land

This area is considered **uncontaminated**, based on the site visit, historical references, and interviews. This area includes the airfield, the cantonment areas, the ammunition storage areas, beaches, and forest. There is no information to support the fact that any live ordnance remains in this area.

q. Area P - Off-Post EOD Cleared Sites

This area is considered **potential** because it was included in the areas cleared by EOD in 1946 (see document L-7). It is primarily marsh within the St Marks National Wildlife Refuge, though there are some residences along the northern shoreline. There is no information on its military usage, and there have been no reports of found OE or any military artifacts.

r. Area Q - USAF Radar Site

This area is still under DoD ownership and is not eligible for DERP-FUDS.

8. SITE ORDNANCE TECHNICAL DATA

a. End Item Technical Data

(1) The ASR team found only general information on the types of ammunition used on Camp Gordon Johnston. Although the historical references described ordnance training activities, they provided little specific data. Table 8-1 shows generic ammunition items mentioned in references, and this list is consistent with common ground training practices at similar camps. Drawings of some of the items can be found in appendix D.

| TABLE 8-1 | | |
|--|--------------|---|
| SURFACE AMMUNITION USED AND EXPLOSIVE/CHEMICAL FILLER | | |
| ITEM | MODEL | FILLER/WEIGHT |
| Small Arms | | |
| .30 cal | M2 ball | Lead antimony with gilding metal jacket |
| | M1 tracer | Tracer composition |
| | M1909 blank | None |
| .45 cal | M1911 ball | Lead antimony with gilding metal jacket |
| .50 cal | M2 ball | Lead antimony with gilding metal jacket |

TABLE 8-1 (continued)
SURFACE AMMUNITION USED AND EXPLOSIVE/CHEMICAL FILLER

| ITEM | MODEL | FILLER/WEIGHT |
|-----------------------------|--------------|------------------------------------|
| Hand grenades | | |
| Fragmentation | Mk 2 | .1 lbs TNT |
| | Fuze M204 | .006 lbs black powder |
| Practice | M21 | .1 oz black powder |
| | Fuze M205 | .006 lbs black powder |
| Tear gas | M7 | .7 lbs CN |
| | Fuze M200A1 | Black powder |
| Rifle grenades | | |
| Anti tank | M9 | .25 lbs Pentolite |
| | Fuze, BD | Tetryl |
| Practice | M11A3 | Inert |
| Land mines | | |
| Anti personnel, practice | M8 | .24 lbs black powder |
| | Fuze M10A1 | |
| Anti tank, practice | M1B1 | Inert |
| | M1 | Smoke charge |
| Simulators | | |
| Firecracker | M80 | .0005 lbs potassium perchlorate |
| Trip flare | M49 | Black powder & illuminating candle |
| Demolition Items | | |
| Blasting caps | Electric | .0029 lbs tetryl |
| | Non-electric | .0029 lbs tetryl |
| Time fuze | None | Black powder |
| Detonating cord | None | PETN |
| TNT Block | None | 1 lb TNT |
| Bangalore torpedo | M1A1 | 107 lbs amatol |
| Rockets, 2.36" | | |
| High explosive | M6A1 | .47 lbs pentolite |
| | Fuze, M400 | .0006 lbs tetryl |
| Practice | M7A1 | Inert |

TABLE 8-1 (continued)
SURFACE AMMUNITION USED AND EXPLOSIVE/CHEMICAL FILLER

| ITEM | MODEL | FILLER/WEIGHT |
|---------------------------------------|----------------------|---------------------------------------|
| Rockets, 4.5" | | |
| High explosive | M8 Fuze M4 | 4.3 lbs TNT Tetryl |
| Practice | M9 Fuze | Inert None |
| Mortars, 60mm | | |
| Training | M69 | Inert |
| Practice | M50A2 Fuze PD M52 | .05 lbs black powder pellet Tetryl |
| High explosive | M49A2 Fuze PD M52 | .34 lbs TNT Tetryl |
| Mortars, 81mm | | |
| Training | M68 | Inert |
| Practice | M44 | .2 lbs black powder |
| High explosive | M43 Fuze PD M45 | 1.22 lbs TNT Tetryl |
| Mortars, 4.2" | | |
| High explosive | M3 Fuze PD M57 | 8.1 lbs TNT Lead azide |
| White (WP) phosphorous | M328 Fuze PD M9 | 7 lbs WP Lead azide |
| Projectiles | | |
| 105mm HE | M1 Fuze PD M48 | 4.8 lbs TNT Tetryl |
| 155mm HE | M102 Fuze PD M51 | 15 lbs TNT Tetryl |
| Note: This lists typical models only. | | |

(2) Historical documents indicated that aircraft equipped with .50 caliber and 37 mm guns used the Alligator Point Gunnery Range. It is possible these aircraft also fired rockets on this range. Specific data is not available, and table 8-2 lists typical models used during that era.

| TABLE 8-2 AERIAL AMMUNITION USED AND EXPLOSIVE/CHEMICAL FILLER | | |
|---|-------------|---|
| ITEM | MODEL | FILLER/WEIGHT |
| Projectile, .50 caliber | M2 ball | Lead antimony with gilding metal jacket |
| | M1 tracer | Tracer composition |
| Projectile, 37mm High explosive | M54 | .1 lb tetryl |
| | Fuze PD M56 | .004 lbs black powder |
| Practice | M55A1 | Inert |
| | Fuze M50 | Inert |
| Rockets | | |
| | 4.5" HE | |
| | T83 | 8.8 lbs TNT |
| | Fuze Mk149 | Tetryl |
| 4.5" practice | T86 | Inert |
| 5" HE | HE | 7.5 lbs TNT |
| | Fuze Mk149 | Tetryl |
| Note: This lists typical models only. | | |

b. Chemical Data of Ordnance Fillers

Table 8-3 lists chemical data of the ordnance fillers noted in tables 8-1 and 8-2.

| TABLE 8-3 CHEMICAL DATA OF ORDNANCE FILLERS | | |
|--|--|-----------------------------|
| Explosive Material | Synonyms | Chemical Compounds |
| TNT | 2,4,6-trinitrotoluene | $C_7H_5(NO_2)_3$ |
| Amatol 50/50 | | |
| 50% TNT | See above | See above |
| 50% Ammonium Nitrate | AN | NH_4NO_3 |
| PETN | Pentaerythritol tetranitrate | $C_5H_8O_4(NO_2)_4$ |
| Pentolite | 50% PETN, 50% TNT | See above |
| Black powder | Saltpeter, niter | KNO_3SC |
| Tetryl | 2,4,6-trinitrophenyl methane nitromine | $(NO_2)_3C_6H_2N(CH_3)NO_2$ |
| CN | Chloroacetophenone | $C_6H_5CO-CH_2Cl$ |
| Potassium perchlorate | | KNO_3 |

9. OTHER ENVIRONMENTAL HAZARDS

a. Hazardous, Toxic, and Radiological Waste

CESAJ has several projects planned for the Camp Gordon Johnston property. The ASR team did not note any additional HTRW or CON/HTRW projects at this time. However, if area K is verified as a dump, then this area may warrant an additional HTRW project.

b. Building Demolition/Debris Removal

CESAJ has several projects planned for the Camp Gordon Johnston property. The ASR team did not observe any additional BD/DR projects at this time.