

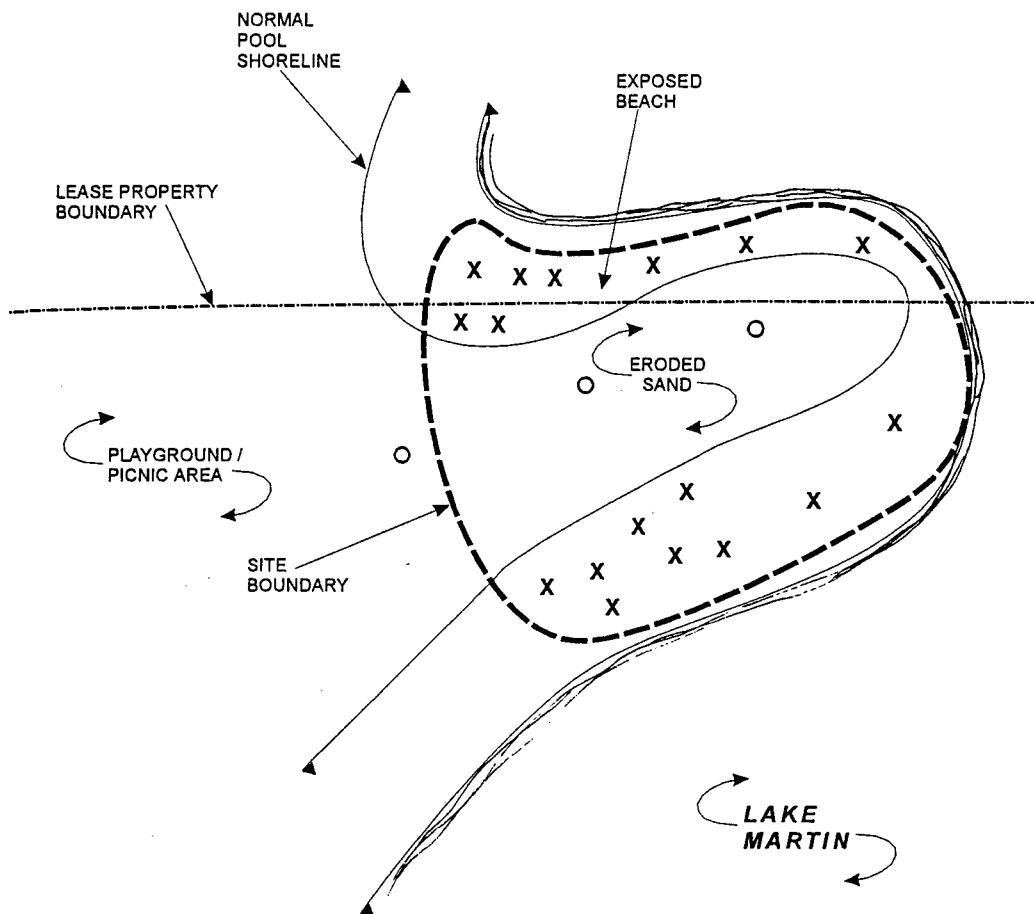
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**ARCHAEOLOGICAL SURVEY AND COLD WAR ASSESSMENT
OF MAXWELL AIR FORCE BASE AND GUNTER ANNEX
MONTGOMERY, ALABAMA**

Contract No. DACW01-94-D-0010

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FINAL REPORT



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BROCKINGTON AND ASSOCIATES, INC.
Atlanta Memphis Charleston

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13. ABSTRACT (Maximum 200 words) Brockington and Associates, Inc. conducted a historic resources survey of Maxwell Air Force Base [AFB], Gunter Annex, Maxwell Heights Housing Area, the Lake Martin Recreation Area and the Lake Jordan/Vigilant Warrior Training Area. During the course of this survey, previously identified sites were revisited, high probability areas were surveyed, and Cold War Era structures were assessed. No structures are recommended eligible for the National Register of Historic Places [NRHP] beyond those already identified at Maxwell AFB. The locations of five previously recorded sites (1Mt93, 1Mt200, 1Mt255, 1Mt279, and 1Mt283) were revisited during the survey. Sites 1Mt93, 1Mt200, and 1Mt279 continue to be recommended potentially eligible for the NRHP. Three previously unrecorded sites (1Tp38, 1Ee457, and 1Ee458) were identified during the present investigations. Two of these sites (1Tp38 and 1Ee457) are disturbed lithic scatters, and are recommended not eligible for the NRHP. The remaining site, 1Ee458, is an apparently undisturbed ceramic and lithic scatter located in the Lake Jordan/Vigilant Warrior Training Area. Due to the possibility of undisturbed deposits that may generate information important to understanding the prehistoric use of the region, this site is recommended potentially eligible for the NRHP. Site 1Ee458 should be protected from land disturbing activities until formal NRHP testing can be conducted. All areas within Maxwell AFB, Gunter Annex, Maxwell Heights Housing Area, and the leased tracts have been examined.				
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MONTGOMERY, ALABAMA**

Contract No. DACW01-94-D-0010
Delivery Order No. 0009

Prepared for:

The US Army Corps of Engineers, Mobile District
and
Maxwell Air Force Base

Prepared by:

Todd McMakin
Archaeologist

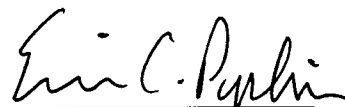
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November 1996

Abstract

Brockington and Associates, Inc. conducted a historic resources survey of Maxwell Air Force Base [AFB], Gunter Annex, Maxwell Heights Housing Area, the Lake Martin Recreation Area and the Lake Jordan/Vigilant Warrior Training Area. During the course of this survey, previously identified sites were revisited, high probability areas were surveyed, and Cold War Era structures were assessed. No structures are recommended eligible for the National Register of Historic Places [NRHP] beyond those already identified at Maxwell AFB. The locations of five previously recorded sites (1Mt93, 1Mt200, 1Mt255, 1Mt279, and 1Mt283) were revisited during the survey. Sites 1Mt93, 1Mt200, and 1Mt279 continue to be recommended potentially eligible for the NRHP. Three previously unrecorded sites (1Tp38, 1Ee457, and 1Ee458) were identified during the present investigations. Two of these sites (1Tp38 and 1Ee457) are disturbed lithic scatters, and are recommended not eligible for the NRHP. The remaining site, 1Ee458, is an apparently undisturbed ceramic and lithic scatter located in the Lake Jordan/Vigilant Warrior Training Area. Due to the possibility of undisturbed deposits that may generate information important to understanding the prehistoric use of the region, this site is recommended potentially eligible for the NRHP. Site 1Ee458 should be protected from land disturbing activities until formal NRHP testing can be conducted. All artifacts recovered during these investigations will be curated with the Alabama Office of Archaeological Services, Moundville. All areas within Maxwell AFB, Gunter Annex, Maxwell Heights Housing Area, and the leased tracts have been examined.

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Chapter I. Introduction

In order to comply with Federal regulations governing the disposition of cultural resources (National Historic Preservation Act of 1966, as amended, Executive Order 11593, the Archaeological and Historic Preservation Act of 1974), Maxwell Air Force Base [AFB] through the US Army Corps of Engineers, Mobile District, sponsored an intensive historic resources survey of unsurveyed sections of Maxwell AFB, Gunter Annex, Maxwell Heights Housing Area, Lake Martin Recreation Area, and Lake Jordan/Vigilant Warrior Training Area. This survey completes the archaeological site inventory of Federally owned and leased lands managed by Maxwell AFB. An assessment of the National Register of Historic Places [NRHP] eligibility of Cold War Era standing structures on Maxwell AFB, Gunter Annex, and Maxwell Heights also was undertaken. To date, the Senior Officers Quarters (SOQ) and Buildings 800 and 836 are listed on the NRHP; all of these properties pre-date the Cold War Era.

Maxwell AFB and its associated properties are located in central Alabama, in Montgomery, Elmore, and Tallapoosa Counties. Figure 1 displays the locations of the five properties examined during this survey. Maxwell AFB contains approximately 2,200 acres (891 hectares) adjacent to the Alabama River flood plain, on the west side of the city of Montgomery. Figure 2 displays a detailed map of Maxwell AFB. Gunter Annex is located approximately 6 miles (9.7 km) northeast of Maxwell AFB, and contains approximately 400 acres (162 hectares). Figure 3 presents a detailed map of Gunter Annex. The Maxwell Heights Housing Area

is located approximately one mile (1.6 km) south of

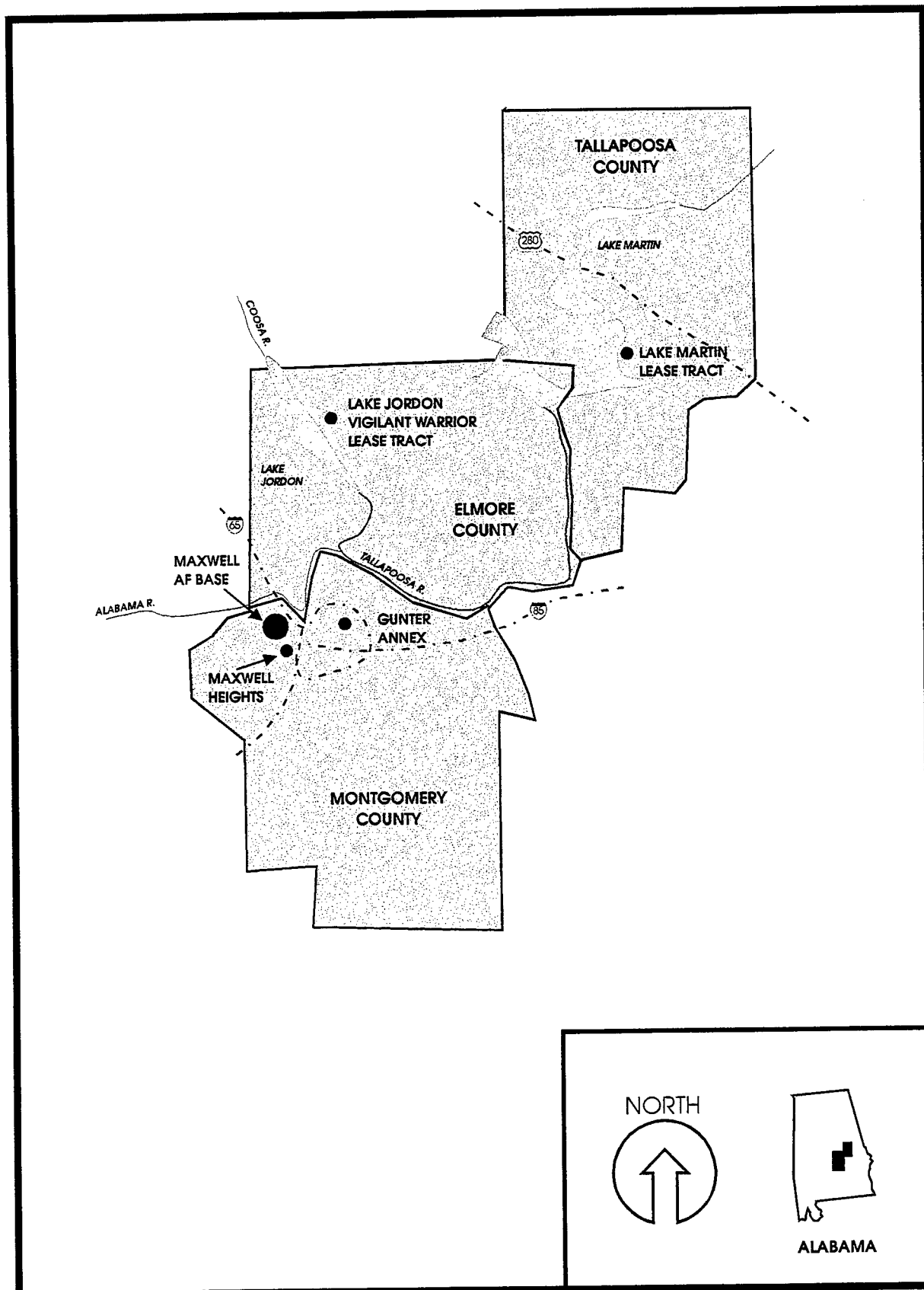
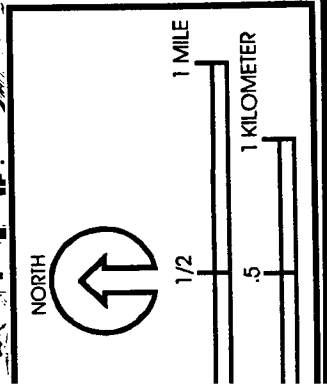
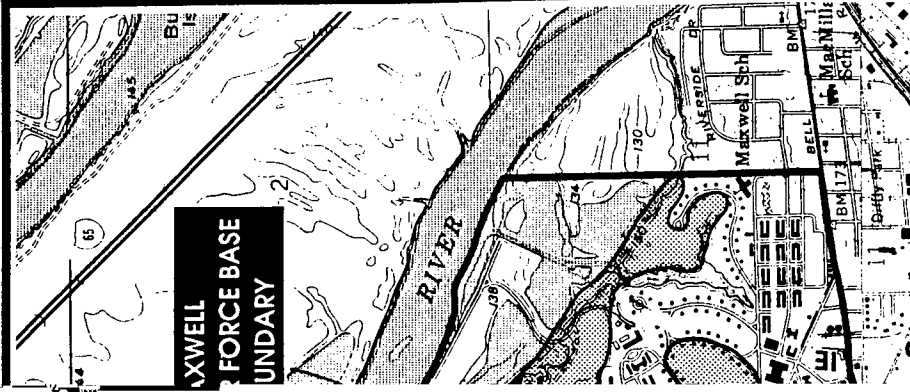
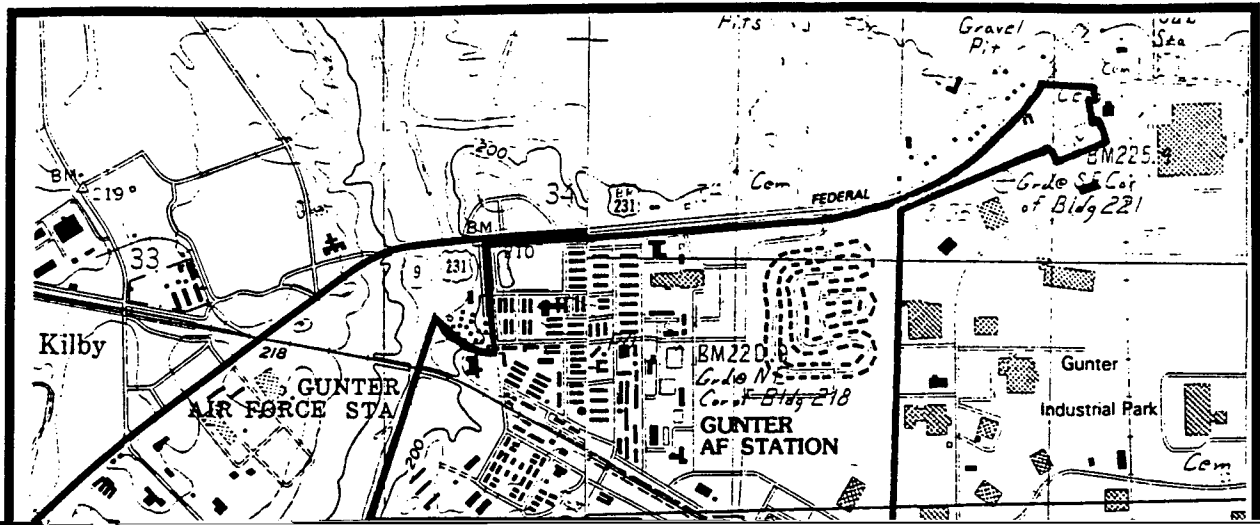
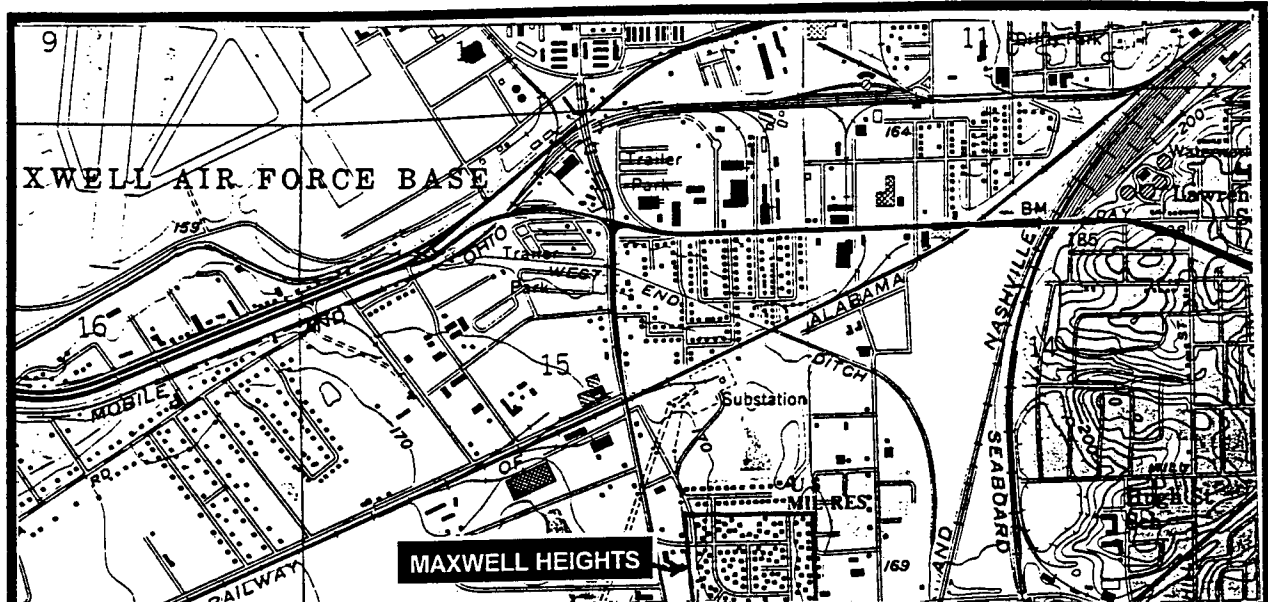
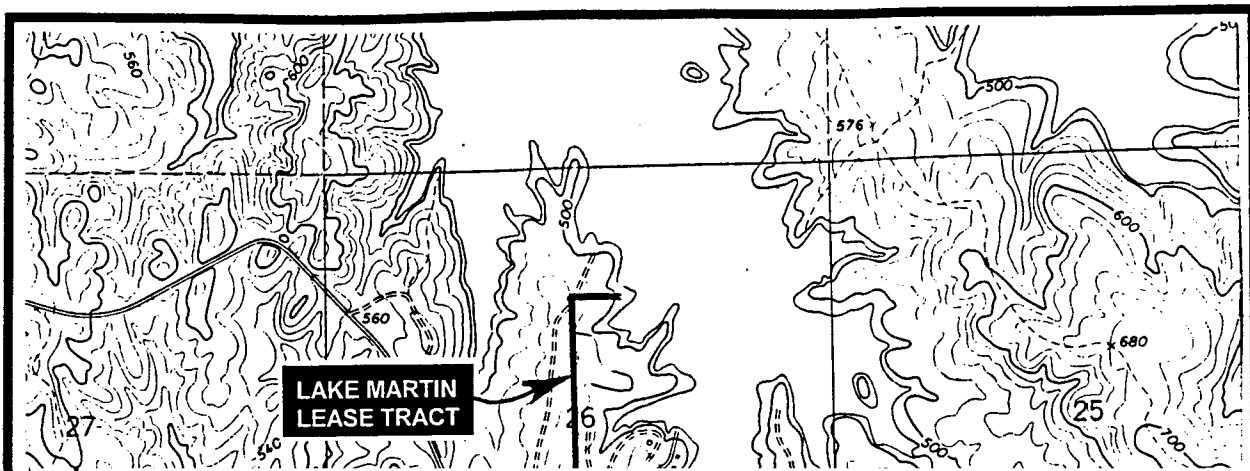


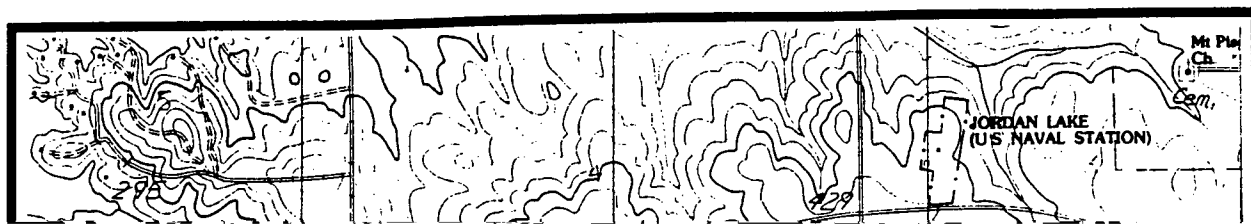
Figure 1. The General Locations of Maxwell AFB, Gunter AFS, Maxwell Heights, and the Leased Tracts.











Survey of Maxwell AFB included background research and on-site reconnaissance to determine the location of undisturbed areas. Gridded shovel testing and surface inspection were employed to examine areas determined to be potentially intact. At the golf courses, systematic shovel testing was adjusted to avoid disturbance to golfers and to the vegetation and landscaping of the each course. The locations of five previously recorded archaeological sites (1Mt93, 1Mt200, 1Mt255, 1Mt279, and 1Mt283) were revisited and four isolated finds were identified during the survey efforts. The reported location of an unrecorded site on the east golf course (discovered by Chase 1964 and designated Garrow Site 3- see Garrow 1988) also was revisited. The site area is highly disturbed and no evidence of this "site" has

Survey of the leased lands (Lake Martin and Lake Jordan/Vigilant Warrior) included gridded shovel testing and surface inspections of exposed areas. One site (1Tp38) and one isolated find were recorded on the Lake Martin Tract. Due to a paucity of artifacts and/or disturbance, these resources are recommended not eligible for the NRHP. Two sites (1Ee457 and 1Ee458) and three isolated finds were recorded on the Lake Jordan/Vigilant Warrior Tract. Of these, 1Ee458 is recommended potentially eligible for the NRHP due to the presence of apparently intact deposits and moderate densities of artifacts. The remaining archaeological sites and isolated finds are recommended not eligible for the NRHP due to their inability to contribute to our understanding of the history/prehistory of the region.

Chapter II presents the cultural and natural setting of the project area. Included in this chapter is a summary of previous investigations at Maxwell AFB. The field and laboratory methods and NRHP eligibility guides are outlined in Chapter III. Chapter IV presents the results of the investigations and summarizes the management recommendations for the project tracts and all discovered sites.

Chapter II. Cultural and Natural Setting

Environmental Setting

Alabama can be divided into four physiographic regions: the Gulf Coastal Plain, the Piedmont, the Ridge and Valley, and the Cumberland Plateau (Walthall 1980:13). Montgomery lies within the upper Gulf Coastal Plain, which is typified by low hills and shallow valleys. Elevations for this region range from sea level to a high of 400 ft (120 m) above mean sea level. The principal rivers that drain this portion of Alabama are the Coosa, the Tallapoosa and the Alabama.

The present survey area lies within a particularly fertile portion of the Gulf Coastal Plain called the Black Belt. The reason for the above average agricultural productivity of the soil in this region is the underlying soft limestone called "selma chalk". When weathered, this chalk produces a heavy, dark soil (Walthall 1980:13). Due to large-scale earth moving activities, fill deposits, and other cultural disturbance (i.e., golf course construction), the soils present on Maxwell AFB are not listed in the soil survey of Montgomery County (Burgess et al. 1960). Soils within the Gunter Annex consist of Amite fine sandy loam. Amite soils typically are well drained, and as with other soils of the Black Belt, very fertile. It is likely that the region now encompassing Gunter Annex was utilized intensively for agricultural purposes before the construction of the base. Soils on the Maxwell Heights Tract could not be identified due to disturbance. Although the Lake Martin Lease Tract is located on undisturbed soils, no soil survey has been completed for Tallapoosa County. Soils within the Lake Jordan/Vigilant Warrior Lease Tract consist of Orangeburg fine sandy loam, Red Bay sandy loam, Faceville sandy loam, Bowie sandy loam, and mixed alluvial sand. Each of these soil groups is present primarily on sloping surfaces, and have moderate permeability. Orangeburg and Red Bank soils are present on eroded surfaces (Brackeen et al. 1955). The Faceville and Bowie sandy loams are agriculturally productive, well drained soils.

Biota

The forest within this region is dominated by pine. Although the longleaf pine is by far the most prevalent species, there are also large numbers of slash, white, and short leaf varieties. Hardwoods also are present in reduced numbers. Generally, they are restricted to the swamps, rivers, and creeks that dissect the region. Like most of Central Alabama, the Montgomery area contains a limited number of floral species.

The subtropical climate of central Alabama supports a wide variety of wildlife including mammals, reptiles, amphibians, birds, and fish. Table 1 provides a list of wildlife species present within southern Alabama. Only a small number of these species are considered to have been of major economic value to past inhabitants; these include deer, turkey, raccoon, beaver, bear, bobcat, opossum, rabbit, squirrel, and turtle. Seasonal resources, such as migratory waterfowl (ducks and geese), also are found throughout the region.

Table 1. Faunal Resources Available in Southern Alabama
(after Braley and Mitchelson 1984:12)

<u>Mammals</u>	<u>Reptiles</u>	<u>Birds</u>	<u>Fish</u>	<u>Amphibians</u>
Deer	Alligator	Eagle	Largemouth Bass	Frogs
Opossum	Corn snake	Quail	Bluegill	
Red fox	Diamondback rattlesnake	Dove	Redear sunfish	
Bobcat	Copperhead	Vulture	Warmouth	
Skunk	Water Moccasin	Hawks	Black crappie	
Black bear	King snake	Ducks	Sunfish	
Raccoon	Water snake	Songbirds	Pickrel	
Rabbit	Box turtle		Bullhead	
Beaver	Gopher tortoise		Gar	
Gray squirrel			Sucker	
Fox squirrel			Shiner	
Skunk			Pugnose minnow	
Rat			Chub	
Armadillo			Catfish	

Climate

A variety of factors contribute to Alabama's subtropical climate including location, topography, and air-mass activity (Walthall 1980:13). Long, hot summers are typical of central Alabama; daytime high temperatures at or above 95° F are not uncommon. The average daytime temperature during the summer approaches 90° F. Winters typically are moderate, with a mean temperature of 52° F on the Gulf Coastal Plain (Walthall 1980). The growing season in central Alabama averages 250 days. Precipitation amounts vary, but reflect Alabama's subtropical climate; annual rainfall averages 53 inches (135 cm). Peak precipitation occurs in March.

Paleoenvironment

Palynological and paleoenvironmental studies in Alabama indicate that between 22,000 and 12,000 years before present (BP) the cool, dry climate favored a mixture of conifers and cool-temperate hardwoods. In contrast, during the following early Holocene forests of the region became dominated by more mesic species such as oak, hickory, and southern pine. The beginning of the Holocene epoch at 10,000 BP signifies the end of Pleistocene glacial conditions and the beginning of the inter-glacial stage (Bense 1994:19). By about 10,000 years BP, modern flora had established itself in most of the southeastern United States (Kuchler 1964; Sheehan et al. 1985; Wharton 1989). As the climate continued to warm, increased moisture augmented the northward advance of the oak-hickory forest (Delcourt 1979). In a study by Sheehan et al. (1985), analysis of regional palynological evidence suggested that spruce, pine, fir, and hemlock rapidly decreased in importance after 9,000 years BP. During the mid-Holocene (5,000 years BP), pines had begun to increase in numbers within the oak-hickory forest (Wharton 1989:12).

Prehistoric Overview

Introduction

Prehistory generally refers to the period of human occupation prior to written records. In the southeastern US, this is the period of Native American occupation before contact with the Spanish in the fifteenth and sixteenth centuries. The prehistory of central Alabama can be divided into five distinct, yet broad, time periods: Paleoindian (10000 - 8000 BC), Archaic (8000 - 1200 BC), Gulf Formational (1200-300 BC), Woodland (300 BC - AD 900), and Mississippian (AD 900 to 1540).

The Paleoindian Period

Human introduction into the Gulf Coastal Plain of North America probably began after 10000 BC. Securely dated occupation sites from this period have not yet been found in the southeastern United States. Instead, archaeologists must rely on the discovery of stone spear points and knives similar in form to types found in datable contexts elsewhere in the New World. These diagnostic artifacts consist primarily of fluted and unfluted lanceolate projectile points such as Clovis, Folsom, Cumberland, Suwannee, Sante Fe, Simpson, and Quad.

Paleoindians exploited a variety of large and small animal species, and may have played a role in the extinction of many of the larger species that disappeared in the final years of the Pleistocene glaciation. Although Paleoindian period sites have not been recorded at Maxwell AFB, several fluted point finds have been documented in Montgomery County (US Air Force Air Education and Training Command [USFAETC] 1994:5). These Paleoindian sites, like sites in the surrounding river valleys of Alabama, Georgia, and Florida, consist primarily of lithic debitage and occasional points. This area probably was not a preferred environment for Paleoindian populations, and, thus, was occupied only briefly by small groups in transit to adjoining areas.

The Archaic Period

The Archaic Period witnessed many changes in the environment as the forest changed from sub-boreal to modern. The Archaic Period has been divided into three sub-periods: Early Archaic (8000 - 6000 BC), Middle Archaic (6000 - 3000 BC), and Late Archaic (3000 - 2500 BC). Distinctive projectile point types serve as markers dividing these sub-periods. Hunting and gathering was the predominant subsistence mode during the Archaic, although incipient use of cultigens probably occurred by the Late Archaic Period.

Early Archaic. In general, the Early Archaic Period (Tensaw Creek Phase) has been viewed as an adaptation to Holocene postglacial climates (Anderson and Hanson 1988). In many instances the Early Archaic Period is known simply as a transitional period between the earlier Paleoindian big-game subsistence and settlement patterns and the later, more diffused Archaic patterns. Regional cultures or societal units began to appear in the Early Archaic, unlike the relative homogeneity of Paleoindian populations throughout the southeastern US. Changes in the shapes of projectile points demonstrate these regional and cultural differences. While Paleoindian projectile points tended to be uniform throughout the United States, points in the Early Archaic Period evolved within these new cultural groups (McGahey 1993; Walthall 1980). Early Archaic populations in the upper Gulf Coastal Plain of the southeastern United States used both riverine and flood plain environments and inter-riverine uplands (Brooks 1979; McGahey 1992). Diagnostic projectile points likely encountered in central Alabama include Dalton, Hardaway, Beaver Lake, Big Sandy, and Kirk.

Middle Archaic. The climatic continued to shift through the Middle Archaic Period (Greer Phase). These climatic shifts resulted in a hot, dry weather pattern in the southeastern United States, which increased thunderstorm activity and changed the form of existing drainages. This increased thunderstorm activity in turn may have burned off most of the hardwood species in the Southeast except those in lower, wetter areas, and stabilized the growth of pines in the region (Bense 1994:74).

Very little is known about Middle Archaic settlement and subsistence. The shift in the climate, however, represents a force for change, as a rising sea level, in

conjunction with these shifts in climate, may have resulted in increased shellfish communities in the Southeast. Surveys have found evidence to suggest an increased use of shellfish along with other aquatic species during the Middle Archaic (Smith 1986). Smith (1986) also cites an increase in the numbers of storage pits and burned areas, representing house floors, to suggest that populations were becoming increasingly sedentary during this time.

Middle Archaic occupants made significant advances in stone tool technologies (Bense 1994:75). Sites from this period reveal ground and polished stone utilitarian artifacts (including atl-atl weights and celts) for the first time, while spear points switched to a notched form, or a variety of stemmed forms. Morrow Mountain points are frequently found at Middle Archaic sites throughout the Southeast. The Middle Archaic Period is poorly represented in central Alabama (USAFAETC 1994:5).

Late Archaic. The Late Archaic (Millbrook Phase) witnessed the final shift to modern climates. This shift resulted in increasingly predictable resources, which allowed populations to increase and move into previously uninhabited areas (Hudson 1976:49-52; Smith 1986). House floors and storage pits appear more frequently in Late Archaic sites, which may indicate an increase in sedentism during this time. The size of sites also tends to increase during this period (Bense 1994:90; Hudson 1976:51-52; Rafferty 1994; Smith 1986). Horticulture seems to have become more important during this period, and full domestication may have occurred as early as the end of the Late Archaic or the beginning of the subsequent Gulf Formational Period (Crites 1991; Fritz and Kidder 1993; Smith 1985).

Material technologies during the Late Archaic include the use of steatite (soapstone) for the manufacture of containers. Spear points generally became smaller, while their shapes varied little from those of the Middle Archaic. Broad-bladed, long-stemmed points such as the Savannah River type, and narrower, short stemmed Benton types predominate the assemblages from this period. Some of the Late Archaic projectile point types found in central Alabama include the Cotaco Creek, Elora, Flint Creek, Kays, Little Bear Creek, and Wade.

The Gulf Formational Period

The transition from Archaic to Woodland lifeways lasted over a thousand years, from 1200 to 300 BC. Many of the cultural traditions that continued until European contact were formed during this period. Gulf Formational populations retained vestiges of earlier Archaic material culture, including stemmed projectile points and other chipped stone tools; new additions include fiber tempered ceramics. In fact, Walthall and Jenkins (1976) defined the Gulf Formational Period as a means to classify the earliest ceramic producing cultures of the Gulf Tradition. Settlement during this period experienced a shift from upland locales to sites located on the flood plains of larger streams. Settlement size also increased during this period. Native societies increased in complexity in the southeastern United States during this period, perhaps reaching a pinnacle in the Poverty Point region of Louisiana and Mississippi. This complexity was revealed in more elaborate trade networks and burial practices.

This period has been subdivided into two sub-periods in Central Alabama: Middle (1200 - 500 BC), and Late (500 - 300 BC). To the south and east, an Early sub-period is generally employed. However, the terminal Late Archaic in Central Alabama is characterized by large stemmed points, various quartz bifaces, steatite bowls, and fiber tempered pottery. This correlates more closely with the Middle Gulf Formational Period (USFAETC 1994:6). Thus, the Early Gulf Formational sub-period of the immediate Gulf Coast area may not be applicable for central Alabama.

Middle Gulf Formational. The Middle Gulf Formational Period (no phase designation) witnessed the introduction of ceramics into the western Gulf Coastal Plain. Wheeler series ceramics of eastern Mississippi and northern Alabama, and the Bayou LaBatre series of the Mobile Bay and Delta areas first appear during this time. The Middle Gulf Formational was a dynamic era (Walthall and Jenkins 1976:47). Much of the Gulf Coastal Plain saw increased territorial interactions and inter-societal connections. It is probable that this period witnessed a shift to a more settled adaptation along the Gulf Coast (McMakin 1995:33).

Late Gulf Formational. The Late Gulf Formational Period (Ivy Knoll Phase) can be characterized by three major events: 1) the disappearance of fiber tempered

ceramics, 2) the presence of Alexander and Tchefuncte ceramics in the western region, and 3) the introduction of Early Woodland Deptford pottery in the east (Walthall 1980:98). There is increased evidence of sedentary villages (Milanich and Fairbanks 1980) and large scale trade at least in the Poverty Point region to the west (Bense 1994; Gagliano 1967; Gibson 1974).

The Woodland Period

The Woodland Period has been divided into three subperiods: Early Woodland (300 BC - AD 1), Middle Woodland (AD 1 - 500), and Late Woodland (AD 500 - 900). Woodland Period settlements presumably included large villages located along the larger creek and river flood plains, as well as many smaller sites located in a variety of environments. Hunting and gathering were supplemented by increased use of cultivated foods, possibly including corn and squash. Trading networks became well established and ritual mortuary behavior increased in outward visibility. Woodland Period populations increased, and even more complex societies developed. It should be noted that Chase (1978) and Walthall (1980) divide the Woodland Period in central Alabama into a number of phases (Cobb's Swamp, Calloway, Dead River, Hope Hull, and Autauga). Cobb's Swamp corresponds roughly to the Early Woodland Period. The Calloway Phase corresponds to the Middle Woodland Period, and the Dead River, Hope Hull, and Autauga Phases are subdivisions of the Late Woodland Period.

Early Woodland. The Early Woodland Period (Cobb's Swamp Phase) is not easily distinguished from the preceding Late Gulf Formational Period. However, this period is marked by the presence of Deptford, Cartersville Check Stamped, and Swift Creek Complicated Stamped pottery. Also, simple stamped ceramics were added to the ceramic inventory; these ceramic types continue into the Middle Woodland Period. Diagnostic projectile points of this period include small stemmed Thelma and Yadkin large triangular points. These point types also continue into the Middle Woodland Period.

The Deptford ceramics dominate the assemblages from Early Woodland sites in central Alabama. Deptford ceramics generally consist of check stamped and

simple stamped sand tempered wares, many of which have podal supports. More extensive investigations on the Atlantic Coast and on interior Cobb's Swamp sites suggest that large village sites, some with elaborate burial mounds, and small hamlet/base camps dominated the settlement organization in central Alabama.

Middle Woodland. The Middle Woodland Period (Calloway Phase) saw the continuation of the Deptford/Cartersville and Swift Creek ceramics. Swift Creek ceramics exhibit distinctive curvilinear design elements which were applied to the vessel by well executed stamping. Diagnostic projectile points associated with Swift Creek include Jack's Reef stemmed and pentagonal types, and small stemmed and triangular points. Swift Creek pottery continued into the Late Woodland. The settlement and subsistence practices of the Swift Creek Culture would seem to be directly related to the earlier Deptford Cultures. However, ceremonial activities may have shifted from exotic goods of the north to more locally produced goods (Braley and Mitchelson 1984:14).

Late Woodland. The Late Woodland Period in central Alabama includes the Dead River Phase (AD 200-500), Hope Hull Phase (AD 500-900), and the Autauga Phase (AD 900-1000). The Dead River Phase replaces the Calloway Phase within central Alabama. The settlement/subsistence base of this period is not far removed from the Calloway Phase, but the settlement of this phase is concentrated toward the main river channel rather than along tributaries. Sites also tend to be smaller during this phase (Garrow 1988). Projectile points typically recovered from Dead River Phase sites include Coosa, Flint River, Montgomery, Nodena, and Spike types. Weeden Island ceramics are the predominant types recovered from sites of this phase.

The Hope Hull Phase evidences an increase in the overall size of sites in central Alabama. Large village sites are located adjacent to the main river channel and smaller hamlets are located next to tributaries (Garrow 1988). Garrow (1988:8) indicates that at least one palisaded village has been found that dates to this phase (no site number given). House forms typically are square and burials often include beads and copper ornaments. The diagnostic projectile point from this phase is the Hamilton type. Greenstone celts also were used. Ceramics include Adams Plain and Montgomery Red Filmed (Garrow 1988).

The Autauga Phase is the terminal Woodland Period phase in central Alabama. Sites from this phase show strong similarities to those of the following Moundville Phase (Mississippian Period). Maize agriculture and shellfish exploitation were the dominant subsistence base during this time. Also, sites tended to be smaller than the preceding Hope Hull Phase (Garrow 1988). The diagnostic projectile point type of the Autauga Phase is Sand Mountain. Greenstone celts were used during this phase. Garrow (1988) indicates that the following ceramics are indicative of Autauga Phase sites: Bear Creek Punctated, Bear Creek Pinched, Bear Creek Check Stamped, Bear Creek Roughened, Anderson Incised, Tallapoosa Punctated, Tallapoosa Incised, and Henderson Check Stamped.

The Mississippian Period

The Mississippian Period was marked by significant changes in the settlement/subsistence base and social order of Southeastern Indians. Settlements became quite large and more permanent throughout the eastern US, and often contained plazas and temple mounds. Many decorative motifs from this period span the eastern region, and have been termed, collectively, the Southern Cult. Southern Cult items include embossed copper plates, conch shell gorgets, and elaborate flint blades or maces. The archaeological remains of this complex indicate a powerful and elaborate political/religious organization.

The earliest phase of the Mississippian Period in central Alabama is the Moundville Phase. To some extent, this phase overlaps the earlier Autauga Phase. The Mississippian Period is marked by the emergence of shell-tempered ceramics, large ceremonial complexes, intensive use of agriculture (particularly maize and squash), and large-scale trade. The second phase of the Mississippian Period is the Alabama River Phase. Although cultural similarities exist between these two phases, characteristic changes associated with this phase include larger, often fortified villages, wide scale use of burial urns, and shell and grog tempered pottery. Zoned punctations and stamps were the dominant decorative mode of these ceramics. The Native Americans encountered by the earliest European explorers apparently were associated with the latest manifestations of the Alabama River Phase.

Historic Overview

1550-1910

Spanish explorers in the early sixteenth century were the first Europeans to contact Native Americans in what is now Alabama. By this time, southeastern Alabama was dominated by the Muskogeans, a linguistic group which consisted of c. 17 "tribes" speaking the same language. These groups would have been defined as Late Mississippian on the basis of their material culture. The Alibamu Indians were the principal group in central Alabama at the time of European contact. They were

French settlers soon began moving inland, and in 1717 established Fort Toulouse at the point where the Coosa and Tallapoosa meet to form the Alabama River, ten miles northeast of what is now Montgomery (Thomas 1989:4). While this was a strategic spot as a military outpost, its proximity to a number of Alibamu Indian villages made it a good trading spot as well. The two villages most pertinent to this survey are Towassa and Econchante, both along the bend in the Alabama River near where Montgomery is today. Indeed, both French and English traders apparently had dealings with residents in these towns.

English traders had a strong presence in the area by the early eighteenth century, and came to dominate much of the trade by the middle of the century. The English had outposts in the area by 1715, though the Yemassee War in the Carolinas in 1715-1716 set back the English cause along the Gulf Coast. This gave the French the opening and the incentive they needed to move into the inland areas; they constructed Fort Toulouse as a result. Both French and British traders and military men stayed in the area for the next several decades and maintained a state of "Cold War" through the period of the American Revolution (Thomas 1989:5-24).

Nominal French control of the Gulf Coast ended in 1763 with the Treaty of Paris; the Treaty formally acknowledged Britain's victory in the French and Indian (Seven Years) War. Under the Treaty of Paris, Spain acquired New Orleans and the territory west of the Mississippi River, while Great Britain gained Canada and the Gulf Coast east of the Mississippi River, including Florida. These cessions included Indian territories, although these lands were included in the Treaty without the consent of the Indian tribes. The lone concession to a Native American presence in the territory was Britain's Proclamation of 1763, which forbade settlement west of the Appalachian Mountains and south to the 31st parallel (the present border between Alabama and Florida). In effect, this policy bought time by limiting, though certainly not halting, invasions of Indian lands. The treaties worked out with the Indians, and the pattern of settlement which focused on the coastal areas, limited conflicts with Indians in the interior for several years.

The Gulf Coast area began to show signs of prospering under British rule. Agriculture improved and population increased, and the colonists there began moving toward self-sufficiency (Rogers et al. 1994: 31-35). However successful, Britain's rule

was short-lived. During the American Revolution, Spain belatedly joined forces with the American rebels. As a result, Spanish forces under Bernardo de Galvez captured Mobile in early 1780 and Pensacola in 1781; as one historian noted, "Spain now controlled the Gulf Coast outlets for the Mississippi, Alabama, and Chattahoochee rivers, a situation that would prove intolerable for the new American nation" (Rogers et al. 1994:37).

The Treaty of Paris (1783) concluded the Revolutionary War and gave Spain control of the Gulf Coast. Officially, Spain's northern border was set in the Treaty of San Lorenzo in 1795 as the 31st parallel, with the state of Georgia as its northern neighbor. The American government established the Mississippi Territory in 1798 under the provisions of the Northwest Ordinance. All of these negotiations were carried on without consulting the third claimant, the Creeks, who continued to constitute both a potent enemy and a pawn in the complex international diplomacy. Their strong presence in the interior of Alabama slowed American expansion in the area. While Spanish leaders in Mobile sought to turn the Creeks to their own side, the Creeks sought to continue their trading relations with the British. As Georgia settlers began moving into the Mississippi Territory, particularly the central parts, tensions with the Creeks flared.

Despite these uncertainties, American settlers began streaming into the new Mississippi Territory. The Louisiana Purchase of 1803, in which the United States acquired both the crucial port city of New Orleans and the vast Louisiana Territory, acted as another powerful attraction for settlers. The Mississippi River, now clearly in American hands, also acted as a conduit for new settlers. In light of the growing number of settlers to the Mississippi Territory, and the nation's new port city of New Orleans, President Jefferson ordered the construction of a Federal road from Washington, DC to New Orleans (Southerland and Brown 1989).

The Federal Road increased contact between white settlers and the Creeks; as one historian has noted, "the movement of squatters into the territory produced the tensions that prompted the Creek Indians to resort to acts of violence, [and] the men who led military forces to crush these Indians were men who knew the values to be derived from Creek lands" (Roberts 1969:163). Tensions reached a critical point by 1813, when a series of attacks and counterattacks blossomed into a war

throughout the Mississippi Territory. The war was brought to a formal, and violent, end in 1814 with Andrew Jackson's victory at Horseshoe Bend on the Tallapoosa River. Jackson engineered a treaty at the site of the old Fort Toulouse, subsequently named Fort Jackson, in 1815. Jackson then acted as commissioner for the United States, and forced the cession of 23,000,000 acres of Creek lands, 14,000,000 of which lay in what is now Alabama.

The Treaty of Fort Jackson, and further negotiations with Choctaw, Chickasaw, and Cherokee representatives, secured more lands along the Tennessee River in 1816. These lands were surveyed in 1816 and 1817, and sales of land in the northern and central parts of the new Alabama Territory began in 1817 out of a land office in Milledgeville, Georgia (Abernethy 1965:66; Roberts 1969). Following the war, "Alabama fever" gripped the nation, and during the 1810s the population of Alabama grew more than 1,000 per cent. Mississippi became a state in 1817, and Alabama gained separate territorial status at that point. The population rose quickly enough for the new territory to become a state in 1819. In 1820 the population was 127,901; by 1830, this had risen to 309,527 (Rogers et al. 1994: 54).

Montgomery, located on a bluff along a prominent bend in the Alabama River, was a prime spot for the early land sales. Indeed, the first land transaction in the new Creek lands was in what is now Montgomery. Most of the lands purchased during the first years was in the low bottom lands, acquired not by settlers but by speculators. Quickly, however, settlers began moving in and trying to establish competing towns in the same area. Andrew Dexter, a Massachusetts native, came south after the War of 1812 and purchased lots in what is now the western portion of Montgomery in 1817. With his associates he named his town New Philadelphia. The Alabama Company, meanwhile, composed of Georgia citizens, laid out the town of East Alabama in 1818; at the same time, another land company headed by

George H. R. Thomas, Bibb (brother to the territorial governor) and Dr

The town and county of Montgomery grew quickly during the early antebellum years. Montgomery County grew from an 1820 population of 6,604 to 29,711 in 1850 (Brewer 1975:446; US Census 1850). Commercial activities quickly gravitated to the river, and by the early 1830s the village could boast 28 merchants, five grocers, several tailors, druggists, auctioneers, jewelers, bakers, carriage makers, along with a book store, a furniture store, shoe and clothing stores, painters, and bankers (Beale & Phelan 1878:24-25). The combined forces of politics, economics, and transportation fueled this growth in the early and middle nineteenth century.

It took several years for Montgomery to become a political center. The territorial enabling legislation in 1817 created a temporary capital in St. Stephens. The first territorial legislature in January 1818 then named Cahaba, in Southern Alabama along the Alabama River, the new territorial capital. Western Alabama prevailed in the next debates over the location of the state capital, and in 1826 Tuscaloosa was chosen. Debates arose again in the 1840s over the location of the capital. Commercial and agricultural wealth had begun to concentrate in the south central part of the state, near Selma, Montgomery, and Wetumpka. After intense political wrangling, the legislature agreed to move the capital to Montgomery in 1846. This brought added prestige and money to the city and the county.

The Federal Road also served the new town; it was the first real stop west of Milledgeville, Georgia, and received its first stage mail route in 1821 (Southerland and Brown 1989:60). This made Montgomery a natural place to stop, and a place for merchants to sell their goods. By 1840, three competing stage lines worked the Federal Road from Columbus, Georgia to Montgomery (Southerland and Brown 1989:92). Steamboats proved an even greater boost to the young city; they made it much more feasible to ship and to receive goods. While canoes and rafts had made it relatively easy to send goods to markets via Mobile, canoes could not head up river very easily. Montgomery received its first steamboat in 1821 when the *Harriet* plied up the Alabama River. Montgomery was also connected to Georgia and to Mobile by railroads by the eve of the Civil War. The Montgomery and West Point Railroad was completed by 1850, and connected the state capital to Georgia, while the Alabama and Florida Railroad extended to the southwest, and connected with the Mobile Great Northern Railroad to link Montgomery and Mobile (Rogers et al. 1994:178-180).

Advances in transportation boosted the area's latent economic strength. Steamboat and railroad connections were particularly valuable in bringing cotton from the area to Mobile for shipment. Montgomery County was one of the most important cotton growing counties in the state. In 1850 the county's farmers produced over 25,000 bales of cotton, the sixth highest amount of any county in the state; by 1860 it had become the second largest cotton producing county in the state (US Census 1850, 1860). Montgomery was also the market center for cotton growers in southeastern Alabama; its merchants prospered as the city became the focus of regional trade.

The heavy reliance on a plantation agriculture generated a substantial African American majority in the county by 1830 which lasted nearly a century. By the time of the Civil War the ratio was nearly 2:1, and in 1900 there were 52,207 African Americans and only 19,825 whites in the County. The town of Montgomery was more evenly balanced in 1860, with 4,341 white residents, 102 free African Americans, and 4,400 African American slaves (Census 1860). The County also had a small but growing manufacturing base by the time of the Civil War. Thirteen establishments, including cotton gins, blacksmiths, carriage makers, machinists, and others generated \$293,850 in products in 1860; the largest industry was carpentry work for sashes, doors, and blinds, with two firms generating \$88,000 (US Census 1860).

Alabama voted to secede from the Union in January, 1861, and southern delegates convened in Montgomery the next month to ratify a new Constitution for the Confederacy and to select a President. Jefferson Davis of Mississippi was the choice for President, and he was sworn in on the Alabama State House steps. Montgomery also served as the first capital of the Confederacy until Virginia's secession, when it was moved to Richmond for the duration of the War.

With the removal of the capital, Montgomery emerged relatively unscathed from the Civil War. Montgomery served during the War as "an important depot and distributing point for troops and supplies of ammunition and provisions" (Beale & Phelan 1878:37). The City was occupied by Federal troops only late in the War, three days after Lee's surrender at Appomattox. General Wilson led his cavalry troops into the city in April, 1865, unopposed, though local officials had removed as

many of the Confederate supplies as possible and had burned the cotton in the warehouses (Beale & Phelan 1878:38; Garrow 1988:11).

Trade revived quickly in Montgomery after the Civil War, and merchants, fueled by high cotton prices in 1866, resumed activity. By 1870 Montgomery County was the highest cotton producing county in the state with 25,517 bales. The plantation system still existed in remnants, as large farms (over 100 acres) far outnumbered the small ones. While slavery had officially ended with the Civil War and the Thirteenth and Fourteenth Amendments, planters throughout the South sought ways to regain control over their labor markets and individual workers. At the same time, the freedmen were able to exercise a significant degree of autonomy in demanding different working conditions. Tenancy and share cropping were the principal solutions which emerged from experiments in the 1870s and 1880s.

The average farm size in Montgomery County had slipped to 91 acres by 1880. Among 4,500 farms in the county, only 816 were cultivated by the owners, while 2,600 were rented for a fixed monthly rental, and 1,120 were cultivated by share croppers (US Census 1880). Tenancy was even stronger by 1900, when 4,300 of the 5,800 farms in the county were cultivated by cash tenants, while only 511 were farmed by share croppers (US Census 1900).

While trade based on vast cotton production in Montgomery County revived quickly, manufacturing was slow to take off but then quickly gained ground. The status of manufacturing establishments in the County was little changed in 1870 from 1860, with only 21 companies listed (US Census 1870). The 1880s saw a rapid increase in manufacturing in the county, however, which continued into the early twentieth century. Indeed, by the early twentieth century Montgomery was second only to Birmingham in manufacturing capacity. Eighty-eight factories were listed in Montgomery County in 1880, representing nearly \$400,000 in capital and generating over \$1,000,000 in products. A cotton seed oil factory led the way as the single largest producer, generating \$173,000 in products. Flour and grist mills were the most numerous, however, with 17 plants in the county (US Census 1880). By 1890 138 factories represented \$1.7 million in capital investments and generated over \$3 million in products, including a wide variety of industries.

The turn of the century witnessed a flurry of consolidations among manufacturing enterprises throughout the nation, and Montgomery clearly reflected this trend. The county reported only 73 establishments in 1910, though the value of the products jumped to \$5.4 million. The rate of increase through the 1910s and 1920s was even more breathtaking; by 1930, the county's manufacturing plants generated \$26 million in products.

Increases in manufacturing output on this scale happened in several cities throughout the South around the turn of the century, as commercial, political, and civic leaders joined together in efforts to promote their cities. Several cities went so far as to host international expositions, while all found ways to "boost" their cities and to attract both business and favorable attention. This urban boosterism was an important theme in Montgomery's development as the aviation center of the South.

Aviation History--Maxwell and Gunter Fields

Maxwell has a long and distinguished history in aviation, and has attracted a number of historians and chroniclers. Maxwell, and its more recent adjunct, Gunter, have served as lightning rods for understanding the development of aviation in the South. Moreover, the South has undergone tremendous transformations in the twentieth century as it became the home for a disproportionate number of military bases. Maxwell, in its various guises and names, has been one of the longest continuously operated military bases in the South, and exemplifies many of the trends of this important development.

Montgomery's development as a southern center for aviation extends back beyond its military uses. This seems particularly appropriate, since military aviation technology and strategy more than most areas of military activity drew upon advances in the civilian realm. Aviation in Montgomery also ties in directly to the quest by its leaders to promote their city. Southern boosters for the past generation and more had lauded their region's salubrious climate. The Wright brothers, the pioneering aeronauts, found the argument appealing despite its having become a familiar theme.

Wilbur Wright came to Montgomery in the spring of 1910 seeking a southern home for their air training experiments. The weather in their native Ohio precluded flying during much of the year; given the open structure of their relatively fragile craft, this does not seem unexpected. Instead, they sought warm-weather facilities, and inspected sites in Augusta and Atlanta, Georgia and several places in Florida in addition to Montgomery. Montgomery's business men, like other advocates of a "New South," were ever aware of opportunities to promote their city. Wright was impressed both by the reception and the promise of good weather, and selected a site west of the city along the Washington Ferry Road close to the village of Douglassville. The lot was owned by Frank D. Kohn, one of the business men who met with Wright. Not unlike later attempts by southern cities and states to secure industrial plants, Montgomery's Commercial Club, predecessor to the Chamber of Commerce, offered the Wrights a sweet deal: they would not charge for the use of the field, they would build a hangar, and they would furnish transportation for Wright and his students to Montgomery. It was too good a deal to pass up, and Wilbur Wright accepted.

The Wright brothers, five students, a mechanic, and the airplane all arrived in Montgomery in March 1910. By that time, only three weeks after the deal had been agreed, workers had made several improvements to the land. Workers had cleared three square miles of field to provide take off and landing spaces, and had constructed the hangar, installed lights, and improved the road to the field. The plane arrived in sections on the Louisville and Nashville Railroad, and was assembled on the grounds. The Wrights' biplane made many flights over the next two months. Crowds gathered to see the spectacle, men flying in an engine with wings hundreds

Community, was the first site for an airfield in the WWI era. It covered 800 acres, and encompassed engine repair functions as well as air fields and storage facilities. The Army was interested in Montgomery, given its earlier connection to aviation and the eager reception offered by the city's leaders.

Montgomery's leaders directed the Army's attention back to Frank Kohn's fields, which the Wrights had used so successfully. Negotiations were concluded quickly, and the Army agreed to lease 302 acres in April 1918. Wartime uses called for it to be a repair and service station for aviation engines, along with a flying field. A rapid building program ensued as 52 temporary buildings arose to house the service personnel, along with three miles of paved roads, all completed by July 1918. James Alexander Construction Company, of Memphis, Tennessee, won the contract to erect the buildings. The main buildings on the compound, as shown in published photographs, clearly resemble the contemporary Craftsman style of architecture: low rectangular buildings with broad hipped roofs, overhanging eaves, and exposed rafter tails. The buildings were set in an open field, connected by wooden sidewalks.

The new facility, named the Aviation Repair Depot No. 3, Montgomery, initially received four service squadrons who were in charge of engines and repairs. Additional staffing followed quickly, with a Quartermaster Squadron and a Medical Squadron. The Medical Squadron was the first of several attempts to provide specific training for military medical personnel, particularly aviation, at Montgomery; the post-World War II [WWII] School of Aviation Medicine at Gunter Annex followed in this tradition. The Medical Squadron had its own hospital on the grounds, a new wooden building just east of the current Post Exchange. The primary operations at the site, however, were engine repair and construction. The air fields at the site were used primarily to test the repaired aircraft. Most of these aircraft were single-seat Thomas More Scouts, along with a few DeHavilland-4 and Curtiss or Jennys planes.

American participation in WWI ended quickly, as the Armistice was signed in November 1918. Even this brief period convinced Army personnel of the importance of air power. The years following WWI, though, were uncertain ones for

political and military commitments after its brief fling with internationalism. The US Senate's bruising defeat of the Treaty of Versailles, containing provisions for a League of Nations which President Woodrow Wilson touted so heavily, was a clear indication of the mood of the country.

Montgomery's aviation base slowly began converting to civilian uses in the wake of WWI. Fervent support by local leaders and congressmen kept the military's connection at the site. The Department of the Army closed all aviation bases except one each in California and Florida, and military personnel began taking on different duties. Civilians gradually began replacing military personnel, and the focus of the facility shifted to other pursuits. The important aspect, however, is that aviation activities did not cease at the base; indeed, the number of civilians working there grew to the point that housing was soon in short supply. Aviation was clearly a growth industry in the early 1920s, nearly in the same way as automobiles had been in the 1900s and 1910s, and Montgomery was well situated to take advantage of the boom. The former Army base became a major depot and manufacturing center, and the city eagerly supported these developments.

As the manufacturing and assembling operations at the Montgomery Depot grew rapidly, the base changed physically. The weight of the machinery that began arriving required more permanent buildings with reinforced floors, and two additional hangars were built in late 1919. These were civilian developments, though the military still had nominal control of the facility; the Army wisely agreed to keep the facility as an Army post in early 1920. A year later, in January 1921 the name of the facility was changed from the Aviation Repair Depot, Montgomery, to the Montgomery Air Intermediate Depot.

The nature of the operations at Montgomery was in flux and indecision through much of 1921, as post-war military appropriations came under greater scrutiny. The public pressure to reduce American military forces was acute through much of the 1920s, and Montgomery's Depot was subject to these difficulties. Bases throughout the nation were closed in 1921 and 1922, while many of the civilian personnel at Montgomery's depot were released during 1922. There were conflicting impressions at the base; the Army announced in late 1922 that it would transfer the 22nd Observation Squadron and the 4th Photo Section to Montgomery's Air

Intermediate Depot, but their status was uncertain. At the same time, in October 1922, the Army auctioned off \$35,000 in aviation and administrative supplies.

Doubts were erased in November 1922 when the Army announced plans to rename the base Maxwell Field. Second Lieutenant William C. Maxwell was a native of Atmore, Alabama who was killed in the Philippines in 1920 when he deliberately crashed his plane to avoid landing where children were playing. This signalled the Army's intention to keep Maxwell Field as a permanent base. By this time also Maxwell Field had become a regional center for the nation's new pet project, air

mail. It was used for a trial mission by the US Postal Service in 1925 to see if

to be built by the A.C. Samford Company of Montgomery at a cost of \$70,000. These were set in a crescent-shaped area which George Ford had approved in early 1927 (EDAW 1992:6-3).

Another building campaign at Maxwell Field followed quickly. The Army announced plans to move the Tactical Air Command [TAC] school from Langley Field, Virginia to Maxwell Field in December 1928. Local and state politicians and commercial and civic organizations had lobbied the Army's Attack Group Board extensively to secure the School. This was a significant move; the Army Air Corps' Tactical School was an important adjunct of the Army's mission, and gave Montgomery additional prominence as an aviation center. The Assistant Secretary of War, F. Trubee Davison, noted in 1929 that the School was "a proving ground of ideas, a place where army air corps [*sic*] officers study the techniques of aerial warfare and apply their knowledge toward the further expansion of the science of military aeronautics as it affects not only the functioning of aviation as an air force, but also in its relationship to Army organizations on the ground" (Chronology--Maxwell Field 1964:97).

Maxwell Field's facilities continued to expand throughout the Depression years of the 1930s. Land purchases related to the TAC, including 75 acres donated to the Army by the city and county of Montgomery, were concluded in October 1929. Final authorization to build the School at Maxwell came a year later from Congress, with pressure from Senator Lister Hill; Samford Brothers Incorporated of Montgomery began construction on the Tactical School building. This new building featured hollow tile and stucco, with a tile roof and plaster walls with a stucco finish. The School, according to local reports, would make Maxwell Field "the West Point of the air service with the thousands of officers responsible for the country's air defense coming here for instructions" (Chronology--Maxwell Field 1964:99).

The TAC facility was largely completed by the summer of 1932. The main

included a new barracks, similar to the one built in 1928, four structural steel hangars, an observation and parachute building, a warehouse, a machine shop, an airplane assembly shop, a hospital, a fire and guard house, and a post exchange.

The School was allowed to expand further in August 1931 when the Army received legal instruction to condemn and occupy 600 acres of Frank Kohn's plantation after two years of litigation. One casualty of this land purchase was the town of Douglassville, which arose from residents near and workers on Frank Kohn's farms. The village was condemned and removed, and the cemetery relocated (Preliminary Map 1931). This provided room in part for the Senior Officers' Quarters. This residential area in the northeast section of the Base represents the most outstanding architectural planning. Architects in the Quartermaster's Corps designed the 99 buildings in the area. The buildings are in nine variations of the French Provincial style of architecture. They were built principally in 1934, using funds from the 1932 Emergency Relief and Construction Act. It is in effect a suburb, featuring curving streets and large lawns. This plan reflects the ideals of George Ford, who drew upon earlier ideas of Frederick Law Olmsted to use natural terrains and retain a park-like setting. The suburban quality of this section was reinforced in 1934 with the construction of the golf course, which was built as a New Deal landscaping project (EDAW 1992:6-5,6).

Not all of the Base's facilities were so glamorous, of course. The War Department and the Bureau of Prisons agreed in 1930 to house a Federal Prison at Maxwell; the prison had several locations before moving to its present site. It was first located near Buildings 800 and 668, then moved in 1933 to a location close to Buildings 625, 627, and 628. It was moved five years later to another location, now unclear though perhaps along Bell Road close to the present hospital; it moved to its present location in 1940 (Ennels 1990:81n).

The Tactical Air Command School operated throughout the 1930s and provided training in military aviation strategy to the generation of pilots and commanders who implemented their education in WWII. It was designed to develop strategy among pilots whose credentials were already established. Indeed, Tactical School personnel developed several of the strategies which proved so successful in WWII, including bombardment aviation and pursuit aviation. The alumni roster of

the school in WWII and thereafter was impressive, including Curtis LeMay, Claire Chennault, and other generals. The conclusion of the School is laced with irony. WWII, which provided the proving ground for the aviation strategies developed at Base Maxwell's Tactical School, brought about the demise of the School. The need for airmen became so acute after 1939 that the lengthy time allowed for the Tactical School in peacetime could no longer be afforded. Operations at the School were temporarily abandoned in 1940 and staff reduced to a skeleton; in 1941 the Southeast Air Corps Training Center [SEACTC] took formal control of the Tactical School's operations. This led to the final dispersal of the School's operations to other posts in 1941 and 1942.

Maxwell Field's mission changed during WWII. SEACTC was established at Maxwell Field in the summer of 1940, using Austin Hall as its headquarters. It served as a primary training facility in the southeast for bombardier, navigation, and pilot operations. The shift from the Tactical School to a training center required physical changes at the Base. Housing presented an important challenge. Local officials and base personnel developed several solutions, including purchasing the new US housing project, now Maxwell Heights, slated to be completed in west

64040. The Air Force did not purchase these lands

built in 1929, encompassed some 600 acres by 1940, and was five miles north of the city. This airport, later renamed Gunter Field, became Maxwell Field's annex as an Air Corps Basic Flying School.

Maxwell Field remained a training facility throughout WWII. SEACTC served as the administrative center for a number of training operations throughout the southeast including facilities at Selma, Alabama, and Eglin Base in Florida. By September 1941, SEACTC included 56 separate schools. The range of training duties at Maxwell and Gunter varied during the war years. It provided both primary and advanced training, and instructor training. Under an agreement with the British government, it also provided primary training for selected RAF pilots. Late in the War, Maxwell began receiving the new B-29 "Superfortress" bombers.

The Air Corps' Tactical School had drifted away from Maxwell Field in the early WWII years, but began to reemerge at Maxwell after WWII. In October 1945 the Army announced plans to develop the Army Air Forces Tactical School at Maxwell. Visions of "the West Point of the Air" in Montgomery were revived in late 1945 and 1946 as the War Department geared down to peacetime status. With hearty encouragement from local leaders the Army announced plans to revive the peacetime educational activities at Maxwell Field. The scale of activities was dramatically enlarged from the old Tactical School before the War, as plans called for over 1,000 officer students at Maxwell, compared to fewer than 100 in the 1930s. In addition, the school included three sections, the Air War Course, the Command and Staff Course, and the Fighter and Bomber Tactical Course.

The educational programs at Maxwell were officially named Air University in March 1946. Air University [AU] grew quickly. It gained jurisdiction over the Army Air Forces [AAF] School of Aviation Medicine at Randolph Field, Texas in April 1946. At the same it developed more academic departments; under MG Muir Fairchild, commanding general of AU, civilian educators joined the staff to provide instruction in political, economic, and scientific topics. In addition, AU reached out to other colleges around the nation to provide more educational opportunities for

While AU grew during the late 1940s, it tended to upgrade the existing facilities rather than construct new buildings. Building 500, the Cadet Mess during WWII, underwent renovation beginning in March 1947 to serve as a classroom, conference, and assembly building. Later that year, AU officials announced plans to convert barracks at the field into quarters for married non-commissioned officers.

The second year of AU's operations coincided with the separation of AAF into the United States Air Force (USAF). The 1947 National Security Act created a separate cabinet-level Department of Defense with three branches, the Navy, Army, and Air Force. Two different aerial sections of the Army in WWII, Army Ground Forces and Army Air Forces, split officially at this point. Army Aviation arose from the organic aviation component of the Army Ground Forces and was established first at Fort Sill, Oklahoma, and later at Fort Rucker, Alabama. The Army Air Forces received its own branch status as the USAF.

The two services remained at odds during the early Cold War years in the late 1940s. The point of dispute was the degree of support provided to Army ground troops. The USAF was granted control of establishing local air supremacy, providing air transport to the Army, and furnishing combat and logistical air support to the Army. In the development of the Cold War, however, the USAF became more concerned with global strategic and air defense concerns. Army Aviation, meanwhile, focused on developing strategies for organic aviation, having aircraft provide logistical and close-air support, with special attention to helicopters (Kitchens 1992:22-23). While the US Air Force Academy was eventually established in Colorado rather than at Maxwell AFB, AU played a vital role in these strategic developments. The creation of the USAF also led to the official designation of Maxwell Field as Maxwell Air Force Base in 1948.

AU grew rapidly, and not always with clear direction, through the late 1940s. New courses and programs were added regularly, greatly expanding the range of educational opportunities for Air Force personnel. Facilities, particularly housing, were a clear problem. Maxwell Heights received a new 250 unit housing project in 1950, constructed under funding given to the USAF under the Wherry Act of 1949. The Weaver Theater, named for Maxwell Field's commanding officer 1927-1931 and 1939-1942, was built in 1949.

The Korean conflict caused a number of other changes at AU in the summer of 1950. The melange of educational opportunities to civilian and military personnel was sharply curtailed. The Air War College was temporarily suspended and other programs were reduced or eliminated; the Air Command classes were reduced, though AU continued to serve as the officer educational command of the Air Force. Indeed, new courses continued to be announced throughout 1950. Later that summer, the USAF announced plans to expand Maxwell's hospital to care for Korean War wounded, while the School of Aviation Medicine met with AU officers to discuss renovating buildings and constructing others at Gunter Annex.

Air University's pilot training programs at Craig AFB in Selma, Alabama, and Tyndall AFB in Panama City, Florida were moved to Maxwell in 1950. Maxwell's facilities were strained at this point, and planning began for a new academic center. By 1955 the Air Force had constructed four classroom buildings, an administrative building, and five dormitories; a library and student officers' mess were completed the next year. This complex, designed in a circle, was later named Chennault Circle in honor of Claire Chennault, a talented pilot who was a pursuit instructor at TAC in the 1930s (Ennels 1993). They were initially of cement block construction; they received a "face-lift" of brick facades in the early 1980s (Jerome Ennels, personal communication, 29 February 1996). AU, similar to the earlier TAC of the 1930s, served as an educational center for advanced officers, and provided a site for the development of American air power strategy in the Cold War

Gunter Annex also played a role in the development of Cold War strategy. In particular, the "Blockhouse" (Building 857) served as base for the Semi-Automatic Ground Environment [SAGE]. This was the South's central point for a national 30-station radar network. Eight regional command centers were supported by 22 directional centers; Gunter was one of these directional centers. The network was able to pinpoint speed, direction, and location of all aircraft within its radar ring. SAGE continued in operation from the early 1950s until the late 1960s, when Soviet intercontinental ballistic missiles made it less useful as a defense shield. The Blockhouse at Gunter housed a SAGE facility from its construction in 1957 until 1966. The Air Force Data Systems Design Center began occupation in 1971. Now called the Standard Systems Center, the Blockhouse "continues to develop and maintain computer software for Air Force base-level processing" (Ennels 1993).

Under guidance from both the military and Montgomery's civil, commercial, and political leaders Maxwell AFB has continued to serve as the educational, research, and doctrinal center for the USAF, providing advanced level training for USAF personnel.

Previous Investigations

Five historical resources investigations have been completed within the present survey tracts prior to the present survey. These include Chase (1964), Garrow (1988), USAFAETC (1994), Dukes and Braley (1994), and the US Army Corps of Engineers, Mobile [COE-Mobile] (1995). A summary of these investigations follows.

David Chase (1964)

In 1964, David Chase, then at Auburn University-Montgomery, conducted a historic resources survey of lands within and immediately adjacent to Maxwell AFB. These investigations were conducted adjacent to the Alabama River, in the flood plain and on the bluff overlooking the flood plain. No report has been produced for these investigations. The survey methodology utilized during this survey is unknown. It is expected that surface collection was one means of site discovery. To what extent shovel testing was utilized cannot be determined at present. However, site forms for several sites discovered during these investigations are available at the Alabama State Site Files.

Chase identified 26 archaeological sites during this survey. Eight sites (1Mt33, 1Mt63, 1Mt79, 1Mt92, 1Mt93, 1Mt107, 1Mt200, 1Mt257) were discovered on the south side of the Alabama River, on or adjacent to Maxwell AFB. In addition to these sites, eighteen sites were discovered in the bend of the Alabama River. The following is a brief discussion of seven of the sites listed above. No site form could be located at the Alabama State Site Files for Site 1Mt33.

Site 1Mt63. Site 1Mt63 is located approximately 0.5 miles (0.8 km) north of Maxwell AFB on the flood plain of the Alabama River. This site consists of a small

shell midden, represented by two small circular shell pits. Lithic waste flakes and sand tempered ceramics were recovered from these shell pits. Ceramics included plain and red filmed wares. The presence of these ceramics indicates that the site dates to the Hope Hull Phase of the Late Woodland Period. This site was recommended not eligible for the NRHP.

Site 1Mt79. Site 1Mt79 is located approximately 0.75 miles north of Maxwell AFB, on the flood plain of the Alabama River. The only information available for this site is its geographic location. Information regarding site type, size, chronological position, or NRHP status was not included on the site form.

Site 1Mt92. Site 1Mt92 is located in the northeast portion of Maxwell AFB, near Fairway 15 of the Cypress Tree Golf Course. This site is a shell midden of unknown age. Chase indicates that 1Mt92 represents two well defined shell dumps. No size or cultural affiliation was determined for the site. The NRHP eligibility of 1Mt92 was not determined.

Site 1Mt93. Site 1Mt93 is located approximately 100 m north of Chennault Circle on Maxwell AFB. Although the site form for this site does not indicate a cultural affiliation, it is possible that this site is the same as Garrow Site 4 (Garrow 1988). Garrow (1988) indicates that Garrow Site 4 was originally recorded by Chase and that no site form is available for the site. The closest site to Garrow Site 4 is 1Mt93; however, the locations of these two sites are not plotted in the same locale on USGS quadrangle maps. During the present survey of the golf courses at Maxwell AFB a small surface scatter was located in the area designated 1Mt93 by Chase (1964). Although no definite cultural affiliation could be assigned to the site, it is possible that intact buried deposits are present. Therefore, 1Mt93 is recommended potentially eligible for the NRHP.

Site 1Mt107. Site 1Mt107 is located approximately 0.3 miles (0.5 km) north of Maxwell AFB. This site is a multi-component site dating to the Early Archaic and Middle Woodland Periods. Chase indicates that Big Sandy (Early Archaic) and Dead River (Middle Woodland) horizons are present on the site. No NRHP assessment has been made for 1Mt107.

Site 1Mt200. Site 1Mt200 is located due east of Chennault Circle on Maxwell AFB. A ditch bisects the site as it was originally defined; however, the site boundaries have now been revised (Garrow 1988). Site 1Mt200 now lies on the northwest side of the ditch, and a separate loci of the site (1Mt279) has been defined southeast of the ditch. Site 1Mt200 (The Towassa Site) was identified by Chase in 1964. This site has been dated to the Mississippian Period. Although it is possible that this site represents the protohistoric Native American town of Towassa, no direct evidence for this identification has been found. A mound once stood at this site but apparently was graded for construction purposes. Due to the potential connection with de Soto, and the unknown integrity of archaeological deposits at the site, 1Mt200 has been recommended potentially eligible for the NRHP.

Site 1Mt257. The Edwards-Arthur Cemetery serves as the family cemetery for the Edwards and Arthur families. The Edwards and Arthur families lived in the vicinity of Maxwell AFB before the base was constructed. The cemetery was used between 1850 and 1920. In addition to the historic burials located at his locale, a Late Archaic Period lithic scatter is present. The Edwards-Arthur Cemetery originally was recommended eligible for the NRHP. It is unknown whether the Late Archaic component of 1Mt257 is a contributing element of the site's NRHP eligibility. It should be noted that the cemetery was moved to another family cemetery outside of Maxwell AFB prior to the extension of Runway 33. Since the cemetery has been relocated, its former location is no longer eligible for the NRHP.

Garrow and Associates, Inc. (1988)

In 1988, Garrow and Associates, Inc. conducted reconnaissance level field investigations at Maxwell AFB and Gunter Annex. The purpose of these investigations was to relocate known archaeological resources on the two bases and determine their present condition (Garrow 1988:1). In addition to these site revisits, Garrow and Associates, Inc. made an assessment of disturbance at Maxwell and Gunter. At that time, high probability areas were delineated, and disturbed areas were noted. A systematic survey was not conducted within the project tract. As Garrow (1988:1) notes, "It should be emphasized...that it was not the purpose of this study to pinpoint all archaeological resources that exist within the study area." He

goes on to state, "Instead, this study keyed on gathering data on known sites on the bases, as well as...to characterize the types and extents of impacts that have occurred within the study areas."

Two disturbed areas were noted within Maxwell AFB: the Alabama River flood plain and most of the upland sections (Garrow 1988:24). While it was noted that potentially significant structures may be present within the upland areas, most of the archaeological potential of this area was destroyed by construction of Maxwell

number, 1Mt279. The portion of the site west of the ditch contained Mississippian and historic material and was designated 1Mt200. This site is discussed below. Due to the undisturbed nature of soils at the site, it is possible that intact buried deposits are still present. Therefore, 1Mt279 is recommended potentially eligible for the NRHP.

1Mt200 (Garrow Site 2). Site 1Mt200 is located approximately 100 m east of Chennault Circle on Maxwell AFB. This site was originally identified by Chase (1964) as a Mississippian Period occupation, potentially representing Towassa, an Alabama Town. This has since been debated, and there is evidence that the town of Towassa was actually located farther upstream. However, Mississippian artifacts, including an ear spool and shell tempered ceramics have been recovered from the site (Garrow 1988:34). A mound was originally located on the site and visited by Brannan (Dubina n.d.:16). However, this mound has since been destroyed by construction activities. Garrow (1988:35) indicates that part of the site may still be intact. As such, the site remains potentially eligible for the NRHP.

Garrow Site 3. Garrow Site 3 is reportedly located approximately 100 m northeast of Chennault Circle on Maxwell AFB. Apparently, Chase (1964) recovered

5 is composed of two shell pits. Artifacts recovered from these two pits include lithics flakes and plain and red filmed sand tempered ceramics. This would place the site in the Hope Hull Phase of the Mississippian Period. Due to disturbance, site 1Mt92 has been recommended not eligible for the NRHP.

1Mt283 (Garrow Site 6). This site was discovered by Garrow and Associates, Inc. in the northern portion of Maxwell AFB, near fairways 14 and 15 of the West Golf Course (Garrow 1988:37). A total of 12 quartz flakes and one non-diagnostic quartz biface fragment was recovered from the surface of the site. No subsurface excavations were conducted. Due to the possibility of buried deposits, this site was recommended for further testing. No NRHP recommendation was made at this time.

US Air Force Air Education and Training Command (1994).

In June 1994, the USAFAETC conducted historic resources investigations at the northern end of Runway 33, Maxwell AFB. These investigations were conducted in order to determine the potential impact of an extension to the runway on archaeological resources in the area (Sheldon and Weiss 1994). The survey area for this project consisted of a 1,000 by 200 ft (305 by 61 m) overrun for Runway 33, a lighting corridor, and proposed new sections of March Road and Washington Ferry Road (Montgomery County Road 68).

The field methodology for this survey included surface inspection of exposed areas, shovel testing, and mechanical scraping. Surface inspections were made at all exposed surfaces. In areas where surface visibility was poor, shovel testing was conducted. Shovel tests measured 1.0 by 1.0 ft (30 by 30 cm), with some larger (1.5 by 1.5 ft/50 by 50 cm) shovel tests excavated where necessary. At all discovered sites (including surface scatters) shovel tests were excavated to determine site boundaries. At 1Mt256, a surface scatter, mechanical scraping of a 75 by 200 ft (23 by 61 m) area was conducted in order to search for buried cultural deposits.

Two sites were recorded as a result of this investigation. One site (1Mt256) was located within the survey corridor. This site was recommended not eligible for the NRHP. A second site (1Mt255) was recorded on the western margin of Maxwell

AFB. This site is a surficial lithic scatter dating to the Archaic Period. Site 1Mt255 lies outside of the Runway 33 survey area and was not assessed for NRHP eligibility (USAFAETC 1994).

Southeastern Archaeological Services, Inc. (1994)

In 1994, Southeastern Archaeological Services, Inc., conducted archaeological investigations at the Lake Jordan/Vigilant Warrior Training Area in Elmore County. The Lake Jordan/Vigilant Warrior Tract contains approximately 200 acres. Of this, Southeastern Archaeological Services, Inc. surveyed approximately 40 acres. The survey was restricted to areas of direct impact within the Vigilant Warrior Tract (Dukes and Braley 1994).

The survey methodology for these investigations consisted of shovel tests excavated at 100 ft (30 m) intervals within the targeted areas. Shovel tests measured 1.0 by 1.0 ft (30 by 30 cm) and were excavated to sterile subsoil. Shovel tests were supplemented with surface inspection where possible.

No archaeological sites were discovered as a result of the Southeastern Archaeological Services, Inc. survey (Dukes and Braley 1994). It was noted during these investigations that subsoil in most places is 30 cm below surface or shallower. This may indicate that erosion has severely deflated the soil in the area, and may jeopardize the integrity of any sites that are found.

US Army Corps of Engineers, Mobile District (1995)

In 1995, archaeologists from the US Corps of Engineers, Mobile District surveyed three portions of Maxwell AFB (COE-Mobile 1995). The three survey areas were located at the northeast portion of Maxwell AFB, near the US Federal Prison. Auger testing and surface inspections along banks and road cuts in the survey areas were undertaken. No archaeological resources were noted. These areas

Chapter III. Field and Laboratory Methods

Background Research

The background research phase of archaeological investigations began with careful review of published and unpublished reports and other documents describing prior cultural resources investigations at Maxwell AFB and Gunter Annex. These reports include histories of the facilities (Dubina n.d.; Dubina and Dixon 1964; Ennels 1981, 1990), early twentieth century investigations at Towassa (Brannon 1942), recent archaeological surveys (Dukes and Braley 1994; Garrow 1988, USAFAETC 1994), and cultural resources planning documents (EDAW 1992). In addition, historical accounts of the area and region (Blue 1878; Woodward 1859), early maps, and old photographs were examined for references to the project areas. Background research also included visits to the Alabama Department of Archives and History (Montgomery), the Alabama State Historic Preservation Officer (Alabama Historical Commission, Montgomery), the Alabama State Site Files (Moundville), and the Office of History, Maxwell AFB. At the Office of History, specific focus was placed on the Cold War era (1946-1989) history of Maxwell AFB and Gunter Annex, so that buildings and structures of this period could be reviewed for significance. In addition, records in Real Estate Management, Maxwell AFB (42nd Civil Engineering Squadron) were examined to assist in identifying Cold War era buildings and structures.

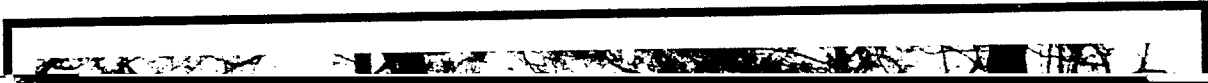
Field Methods

Archaeological investigations at Maxwell AFB, Gunter Annex, and Maxwell Heights focused on identification of areas that have not been heavily disturbed by modern construction or erosion. Reconnaissance at Maxwell Heights and Gunter Annex indicated that no undisturbed areas exist on these tracts; therefore, no archaeological investigations were conducted. Garrow (1988) noted that extensive land modification associated with various construction stages at Gunter (as Montgomery Municipal Airport during the early twentieth century and as Gunter Annex from 1940 to the present) has eliminated the potential for significant

archaeological remains to exist in this area. Maxwell Heights, located approximately one mile south of Maxwell AFB, consists of a cluster of approximately 130 houses built on a 30 acre tract. Field and map observations indicate an area of densely clustered single story houses with small yards. Configuration of houses and streets on the landform suggests extensive construction-related land modification. Thus, no areas with archaeological potential exist at Gunter Annex or Maxwell Heights.

Map research and reconnaissance indicated that the majority of Maxwell AFB also has been extensively disturbed by construction. Military development of the property began in 1918 with the establishment of the Aviation Repair Depot (Ennels 1990:13). Expansion of these facilities began during the early 1920s, continued with establishment of the Air Corps Tactical School in 1929, and accelerated through WW II to the present (Dubina n.d.). Large areas were stripped of vegetation and graded for construction of runways, hangars, barracks, and a wide variety of support facilities. This extensive grading and filling of lands has so disturbed ground surfaces that little potential remains for preserved archaeological deposits.

An archaeological reconnaissance of Maxwell AFB by Garrow and Associates, Inc., in 1988 documented six archaeological sites and defined three high probability (archaeologically sensitive) areas. Despite disturbance associated with golf course construction, Garrow (1988:24) defined the bluff edge overlooking the Alabama River flood plain (part of the East Golf Course) as an archaeologically sensitive area, and recommended avoidance of additional ground disturbing activities therein. Due to its location along a bluff top creek and minimal evidence of recent disturbance, Garrow (1988:44) also determined that the Senior Officer's Quarters (SOQ) was archaeologically sensitive. The Edwards-Arthur Cemetery and the golf course fairways encompassing 1Mt92 (Garrow Site 5) and 1Mt283 (Garrow Site 6) also were defined as archaeologically sensitive. In addition, map review during the present survey indicated that an area along the west edge of Maxwell AFB may be relatively undisturbed and may contain intact archaeological deposits. Thus, three areas were available for archaeological survey within Maxwell AFB during the present investigations. These included the golf courses on the east and north margins of the base, the SOQ, and the western margin of the base (west of March Road). The locations of these survey areas are shown in Figure 2. Figure 7 presents views of the West Course and the East Course at Maxwell AFB.



Examination of the three survey areas involved systematic inspection of surface exposed areas and systematic (screened) shovel testing of areas with less than 25 per cent exposed ground surface. Shovel tests were excavated at 100 ft (30 m) intervals along parallel transects 100 ft (30 m) apart. Each shovel test was approximately 1 by 1 ft (30 by 30 cm); all fill was screened through 0.25 inch (6.35 mm) mesh hardware cloth. At the golf courses, transects were placed subjectively and followed the fairways and their associated "roughs". All transects and shovel tests were numbered, and their locations were recorded in field notebooks and on field maps. Descriptions of recovered artifacts and soil profiles were recorded for each shovel test.

Intensive archaeological survey was conducted at the Lake Martin and Lake Jordan lease tracts. These investigations were conducted in accordance with the *Standards of Archaeological Survey and Testing in Alabama* (Alabama Historical Commission 1994). The primary site discovery techniques utilized at the lease tracts consisted of systematic (screened) shovel testing and careful inspection of surface exposures, when available. Shovel tests were excavated at 100 ft (30 m) intervals along parallel transects 100 feet (30 m) apart. Each shovel test was approximately 1 by 1 foot (30 by 30 cm), all fill was screened through 0.25 inch (6.35 mm) mesh hardware cloth. All transects and shovel tests were numbered, and their locations were recorded in field notebooks and on field maps. Descriptions of recovered artifacts and soil profiles were recorded for each shovel test.

In areas with good surface exposure (greater than 25 per cent exposure of rain washed surface soils), shovel tests were reduced in number, but never greater than 300 ft apart (90 m); transects remained at 100 ft (30 m) intervals. Shovel testing also was reduced in areas with greater than 20 per cent slope. Wetlands and areas with obvious disturbance were not shovel tested; survey of these areas was reduced to documentation of conditions and careful recording of each area's location on field

boundaries, to record the soil stratigraphy, and to estimate disturbance. These shovel tests were placed as appropriate to site conditions and terrain features; typically a north/south, east/west cruciform of 33 - 50 ft (10 - 15 m) interval shovel tests was used to define sites approximately 165 - 330 ft (50 - 100 m) in diameter. A sketch map of each site was prepared, and at least one black and white (35 mm format) photograph was taken. Apparent isolated finds were explored with at least four shovel tests at 33 - 50 ft (10 - 15 m) intervals, depending upon terrain features, and in cardinal directions from the original positive test or surface find.

Architectural survey at Maxwell AFB and Gunter Annex focused on post-WW

[illegible]

Determining the association of a property with a historic context involves five steps (*NRB* 15:7). First, the property must be associated with a particular facet of local, regional (state), or national history; examples include Mississippian Utilization of the Alabama River Valley, Antebellum Agricultural Development in the Black Belt of Alabama, Cold War Era Facilities at Maxwell AFB. These facets will represent the context within which any particular property developed.

Secondly, one must determine the significance of the identified historical facet/context with respect to the property under evaluation. As an example, if Maxwell AFB contained no facilities that were constructed during the Cold War Era (1946-1989) or that were not used at that time in a manner different from use during earlier or later periods, then the Cold War Era context noted above would not be significant for the development of Maxwell AFB or any of its internal properties. Similarly, a lack of archaeological sites within a particular area would preclude the use of contexts associated with the prehistoric use of a region.

The third step is to demonstrate the ability of the particular property to illustrate the context. A property should be a component of the locales and features created or used during the historical period in question. Early nineteenth century farm houses, the ruins of African American slave settlements from 1820s, and/or field systems associated with particular Antebellum plantations in the Black Belt of Alabama would illustrate various aspects of the agricultural development of this region prior to the Civil War. Conversely, contemporary churches or road networks may have been used during this time period but do not reflect the agricultural practices suggested by the other kinds of properties.

The fourth step involves determining the specific association of a property with aspects of the significant historic context. *NRB* 15:11-24 defines how one should consider a property under each of the four criteria of significance. Under Criterion A, a property must have existed at the time that a particular event or pattern of events occurred and activities associated with the event(s) must have occurred at the site. In addition, this association must be of a significant nature, not just a casual occurrence (*NRB* 15:12). Under Criterion B, the property must be associated with historically important individuals. Again, this association must relate to the period or events that convey historical significance to the individual, not just that this person

was present at this locale (*NRB* 15:15-16). Under Criterion C, a property must: possess physical features or traits that reflect a style, type, period, or method of construction; display high artistic value; or, represent the work of a master (an individual whose work can be distinguished from others and possesses recognizable greatness [*NRB* 15:20]). Under Criterion D, a property must possess(ed) sources of information that can address specific important research questions (*NRB* 15:22). These questions must generate information that is important in reconstructing or interpreting the past (Butler 1987). For archaeological sites, a series of information realms have been defined from which research questions can be developed for specific sites. These realms are listed in Table 2. A site need only possess data able to address one or more of these information realms to be considered for NRHP eligibility.

After a property has been specifically associated with a significant historic context, one must determine what physical features of the property are necessary to reflect its significance. One should consider the types of properties that may be associated with the context, how these properties represent the theme, and which aspects of integrity apply to the property in question (*NRB* 15:8). As in the Antebellum Agriculture example given above, a variety of properties may reflect this context (farm houses, ruins of slave settlements, field systems, etc.). One must demonstrate how these properties reflect the context. The farm houses represent the residences of the principal landowners who were responsible for implementing the agricultural practices that drove the economy of Alabama during the Antebellum Period. The slave settlements housed the workers who conducted the vast majority of the daily activities necessary to plant, harvest, process, and market crops.

Once the above steps have been completed and the association with a historically significant context has been demonstrated, one must consider the aspects of integrity applicable to a property. Integrity is defined in seven aspects of a property; one or more may be applicable depending on the nature of the property under evaluation. These aspects are *location, design, setting, materials, workmanship, feeling, and association* (*NRB* 15:44). If a property does not possess integrity with respect to these aspects, it cannot adequately reflect or represent its associated historically significant context. Therefore, it cannot be eligible for the NRHP. To be considered eligible under Criteria A and B, a property must retain its essential

Table 2. Research Realms as NRHP Eligibility Guides.

<u>Research Realms - Native American Sites</u>	<u>Research Realms - Historic Sites</u>
Plant diet	Plant diet
Faunal diet	Faunal diet
Faunal/Floral seasonality	Husbandry/subsistence/economy
Intra-site settlement	Intra-site settlement
Structure form and proxemics	Structure form and proxemics
Activity areas	Activity areas
Burial ritual	Burial ritual
Osteological characterization	Osteological characterization
Ethnic relationships	Ethnic relationships
General health	General health
Osteological diet study	Osteological diet study
Use of Euro-American goods (Historic Aboriginal only)	Ceramic assemblage
Ceramic technology	Vessel form analysis
Intra-site stylistic variation	Class, Status, and Ethnic Indicators
Vessel form analysis	Assemblage variation/site function
	Feature analysis/site function
Lithic reduction patterns	Extraction technology (mineral/timber/clay)
Lithic raw material patterns	Production technology (pottery, brick, gold, lumber, leather)
Culture history sequence	Water powered processing technology
Ceramic typology/chronology	Workers' lifeways
Culture history direct dating	
Extraction/processing: steatite/clay/lithics	Military defenses
	Military strategy
Assemblage variation/site function	Conflict reconstruction
Feature analysis/site function	Military lifeways
Site use intensity through time	Site occupant determinable
Historic Native American group determinable	

physical characteristics that were present during the event(s) with which it is associated. Under Criterion C, a property must retain enough of its physical characteristics to reflect the style, type, etc., or work of the artisan that it represents. Under Criterion D, a property must be able to generate data that can address specific research questions that are important in reconstructing or interpreting the past.

Chapter IV. Results and Recommendations

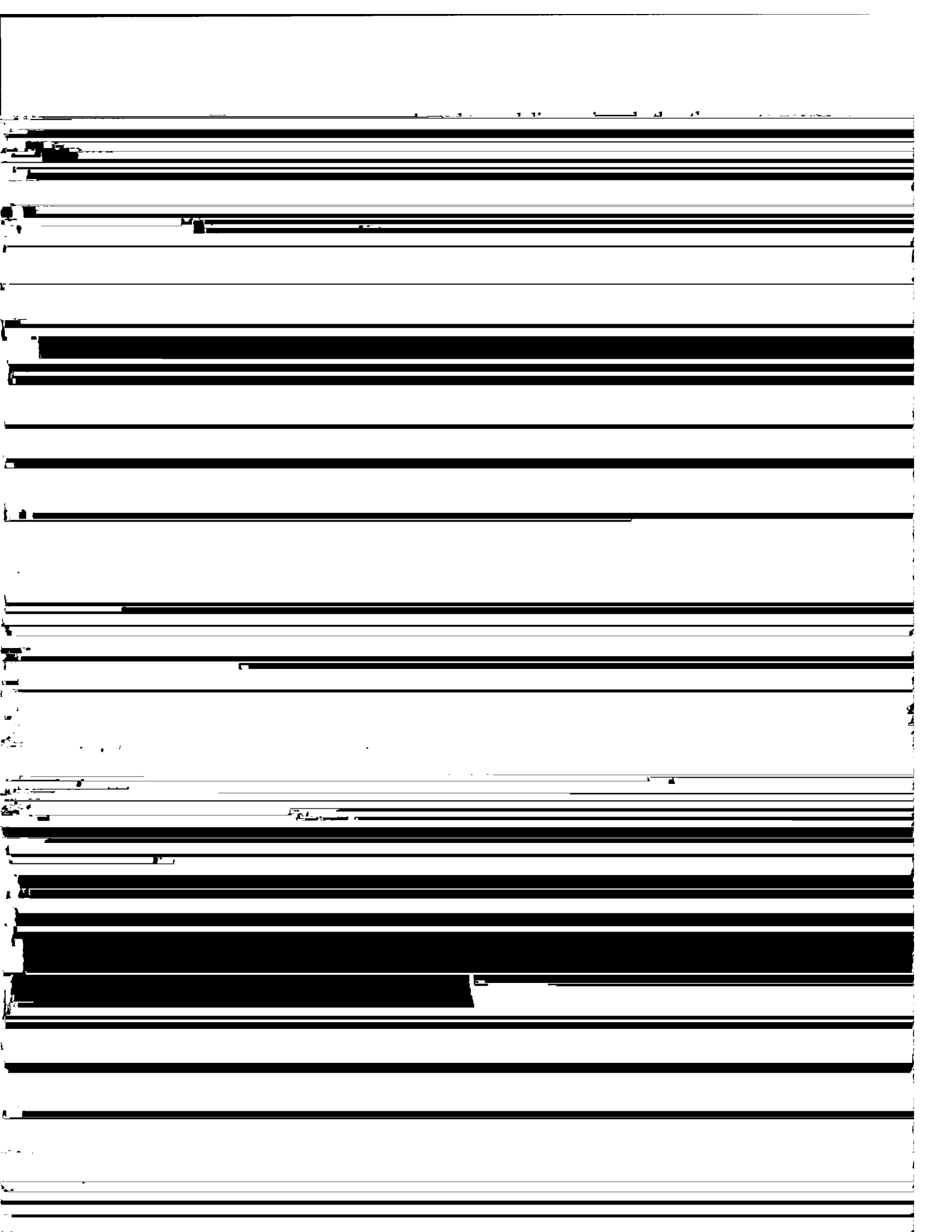
Archaeological survey was conducted November 1995-February 1996 on Maxwell AFB, Gunter Annex, Maxwell Heights, and the two leased properties (Lake Martin and Lake Jordan/Vigilant Warrior Site). Previous archaeological survey had been conducted in three areas of the Lake Jordan/Vigilant Warrior Site Tract (totaling 40 acres) in 1994 by Southeastern Archaeological Services, Inc. (Dukes and Braley 1994). No archaeological sites were recorded in these areas. Previous investigations on Maxwell AFB had recorded eight archaeological sites. To the extent possible, sites within Maxwell AFB were revisited and an assessment made of their present integrity. In addition to the archaeological survey, an assessment of Cold War Era structures was made for Maxwell AFB and Gunter Annex. The results of these investigations are presented below.

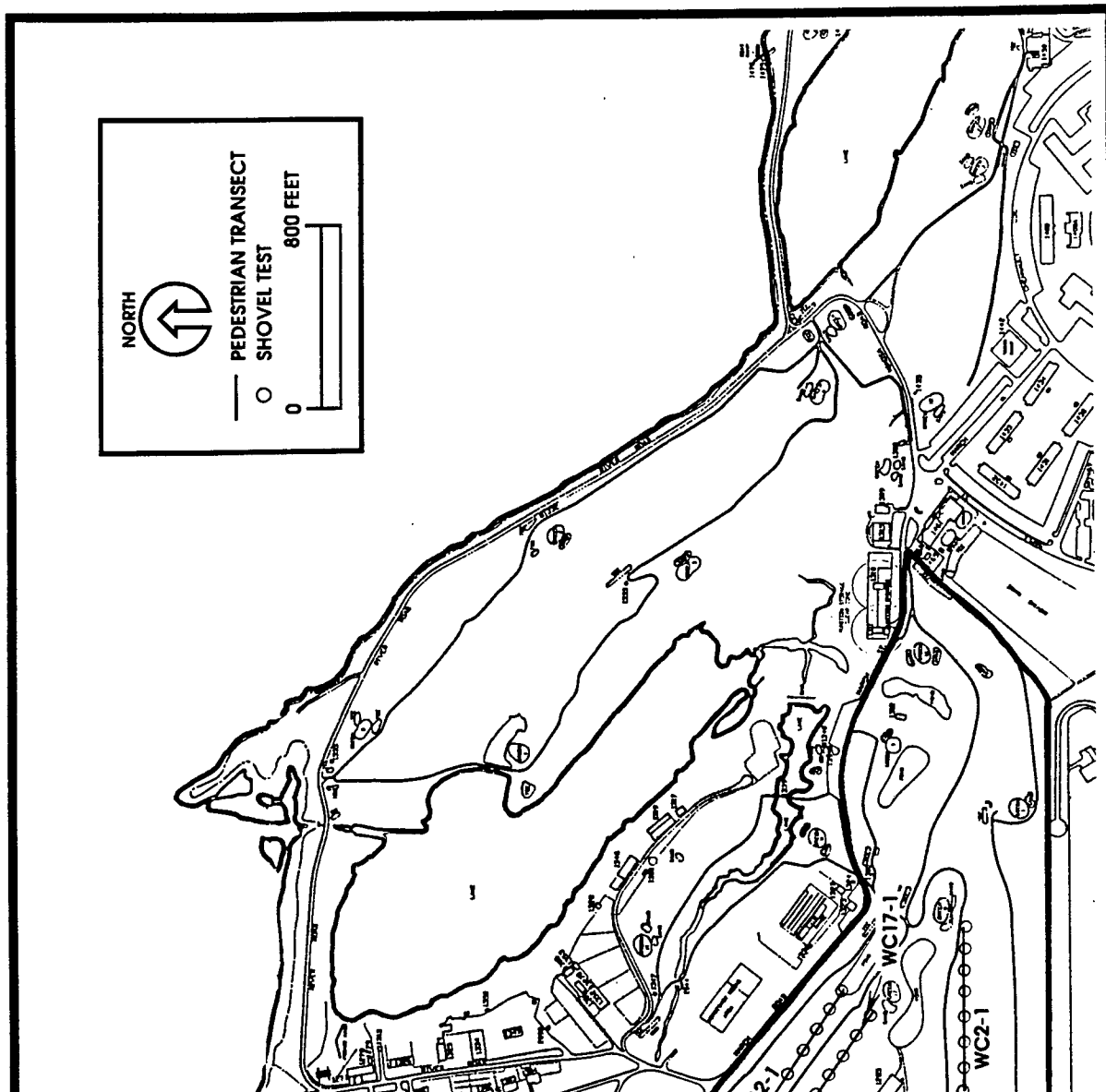
Archaeological Survey Results

A total of eight isolated finds (LM 5-3, VW5-2, VW 11-1, VW 29-8, and Isolates 1-4) and three sites (1Tp38, 1Ee457, and 1Ee458) was recorded during these investigations. The locales of five previously recorded sites (1Mt93, 1Mt200, 1Mt255, 1Mt279, and 1Mt283) and one unrecorded site (Garrow Site 3) also were revisited. Sites 1Ee458, 1Mt93, 1Mt200, and 1Mt279 are recommended potentially eligible for the NRHP. The remaining resources are recommended not eligible for the NRHP. The five survey tracts and the cultural resources recovered from each are discussed below.

Maxwell Air Force Base

As noted above, most of Maxwell AFB has been disturbed by extensive grading, filling, and facilities construction. Previous archaeological survey (i.e., Garrow 1988) and reconnaissance survey revealed the locations of three potentially intact portions of Maxwell AFB. It was expected that these areas might have the potential to produce archaeological remains, and they were considered high potential





Map of Maxwell AFB Showing the Locations of
Pedestrian Transect and Shovel Tests.

Isolate 2 consisted of two quartz flakes adjacent to Fairway 15. Additional shovel testing at this locale failed to produce additional artifacts. Due to the paucity of remains and the lack of diagnostic artifacts, Isolate 2 is recommended not eligible for the NRHP. No additional management considerations are recommended.

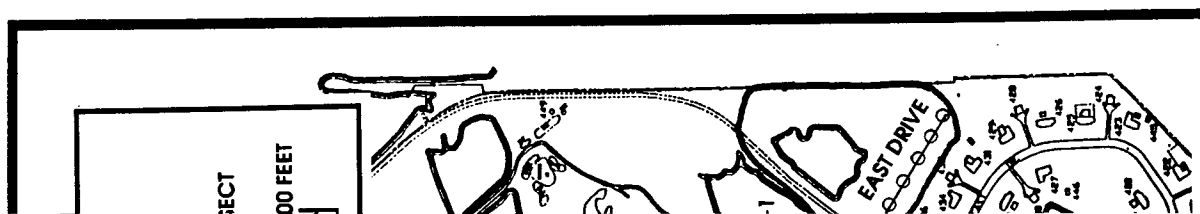
Isolate 3 consisted of a scatter of four undecorated whiteware sherds located on the ground surface near Fairway 6. Shovel testing in this area failed to recover additional artifacts. The soil at this locale was badly eroded; subsoil was present on the surface. Due to the paucity of remains and the lack of intact cultural deposits, Isolate 3 is recommended not eligible for the NRHP. No further management consideration is recommended.

Isolate 4 consisted of a single undecorated ironstone sherd recovered from the surface near Fairway 6. Shovel testing in this area failed to produce additional remains. The soil at this locale was badly eroded; subsoil was present on the surface. Due to the paucity of remains and the lack of intact cultural deposits, Isolate 4 is recommended not eligible for the NRHP. No further management consideration is recommended.

The reported location of 1Mt283 (Garrow Site 6) between Fairways 14 and 15 on the West Golf Course was revisited. No artifacts were observed on the ground surface or recovered from shovel tests excavated at this locale. No evidence of this site appears to remain. This site is recommended not eligible for the NRHP. Further management consideration of this locale is not recommended.

On the East Golf Course one isolated find (Isolate 1) was identified along transect EC10-1. In addition, artifacts were recovered from shovel tests and the ground surface along Transects EC8-1, EC8-3, EC10-1, EC11-2, EC11-3, EC18-1, and EC18-2. These remains are associated with previously recorded sites 1Mt93, 1Mt200, and 1Mt279. Figure 9 shows the locations of transects and shovel tests in the East Golf Course of Maxwell AFB.

Isolate 1 consisted of one quartz flake and one glass fragment recovered from a single shovel test on transect 8-1. Additional close interval testing at this locale failed to produce additional artifacts. Due to the paucity of remains and the lack of



intact cultural deposits, Isolate 1 is recommended not eligible for the NRHP. No further management consideration is recommended.

Site 1Mt93 is present on the eighteenth fairway of the East Golf Course. Five of 21 shovel tests excavated along Transects 18-1 and 18-2 produced cultural materials associated with site 1Mt93. This site originally was recorded by Chase (1964). At that time, the site was recommended potentially eligible for the NRHP. Garrow and Associates, Inc. revisited the site in 1988 (designating it Garrow Site 4) and concluded that the site should remain potentially eligible for the NRHP (Garrow 1988). Shovel tests excavated on the site during the present survey produced four residual sherds, one plain grog tempered sherd, 8 pieces of lithic debitage, and one translucent quartz cobble. Due to a lack of temporally diagnostic artifacts, no definite cultural affiliation can be assigned to these remains. Artifacts were recovered from 0 - 15 cm bs. In most cases, the artifacts were recovered from fill deposits. However, no indication of disturbance to the subsoil was noted. It is possible that intact buried deposits are still present. Therefore, 1Mt93 is recommended potentially eligible for the NRHP. This site should be protected from ground disturbing activities until its NRHP eligibility can be determined.

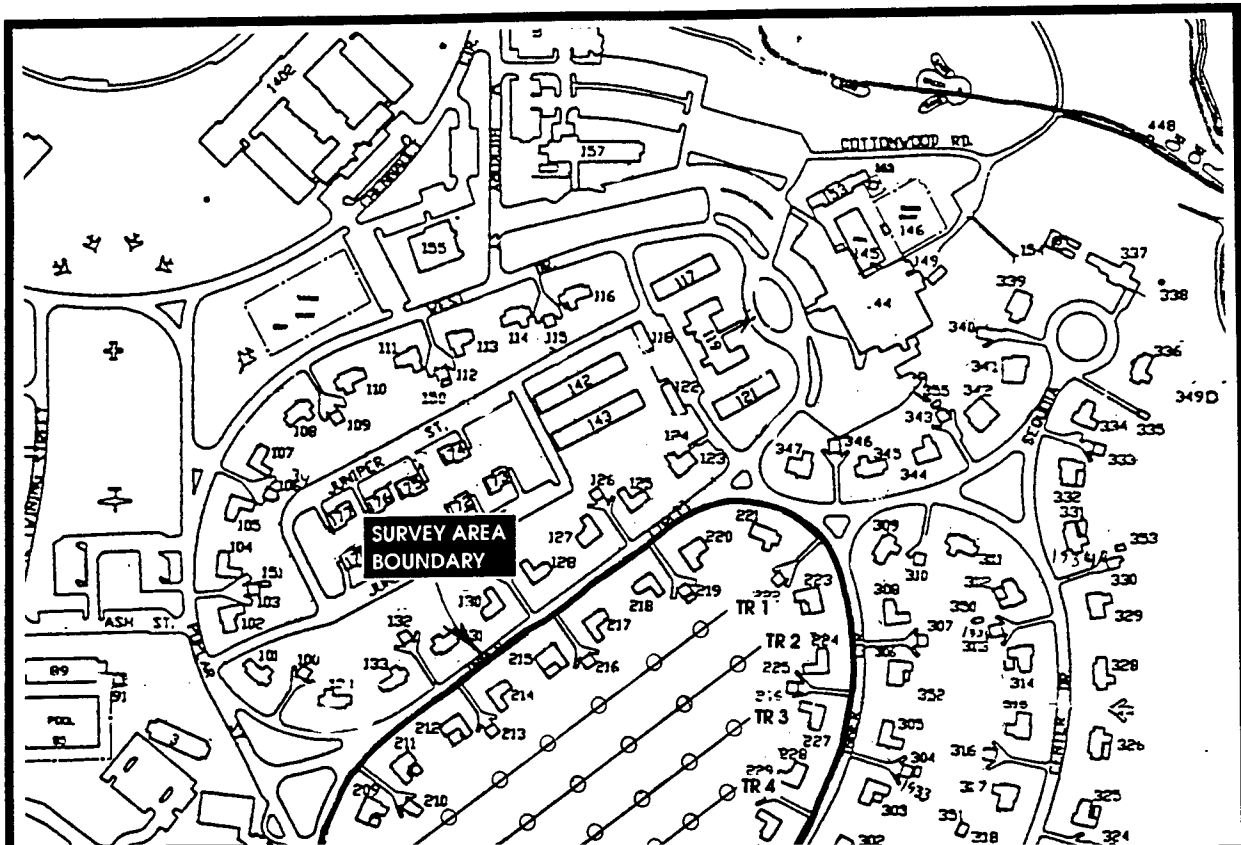
Site 1Mt200 is located on the eighth fairway of the East Golf Course. Seven of 26 shovel tests excavated along Transect 8-3 produced artifacts associated with site 1Mt200. This site originally was recorded by Chase (1964). Garrow revisited the site in 1988 and designated it Garrow Site 2. Artifacts recovered during the present investigations include 50 pieces of lithic debitage, two plain course sand tempered sherds, one plain grog tempered sherd, and five residual sherds. Due to a lack of diagnostic materials, it is difficult to assign a cultural affiliation to the site. Artifacts were recovered from fill deposits 0-15 cm bs. However, no indication of disturbance to the subsoil was noted. It is possible that intact buried deposits are still present. Site 1Mt200 is recommended potentially eligible for the NRHP. This site should be protected from land disturbing activities until NRHP eligibility can be determined.

Site 1Mt279 is located on the tenth and eleventh fairways of the East Golf Course. Thirteen of 22 shovel tests excavated adjacent to Fairways 10 and 11 produced artifacts associated with 1Mt279. In addition, artifacts were collected from the surface near five shovel tests. Site 1Mt279 originally was recorded by Chase

(1964) as an eastern locus of 1Mt200 (the Towassa Site). However, investigations by Garrow (1988) indicate that deposits east of the drainage that bisects the larger area designated by Chase (1964) should be considered a separate site (1Mt200) due to the recovery of Woodland artifacts. No Mississippian artifacts were recovered from this portion of the site. Chase agreed with these recommendations (Garrow 1988). Artifacts recovered during the present investigations included two clear bottle glass fragments, one olive green bottle glass fragment, seven undecorated whiteware sherds, 17 residual sherds, 45 pieces of lithic debitage, three plain coarse sand tempered sherds, two non-diagnostic quartz biface fragments, and 12.3 g of fire cracked rock. All remains were recovered from 0-15 cm bs. Due to the lack of

March Road Area. Sixty-four shovel tests were excavated along 11 transects traversed in apparently undisturbed areas west of March Road. The locations of these transects and shovel tests are displayed in Figure 11. Shovel testing indicated that grading and filling had occurred in this portion of Maxwell AFB. Yellowish brown clay subsoil similar to that noted in the SOQ was present in the northern portion of this survey area (Transects 1-8). In most shovel tests, the subsoil was encountered 0-10 cm bs. Probably, this is a result of grading activities. Shovel tests excavated in the southern portion of this area (Transects 9-12) produced construction material such as concrete and asphalt to 30 cm bs. Below this was clay and gravel. These areas are highly disturbed. No artifacts were recovered from the portion of Maxwell AFB that lies west of March Road.

Summary. Three apparently undisturbed portions of Maxwell AFB were intensively surveyed. Four isolated finds were discovered and the locations of five



therefore, these sites are recommended potentially eligible for the NRHP. These sites should be protected from land disturbing activities until archaeological testing can determine their NRHP eligibility. The other sites and isolated finds (1Mt255, 1Mt283, Isolates 1 - 4, and Garrow Site 3) are recommended not eligible for the NRHP due to a paucity of diagnostic remains and a lack of intact cultural deposits. No further management consideration is recommended for these sites and isolates.

Gunter Annex

An archaeological reconnaissance survey was conducted within the boundaries of Gunter Annex. It was expected that a complete archaeological survey could be conducted at Gunter; however, on-the-ground reconnaissance indicated that Gunter Annex was completely disturbed. Construction activities associated with buildings and runways at Gunter have graded the natural topsoil, and in many areas, replaced these soils with fill deposits. As such, no archaeological deposits were noted within the boundaries of Gunter Annex. No further management consideration of Gunter Annex is recommended.

Maxwell Heights

Maxwell Heights, located approximately one mile south of Maxwell AFB, consists of approximately 130 houses built on a 30 acre tract. Archaeological reconnaissance within Maxwell Heights indicated that an area of densely clustered single story houses with small yards existed across the tract. Configuration of houses and streets on the landform suggested extensive construction-related land modification had occurred. No archaeological deposits were noted within the boundaries of Maxwell Heights. No further management consideration of Maxwell Heights is recommended.

Lake Martin Recreation Area

A total of six transects were traversed across the Lake Martin Recreation Area. Systematic examination of the area indicated that most of the tract was undisturbed, although recent construction/development activities have impacted the extreme southern portion of the tract. Figure 12 shows the location of transects across the Lake Martin Recreation Area. Generally, soils varied from dark brown silty sand underlain by yellow sand on ridge tops to orange sandy clay located in exposed and eroded areas. Shovel tests were not excavated on steep slopes or in low wet areas. During the present survey, one site (1Tp38) located in the northeast corner of the tract and one isolated find (LM 5-3) located on a ridge nose were discovered. Descriptions of 1Tp38 and Isolate LM 5-3 are presented below.

Site 1Tp38. Site 1Tp38 is a surface scatter of prehistoric ceramics and lithics located adjacent to Lake Martin on a lake terrace. Artifacts were scattered over an area approximately 50 by 70 m (165 by 230 ft). The lake terrace containing 1Tp38 usually is underwater; however, the survey was conducted during a winter draw down of Lake Martin. Thus, the water levels were lower than normal, exposing the terrace. Figure 13 displays a plan view of the site; Figure 14 is a view of the southern portion of 1Tp38.

During transect survey, a scatter of prehistoric ceramics was noted on the exposed lake terrace at this locale. Two additional shovel tests excavated on the apparently disturbed lowlands adjacent to the artifact scatter failed to produce artifacts. This central portion of this site consists of an eroded sand flat. No artifacts were recovered from this area. All artifacts at 1Tp38 were recovered from the eroded terrace edges adjacent to Lake Martin. Apparently, the rise and fall of Lake Martin has eroded the original landform occupied by the site, resulting in the deposition of the artifacts on the present lake shore and bottom.

Artifacts recovered from 1Tp38 include of 17 residual sherds, nine plain coarse sand tempered body sherds, 24 pieces of lithic debitage, four quartz biface fragments, and one quartzite preform. No artifacts were recovered from subsurface contexts. Given the presence of coarse sand tempered ceramics on this site, it is probable that 1Tp38 dates to the Woodland Period. Further refinement of this date



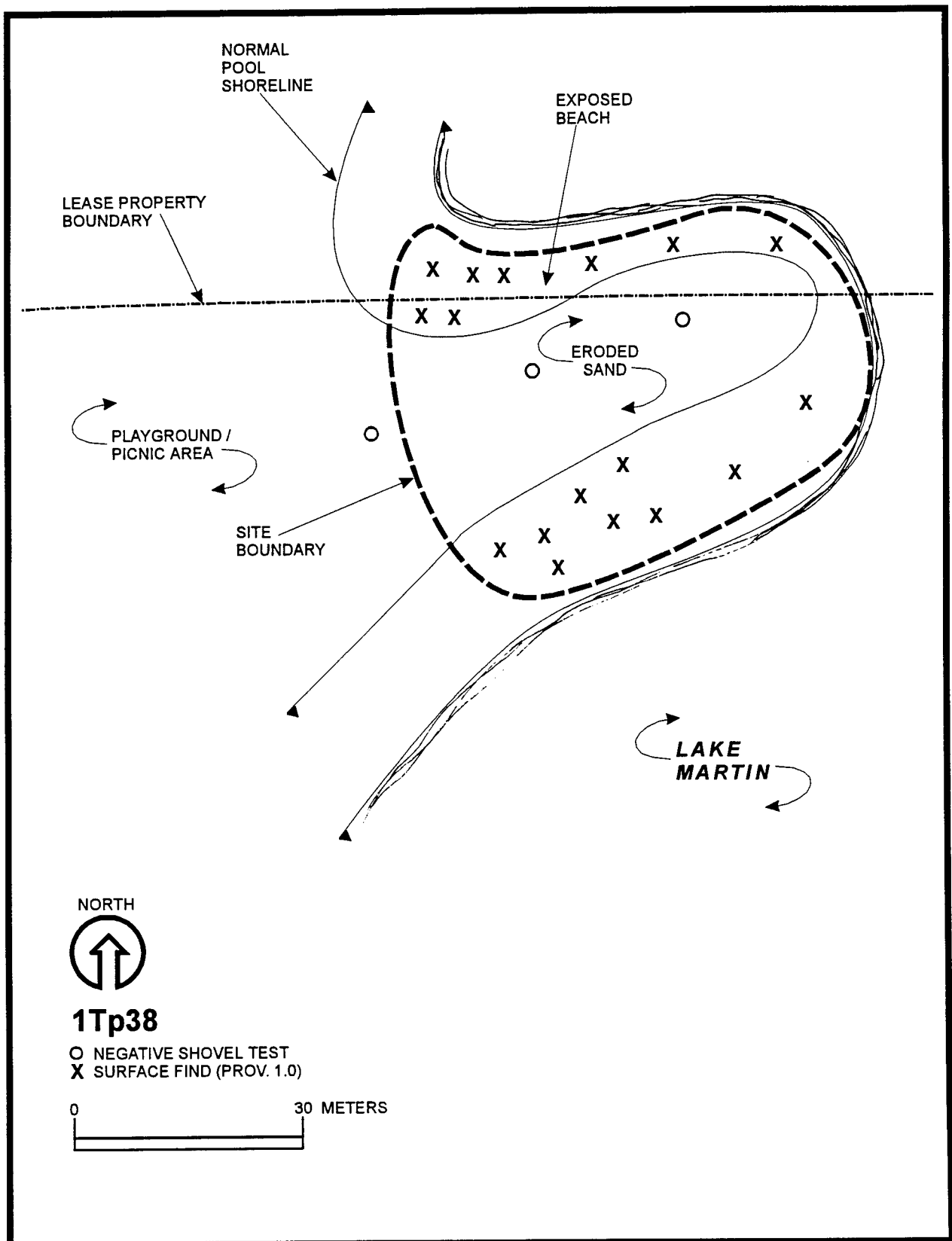


Figure 13. Plan View of Site 1Tp38.



(i.e. Early, Middle, Late Woodland) is impossible due to a lack of temporally diagnostic artifacts. The total lack of cultural features make any assessment of site function suspect. The presence of ceramics may indicate that food was served and/or prepared on the site, but this cannot be confirmed. Site 1Tp38 cannot generate information important for our understanding of the prehistory of central Alabama. Therefore, the site is recommended not eligible for the NRHP. No further management considerations are recommended for 1Tp38.

Isolate LM 5-3. Isolate LM 5-3 consists of a single non-diagnostic quartz biface fragment recovered from a ridge nose above Lake Martin. Reduced interval shovel testing at this locale failed to produce additional artifacts. Due to the lack of cultural material associated with this find, LM 5-3 is recommended not eligible for the NRHP; no further management consideration is recommended.

Summary. Intensive survey of the Lake Martin Recreation Area discovered one archaeological site (1Tp38) and one isolated find (LM 5-3). Neither the site nor the isolated find can generate information important to understanding the prehistory of central Alabama. Both are recommended not eligible for the NRHP. Further management consideration of 1Tp38 and LM 5-3 is not recommended.

Lake Jordan/Vigilant Warrior Training Area

A total of 75 transects were traversed across the Lake Jordon/Vigilant Warrior Training Area. Systematic examination of the tract indicated that little disturbance from recent construction and development activities had occurred. Figure 15 shows the location of transects across the Lake Jordon/Vigilant Warrior Training Area. Generally, soils within the tract consisted of greyish brown silty sand underlain by orange sandy clay subsoil. Shovel tests were not excavated on steep slopes or in low wet areas. During the present survey, two archaeological sites (1Ee457 and 1Ee458) and three isolated finds (VW 5-12, VW 11-1, and VW 29-8) were recorded. Site 1Ee457 consists of a small subsurface scatter of quartz flake fragments located at a creek confluence in the central portion of the tract. This site is recommended not eligible for the NRHP. Site 1Ee458 is an intact scatter of ceramics and lithics located at a creek confluence in the northeast portion of the tract. This site is

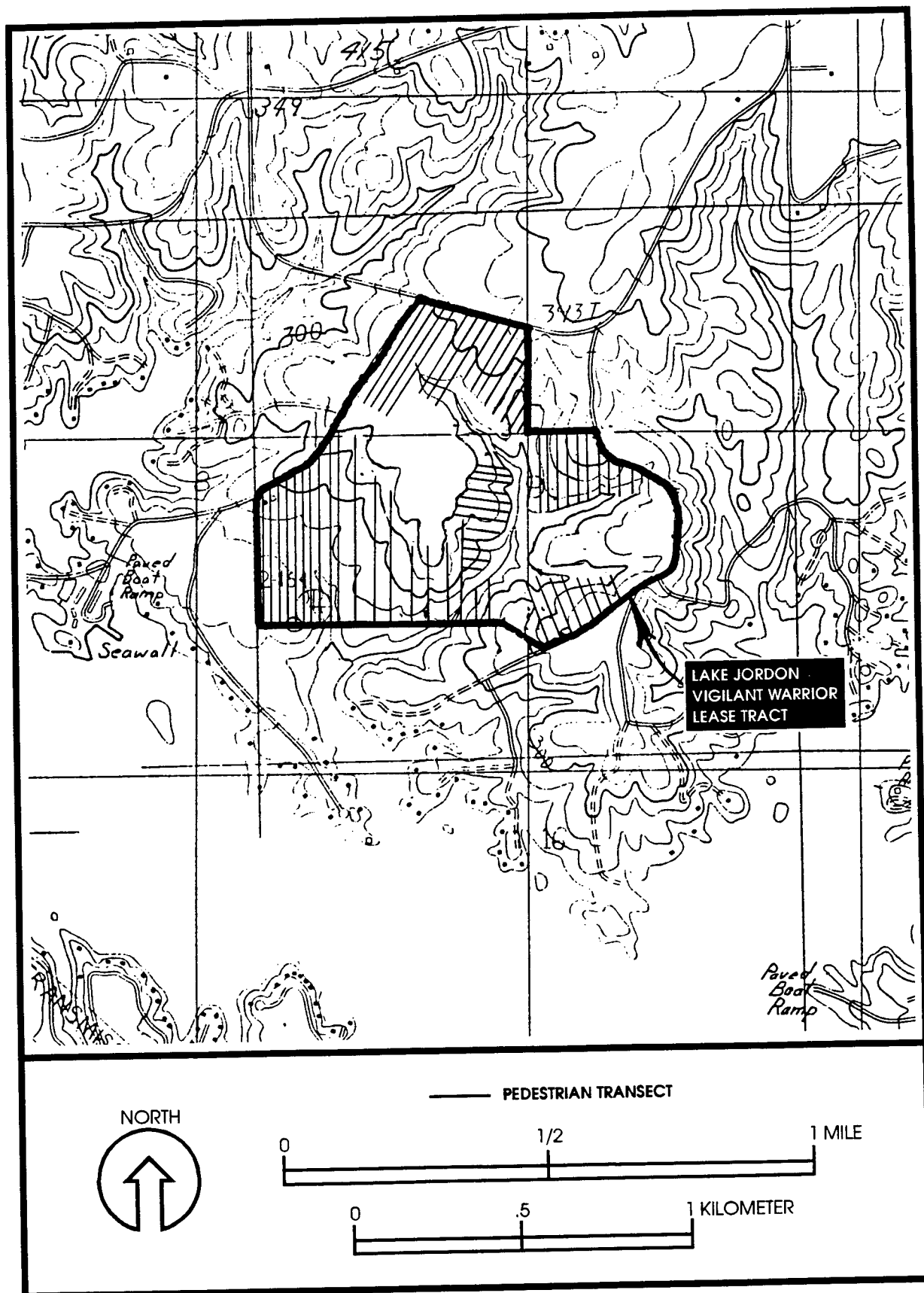


Figure 15. Map Showing the Location of Transects in the Lake Jordon/Vigilant Warrior Training Area.

recommended potentially eligible for the NRHP. The isolated finds include: one flake found in a shovel test on a knoll top in the southwest portion of the tract (VW 5-12), one historic sherd found near a road in the northwest portion of the tract (VW 11-1), and two prehistoric sherds recovered from a shovel test on a knoll edge in the northeast portion of the tract (VW 29-8). It should be noted that although a former structure is shown in the western portion of the tract on the Holtville Quadrangle, no evidence of this structure could be located. Descriptions of the sites and isolated finds are presented below.

Site 1Ee457. Site 1Ee457 is a small (66 by 66 ft/20 by 20 m) subsurface scatter of lithic flakes located in the flood plain of an intermittent creek. A translucent quartz flake was found in a shovel test during the initial survey. Reduced interval shovel testing at the locale produced two additional artifacts (a gray tuff flake fragment and a quartz flake). Although ten shovel tests were excavated on Site 1Ee457, only three artifacts were recovered. Figure 16 displays a plan view of 1Ee457; Figure 17 is a view of the site area.

The site area is located in a low area and artifacts were limited to the upper 0.5 ft (15 cm) of wet sandy loam. As indicated, artifact frequencies at this site are low and no cultural affiliation can be assigned. Due to the paucity of cultural remains and the lack of diagnostic artifacts, 1Ee457 does not possess information that can contribute to our understanding of the prehistory of central Alabama. Site 1Ee457 is recommended not eligible for the NRHP. No further management consideration of this site is recommended.

Site 1Ee458. Site 1Ee458 is located on a narrow ridge nose overlooking the confluence of two unnamed creeks. One residual sherd was recovered from the upper 0.3 ft (10 cm) of a shovel test excavated at the south end of this landform. Artifacts were recovered from ten additional shovel tests excavated at 50 ft (15 m) intervals over the landform. A single quartz flake also was found on the ground surface. The majority of the artifacts were recovered from brown loamy sand 0.6 - 2.3 ft (20 - 70 cm) bs. Figure 18 displays a plan view of 1Ee458; Figure 19 is a view of the site area.

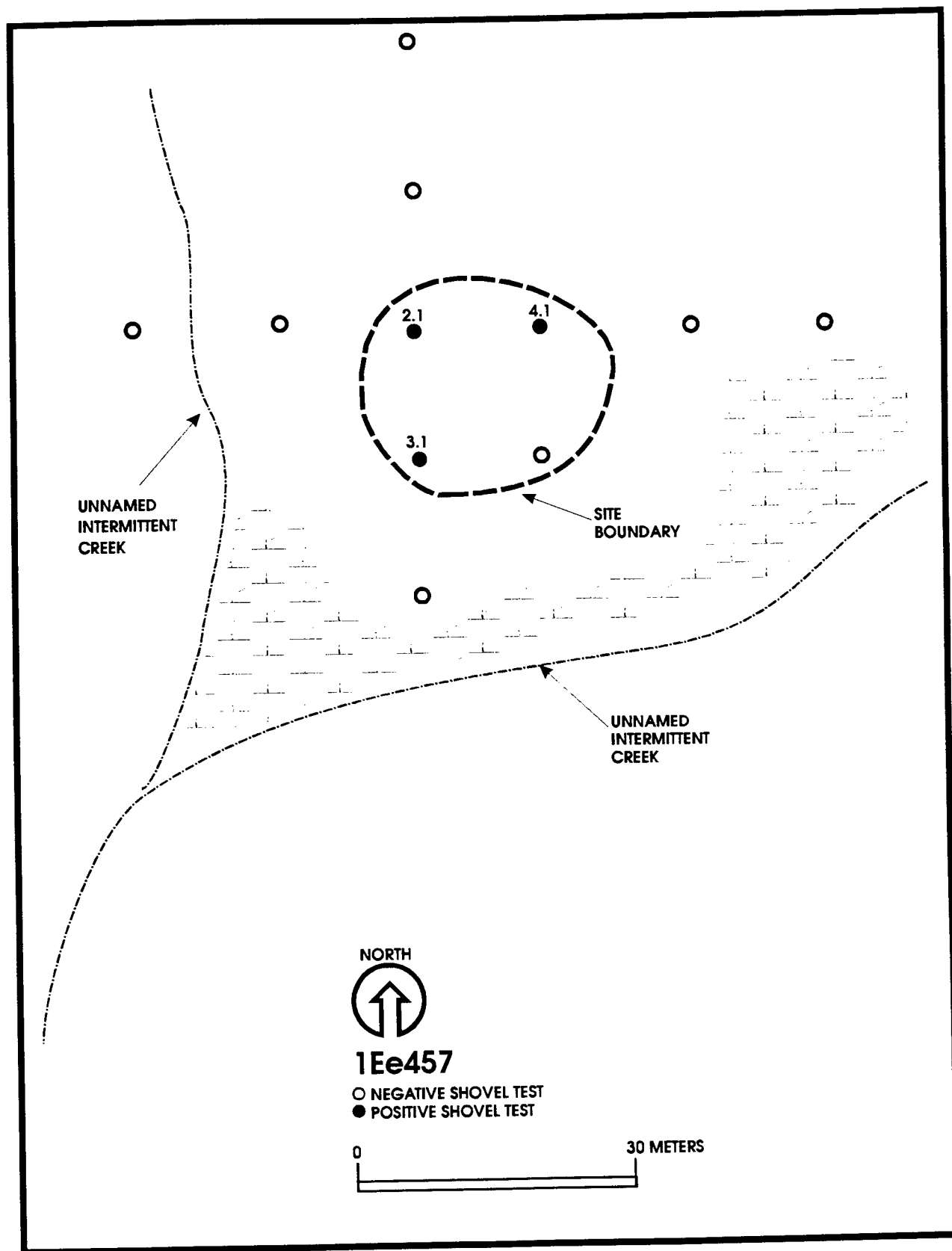
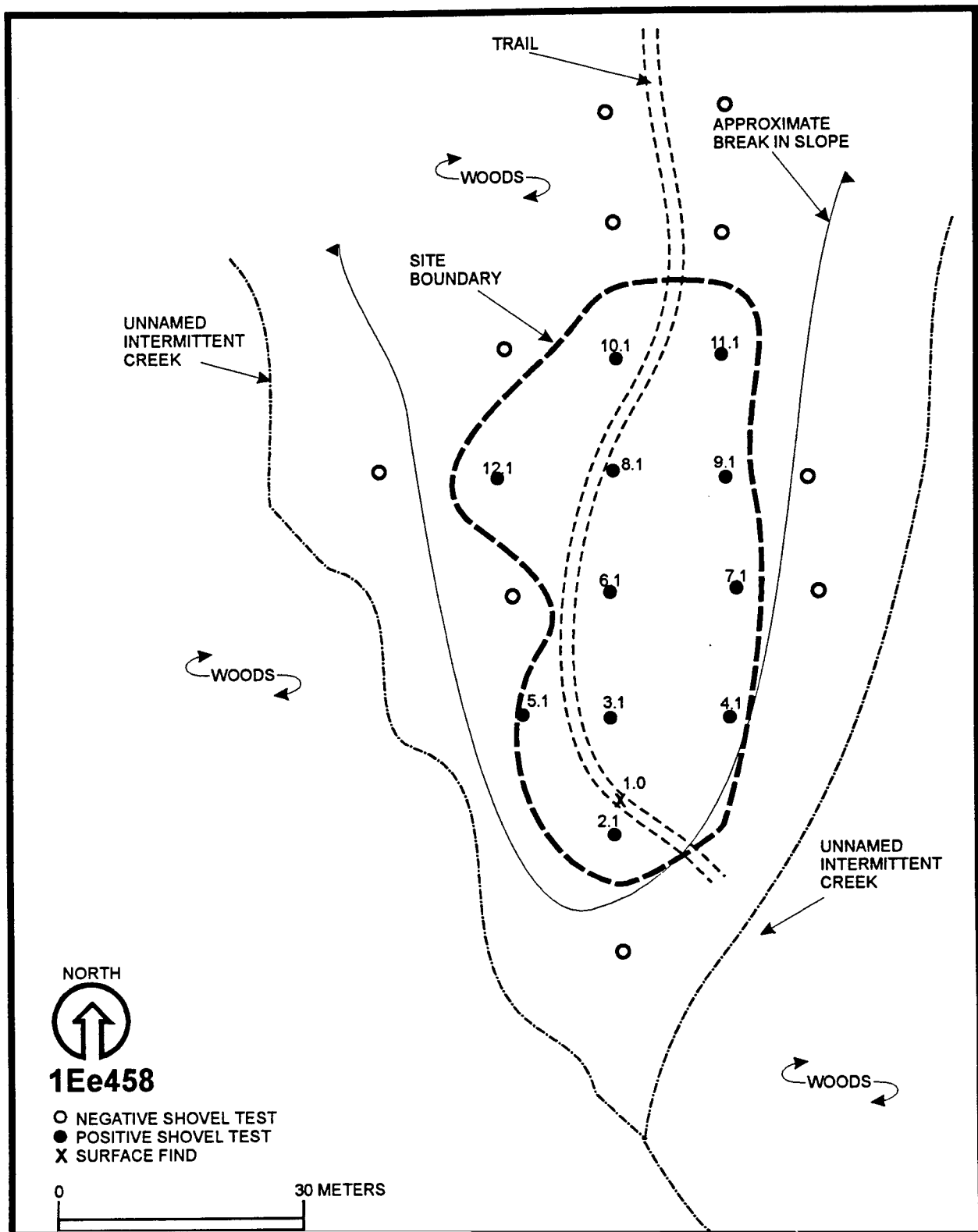


Figure 16. Plan View of Site 1Ee457.







Artifacts recovered from 1Ee458 include nine plain coarse sand tempered sherds, six residual sherds, 18 pieces of quartz debitage, one Ridge and Valley chert flake, and one Coastal Plain chert flake. Artifacts were recovered from shovel tests to a maximum depth of 2.3 ft (70 cm) bs. Although no diagnostic artifacts were recovered from 1Ee458, the presence of coarse sand tempered ceramics suggests a Woodland Period occupation.

Despite the lack of diagnostic artifacts at 1Ee458, this site exhibits relatively deeply buried artifact deposits and minimal evidence of disturbance. These factors suggest there is a potential for intact features to exist, and that diagnostic artifacts may be recovered. Therefore, information that can address the research realms listed

1. To determine if 1Ee458 is a Woodland Period site.
2. To determine if 1Ee458 contains information

Summary. Intensive archaeological survey of the Lake Jordan/Vigilant Warrior

Air University was important in the development of air power strategy during the Cold War. It was the principal advanced training facility within the USAF. However, no particular events of exceptional significance took place there. While the layout of Chennault Circle remains unchanged, the buildings were clad in yellow brick in 1987 to create a visual uniformity with the rest of the base. Thus, they have lost their original appearance. For these two reasons, Chennault Circle is recommended not eligible for the NRHP.

Building 857, the "Blockhouse," lies in the southeast section of Gunter Annex. It served as part of the Semi-Automatic Ground Environment [SAGE] system, a national radar network designed to detect aircraft within the national air perimeter. Constructed in 1957-1958, it remained a SAGE facility until 1966. Since 1971, Building 857 has served as the home of the Air Force Data Systems Design Center, now renamed the Standard Systems Center. Its function has changed and its interior has been refitted several times since the early 1960s. However, it remains an important data processing center for the USAF, and retains its external appearance.

The Department of Defense [DoD] developed SAGE in response to the international tensions of the Cold War. SAGE was an integrated network of extremely powerful computers that took radar and other data from a variety of sources to generate an immediate composite radarscope image of any air threat to the United States (Winkler 1996). Each SAGE facility had the ability to direct aircraft and missile batteries against the air threat. Building 857 at Gunter Annex was one of twenty-two "Blockhouses" around the nation. Eight of these buildings, in addition to being directional centers that gathered data and directed specific sets of aircraft and missile batteries, also served as regional command centers which could, in the case of emergency, coordinate and direct the air defense of the entire nation. Gunter's "Blockhouse" was a directional center only; it was not equipped to function as one of the regional command centers.

According to a recent draft study of America's air defense system (Winkler 1996:28), SAGE was "the largest research and development effort since the Manhattan Project." It used some of the most advanced and powerful computers available, and was the first attempt at such an integrated radar and computer network. However, the system was nearly obsolete by the time it was finally

completed in 1962. The Russian launch of the Sputnik satellite in 1957, followed quickly by the development of Russian intercontinental ballistic missiles [ICBM], made the SAGE system very vulnerable to attack. The blockhouses were large and exposed buildings, and were not designed to withstand high overpressures. Under the threat of ICBMs, this expensive and complex system could be wiped out relatively easily and quickly. SAGE remained completely active for only a few years; the system was deactivated in the late 1960s.

Gunter Annex' Blockhouse was deactivated in 1966. The SAGE system itself was never vital to the nation's defense, and Gunter's Blockhouse was never connected to any significant event or development in the Cold War. In addition, its internal integrity has been severely compromised by extensive modifications resulting from the introduction of new electronic equipment. For these reasons, it is recommended not eligible for the NRHP.

Summary of Management Recommendations

Historic resources survey of Maxwell AFB, Gunter Annex, Maxwell Heights Housing Area, Lake Martin Recreation Area, and Lake Jordan/Vigilant Warrior Training Area were conducted. A summary of the results of the examination of each of these tracts follows.

Maxwell AFB

Three apparently undisturbed areas within Maxwell AFB were examined. No previously unknown archaeological sites were encountered in these areas. The locations of three previously recorded sites (1Mt93, 1Mt200, and 1Mt279) were visited. These sites may generate information important to the pehistory of Alabama; all three sites are recommended potentially eligible for the NRHP. These sites should be protected from ground disturbing activities until their NRHP eligibility can be determined. No evidence of two other previously recorded sites (1Mt255 and 1Mt283) was encountered on the ground surface or in excavated shovel tests. These sites appear to have been destroyed or all vestiges recovered at the time of initial

discovery. The reported location of an unrecorded site (Garrow Site 3) also was revisited; no evidence of this site was observed on the ground surface. Four isolated finds were identified on the Maxwell AFB golf courses. These sites and isolates are recommended not eligible for the NRHP. No properties at Maxwell AFB associated with the Cold War Era were determined to possess the extraordinary significance necessary for NRHP eligibility. Further consideration of Cold War Era historic resources at Maxwell AFB is not recommended.

Gunter Annex

Gunter Annex possesses no areas that are not disturbed. Thus, no archaeological sites are present. Review of the role of properties constructed and utilized during the Cold War Era revealed that none of the properties at Gunter Annex possess the extraordinary significance necessary for NRHP eligibility. Further consideration of Cold War Era historic resources at Gunter Annex is not recommended.

Maxwell Heights Housing Area

Maxwell Heights Housing Area possesses no areas that are not disturbed through residential construction. Thus, no archaeological sites are present. Maxwell Heights also possesses no properties built or utilized during the Cold War Era that possess the extraordinary significance necessary for NRHP eligibility. Further consideration of Cold War Era historic resources at Maxwell Heights is not recommended.

Lake Martin Recreation Area

The Lake Martin Recreation Area contains one archaeological site (1Tp38) and one isolated find (LM 5-3). Both sites are recommended not eligible for the NRHP. Further management considerations of 1Tp38 and LM 5-3 are not recommended.

Lake Jordan/Vigilant Warrior Training Area

The Lake Jordan/Vigilant Warrior Training Area contains two archaeological sites (1Ee457 and 1Ee458) and three isolates (VW 5-12, VW 11-1, and VW 29-8). One site (1Ee457) and the three isolates are recommended not eligible for the NRHP. Site 1Ee458 appears capable generating information that can address research questions concerning the prehistory of central Alabama. Site 1Ee458 is recommended potentially eligible for the NRHP. This site should be protected from land disturbing activities until the NRHP eligibility of 1Ee458 can be determined through archaeological testing.

References Cited

Abernethy, Thomas Perkins

1965 *The Formative Period in Alabama 1815-1828*. University of Alabama Press, Tuscaloosa.

Alabama Historical Commission

1994 *Standards for Archaeological Survey and Testing in Alabama*. Alabama Historical Commission, State Historic Preservation Office, Montgomery.

Anderson, David G. and Glen T. Hanson

1988 Early Archaic Settlement in the Southeastern United States: A Case Study from the Savannah River Valley. *American Antiquity* 53:262-286.

Bense, Judith A.

1994 *Archaeology of the Southeastern United States: Paleoindian to World War I*. Academic Press, San Diego, California.

Brackeen, L., H. Sherard, R. Farnham, P. Thomas, V. Callahan, C. McIntyre, R. Wildermuth, B. Williams, G. Swenson, M. Drosdoff, and M. Layton

1955 *Soil Survey of Elmore County, Alabama*. US Department of Agriculture, Soil Conservation Service, Washington, DC.

Braley, C.O. and R.L. Mitchelson

1984 *A Cultural Resources Survey of Fort Rucker, Alabama*. Prepared for the US Army Aviation Center, Fort Rucker, Alabama.

Brannon, Peter A.

1964 Four Centuries at Towassa. In *Chronology: Maxwell Field, Maxwell Air Force Base, Including Principal Operating Units and Air University, 1910-1957*, edited by George N. Dubina and Margaret M. Dixon, Air University Office of Information Study Series No. 1. Maxwell Air Force Base, Alabama.

Brewer, W.

1975 *Alabama: Her History, Resources, War Record, and Public Men from 1540 to 1872*. The Reprint Company, Spartanburg, South Carolina.

Brooks, Samuel O.

1979 The Hester Site: An Early Archaic Site in Monroe County, Mississippi: A Preliminary Report. *Mississippi Department of Archives and History* 5. Jackson, Mississippi.

- Burgess, L.H., C.S. Wilson, E.H. McBride, J.L. Anderson, and K.E. Dahms
1960 *Soil Survey of Montgomery County, Alabama*. US Department of Agriculture, Soil Conservation Service, Washington DC.
- Butler, William B.
1987 Significance and Other Frustrations in the CRM Process. *American Antiquity* 53:820-829.
- Chase, David
1964 *Towassa Site*. Site Form on File with the Office of History, Air University, Maxwell Air Force Base, Montgomery.
- 1978 *The Archaeology of Central Alabama*. Paper Presented Before a Symposium in Honor of David DeJarnette, Southeastern Archaeological Conference Meeting, Tuscaloosa, Alabama.
- 1982 *National Forests of Alabama, Cultural Resources Overview*. US Department of Agriculture, Forest Service, Montgomery, Alabama.
- Crites, Gary D.
1991 Investigations into Early Plant Domestication and Food Production in Middle Tennessee: A Status Report. *Tennessee Anthropologist* 16:69-87.
- Delcourt, Paul A.
1979 The Quaternary Vegetation of South Alabama. *Ecology* 61(2):371-386.
- Dubina, George
n.d. *Fifty Years of Aviation History at Maxwell Air Force Base, 1910-1960*. Office of Information (Historian), HQ Air University, Maxwell Air Force Base, Alabama.
- Dubina, George and Margaret M. Dixon
1964 *Chronology: Maxwell Field, Maxwell Air Force Base, Including Principal Operating Units and Air University, 1910-1957*. Air University Office of Information Study Series No. 1. Maxwell Air Force Base, Alabama.
- Dukes, Joel A. and Chad O. Braley
1994 *Archeological Survey of the Proposed Vigilant Warrior Training Facility, Elmore County, Alabama*. Submitted to Spectrum Sciences & Software, Inc., Fort Walton Beach, Florida, and The US Air Force, Maxwell Air Force Base, Montgomery, Alabama.

EDAW, Inc.

1992 *Cultural Resources Plan, Air University, Montgomery, Alabama*. Submitted to the Department of the Air Force, Headquarters Air University, Maxwell Air Force Base, Montgomery, Alabama.

Ennels, Jerome A.

1981 *A Brief History of Gunter Air Force Station, 1940-1980*. Air University Historical Monograph. Office of History, HQ Air University, Maxwell Air Force Base, Alabama.

1990 *The Way We Were: A Pictorial History of Early Maxwell Air Force Base, 1918-1931*. Air University Historical Study. Office of History, HQ Air University, Maxwell Air Force Base, Alabama.

1993 Memo to 502 CES/CECP (Mr H. Cowser). 2 September.

1996 Personal communication, 29 February 1996.

Fritz, Gayle J. and Tristram R. Kidder

1993 Recent Investigations into Prehistoric Agriculture in the Lower Mississippi Valley. *Southeastern Archaeology* 12(1):1-14.

Gagliano, Sherwood M.

Kuchler, A.W.

1964 Potential Natural Vegetation of the Coterminous United States. *American Geographical Society Special Publications* 36.

McGahey, Samuel O.

1993 Mississippi Paleo-Indian, Early Archaic Survey. *Mississippi Archaeology* 28(2):1-44.

McMakin, Todd

1995 *Residential Mobility and its Impact on Lithic Use Strategies: A Comparison of a Late Archaic Assemblage and a late Gulf Formational Assemblage from South Mississippi*. Unpublished M.A. thesis, Department of Anthropology, University of Southern Mississippi, Hattiesburg, Mississippi.

Milanich, Jerald T. and Charles H. Fairbanks

1980 *Florida Archaeology*. Academic Press, Orlando, Florida.

National Register Bulletin 15

1991 *How to Apply the National Register Criteria for Evaluation*. U.S. Department

Smith, Bruce

1985 The Role of *Chenopodium* as a Domesticated in Pre-Maize Garden Systems of the Eastern United States. *Southeastern Archaeology* 4(12):51-73.

1986 The Archaeology of the Southeastern United States: From Dalton to deSoto, 10,500 - 500 BP. *Advances in World Archaeology* 5:1-92

US Air Force Air Education Training Command

1994 *Cultural Resources Assessment, Runway 33 Extension, Maxwell Air Force Base, Alabama*. Draft report submitted to Maxwell Air Force Base, Montgomery, Alabama, by SITE, Inc., Montgomery.

US Army Corps of Engineers, Mobile District

1995 *Phase I Archeological Survey of Three Bank Stabilization Projects at Maxwell Air Force Base, Montgomery, Alabama*. Environmental Resources Planning Section, US Army Corps of Engineers, Mobile District.

Southerland, Henry de Leon, Jr., and Jerry Elijah Brown

1989 *The Federal Road through Georgia, the Creek Nation, and Alabama, 1806-1836*. University of Alabama Press, Tuscaloosa.

Thomas, Daniel H.

1989 *Fort Toulouse: The French Outpost at the Alabamas on the Coosa*. University of Alabama Press, Tuscaloosa.

US Bureau of the Census

1853 *Seventh Census of the United States, 1850*.

1864 *Eighth Census of the United States, 1860*.

1872 *Ninth Census of the United States, 1870*.

1882 *Tenth Census of the United States, 1880*.

1893 *Eleventh Census of the United States, 1890*.

1901 *Twelfth Census of the United States, 1900*.

1912 *Thirteenth Census of the United States, 1910*.

1922 *Fourteenth Census of the United States, 1920*.

1933 *Fifteenth Census of the United States, 1930*.

Walthall, John A.

1980 *Prehistoric Indians of the Southeast: the Archaeology of Alabama and the Middle South*. University of Alabama, Tuscaloosa, Alabama.

Walthall, John A. and Ned J. Jenkins

1976 The Gulf Formatinal Stage in Southeastern Prehistory. *Southeastern Archaeological Conference Bulletin* 19.

Wharton, Charles

1989 *The Natural Environment of Georgia*. Georgia Geological Survey, Environmental Protection Division, Georgia Department of Natural Resources, Atlanta.

Winkler, David F.

1996 *Searching the Skies: The Legacy of the United States Cold War Defense Radar Program*. Prepared for the US Leagcy Program Cold War Task Force and US Air Force Air Combat Command by the US Army Corps of Engineers Construction and Engineering Research Laboratory, Champaign, Illinois.

Appendix A
Artifact Inventory

The first column gives the provenience:catalog number. The second column gives the count. The third column gives the weight in grams, when applicable. Residual sherds are prehistoric ceramic sherds that are less than one inch in diameter and cannot be precisely identified as to surface treatment.

Brockington and Associates, Inc. Uses the following proveniencing system.
Prov. 1 Designates General Surface Collection.
Numbers after the decimal designate subsequent collections.

Prov. 2 to 200 Designate shovel tests.
2.0 designates surface at that shovel tests.
2.1 designates level 1 of a shovel test.
2.2 etc... designates other levels of a shovel test.
Controlled surface collections and 50 x 50 cm units are also designated by these numbers.

Prov. 201 to 400 designate 1 x 1 m units done for testing purposes.

Prov. 401 to 600 designate 2 x 2 m units done for data recovery.

SITE NUMBER : 1Ee457

Provenience #	2.1000	Description :	Transect 32, shovel test 2,
2.1000:1	1		translucent quartz flake fragment

Provenience #	3.1000	Description :	15 meters south of transect 32, shovel test 2
3.1000:1	1		translucent quartz flake fragment

Provenience #	4.1000	Description :	15 meters east of transect 32, shovel test 2
4.1000:1	1		gray tuff flake fragment

SITE NUMBER : 1Ee458

Provenience #	1.0	Description :	Surface collection
1.0:1	1		translucent quartz flake fragment

Provenience #	2.1000	Description :	Transect 25, shovel test 1
2.1000:1	1		residual sherd

Provenience #	3.1000	Description :	Transect 25, shovel test 1 + 15 meters
3.1000:1	1		translucent quartz thinning flake
3.1000:2	1		plain body sherd, very coarse sand temper

Provenience #	5.1000	Description :	Transect 25, shovel test 3
5.1000:1	1		translucent quartz flake fragment
5.1000:2	1		plain body sherd, very coarse sand temper
5.1000:3	1		residual sherd

Provenience #	6.1000	Description :	Transect 25, shovel test 4
6.1000:1	4		translucent quartz flake fragment
6.1000:2	1		translucent quartz thinning flake

Provenience #	6.2000	Description :	Transect 25, shovel test 4, 0-70cm
6.2000:1	1		plain body sherd, very coarse sand temper

Provenience #	7.1000	Description :	Transect 25, shovel test 5
7.1000:1	1		plain body sherd, very coarse sand temper
7.1000:2	1		plain body sherd, coarse sand temper
7.1000:3	4		translucent quartz flake fragment
7.1000:4	1		milky quartz shatter
7.1000:5	1		Coastal Plain chert thinning flake

Provenience #	8.1000	Description :	Transect 25, shovel test 6
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1Ee458 continued

Provenience #	10.1000	Description :	Transect 25, shovel test 8
10.1000:1	1		plain body sherd, very coarse sand temper

Provenience #	11.1000	Description :	Transect 25, shovel test 9
11.1000:1	1		quartzite flake fragment

Provenience #	12.1000	Description :	Transect 25, shovel test 10
12.1000:1	1		plain body sherd, very coarse sand temper
12.1000:2	1		translucent quartz shatter

SITE NUMBER : 1Tp38

Provenience #	2.0	Description :	Transect 1, shovel test 28, surface
2.0:1	17		residual sherds
2.0:2	9		plain body sherds, very coarse sand temper
2.0:6	1		quartzite preform

ISOLATE : LM 5-3

Provenience #	0.0	Description :	Transect 5, shovel test 3
0.0:1	1		translucent quartz biface

ISOLATE : VW 11-1

Provenience #	0.0	Description :	Transect 11, shovel test 1
0.0:1	1		undecorated whiteware

ISOLATE : VW 29-8

Provenience #	0.0	Description :	Transect 29, shovel test 8
0.0:1	1		residual sherd
0.0:2	1		plain body sherd, very coarse sand temper

ISOLATE : VW 5-12

Provenience #	0.0	Description :	Transect 5, shovel test 12
0.0:1	1		translucent quartz flake fragment

SITE NUMBER : 1M193

Provenience #	2.1	Description :	Transect 1, shovel test 5
2.1:1	2		residual sherd

Provenience #	3.1	Description :	Transect 2, shovel test 2
3.1:1	1		plain body sherd, grog temper
3.1:2	2		residual sherd
3.1:3	2		translucent quartz flake fragment
3.1:4	1		black chert flake fragment

Provenience #	4.1	Description :	Transect 2, shovel test 6
4.1:1	4		translucent quartz flake fragment

Provenience #	5.1	Description :	Transect 2, 15 meters North of shovel test 6
5.1:1	1		translucent quartz cobble fragment

Provenience #	6.1	Description :	Transect 2, shovel test 7
6.1:1	1		translucent quartz flake fragment

SITE NUMBER : 1M1200

Provenience #	2.1	Description : Transect 3, shovel test 4
2.1:1	1	translucent quartz flake fragment
2.1:2	2	black chert flake fragment

Provenience #	3.1	Description : Transect 3, 10 meters South of shovel test 4
3.1:1	1	black chert flake fragment

Provenience #	4.1	Description : Transect 3, 10 meters West of shovel test 4
4.1:1	1	black chert flake fragment

Provenience #	5.1	Description : Transect 3, 20 meters West of shovel test 4
5.1:1	2	eroded body sherd, coarse sand temper

Provenience #	6.1	Description : Transect 3, 10 meters West of shovel test 8
6.1:1	3	residual sherd

Provenience #	7.1	Description : Transect 3, shovel test 9
7.1:1	1	plain body sherd, grog temper

Provenience #	8.1	Description : Transect 3, 20 meters West of shovel test 9
8.1:1	2	residual sherd

SITE NUMBER : 1MT279

Provenience #	2.0	Description : Transect 1, shovel test 1, surface
2.0:1	1	undecorated whiteware

Provenience #	2.1	Description : Transect 1, shovel test 1
2.1:1	1	residual sherd

Provenience #	3.0	Description : Transect 1, shovel test 3, surface
3.0:1	2	translucent quartz flake fragment
3.0:2	1	translucent quartz shatter

Provenience #	4.0	Description : Transect 1, shovel test 4, surface
4.0:1	2	translucent quartz flake fragment
4.0:2	12.3	fire cracked rock

Provenience #	5.0	Description : Transect 1, shovel test 5, surface
5.0:1	1	eroded body sherd, coarse sand temper

Provenience #	6.0	Description : Transect 1, shovel test 6, surface
6.0:1	2	residual sherd
6.0:2	1	translucent quartz biface fragment, non-diagnostic
6.0:3	1	translucent quartz shatter

Provenience #	7.1	Description : Transect 2, shovel test 1
7.1:1	1	translucent quartz flake fragment

Provenience #	8.1	Description : Transect 2, 10 meters South of shovel test 1
8.1:1	1	olive green bottle glass
8.1:2	1	eroded body sherd, coarse sand temper
8.1:3	2	residual sherd
8.1:4	1	translucent quartz flake fragment
8.1:5	2	translucent quartz shatter

1Mt279 continued

Provenience #		Description : Transect 2, shovel test 2
9.1:1	1	residual sherd
9.1:2	7	translucent quartz flake fragment
9.1:3	3	translucent quartz shatter

Provenience #		Description : Transect 2, shovel test 3
10.1:1	1	eroded rim sherd, coarse sand temper
10.1:2	6	residual sherd
10.1:3	1	translucent quartz biface fragment, non-diagnostic

Provenience #		Description : Transect 2, shovel test 4
11.1:1	1	residual sherd
11.1:2	3	translucent quartz flake fragment
11.1:3	3	translucent quartz shatter

Provenience #		Description : Transect 2, shovel test 5
12.1:1	5	translucent quartz flake fragment

Provenience #		Description : Transect 3, shovel test 1
13.1:1	2	undecorated whiteware

Provenience #		Description : Transect 3, 15 meters East of shovel test 1
14.1:1	1	residual sherd

Provenience #		Description : Transect 3, shovel test 3
16.1:1	2	residual sherd
16.1:2	8	translucent quartz flake fragment
16.1:3	1	black chert flake fragment

Provenience #		Description : Transect 3, shovel test 5
17.1:1	2	translucent quartz flake fragment

Provenience #		Description : Transect 3, shovel test 6
18.1:1	1	residual sherd
18.1:2	2	translucent quartz flake fragment

ISOLATE : 1

Provenience #		Description : Transect 1, shovel test 1
0.0:1	1	brown bottle glass
0.0:2	1	translucent quartz flake fragment

ISOLATE : 2

Provenience #		Description : Transect 2, shovel test 9, surface
0.0:1	2	translucent quartz flake fragment

ISOLATE : 3