

Next Steps

A report is now being prepared to describe how the investigation was carried out and what the investigation found. After the report has been completed and reviewed by regulatory agencies, it will be available to the public.

The Base will prepare an Engineering Evaluation/Cost Assessment to evaluate options for future actions as necessary to protect public safety and the environment within the former Off-Base SDZs. The Engineering Evaluation/Cost Assessment will be available for public comments.



The '3 Rs' of munitions safety are always important to know, especially in areas around active or former ranges. Munitions are sometimes hard to identify. If you have found something you even think *might* be a munition:

- RECOGNIZE: Do not touch it
- RETREAT: Note the location and move away
- REPORT: Call 911

Local authorities can call on the Base for assistance, if needed, to identify and safely dispose of suspected munitions.



Common metallic objects found



Rocket warhead



Aircraft Flare



Rocket motor



Investigation Background

To ensure that Marine Corps Base Camp Lejeune units are combat ready, certain areas on the Base are used to train military personnel in the use of munitions. For safety purposes, each munitions training range is associated with a safety buffer area, called a surface danger zone (SDZ).

Several years ago, Camp Lejeune discovered that portions of some SDZs had been located outside the surveyed Base boundary during specific periods dating back to the 1940s.

Although there has been no indication that a safety risk exists, munitions or munitions-related debris could have accidentally landed beyond the boundaries of the Base.

The purpose of this investigation was to:

1. Determine if military munitions or munitions-related debris are present in off-Base areas
2. Identify any potential safety or environmental risks
3. Determine if any further action is necessary to protect human health and the environment.

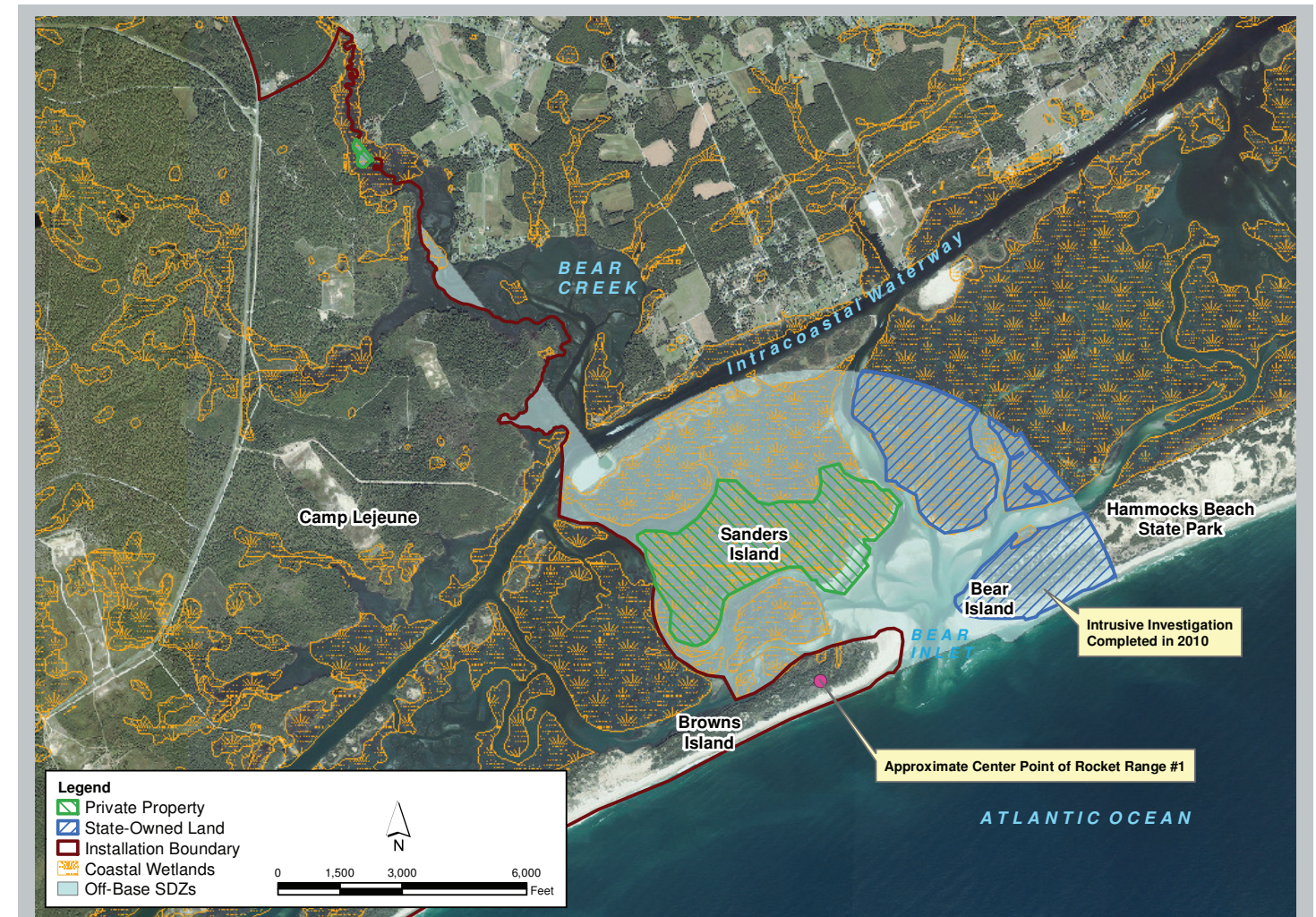


Figure 1 – Investigation Area

How to Find More Information

You can learn more about this investigation online at:
<http://www.lejeune.marines.mil/SDZ>

Reports and previous fact sheets about the Former Off-Base SDZs investigation are available at:

Swansboro Branch Library
 460 West Corbett Avenue
 Swansboro, NC 28584
 Phone: 910-326-4888

If you have questions, please contact:

Joe Ramirez
 910-451-7645
joe.m.ramirez@usmc.mil

Investigations Completed

From October 2009 through May 2010, Camp Lejeune conducted an initial site investigation of the former off-Base surface danger zones (SDZs). A digital geophysical mapping (DGM) survey identified the locations of over 4,000 metallic objects (called “anomalies”).

DGM technology does not distinguish between munitions and other metallic objects that are commonly found in the coastal environment, such as beverage cans, crab pots, or anchors. Therefore, follow-on “intrusive” investigations of selected anomalies were conducted, so that munitions experts could determine if they were munitions or munitions debris.

Intrusive Investigation of Bear Island

In 2010, the Base conducted a combined geophysical survey and intrusive investigation of a 198-acre area on the south end of Bear Island (Hammocks Beach State Park). This area was the highest priority, because many people visit the park.

An unexpended aircraft flare (which had not fired and could still have been dangerous) was found in a heavily vegetated area. The flare was moved to a disposal pit about 75 feet away and safely destroyed by controlled detonation. Several munitions debris items were found but none presented an explosive hazard.

Intrusive Investigation of Remaining Area

From March 2013 through May 2013, Camp Lejeune completed a follow-on “intrusive” investigation of selected anomalies in the remainder of the investigation area. During the intrusive investigation, the team used hand-held metal detectors to find each anomaly and then dug it up by hand for identification.

The team dug to a maximum depth of 3 feet below the ground surface. Digging stopped once a hole filled with water, because it became too difficult to see and safely identify the object.

Areas Investigated

Figure 1 shows the off-Base SDZ areas that were investigated in 2010 and 2013. The majority of the area consists of the surface danger zone for Rocket Range #1, which has not been used for more than 50 years. The investigation area is mostly marshland and includes:

- The south end of Bear Island (Hammocks Beach State Park)
- Two private properties on upper Bear Creek
- State-owned salt marshes that lie between Bear Island and the mainland

- State waters used for fishing and recreation, including portions of Bear Creek
- Shallow water areas of the Atlantic Intracoastal Waterway
- Several small islands, where sediment had been deposited when the Atlantic Intracoastal Waterway was dredged to maintain the channel

There are no permanent residences or commercial buildings within the investigation area.



Investigation Results

Seven munitions items and 79 munitions debris items were found, primarily in areas that were difficult to access (**Figure 2**). With the exception of the unexpended aircraft flare that was found during the 2010 work on Bear Island, the munitions were found near Browns Island close to the former target area for Rocket Range #1.

In the rest of the investigation area, munitions debris determined to be safe and other common metallic objects (crab pots, boat anchors, beverage cans, and pipes) were found. Most of the munitions debris was found on Sanders Island and in the marsh just north of Browns Island.

The seven munitions items found were:

- Four inert practice items that did not contain explosives (three 2.75-inch rocket warheads and one 5-inch rocket warhead)
- Two items filled with explosives (one 2.75-inch rocket warhead and one 5-inch rocket warhead)
- One unexpended aircraft flare

Munitions items were moved to disposal pits in a remote location and safely destroyed by controlled detonation. Munitions debris, non-explosive items, and other metallic objects were collected and recycled, in accordance with state and federal laws and regulations.

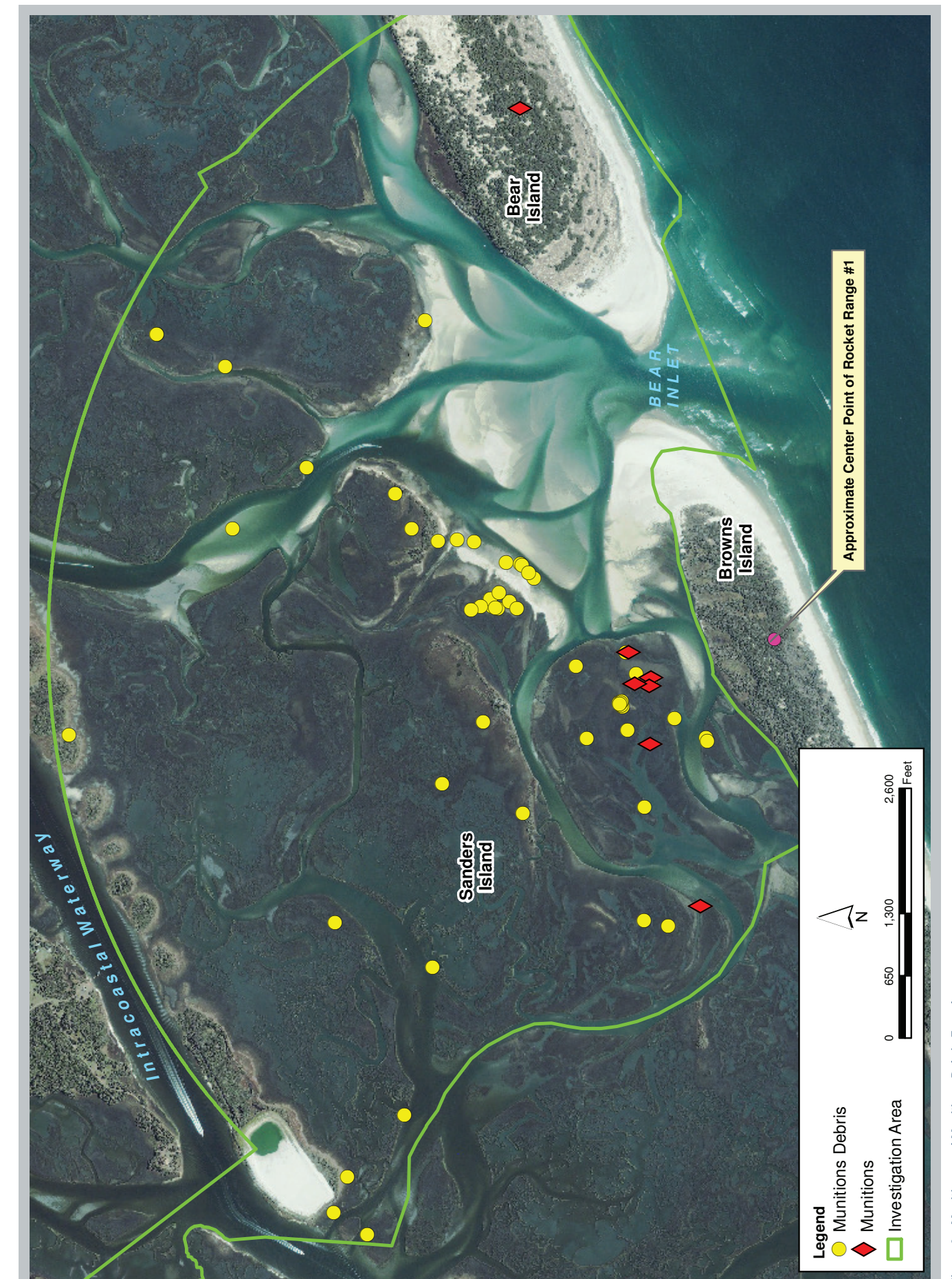


Figure 2 – Munitions and Munitions Debris Found