

1 Purpose of and Need for the Proposed Action

1.1 Background

This Final Environmental Impact Statement (FEIS) evaluates the potential environmental impacts associated with the proposed modernization and expansion of Townsend Bombing Range (TBR) in McIntosh County, Georgia, that would provide a modern and realistic training environment for the F/A-18 pilots of Marine Aircraft Group 31 (MAG-31), stationed at Marine Corps Air Station (MCAS) Beaufort, South Carolina, by accommodating the use of inert (with spotting charges) precision-guided munitions (PGMs) and the larger safety zones their use requires.

1.1.1 Introduction to the National Environmental Policy Act

This FEIS is prepared in accordance with Section (102)(2)(c) of the National Environmental Policy Act (NEPA) of 1969 and regulations implemented by the Council on Environmental Quality (CEQ; 40 Code of Federal Regulations [CFR] Parts 1500-1508), United States Department of the Navy (DON) NEPA regulations (32 CFR Part 775), and United States Marine Corps (USMC) NEPA directives (Marine Corps Order [MCO] P5090.2A, Chapter 12, change 2). NEPA requires federal agencies to examine the potential impacts of their proposed actions on the human environment, which includes the natural and physical environment, and the relationship of people with that environment. An EIS is a public document that complies with the requirements of NEPA by assessing the potential impacts that a major federal action may have on the human environment.

1.1.2 Overview of Marine Corps Mission and Training

The United States effectively responds to international disruptions and conflicts because its armed forces conduct realistic training exercises that allow them to acquire and maintain critical combat skills at the level necessary to meet real-world events. The USMC is the Nation's force in readiness and must be prepared to deploy to meet a range of global contingencies as an air-ground task force. Before deploying, USMC aviation units must be proficient in various skills, and they must train as they expect to fight in order to fulfill their national security and military missions. USMC aviators must train and be proficient in multiple mission areas, which include the delivery of PGMs and use of air-to-ground weapons against a variety of target types to prepare for various combat scenarios. The USMC meets aviation training requirements, in part, by conducting air-to-ground training exercises and ensuring Marine aviators have access to ranges and airspace to develop and maintain skills for wartime missions and conduct training with various weapons systems.

1.1.3 Precision-Guided Munitions

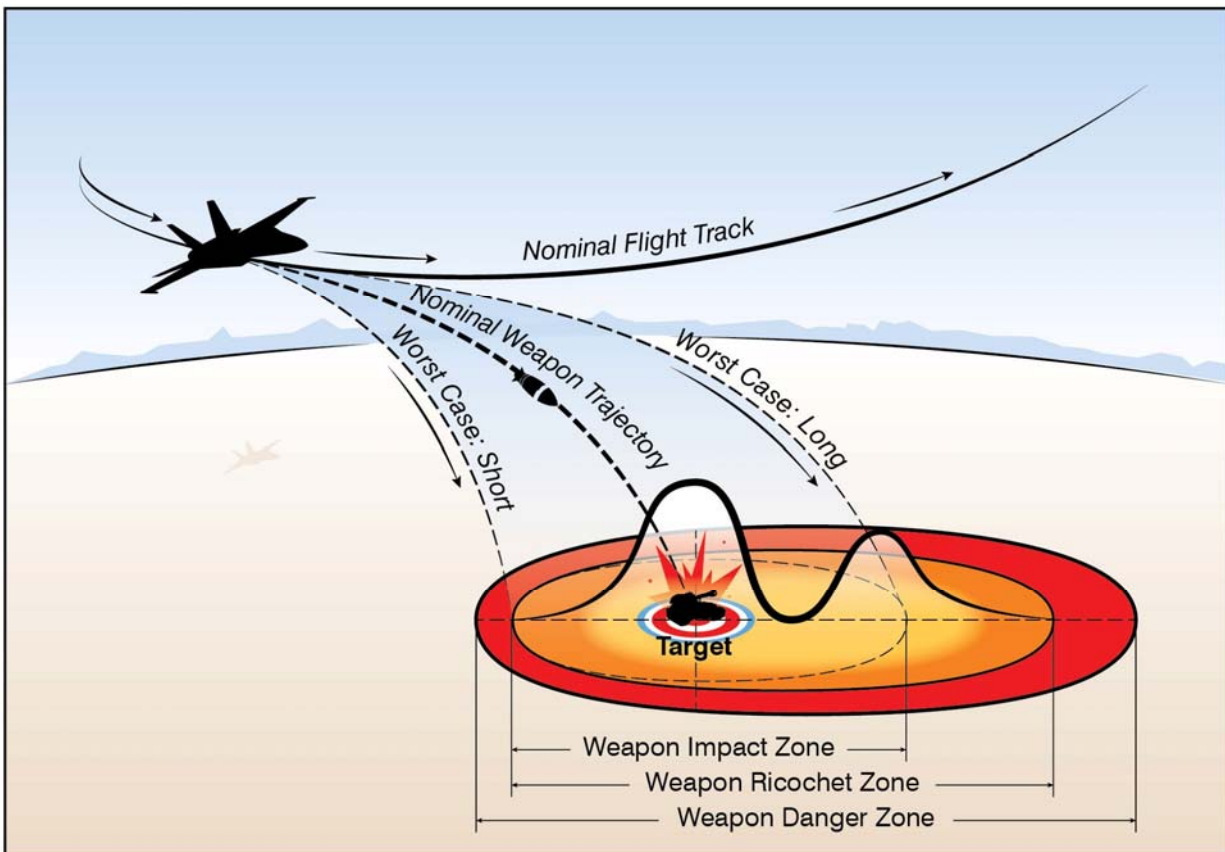
PGMs are guided, advanced weapons that are designed to precisely hit a specific target. They are made with laser and/or global positioning system (GPS) guidance systems with operable fins that correct the munitions' trajectory. Because of its ability to correct itself in-flight to the target, PGMs are often referred to as "smart bombs." PGMs are released from higher altitudes and at greater distance from the target than unguided weapons. Unguided munitions are free-falling when released from the aircraft and they descend toward the target with no ability to change their trajectory. Therefore, unguided weapons are often referred to as "dumb bombs." Unguided or General Purpose (GP) munitions are released at lower altitudes and at a closer distance to the target. Dumb bombs lack the potential to stray far from their initial trajectory or line of release. By comparison, a PGM's guidance system ensures a high level of accuracy; however, if the guidance system malfunctions, the higher altitudes and greater distance from which these

1. Purpose of and Need for the Proposed Action

weapons are employed give them the potential to stray further from the intended target than their unguided GP counterparts.

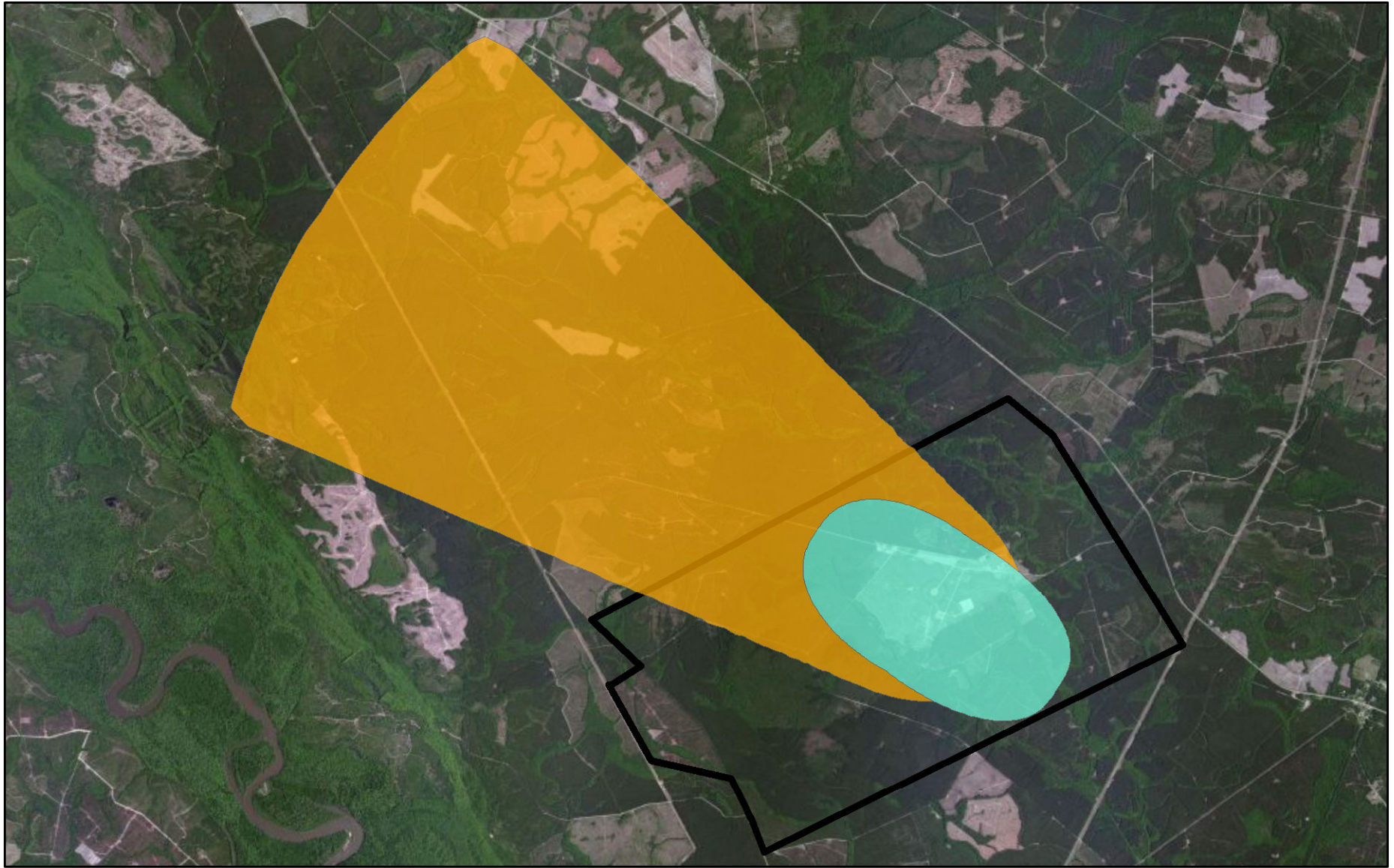
1.1.4 Weapon Danger Zones


A Weapon Danger Zone (WDZ) footprint represents a specific area drawn about a target based on weapons containment. Containment is defined as all weapon impacts, including ricochets, occurring within the WDZ. As outlined above, although PGMs are more accurate and have lower failure rates than unguided GP weapons, the WDZ requirements are much larger because the WDZ must contain the area within which the weapon could impact the ground if the guidance system failed. By definition, as illustrated on Figure 1-1, a WDZ is a three-dimensional zone that encompasses the ground and airspace for lateral and vertical containment of projectiles, fragments, debris, and components resulting from the firing, launching, and/or detonation of air-to-ground ordnance. WDZs are sometimes informally known as “safety zones.” WDZs are developed for a specific air-to-ground munitions-delivery training event. The modeling software, WDZ Tool, considers the weapons dynamics (accuracy and fail rates), release parameters (airspeed, altitude, dive angle, and run-in heading), target material, and soil types to develop the WDZs. WDZ Tool is the United States Department of Defense’s (DOD’s) standard modeling program for determining WDZs. Due to the potential for a PGM to stray further from the intended target than their unguided GP counterparts, their WDZs are larger (please refer to Section 1.1.3). Figure 1-2 illustrates the size difference between PGM and GP WDZs where all the training parameters are the same, except the munition.



SOURCE: Ecology and Environment, Inc. 2012

Figure 1-1: Weapon Danger Zone



 Existing Range

 GP WDZ

 PGM WDZ

GP = General Purpose Munition
PGM = Precision-Guided Munition
WDZ = Weapon Danger Zone



0 1 2
Miles

Figure 1-2
WDZ Comparison
Townsend Bombing Range
McIntosh and Long Counties, Georgia

Sources: Bing Maps 2009,
McFadden 2012

1.2 Purpose of and Need for the Proposed Action

MCAS Beaufort, South Carolina, is home to MAG-31, which has six operational F/A-18 Hornet Squadrons. The F/A-18 is a fighter and attack jet aircraft that carries out air-to-air and air-to-ground missions from land bases and aircraft carriers. MAG-31 conducts anti-air-warfare and offensive air support operations in support of Fleet Marine Forces from advanced bases, expeditionary airfields, or aircraft carriers and conducts other air operations as directed.

Through the preparation of a Universal Need Statement (UNS; May 1, 2003), MAG-31 identified its requirement for a local air-to-ground training range that allows aircrews to utilize PGMs in a realistic training environment. Following the preparation of the UNS, the USMC began the process to certify the requirement to establish an air-to-ground training range to support MAG-31's aviation training needs and develop the approach to accommodate this requirement. In 2009, the Marine Requirements Oversight Council (MROC) concurred with the concept to expand TBR. Thus, the MROC approved the requirement to establish an East Coast range capable of supporting PGM training and determined that modernization of TBR was critical to ensuring the effective training of East Coast-based Marine Corps aviation units.

The MROC's concurrence with MAG-31's need for a local air-to-ground range that can accommodate realistic PGM training allowed the USMC and the DON to request the DOD's approval to study the land acquisition alternatives that could support the creation of a modernized air-to-ground training range. The Office of the Secretary of Defense approved the request in December 2009. Based on these developments, the USMC initiated the preparation of this FEIS to examine the potential impacts of the proposed land acquisition and airspace modification alternatives that could meet the training requirement.

To fulfill MAG-31's aviation training requirement to train with PGMs in a realistic training environment and achieve readiness proficiency for air-to-ground operations for MAG-31 F/A-18 pilots, the USMC proposes to modernize and expand TBR. This modernization and expansion of TBR would provide an up-to-date, air-to-ground training range for MAG-31 F/A-18s that would safely accommodate the use of inert PGMs, as well as the suite of inert weapons that are currently used at TBR, and thus achieve greater readiness proficiency for air-to-ground operations. Inert weapons contain no explosives, but may contain a small smoke charge (spotting charge) to assist in scoring the event and providing feedback to the pilot.

It is critical that TBR, as the primary air-to-ground range for MAG-31, has the capability to accommodate MAG-31's operational requirements, including training in the employment of PGMs, and the adaptability to accommodate evolving training needs and areas of emphasis. TBR is one of four air-to-ground ranges within the USMC's inventory on the East Coast and one of seven USMC ranges in the United States that support air combat/air-to-ground operations. TBR is centrally located between the Gulf Coast and the Eastern Seaboard and, because of its strategic location, is an ideal venue in support of military training requirements.

Munitions that are currently utilized for training at TBR are unguided, inert weapons. Under TBR's present configuration, it is unable to meet all the requirements of the current F/A-18 air-to-ground training syllabus, including the delivery of PGMs; furthermore, no range within the local flying area is capable of supporting MAG-31's required level of PGM training. Please refer to Section 2.1, Range Identification Process, for more information.

MAG-31 aviators must rely on training ranges in the southwestern United States to meet individual aircrew PGM training and readiness requirements. This reliance on the southwest ranges renders the USMC aviation training suboptimal and inefficient. When traveling to the southwest ranges to train, MAG-31 aviators must focus on their core skill requirements for PGM training. However, the southwest ranges are best suited for advanced-level and higher skills training. These core-skill PGM training requirements could be more efficiently accomplished at a range on the East Coast.

1.3 Overview of Townsend Bombing Range

TBR comprises 5,183 acres in the northwest portion of McIntosh County in southeast Georgia, approximately 60 miles south-southwest of Savannah, 20 miles inland from the Atlantic Ocean, and 15 miles northwest of the Town of Darien (Figure 1-3). State Highway (Hwy.) 57 parallels TBR's northeastern boundary and provides access to Tram Road, which leads to the cantonment area. TBR is entirely bordered by privately owned forestlands that are actively harvested and used for hunting. The Altamaha River lies to the southwest. For the MAG-31 F/A-18 aircrew traveling from MCAS Beaufort to TBR, flight distance is approximately 70 nautical miles (NM) or roughly a 20-minute flight in the F/A-18.

1.3.1 Mission and Air-to-Ground Training

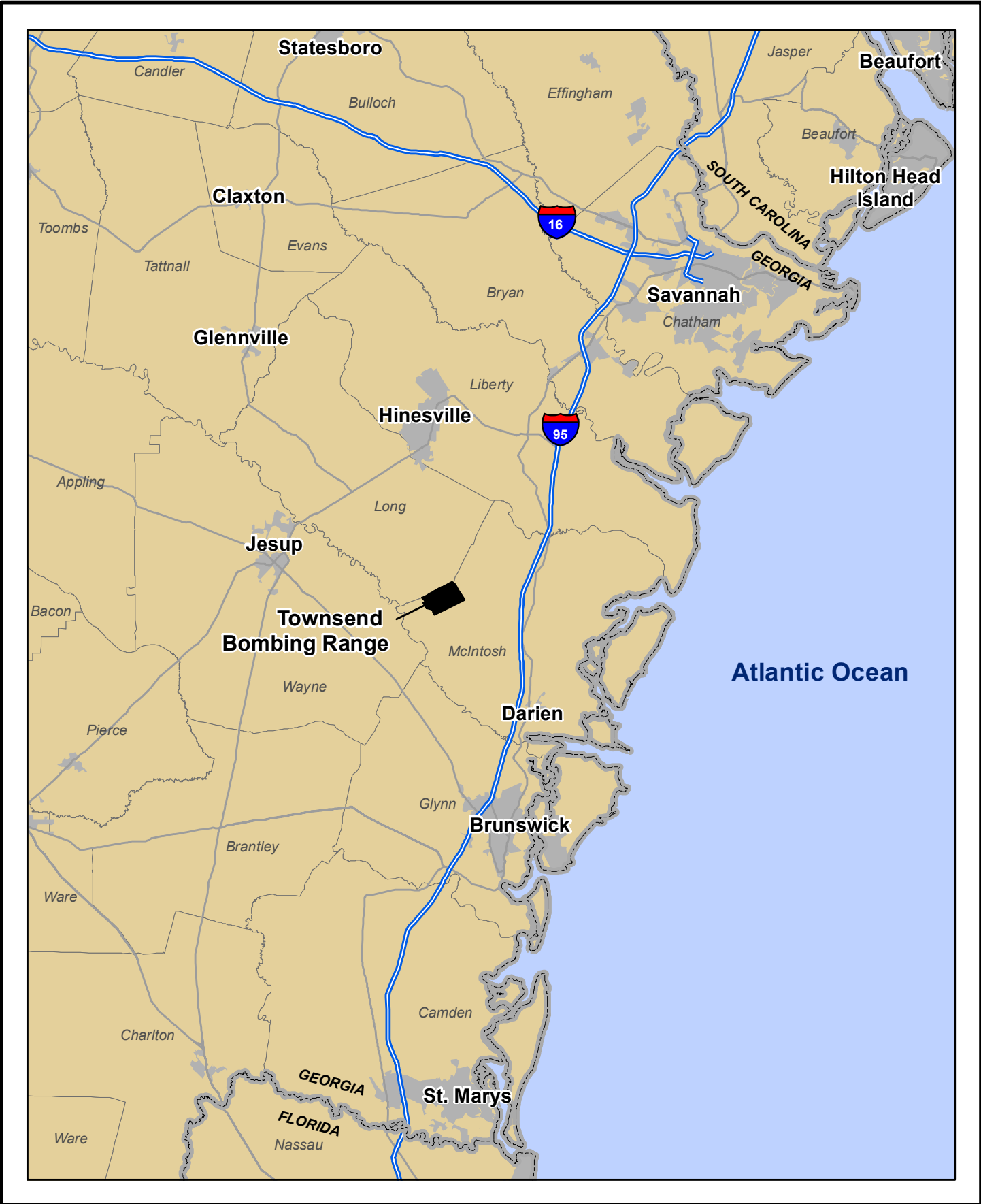
TBR's overall strategic mission is to support military operational readiness by providing a realistic, training environment for MAG-31 and other users. TBR is defined by U.S. Air Force range operation regulations as a Class A Range. As a Class A Range, TBR is a manned range with weapons scoring capability from the ground and a Range Control Officer (RCO) who is present on the range and is in charge of aircraft operations. The current training operations at TBR are governed by a series of military plans, policies, and procedures.

Currently, operations at TBR fulfill several critical F/A-18 training requirements; these operations are used to fine-tune air-to-ground ordnance delivery and gunnery proficiency, and to practice electronic warfare and other combat skills. The air-to-ground training at TBR provides aircrew with the opportunity to practice the delivery of inert munitions, also referred to as ordnance, from aircraft to fixed and relocatable targets on the ground. TBR training involves the use of only inert munitions.

1.3.2 Airspace and Operations

TBR has a large amount of special use airspace (SUA) associated with the range and has close proximity to offshore training areas. The volume of airspace makes TBR an ideal facility for realistic combat training. SUA is airspace designated by the Federal Aviation Administration (FAA) that has a defined vertical and lateral limit where military activity or unusual flight conditions may occur. Its designation serves to alert any non-participating aircraft that military activity is taking place in the area. Airspace associated with TBR includes Restricted Areas R-3007A, B, C, and D, Coastal Military Operations Areas (MOAs), offshore Warning Areas (W-Areas), and the associated Military Training Routes (MTRs), which serve as airspace corridors for navigation between SUA units and for low-level flight and tactical training (Figure 1-4). Further description of airspace is provided in Section 3.6.

TBR is operated jointly by MCAS Beaufort and the Savannah Combat Training Readiness Center (CRTC). The land component of TBR is owned by MCAS Beaufort. The CRTC is designated as the Using Agency for the SUA that is associated with TBR: Restricted Areas R-3007A, B, C, and D (FAA Joint Order 7400.8, February 2011, and 14 CFR 73.15). The relationship between MCAS Beaufort and the Savannah CRTC is governed by a host-tenant real estate agreement. The Savannah CRTC carries out operational control and maintenance of TBR. Range operations are guided by an interagency agreement and by internal range management protocols/procedures associated with safety, security, emergency response and other operational requirements (e.g., natural resources management).



- Townsend Bombing Range
- State Boundary
- Highways
- Urban Area
- Counties

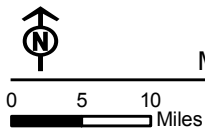


Figure 1-3
Regional Location
Townsend Bombing Range
McIntosh and Long Counties, Georgia

Sources: Based on Lusk 2009, Esri 2008

1. Purpose of and Need for the Proposed Action

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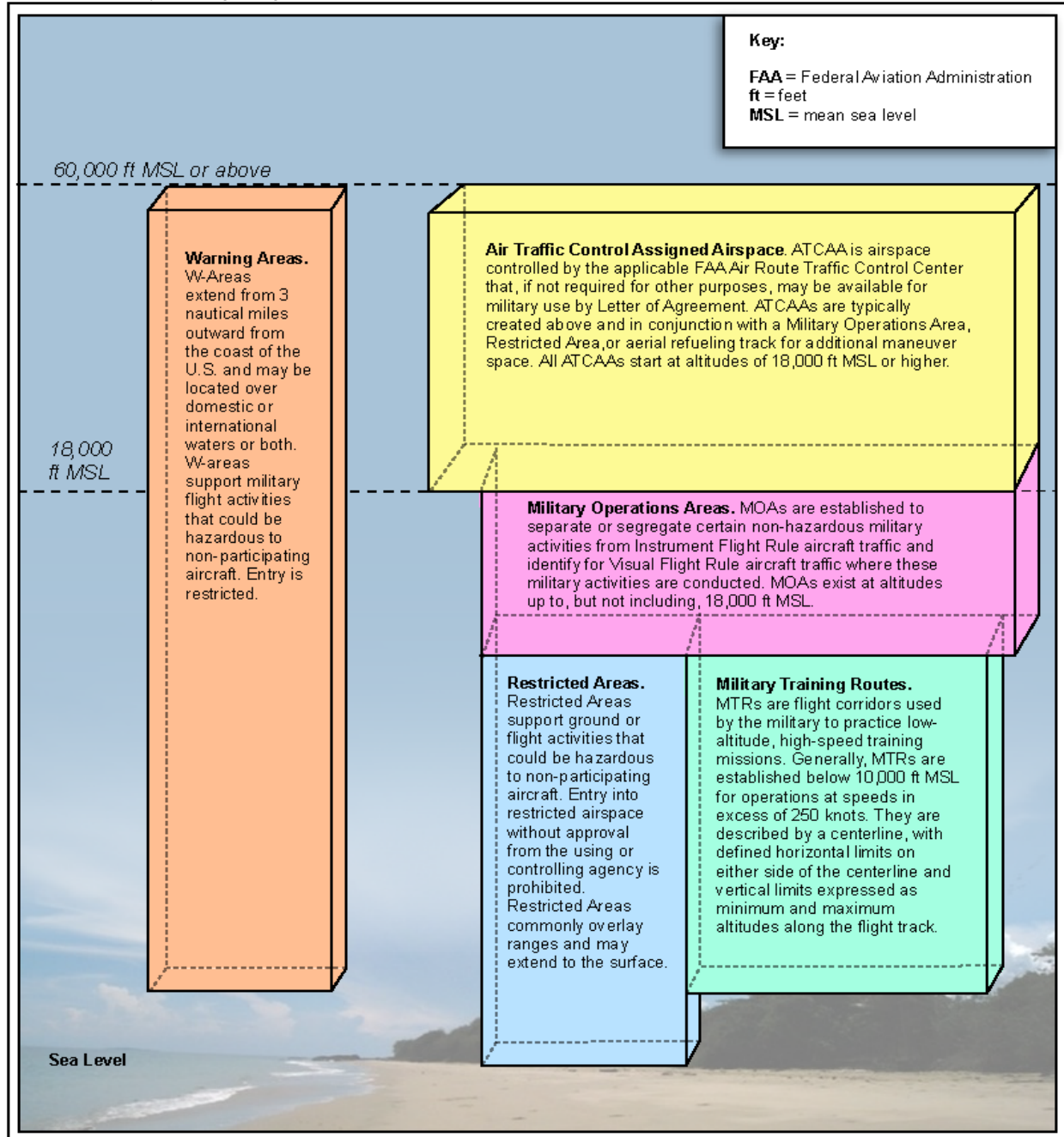


Figure 1-4: Types of Special Use Airspace

1.4 Cooperating Agencies

As defined in 40 CFR § 1508.5, a cooperating agency “means any federal agency other than a lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major federal action significantly affecting the quality of the human environment.”

The Georgia Air National Guard (GA ANG) has been invited to participate as a cooperating agency in the development of this FEIS since it operates and maintains TBR. The FAA has been invited to participate as a cooperating agency because the agency has authority over the existing Restricted Area R-3007A, which would be modified under the Proposed Action. Due to the presence of wetlands in the proposed acquisition areas, the USMC has invited the United States Army Corps of Engineers (USACE) to be a cooperating agency.

The GA ANG accepted the invitation by letter dated November 16, 2010; the FAA accepted by letter dated April 8, 2011; and the USACE accepted by letter dated May 26, 2011 (see Appendix C of the Scoping Summary Report, provided herein as Appendix A). The USMC will regularly coordinate with these agencies throughout the EIS process.

1.5 Relevant Executive Orders, Statutes, and Permits

In accordance with CEQ NEPA regulations (40 CFR Parts 1500-1508), the USMC is preparing this FEIS concurrently with related surveys and studies required by applicable environmental laws, regulations, and Executive Orders (EOs). These regulatory requirements include, but are not limited to, the laws, regulations, and EOs detailed in Table 1-1.

1. Purpose of and Need for the Proposed Action

Table 1-1 Major Federal Environmental Laws, Regulations, and Executive Orders Applicable to the Proposed Action	
Environmental Resource	Law, Regulation, or Executive Order (EO)
Air Quality	Clean Air Act of 1970 (Public Law [PL] 95-95), as amended in 1977 and 1990 (PL 91-604); United States Environmental Protection Agency (USEPA), Subchapter C, Air Programs (40 Code of Federal Regulations [CFR] Parts 52-99); and 40 CFR Part 63, National Emissions Standards for Hazardous Air Pollutants.
Biological Resources	Migratory Bird Treaty Act of 1918; Sikes Act of 1960 (PL 86-97) and Amendments of 1986 (PL 99-561) and 1997 (PL 105-85 Title XXIX); Endangered Species Act of 1973 (PL 93-205) and Amendments of 1988 (PL 100-478); Lacey Act Amendments of 1981 (PL 97-79); and Responsibilities of Federal Agencies to Protect Migratory Birds (EO 13186).
Cultural Resources	National Historic Preservation Act (16 United States Code [U.S.C.] 470 et seq.) (PL 89-865) as amended; Protection and Enhancement of the Cultural Environment 1971 (EO 11593); Indian Sacred Sites 1966 (EO 13007); American Indian Religious Freedom Act of 1978 (PL 94-341); Native American Graves Protection and Repatriation Act of 1990 (PL 101-601); Protection of Historic Properties (36 CFR Part 800); Preserve America (EO 13287); Archaeological Resources Protection Act (PL 96-95; 16 U.S.C. 470).
Geology and Soils	National Pollutant Discharge Elimination System (NPDES) Construction Activity General Permit (40 CFR Parts 122-124).
Hazardous and Toxic Substances and Waste	Resource Conservation and Recovery Act of 1976 (PL 94-5800), as Amended by PL 100-582; USEPA, Subchapter I, Solid Wastes (40 CFR Parts 240-280); Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601) (PL 96-510); Toxic Substances Control Act (PL 94-496); USEPA, Subchapter R, Toxic Substances Control Act (40 CFR Parts 702-799; Federal Insecticide, Fungicide, and Rodenticide Control Act (40 CFR Parts 162-180); Emergency Planning and Community Right-To-Know Act (40 CFR Parts 300-366); Federal Compliance with Pollution Control Standards 1978 (EO 12088); Superfund Implementation (EO 12580); Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition (EO 13101); Greening the Government Through Efficient Energy Management (EO 13123); and Greening the Government Through Leadership in Environmental Management (EO 13148).
Noise	Noise Control Act of 1972 (PL 92-574) and Amendments of 1978 (PL 95-609); and USEPA Subchapter G, Noise Abatement Programs (40 CFR Parts 201-211).
Socioeconomics	Federal Action to Address Environmental Justice in Minority Populations and Low Income Populations (EO 12898); and Protection of Children from Environmental Health Risks and Safety Risks (EO 13045).
Water Resources	Federal Pollution Control Act of 1972 (PL 92-500) and Amendments; Clean Water Act (CWA) of 1977 (PL 96-217); NPDES Construction Activity General Permit (40 CFR Parts 122-124); NPDES Industrial Permit and NPDES Municipal Separate Storm Sewer Permit; Spill Prevention Control and Countermeasure (40 CFR Part 122); USEPA, Subchapter D, Water Programs (40 CFR Parts 100-145); Water Quality Act of 1987 (PL 100-4); USEPA, Subchapter N, Effluent Guidelines and Standards (40 CFR Parts 401-471); Safe Drinking Water Act of 1972 (PL 95-923) and Amendments of 1986 (PL 99-339); USEPA, National Drinking Water Regulations and Underground Injection Control Program (40 CFR Parts 141-149); and Energy Independence and Security Act, Section 438 (42 U.S.C. 17094).
Wetlands and Floodplains	Section 401 and 404 of the Federal Water Pollution Control Act of 1972 (PL 92-500), USEPA, Subchapter D, Water Programs 40 CFR Parts 100-149 (105 ref); Floodplain Management 1977 (EO 11988); Protection of Wetlands 1977 (EO 11990); Emergency Wetlands Resources Act of 1986 (PL 99-645); and North American Wetlands Conservation Act of 1989 (PL 101-233).

1.6 Public Involvement

1.6.1 Public Scoping Process

Scoping is the initial phase of the NEPA process during which the USMC provides information about the proposal and solicits comments from the public and interested parties to assist in the identification of key issues for the environmental analysis and identify potential action alternatives to the Proposed Action. The scoping process provides the opportunity for local communities, government agencies, Native American tribal organizations, special interest groups, and the general public to learn about the USMC’s proposal and to offer ways for those interested to express their thoughts regarding the proposal (e.g., letters, emails, and written comment sheets).

On August 4, 2010, the USMC distributed notification letters to federal, state, and local government agencies, elected officials, Native American tribal organizations, non-government organizations, and individuals most likely to be interested in the project (Appendix A). The letters described the Proposed Action and the action alternatives and requested a point of contact and any information applicable to the project. The 30-day public scoping period began on August 6, 2010, with publication of the Notice of Intent (NOI), followed by notices in local and regional newspapers (Table 1-2), and concluded on September 7, 2010. The USMC held two “open house” format public scoping meetings as detailed in Table 1-3 and Section 1.6.1.1.

Following the completion of the initial scoping period, the Project Team concluded that the United States Postal Service (USPS) post office box was not receiving mailed comments and some written responses were returned to sender. Meetings were held with the USPS to resolve this issue. The post office box issue was resolved and the USMC decided to reopen the public comment period for an additional 30 days to ensure that all members of the public were provided an opportunity to comment on the proposed project.

Additional scoping letters were distributed on October 6, 2010, that highlighted the extension in the comment period from October 10 to November 8, 2010. Notices announcing the extended comment period appeared in local and regional newspapers (see Table 1-2 and Appendix A).

Newspapers	Publication Days/Dates
<i>The Darien News</i> (Darien, GA)	Thursday, August 12, Thursday, August 19, and Thursday, October 14, 2010
<i>The Press-Sentinel</i> (Jesup, GA)	Wednesday, August 11, Saturday, August 14, and Wednesday, October 13, 2010
<i>Savannah Morning News</i> (Savannah, GA)	Sunday, August 15 through Tuesday, August 17, and Sunday, October 10, 2010

Day/Date	Time	Location
Tuesday, August 24, 2010	4:00 pm – 7:00 pm	City of Ludowici Meeting Room, City Hall 469 North Macon Street, Ludowici, GA 31316
Thursday, August 26, 2010	4:00 pm – 7:00 pm	Haynes Auditorium, Ida Hilton Public Library 1105 Northway, Darien, GA 31305

1.6.1.1 Scoping Meetings

The public scoping meetings were presented in an “open house” format to introduce the public to the EIS process, provide available project information, answer questions from community members, and solicit public input on important issues and concerns. The meeting format included several information stations, each staffed by knowledgeable USMC personnel and/or other employees of the federal government who are members of the project team to provide technical expertise in their subject-matter area. Attendees were directed to well-identified areas for comment and mailing list registration, and were encouraged to view five exhibits. Materials that were presented and available at the public scoping meetings are provided in Appendix B of the Scoping Summary Report (provided herein as Appendix A) and at the project Web site (www.townsendbombingrangeeis.com). The City of Ludowici scoping meeting was attended by 55 people and the City of Darien scoping meeting was attended by 93 people.

1.6.1.2 Public Comments

During the scoping process, the USMC provided various methods for public comment, including email, mail, and through the project Web site. The USMC cited each of these methods in the NOI, scoping letters, on the project Web site, in press releases to the local media, display advertisements in local newspapers, and at the scoping meetings through the comment sheets and display boards.

During the two 30-day scoping periods, the USMC received 110 comments, of which 18 were provided at the scoping meetings, 34 were emailed, 28 were entered on the project Web site, and 30 were submitted through the mail. As provided in Appendix D of the Scoping Summary Report (Appendix A herein), the most commonly noted comments referenced environmental/safety issues, impacts to property values and taxes, impacts to hunting/fishing and recreational activities, economic issues, alternative preference, government land acquisition, and local road closures. These comments helped determine what resource areas were analyzed and the types of analyses needed in the Draft Environmental Impact Statement (DEIS).

1.6.2 DEIS Review and Public Comment Period

The United States Environmental Protection Agency (USEPA) published the Notice of Availability (NOA) of the DEIS in the *Federal Register* on July 13, 2012 (provided in Appendix A of the Public Comment Summary Report [Appendix B herein]). This initiated a 45-day public comment period on the DEIS, from July 13 to August 27, 2012. During this initial 45-day period, the USMC extended the public comment period through September 27, 2012. In addition to the publication of the NOA in the *Federal Register*, the USMC mailed notification letters to government agencies, special interest groups, and local landowners/residents; advertised on the public Web site; issued press releases on July 13 and August 15, 2012; placed advertisements in four local newspapers (Table 1-4); and ran a notice on the public-access television station every day from July 13 through September 27, 2012 (provided in Appendix A of the Public Comment Summary Report [Appendix B herein]). The USMC also held two “open house” format public meetings as detailed in Table 1-5 and Section 1.6.2.1.

1. Purpose of and Need for the Proposed Action

Newspaper	Publication Dates
<i>Press-Sentinel</i> (Jesup, GA)	<ul style="list-style-type: none"> • July 18, 2012; July 21, 2012; July 25, 2012 (Notice of Availability [NOA]/Notice of Public Meetings) • August 22, 2012; August 25, 2012 (Notice of Comment Period Extension)
<i>Darien News</i> (Darien, GA)	<ul style="list-style-type: none"> • July 19, 2012; July 26, 2012 (NOA/Notice of Public Meetings) • August 23, 2012 (Notice of Comment Period Extension)
<i>Savannah Morning News</i> (Savannah, GA)	<ul style="list-style-type: none"> • July 15, 2012; July 16, 2012, July 17, 2012 (NOA/Notice of Public Meetings) • August 21, 2012; August 22, 2012; August 23, 2012 (Notice of Comment Period Extension)
<i>Brunswick News</i> (Brunswick, GA)	<ul style="list-style-type: none"> • July 16, 2012; July 18, 2012; July 20, 2012 (NOA/Notice of Public Meetings) • August 21, 2012; August 22, 2012 (Notice of Comment Period Extension)

Notes:

Press-Sentinel is a bi-weekly distribution newspaper.

Darien News is a weekly distribution newspaper.

Savannah Morning News is a daily distribution newspaper.

Brunswick News is a daily distribution newspaper with the exception of Sunday.

Meeting Date	Location	Time	Attendance
August 7, 2012	McIntosh County Middle School Gymnasium 500 Greene Street, Darien, GA 31305	4:00 – 7:00 pm	41
August 9, 2012	City of Ludowici City Hall Meeting Room 469 N. Macon Street, Ludowici, GA	4:00 -- 7:00 pm	75
TOTAL			116

1.6.2.1 Public Meetings

Similar to the public scoping meetings held in August 2010, the public meetings were presented in an “open house” format to provide the opportunity for local citizens, government agencies, special interest groups, and the general public to learn about the USMC’s Proposed Action and to express their thoughts regarding the DEIS. The meeting format included six information stations, each staffed by knowledgeable USMC and Navy personnel to provide technical expertise in their subject-matter area. Materials that were presented and available at the public meetings are provided in Appendix B of the Public Comment Summary Report (provided herein as Appendix B) and at the project Web site (www.townsendbombingrangeeis.com). The City of Darien public meeting was attended by 41 people and the City of Ludowici public meeting was attended by 75 people.

1.6.2.2 Public Comments

During the DEIS review process, the USMC provided various methods for public comment, including email, mail, and through the project Web site. The USMC cited each of these methods in the NOA, DEIS notification letters, on the project Web site, in press releases to the local media, display advertisements in local newspapers, and at the public meetings through the comment sheets and display boards.

1. Purpose of and Need for the Proposed Action

During the DEIS review period, the USMC received 100 comments, of which 24 were provided at the public meetings, 13 were emailed, 42 were entered on the project Web site, and 21 were submitted through the mail. As provided in Appendix C of the Public Comment Summary Report (Appendix B herein), the most commonly noted comments referenced socioeconomic issues (loss of tax revenue, effects to property taxes/values), public safety issues, training concerns, cultural resources, noise, natural resources, road closures, alternatives, real estate, forest management, impacts to hunting/recreation, and water quality/water control concerns. A total of 20 comments in support of the Proposed Action were received.

1.7 Scope of this FEIS

The remainder of this FEIS is organized as follows:

- Section 2 provides a description of the Proposed Action, alternatives including the No Action Alternative, a comparison of the alternatives, and alternatives eliminated from detailed consideration;
- Section 3 presents the existing conditions of the relevant resources and an evaluation of the possible environmental consequences on each environmental resource that would possibly result from implementing each action alternative;
- Section 4 contains an analysis of cumulative impacts;
- Section 5 outlines other considerations, such as compatibility with land use plans, policies, and controls, unavoidable adverse impacts, the relationship between short-term use of the environment and long-term productivity, and irreversible and irretrievable commitment of resources;
- Section 6 provides a distribution list;
- Section 7 contains all the sources referenced in this document; and
- Section 8 is a list of preparers and contributors.

1.8 Changes from the DEIS to the FEIS

Local communities, government agencies, Native American tribal organizations, special interest groups, and the general public presented their comments at the public open houses, via email, mail, and through the project Web site. Several of the comments received prompted the addition of information to clarify or enhance the EIS content. These clarifications and enhancements merely improved the accuracy and thoroughness of the analysis presented in the DEIS, but did not alter any conclusions regarding the nature or magnitude of impacts on any resources. In addition to the changes detailed below, minor editorial and typographical corrections were made.

- Additional information was added to clarify that Figure 1-2 is intended to show the size difference between the PGM and GP WZs using a currently approved training event where the only difference is the munition used. Please refer to Section 1.1.4.
- Information on the DEIS review process and public comment period information has been added to Section 1.6.2 and Appendix B.
- During the public comment process, a comment was received that discussed the safety issues associated with laser guidance systems. Additional information was added to explain that in addition to WZs the USMC also examined Laser Safety Danger Zones (LSDZs). As with WZs, USMC range safety policies require LSDZs

1. Purpose of and Need for the Proposed Action

- to be contained within the range boundary and/or lands under exclusive military use and control. Numerous precautions are mandated by range safety regulations to protect the public, military, and civilian personnel. Please refer to Section 2.2.1.
- Clarification that the boundary of the proposed acquisition area would go up to, but would not include, the current utility rights-of-way (ROWs). No utility transmission lines or associated ROWs would be affected by the Proposed Action. Relocation of lines would not be required and access to ROWs and easements would not be hindered. Therefore, service reliability would not be affected by the Proposed Action. Please refer to Sections 2.2.1 and 3.13.4.2 for additional information.
 - During the public comment process, it was discovered that the shared power line and natural gas ROW that serves as the eastern boundary of proposed Acquisition Area 3 was not shown in the correct location. By placing the ROW in the correct location, Acquisition Area 3 increased in size by 194 acres. Acreage numbers and each resource analysis have been updated throughout this FEIS to reflect this change.
 - Additional information was added to clarify that the airspace modification would allow ordnance to be delivered to ground level. It would not allow aircraft to operate below safe operating attitudes. Please refer to Sections 2.2.3 and 3.6.4.2 for additional information.
 - On June 25, 2012, the USMC submitted a Coastal Consistency Determination (CCD) to the State of Georgia Federal Consistency Coordinator for review. By letter dated September 27, 2012, the State of Georgia concurred with the USMC's determination of coastal zone consistency. Information on the USMC consistency determination and the State of Georgia's concurrence has been added to Section 3.1.4.2 and Appendix C.
 - Additional information was added to clarify that no portion of State Hwy. 57 would be closed under any of the action alternatives. The current practice of temporarily closing Blue's Reach Road (also known as [a.k.a.] Old Barrington Road and Old Cox Road) during certain training activities would continue under any of the action alternatives. Under Alternatives 1, 3, and 4, range officials may close the portion of Blue's Reach Road (a.k.a. Old Barrington Road and Old Cox Road) that enters the new range boundary when access to the range would conflict with training operations. The road would otherwise remain open. Please refer to Section 3.2.4.3 and Sections 3.11.4.2 to 3.11.4.4 for additional information.
 - Additional information was added to clarify that, under the Proposed Action, no loss or delay of emergency services (police, fire, medical services) is expected. Please refer to Sections 3.2.4.3, 3.6.4.2, and 3.11.4.2 for additional information.
 - During the public comment process, it was discovered that the Flood Insurance Rate Maps (FIRMs) used as a source for the 100-year floodplains were outdated. The new FIRMs were obtained and used to update the existing environment section of floodplains. Please refer to Section 3.5.3.2 for additional information.
 - During the public comment process, a comment was received that stated impacts to surface water features were not clearly defined as being to manmade or natural features. Language was added to better define impacts to manmade or natural features. Figures 3-19 through 3-25 also were altered to highlight the different types of features. Please refer to Section 3.5.4.1 for additional information.

1. Purpose of and Need for the Proposed Action

- During the public comment process, a comment was received that stated peak noise was not fully discussed and explained. Peak noise information that was in Appendix D of the DEIS (now Appendix F in this FEIS) is now also discussed in the main body of this FEIS and Figures 3-32 and 3-35 were added. Please refer to Sections 3.7.3.2 and 3.7.4.2 for additional information.
- During the public comment process, a comment was received that stated the habitat requirements for hairy rattleweed (*Baptista arachnifera*) were incorrect. The correct habitat requirements were obtained and the FEIS text was updated. Appendix E in the DEIS also contained incorrect information; however, the consultation letters in this appendix cannot be changed. Thus, a note has been inserted at the beginning of the appendix (now Appendix G in this FEIS) to highlight the error. Please refer to Sections 3.8.3.3 and 3.8.4.2 and Appendix G for additional information.
- During the public comment process, several comments were received discussing family cemeteries or other potentially historic structures. As detailed in Section 3.9.3.2 of this FEIS, the USMC conducted desktop research, archaeological investigations, and field surveys for the proposed acquisition area where entry was permitted. Documented cultural and/historical resources were noted and identified during these processes. However, if a resource such as a burial ground or cemetery is not officially documented, the USMC may have been unable to accurately assess that point of interest. The USMC welcomes documentation of all cultural and historical resources. To better inform the public of the process, the USMC has added the Historic Built Environment Survey Report to this FEIS as Appendix I.
- During the public comment process, a comment was received concerning permits for groundwater usage. Text was added to this FEIS to clarify that if the range exceeds the State of Georgia requirements, either in terms of number of people utilizing the well or in gallons per day, the proper permits would be obtained. Please refer to Section 3.13.4.2 for additional information.
- Table 6-1 has been updated to reflect the latest version of the project distribution list.

1. Purpose of and Need for the Proposed Action

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