

THE MODERN DEFENSES OF THE COAST OF MAINE

1891 – 1945

by

Joel W. Eastman

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Joel W. Eastman

Prepared for

Maine Historical Preservation Commission
Augusta, Maine

October 31, 1988

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PREFACE AND ACKNOWLEDGEMENTS

The large masonry forts which guard the entrances to Portland harbor and the mouths of the Kennebec and Penobscot rivers are such prominent structures that they immediately became local landmarks. Because of these reputations they were placed on the National Register of Historic Places early in the existence of that program. The modern fortifications of the coast of Maine, on the other hand, are less well known, and only two sites have been nominated to the National Register. One of the reasons for the neglect of the twentieth century fortifications is that each site sometimes encompasses hundreds of acres and includes hundreds of diverse structures. Furthermore, there is little published material on the modern sites so that a researcher preparing nomination papers is faced with a formidable research project in gathering pertinent data.

I was introduced to the modern defenses of the coast of Maine a decade ago, and I have been pursuing them as a major research interest ever since. I have visited and led tours of all of the sites, utilized local source material, interviewed veterans who served in the forts, and have made two trips to the National Archives in Washington, D.C. Based on this research I have written several articles, delivered numerous lectures, and served as a consultant in regard to a number of publicly-owned military sites. Thus, my research had reached a point where it was possible for me to respond to the request of the Maine Historic Preservation Commission to conduct an inventory and evaluation of the modern defenses of the coast. Although I was somewhat hesitant to undertake such an ambitious project on such short notice, I felt that task was so important that I agreed to make the

effort. In fact, I asked that the parameters be enlarged to include the period of World War II, since these sites are often integrated with earlier ones and will become fifty years old in 1989-1994.

Few research projects are conducted entirely alone. Emanuel Raymond Lewis, the author of Seacoast Fortifications of the United States, has inspired me, as he has hundreds of others, with his superbly written and imaginatively interpreted introduction to American coast defenses. Donna L. McKinnon wrote a Master's thesis on the harbor defenses of Portland under my direction and uncovered many source materials on Maine. The members of the Coast Defense Study Group and the Council on America's Military Past have shared insights and information with me over the years during site visits and in programs and articles in the organizations' publications. Roger Davis has assisted me specifically on this project by providing copies of maps and drawings of sites and structures from his large collection and by reading a preliminary draft of the report. Finally, Robert D. Zink, a long-time researcher on coast artillery and the founder of the Coast Defense Study Group, also kindly agreed to read and comment on the first draft of this study.

An inventory of all the modern harbor defense sites on the coast of Maine is such a large project that errors and omissions are inevitable. I would welcome having these brought to my attention. The evaluation of specific sites and structures involves questions of judgement, so that knowledgeable persons can differ in their conclusions, but I have attempted to briefly but clearly present the data which support the evaluations in the text.

Joel W. Eastman
October 31, 1988

I. HISTORY OF THE MODERN DEFENSES OF THE COAST OF MAINE

Introduction

The sheltered coves and harbors of the Maine coast which made the land so attractive to European settlers at the same time left coastal communities open to seaborne attack during times of war. This vulnerability was forcefully demonstrated during the American Revolution, when a British Royal Navy flotilla sailed into Portland (then Falmouth) harbor in October, 1775, and proceeded to bombard and burn the town, destroying the majority of the community's buildings. Early the next year the state militia moved to prevent a second attack by constructing a small earthwork fortification for four cannons on Spring Point (in present-day South Portland), which dominated the main channel into the harbor. (1) From this year, 1776, until the late 1940s, Portland harbor and much of the coast of Maine was defended by a series of permanent and temporary fortifications to protect against an attack by an enemy naval force.

Shortly before 1800, the Federal government took on the major responsibility for defending major rivers and harbors, and a few years later, it assigned the task of designing and constructing the fortifications to the U.S. Army Corps of Engineers. The resulting works were often maintained in caretaker status in peacetime and manned in wartime by the Army or by the State militia (later the National Guard). The foremost authority on the harbor defenses of the United States, Emanuel Raymond Lewis, holds that the nation's coast defense policy reflected traditions that had been established in the colonial period. The country had long relied on the citizen militia

and been cautious about military professionalism and a large standing army. The economical and non-aggressive nature of permanent fortifications also appealed to the public. Such works could be used only for defense, and once built, did not need to be manned until an attack threatened, when the militia could be called to duty.(2)

The first generation of permanent fortifications was begun in 1794. As with all defenses, this first "system" was soon outmoded by advances in offensive weaponry, and a second generation of fortifications was planned and begun in 1807. This second system was likewise found wanting during the War of 1812 when the British Navy attacked many ports on the Maine coast and occupied Eastern Maine.(3) From 1794 until 1945, seven major generations of defensive works were designed and constructed by the U.S. Army Corps of Engineers. Maine was included in each of these succeeding systems, signifying its economic, political and strategic importance. The two most ambitious, extensive, formidable and expensive of the systems were built at the turn of the century and during World War II.

In the 1890s, the United States emerged as a world power, based on its new industry, and began the development of a world class navy, which added a new rationale for harbor defenses--to provide safe anchorages for the new fleet. The United States built one of the most elaborate defensive systems in the world at the turn of the century, only to see it seriously neutralized by rapid offensive developments before and during World War I. Modest revisions were made during and after the war, but budgetary cutbacks in the 1920s and 1930s limited significant changes. After the outbreak of World War II in Europe, plans were created for the most sophisticated harbor defense system ever developed, as American military strategists prepared to defend

the United States against the prospect of a world controlled by the Axis nations.(4)

Maine is fortunate to have surviving examples of fortifications built during each of the defensive systems, with the exception of the first. A number of second, third, 1870s, turn-of-the-century, World War I and World War II fortifications are state or local parks or state property, allowing the public to view surviving structures that reflect the evolution of American coast defense systems and emphasize the importance of Maine and her ports and rivers during these periods of the nation's history.

The Endicott Period, 1888-1905

By 1885, the public, Congress and the Army and Navy had become concerned that naval developments in Europe posed a serious potential threat to the United States. Military planners concluded that military and naval technology had reached a stage of development where it would be possible for the United States to plan a new system of harbor defenses that would not be immediately made obsolete by radical new developments. In that year Congress passed legislation that required President Grover Cleveland to appoint a board headed by the Secretary of War to study the situation and make recommendations as to which ports needed protection and what types of defenses would be most effective. The board came to be known by the name of the man who chaired it -- Secretary of War William C. Endicott -- and researchers have come to use the name to denote the system of defenses that was built as a result of the recommendations made by the board.(5)

The Endicott Board proposed an elaborate and advanced system of defenses including guns and mortars, in sizes capable of dealing

with any type of naval attack, and electrically-controlled submarine mines to protect channel entrances to harbors or rivers. Both the artillery and the mines were to be operated from permanent concrete and masonry emplacements designed by the Corps of Engineers to be secure against a seaborne attack. The batteries and mining facilities were dispersed over sizeable tracts of land on coastal headlands dominating the entrances to harbors. (6) Administrative buildings, officers' quarters, barracks, and ancillary structures to house and support the men who served the guns and mines were to be designed, built and maintained by the Quartermaster Corps on land adjacent to, and sometimes in the midst of, the batteries and mine casemates, depending on the nature of the site. Although these new facilities were called forts, they were really military reservations, a term the Army commonly used after World War I. (7)

The Endicott Board evaluated the harbors and rivers of the United States. Twenty-six sites were recommended for defenses, and they were ranked in a priority order based on the value of its commerce and of its naval anchorage. Four sites in Maine were deemed important enough to rate new defenses -- the Kennebec River, the Penobscot River, the Piscataqua River, and Portland harbor. The Penobscot River was given mining facilities at old Fort Knox which would allow the river to be mined in wartime to prevent enemy vessels from running up the river to the City of Bangor, as the British had done during the War of 1812. The Kennebec River was assigned mining facilities, plus a fortification, Fort Baldwin, which had three permanent gun batteries, all designed to protect the shipbuilding facilities upriver at Bath. The port of Portsmouth, New Hampshire, and the Naval Shipyard in Kittery, Maine, were protected by three

installations, one of which, Fort Foster, was located on Gerrish Island in Kittery and given two gun batteries and mining facilities.(8)

Portland, the largest city and port in the state, with its magnificent sheltered anchorage, was assigned five permanent installations to protect the many avenues of possible entry into the harbor. Old Fort Preble, a second system fort which had been modernized during the Civil War and during the 1870s and 1880s, was to be again radically altered to include four gun batteries and mining facilities. In addition, old Fort Scammel, another second system fort modernized during the 1860s, 1870s, and 1880s, was to have a mining facility, while Fort Gorges, a third system fort modernized during the 1870s, was assigned a mine storehouse structure.(9)

Four major new installations were planned for Portland. Fort Williams was laid out on Portland Head in Cape Elizabeth and Fort Levett on Cushing Island to defend the main channel into the harbor and to prevent enemy vessels from anchoring behind the outer islands and bombarding the city and harbor. Fort Williams was assigned facilities for mining the main channel into the harbor and six gun batteries, while Fort Levett was given four gun batteries. Fort McKinley on Great Diamond Island and Fort Lyon on Cow Island were sited to prevent an enemy from entering through the northern entrances to the harbor, particularly Hussey Sound and Broad Sound. Fort McKinley, the largest fortification in the harbor, was assigned facilities to mine two major channels as well as nine gun batteries, while Fort Lyon was to have two batteries.

Construction of the new fortifications began in 1891, but before the projects were half completed, the United States entered its

first foreign conflict with a naval power since the War of 1812, the war with Spain in 1898. The mining facilities had been completed and controlled mines were planted in the Penobscot River at Fort Knox, the Kennebec River at Fort Popham, and in the main channel into Portland harbor. The public in coastal communities feared an attack by the Spanish Navy, and so as to allay this fear, the Army utilized a variety of available guns temporarily at sites along the Atlantic and Gulf coasts. The old smoothbore, muzzle-loading Rodman guns still in place at Fort Knox were overhauled. Two Rodmans and two other smoothbores which had been converted to rifles were emplaced on temporary wooden platforms near Bar Harbor to defend the entrance to Frenchman's Bay. Next to Fort Popham at the mouth of the Kennebec River the Engineers designed and built a permanent concrete emplacement and magazine and mounted a modern 8 inch breechloading rifled gun on a converted smoothbore carriage. Also, four 15 inch Rodman guns were mounted at Fort Popham. In Portland, two 15 inch Rodman guns were remounted at Fort Scammel, while two converted rifles were mounted temporarily at Fort McKinley on Great Diamond Island. (10)

Construction of the new fortifications was pushed rapidly during the brief conflict, but even with this impetus the projects were not completed until early in the next century. The resultant new defenses were extremely impressive. A mine casemate at Fort Williams and two at Fort McKinley were intended to control minefields in the main channels into the harbor. Three inch gun batteries were constructed at all the forts to defend the mine fields from mine sweepers and other small vessels. Twelve inch and 10 inch breech-loading rifled guns had been completed at Forts Williams, Levett and McKinley. These guns were mounted on disappearing carriages

which allowed the guns to recoil below the level of the parapets of the emplacements for ease in loading and protection against naval gunfire. These huge weapons fired 1,000 pound projectiles eight miles and were designed to counter the largest capital ships then in existence. They were mounted in large, two story concrete emplacements where they were protected by 20 feet of concrete and 30 feet of earth against a direct hit. Magazines and shell rooms were located on the lower level for added protection, and powder and projectiles were carried to the loading platform by electric-powered hoists. Batteries of shorter range 8 and 6 inch guns were constructed at all of the forts and were emplaced in smaller structures of similar design. Most of these guns were also mounted on disappearing carriages, although two of the 6 inch batteries utilized pedestal mounts. In addition, Forts Preble and McKinley had 12 inch mortar batteries of eight guns each which could hurl salvos of 700 pound projectiles up to nine miles.(11)

The buildings to house the personnel to man the defenses were just as impressive as the batteries and mine casemates. All the major new installations, except for Forts Baldwin, Foster and Lyon, were given permanent sets of buildings, built mostly of brick with wood trim on stone foundations with slate roofs. The buildings were built to standard Quartermaster Corps designs in the Colonial Revival style, but there were alternative models for most types of buildings to prevent a monotony of similar structures.(12) Moreover, each fort presented a unique geography which required a different land use plan. Fort McKinley was given a kidney shaped parade ground with the officers' quarters located on the higher northern side and the enlisted mens' barracks on the south. At Fort Williams the officers'

quarters were placed on a ridge overlooking a parade ground and the barracks. Storehouses were sited on a lower level at both forts. Forts Levett, McKinley, Preble and Williams in Portland were each assigned an administration building, guard house, enlisted mens' barracks, officers' quarters, hospital, bakery, stable, fire station, storehouses, and wharf. In addition, the two largest forts, McKinley and Williams, had bachelor officers quarters and post exchanges. As the headquarters of the Coast Defenses (later, Harbor Defenses) of Portland, Fort Williams had an additional administrative building. Fort McKinley, on the other hand, was given an elementary school because of its size and isolated island location.

Taft Period, 1905-1916

In 1905, President Theodore Roosevelt appointed another board, headed by his Secretary of War, William H. Taft, to review the defenses of the country twenty years after the report of the Endicott Board. The Taft Board basically accepted the previous report and made specific recommendations to upgrade the early plan's systems for controlling the fire of the guns and the firing of mines, and night-time illumination and electrification. Whereas the guns were initially designed to be sighted directly, the Taft Board emphasized the development of a highly sophisticated system of observation utilizing optical instruments in observing stations at each end of a horizontal base line. Observers sent a series of sightings by telephone into a plotting room where the data was rapidly processed, and then the ranges and directions were sent to the battery. Night attacks called for a system of searchlights, which required their own electrical power plants in isolated locations or in the event of the

loss of commercial supply. The batteries, observation stations, plotting rooms and telephone systems likewise required back-up electrical power plants. (13) While powerhouses and searchlight shelters were built entirely of concrete, many of the structures constructed in this period utilized an economical design which consisted of cement plaster over steel mesh on a wood or steel frame on concrete foundations.

World War I and the Inter-War Period, 1917-1938

Ten years later, the outbreak of World War I in Europe brought radical developments in the form of improved naval gunfire and the airplane. With the entry of the United States into the war in 1917, an emergency program was begun to provide anti-aircraft protection and improved gun batteries to counter the new naval threat. Anti-aircraft gun batteries were built at four sites in Portland and one in Bath utilizing 3 inch anti-aircraft guns mounted on heavy concrete gun blocks. A new long range gun battery was begun at Fort Levett, designed for two 12 inch guns on new carriages which extended the range of the rifles to about 17 miles. In addition, some 6 and 10 inch guns were removed from the forts to be converted for use as field artillery in Europe. Building construction consisted of theaters at Forts McKinley and Williams. (14)

At the end of the war, although financial constraints prevented a major modernization of the defenses, the emergency projects were completed and incorporated into the permanent defenses, while ancillary projects also continued. The anti-aircraft batteries were consolidated on military property at Forts Levett, Lyon, Preble and Williams where they would be more secure. Observation towers to

control the fire of the new long range battery at Fort Levett were completed at Trundy Point in Cape Elizabeth and on Jewell Island. In addition, a new approach to fire control which had been used during World War I was introduced to the defenses -- the use of observation balloons. Balloon hangars, hydrogen generator buildings, storehouses and vehicle garages were constructed at Forts McKinley and Williams. However, financial constraints and the weaknesses of the new system quickly led to its abandonment, and the structures were used for other purposes. Permanent searchlight installations were completed at Forts Foster, McKinley and Williams and on Long and Peaks islands. Another new class of armament, along with anti-aircraft artillery, was mobile seacoast artillery, utilizing tractor-drawn 155mm guns produced during World War I. Both the 8th and 240th Coast Artillery regiments received four-gun batteries of these versatile weapons, and a gun shed was later built at Fort Williams to house two of the mobile guns. A number of three and six inch batteries were officially abandoned in 1929, while financial and treaty constraints postponed a major modernization program in response to the technological advances which had taken place since the Taft Board's recommendations. (15)

During the 1920s and 1930s, the forts were placed on caretaker status and were maintained by the regular Army's 8th Coast Artillery Regiment, headquartered at Fort Preble. The 240th Coast Artillery Regiment of the Maine National Guard was given the responsibility for manning the defenses in time of war, and its batteries of men trained each week in armories from Sanford to Rockland. Each summer the regiment gathered at Fort Williams for two weeks of active training. A permanent National Guard Camp was built at Fort Williams in 1929 and 1930 which consisted of wooden mess halls and latrines and concrete

pads on which tents were erected each year. A Citizens Military Training Camp was established at Fort McKinley which also held summer encampments and developed its own permanent camping area with a wooden mess hall and tents. While the batteries of all the forts were on caretaker status between the wars, the buildings at Forts McKinley and Williams were occupied by the Fifth Infantry Regiment which arrived in 1923 after occupation duty in Europe. (16) During the Great Depression, the U.S. Army was given the responsibility for administering the Civilian Conservation Corps, and a CCC Camp was constructed at Fort Williams in 1935. Additional Federal funding for construction was provided by the National Industrial Recovery Act, the Works Progress Administration, and the Public Works Administration, all of which was used particularly for recreational facilities such as theaters, tennis courts, handball courts, and at Fort Williams, a swimming pool and lily pad pond.

World War II, 1939-1945

In 1937, despite inadequate funding, the U.S. Army designed and built a prototype of a new generation of coast defense battery at San Francisco. It was a huge, heavily-reinforced concrete structure providing all-around protection and concealment for two 16 inch rifles and all of their ancillary equipment -- shell rooms, powder magazines and power rooms. A separate poison gas-proof structure housed the battery's plotting, telephone switchboard and radio rooms. With the outbreak of World War II in Europe the Army's Harbor Defense Board made recommendations for modernized defenses for thirty-three locations, including Portland, Maine, and the harbor of Portsmouth, New Hampshire, and Kittery, Maine. The board recommended retaining

most 3 inch and some 6 inch batteries and providing the guns with steel shields. The 12 inch long range batteries built during World War I were to be modernized by providing overhead protection and concealment for the guns, gas-proofing their plotting rooms, telephone switchboard rooms and latrines, and adding larger electric power plants. (17)

The heart of the new harbor defense system, however, was to be the new 16 inch batteries, which would utilize surplus naval rifles with a range of 26 miles to counter the new naval threat. A newly-designed 6 inch battery would supplement the 16 inch guns. It would also include a heavily reinforced concrete structure, but only for magazines, shell rooms, plotting, switchboard and radio rooms and power room--the guns, which had a range of 17 miles, would be mounted adjacent to the structure and be protected by steel shields. The final artillery component of the new system were anti-motor torpedo boat batteries, designed to counter the threat of enemy torpedo boats entering a naval anchorage. The AMTB batteries temporarily utilized 3 inch guns, but were soon modified to utilize new rapid-fire 90mm guns. Each battery was equipped with two fixed guns with steel shields and two mobile guns, and four 40mm mobile guns to supplement the larger weapons. The range of the modern guns required fewer batteries and personnel to defend the harbors than the earlier systems. Standardization of the new batteries to many fewer sizes meant savings in construction and maintenance, and ammunition manufacturing and handling, and also less complex tactics and simplified training of personnel. (18)

Standardization was also applied to the other components of the new system. A new generation of mine casemates were built of

heavily reinforced concrete and well concealed, and new battery commander stations and mine observation stations were built entirely of concrete and concealed or camouflaged where possible. A large number of observation stations had to be provided to serve the longer range guns, and although elements of the stations were built to standardized designs, considerable variation was allowed so that individual stations could be tailored to fit the terrain and neighborhood. Radar towers were usually designed to look like water towers, and radar operations and generator buildings were highly standardized and often prefabricated. Most uniform in design were the structures in which the personnel lived while manning these new defenses. Officers quarters, barracks, mess halls, administration and recreation buildings, post exchanges, and storehouses were all built of wood on concrete foundations to standardized designs drawn up by the Corps of Engineers which took over the responsibility for building and maintaining these buildings from the Quartermaster Corps in 1941. (19)

The harbor defenses of Portland and Portsmouth were fully incorporated into the modernization program. All of the mainland forts had been given vehicle garages in 1940 as the Army mechanized, and the same year, after the call-up of the National Guard, work began on temporary wooden barracks, mess halls, recreation and administration buildings to allow a doubling of the strength of the regiment through the Selective Service Act. After the attack on Pearl Harbor on December 7, 1941, the harbor defense forts were placed on alert. The older batteries were manned and test-fired, and the mobile 155mm batteries were set up at Biddeford Pool and old Fort Baldwin to provide interim protection until the new defenses could be built. None

of the modern batteries in Portland were begun until 1942, but the resultant modernization was most the extensive and powerful system built. Fort Foster in Kittery was modernized with a new mine casemate and double mine control station, a 90mm anti-motor torpedo boat battery, and a 6 inch battery. Two concrete observation towers and a radar station were also built on Gerrish Island. Each of the new batteries was provided with a set of temporary wooden buildings to house and support the personnel of the unit. Additional observation towers were constructed north as far as Gelaspus Point in Kennebunkport to serve the 16 inch battery in New Hampshire which guarded the port of Portsmouth and the Naval Shipyard in Kittery, and each tower was provided with a combination barracks and mess hall. (20)

Three major new batteries were built in Portland. A 16 inch battery, Battery Steele, and a 6 inch battery, Battery Cravens, were constructed on Peaks Island, while 6 inch batteries were constructed at Two Lights in Cape Elizabeth and on Jewell Island. Three inch anti-motor torpedo boat batteries were constructed on Peaks, Long and Great Chebeague Islands. These small batteries mounted two guns on heavy concrete gun blocks and included two story concrete range finder stations and magazines. The 3 inch batteries were later incorporated into a larger system of eight 90mm AMTB batteries which extended from Fort Williams to Bailey Island, covering all of the entrances to the naval anchorage north of Long Island. Observation towers and radar stations to serve the new 6 and 16 inch batteries were built from Cape Porpoise in Kennebunkport to Fort Baldwin at Popham Beach. A new mine casemate was constructed on Peaks Island to control the mine field in Hussey Sound and double mine observation stations were built on Peaks Island and at Fort Levett. A number of older batteries and structures

were given minor improvements, such as enlarged gun platforms and new rangefinder stations. (21)

As at Fort Foster, each of the modern batteries was given temporary buildings adjacent to the batteries to house and support the personnel manning the guns. Each 90mm AMTB battery, for instance, had a compliment of approximately 250 men and required four barracks, a mess hall and a combination latrine, lavatory and storehouse. The largest of the World War II reservations were those on Peaks and Jewell Islands. Peaks, for example, had facilities to serve the 129 man crew of Battery Steele, the 123 men of Battery Cravens, the 500 men of its two AMTB Batteries, plus the personnel of a mine casemate and mine control station, a radar station, searchlight units, and two observation towers. Jewell Island housed the crews of a six inch battery, two AMTB Batteries, a radar station, searchlight units, and two observation towers. Temporary buildings on Jewell Island included seven barracks, three mess halls, three lavatory-latrines, a officers quarters, two dispensaries, a service club and post exchange, a chapel and theater, a fire station, a storehouse, and two well shelters. (22)

Construction of the new system was cut back beginning in 1943 as it became obvious that a major attack was unlikely, and the program was halted, for the most part, in 1944. Despite the cutbacks, the 1940 Modernization Program produced the most extensive and formidable harbor defense system ever built in the United States. By 1948, the concept of harbor defense by long range artillery had become obsolete after the experience of amphibious landings and air attacks of World War II. Beginning in 1948, the modern guns were scrapped, and in 1950, the U.S. Army harbor defense commands were disbanded and the Coast Artillery abolished. (23)

Conclusion

The end of the harbor defense system marked the end of a historical era. From the earliest history of the United States, coastal communities had been the most vulnerable areas to attack, and local, state and national governments had gone to great lengths to defend the most important harbors as a deterrent to aggression. With the maturation of military aviation and the development of the missile and the atomic bomb, all communities, whether on the ocean or inland, were equally vulnerable to attack from the skies. A new defensive system was required, and the older one, scarcely half-a-decade old, was abandoned. The wooden barracks and other wooden buildings at the forts or reservations were sold or salvaged, and the land with its brick and concrete structures was gradually declared surplus and sold off. Many of the wood-frame brick buildings have been allowed to deteriorate and have been lost, but the concrete batteries, mine casemates and observation towers, particularly those built during World War II, were so heavily constructed that they will survive for years with little maintenance. Individually and collectively they serve as monuments to an important era of Maine and national history. They testify to Maine's important role in maritime commerce and sustaining the American fleet.

END NOTES

1. William B. Jordan, Jr., A History of Cape Elizabeth, Maine. (Portland, Me.: House of Falmouth, Inc., 1965), pp. 46, 47. For an excellent survey of the defenses of Portland see Donna L. McKinnon, "Portland Defended: A History of the Harbor Defenses of Portland, Maine, 1790-1945," Unpublished Master's thesis in History, University of Maine, 1987.
2. Emanuel R. Lewis, Sea Coast Defenses of the United States: An Introductory History (Washington, D.C.: Smithsonian Institution Press, 1970), pp. 4-5.
3. Ibid., pp. 21, 25. For a history of Maine's only first system fortification, see Kenneth E. Thompson, Jr., "Fort Sumner: From Seacoast Fortification to Urban Park," Munjoy Hill Observer, February-March-April, 1983.
4. Ibid., pp. 101, 116.
5. Lewis, ibid., p. 77; Robert S. Browning III, Two If By Sea: The Development of American Coastal Defense Policy (Westport, Conn.: Greenwood Press, 1983), p. 150.
6. Lewis, Seacoast Fortifications, pp. 78, 79, 83, 88, 89.
7. Ibid., p. 89; Bethanie C. Grashof, A Study of United States Army Family Housing Standardized Plans. 6 vols.; Atlanta: Georgia Institute of Technology, 1986, I, 29.
8. Aubrey Parkman, Army Engineers in New England: The Military and Civilian Work of the Corps of Engineers in New England, 1775-1975 (Waltham, Mass.: U.S. Army Corps of Engineers, New England Division, 1978), p. 119; Robert L. Bradley, The Forts of Maine, 1607-1945: An Archaeological and Historical Survey (Augusta, Me.: Maine Historic Preservation Commission and the Maine Bureau of Parks and Recreation, 1981), p. 37; Nelson H. Lawry, "The Kennebec Defended Through a Dozen Wars," Periodical: The Journal of the Council on America's Military Past, 13(May, 1985), 10.
9. Parkman, Army Engineers, p. 119.
10. Ibid., p. 117; Jordan, History of Cape Elizabeth, p. 320; Bradley, Forts of Maine, p. 35; Lawry, "Kennebec Defended," pp. 10-11.
11. Lewis, Seacoast Fortifications, pp. 79, 142.
12. Grashof, Army Family Housing, pp. 29, 36.
13. Lewis, Seacoast Fortifications, p. 89; Browning, Two If By Sea, pp. 183-184.
14. Browning, Two If By Sea, p. 190; Lewis, Seacoast Fortifications, p. 101; Parkman, Army Engineers, p. 125.
15. Browning, Two If By Sea, p. 190; Lewis, Seacoast Fortifications, p. 102.
16. Jordan, History of Cape Elizabeth, p. 329.
17. Lewis, Seacoast Fortifications pp. 115-116; Parkman, Army Engineers, pp. 126, 127.
18. Lewis, Seacoast Fortifications, p. 116; Parkman, Army Engineers, p. 127.
19. Lewis, Seacoast Fortifications, p. 118, Parkman, Army Engineers, pp. 129, 130; Grashof, Army Family Housing, p. 57; War Department, Construction in Theater of Operations. (Washington: U.S. Government Printing Office, 1944), pp. 9, 61.
20. Parkman, Army Engineers, p. 129; Bradley, Forts of Maine.

p. 38; Lawry, "Kennebec Defended," pp. 13-14. For an excellent history of the modernization of the defenses of another New England harbor, see Walter K. Schroder, Defenses of Narragansett Bay in World War II (Rhode Island Publications Society, 1980).

21. Ibid., p. 130.

22. Schroder, Defenses of Narragansett Bay, pp. 42, 45.

23. Lewis, Seacoast Fortifications, p. 124; Parkman, Army Engineers, p. 127, 132.

II. INVENTORY OF SITES AND STRUCTURES

Introduction

The following inventory contains a listing of each structure, for which documentation is available, at each U.S. Army site on the Maine coast for the period 1891-1945. The inventory is organized by the U.S. Army location numbers given to each site during World War II. The numbers run from south to north, and the locations include most Endicott, Taft and inter-war period sites, in addition to all the World War II properties. Dates given indicate when the structure was completed and turned over to the Army. In cases where a structure was extensively remodeled, the date refers to the alteration rather than the original construction. The records do not usually indicate the location of a structure, so when there are a number of similar buildings, it is sometimes difficult to determine which specific structure is being referred to. Whenever possible, the current ownership (public or private) of the structure has been indicated, along with its current status and an evaluation of its condition. In the case of structures which no longer exist, where documentation exists the specific term used is given: burned, demolished or salvaged. World War II wooden buildings are assumed to have been salvaged unless evidence exists to the contrary. Extant structures which have fallen in are referred to as collapsed. When there is no evidence as to the cause of the destruction of a building, the term destroyed is used.

The inventory is based principally on documentation from the United States National Archives in Washington, D.C., located in Record Group 77, the records of the U.S. Army Corps of Engineers,

specifically:

"Annexes to Harbor Defense Project, Portland, Maine," 1935, 1938, 1945.

"Reports of Completed Batteries, etc., for the Portland, Maine, District," 1903, 1906, 1910.

"Reports of Completed Works," Forms 1 and 7, 1919-1945.

From 1891 to 1941, the construction and maintainance of non-tactical structures was the responsibility of the U.S. Army Quartermaster Corps. Quartermaster building records (Forms 117) for the major Maine forts are available at the Cape Elizabeth Town Library (Forts Foster and Williams) and the South Portland-Cape Elizabeth Historical Society (Forts Levett, Lyon, McKinley, and Preble).

Batteries

Harbor defense gun batteries were designed and their construction supervised by the U.S. Army Corps of Engineers. All of the permanent batteries were constructed of concrete with iron or steel reinforcing rod. At the time of the construction of the Endicott Period batteries the technology for continuous pouring of cement had not been developed, so the structures were built up in a series of separate pourings; thus, as the concrete ages and is subject to dampness and freezing, the structure as a whole tends to crack horizontally along the pouring layers. A finish coat of cement was added to the exterior surfaces of the batteries, and this is subject to scaling when water penetrates and freezes.

Proper ventilation of the interiors of the batteries was a problem from the beginning of their use. Many of the magazines and shell rooms were therefore lined with hollow ceramic tile, and this

easily-damaged material has been widely vandalized. Early in the twentieth century, new construction techniques and the use of Portland cement resulted in batteries which tend to be less subject to deterioration than the earliest ones built in the 1890s. The 3 and 6 inch batteries, which were smaller and built later than the 8 and 10 inch batteries, in particular, have weathered very well, with little cracking and scaling.

Steel structural members were sometimes used in Endicott batteries to support loading platform extensions and openings for shell hoists, and these are subject to rusting. Accessories were also made of steel and iron--doors, stairs, ladders, railings, shell cranes, and telephone boxes--and have been subjected to salvaging and vandalism, as has the surviving mechanical and electrical equipment, which was not always salvaged after the batteries were abandoned. The guns and carriages were salvaged from the batteries in the continental United States during and after World War II.

By 1915 the techniques of construction had improved to such a degree that concrete in all of the batteries and emplacements built during World Wars I and II survives in excellent condition. Again, the metal work in many of the batteries has been subject to rusting, salvaging and vandalism, and the metal and concrete covers over utility trenches and access holes have frequently been removed.

Tactical Buildings

The Corps of Engineers also designed and supervised the construction of tactical buildings--mine casemates, observation stations, plotting rooms, telephone switchboard rooms, powerhouses, cable huts, mine storehouses and loading rooms. Most of the Endicott

structures were built of brick and concrete with wood trim, and these survive in excellent condition, except for the effects of vandalism and weather on windows, doors, floors and trim. In the Taft period cement plaster on wood or metal frames was adopted as a standard type of construction. Most of the observation stations and plotting rooms were constructed with flat roofs covered with tar and gravel; these have weathered poorly without maintenance, and the majority have collapsed within the last decade. The cement plaster buildings with gable roofs have a much better record of survival, if not subject to vandalism. During World Wars I and II and the inter-war period most of buildings were constructed entirely out of concrete, except for windows and doors, and the basic structures survive in excellent condition. A number buildings were built of concrete with wood roofs, or of pre-fabricated steel, and a handful survive in good condition.

Non-Tactical Buildings

Until 1941, the U.S. Army Quartermaster Corps was responsible for designing and supervising the construction of non-tactical buildings--barracks, officers' quarters, administrative buildings, recreation buildings, storehouses, and a variety of other types of structures. The majority of the buildings constructed in the Endicott and Taft periods were built of brick on stone or concrete foundations with slate roofs. These have survived in excellent condition, dependent only upon the effects of vandalism and neglect. During World War I and the inter-war period, the bulk of the limited construction was wood on concrete slabs or piers, and this type of construction, which was intended to be "temporary" by the Army, became the principal type used during World War II, when the Corp of Engineers took the

responsibility for the construction on non-tactical structures. Most of these wooden buildings were salvaged or abandoned after the war, and there appears to be only one example which survives intact on site in the Harbor Defenses of Portland. The buildings on isolated outer islands were left to the elements and vandals, and all have now collapsed.

Location number 148--Fort Foster, Gerrish Island, Kittery
Publicly-owned -- Fort Foster Park, Town of Kittery

Endicott and Taft Periods, 1891-1916

Battery Edward Chapin, 1904

2 stories, concrete

first level: two magazines and one storeroom; second level: emplacements

two 3 inch rapid fire guns (Model 1902) on pedestal mounts (Model 1902). Guns removed after World War II.

range-finder station constructed on parapet, ca. 1920

Current status: unaltered; good condition.

Battery Henry Bohlen, 1901

2 stories, concrete

first story: powder magazines, shell rooms and storerooms; second story: emplacements, shell delivery tables, shell truck storage rooms, and observation stations.

three 10 inch breechloading rifles (Model 1895) mounted on disappearing carriages (Model 1896). Guns removed during World War II. Current status: first story buried; fence on parapet.

Mine Observing Station, 1909

2 story, wood with concrete instrument pier

Current status: building destroyed, but concrete pier remains.

Quartermaster Buildings: All seem to have been one story, temporary wood structures. Numbers are those used on U.S. Army maps and Quartermaster Corps records.

Current status: All buildings have been salvaged or demolished.

1. Post Exchange

2. Wood Shed

3. Oil House

4. Wagon Shed

5. Engineer Storehouse

T-11 Barracks

T-12 Kitchen and Mess Hall

T-13 Officers Quarters

T-14 Lavatory

Non-Commissioned Officers Quarters

Garage

Quartermaster Wharf

Well House

World War I and the Inter-War Period, 1917-1938

Building No. B-313 Non-Commissioned Officers Quarters, 1917

Wood on wood foundation

Current status: salvaged

Building No. B-329. Lavatory, 1917

Wood on wood foundation

Current status: salvaged

Searchlight Shelter, ca. 1920

1 story, concrete

Current status: unaltered; good condition

Building No. T-17. Well House, 1938

Wood on concrete foundation

Current status: unknown

World War II, 1939-1945

Battery 205, 1944

1 story, concrete central traverse magazine structure with earth cover containing powder magazines, shell rooms, plotting, gas-proof plotting, telephone switchboard and radio room and latrine, and electrical power generating room. Designed to mount two 6 inch breechloading rifles on barbette carriages with steel shields. Battery was completed in 1944, but guns were not mounted.

Current status: unaltered; good condition

Observation Tower, 1943

6 stories, concrete, 2 observing levels serving as the battery commander's station and as a base-end station for Battery 205.

Current status: unaltered; good condition

Double Mine Observing Station, 1942

2 stories, concrete serving as the mine group commander's observing station and a mine command observing station.

Current status: no exterior alterations, good condition; lower level has been converted into rest rooms for the park.

Mine Casemate, ca. 1944

1 story, concrete with earth cover containing a gas-proof plotting room, telephone switchboard room and operating room.

Current status: unaltered; good condition

90mm Anti-Motor Torpedo Boat Gun Battery, ca. 1944

four 90mm guns, 2 mounted on concrete gun blocks and fitted with steel shields and two mobile guns mounted in temporary emplacements.

1 story Battery Commander's Station, two 1 story electrical generator houses, all of wood, and two 1 story magazines of wood with earth cover. Two 37 mm mobile guns on mobile mounts in temporary emplacements.

Current status: concrete gun blocks survive.

Building No. T-303 Company Administration and Storehouse, 1941

Wood on concrete foundation

Current status: salvaged

Building No. T-310 Storehouse, Type SH-8, 1941

Wood on concrete foundation

Current status: salvaged

Building No. T-320. Enclosed Shed-Storehouse SD-18-Firehouse, 1941

Wood on concrete piers
Current status: salvaged

Building No. T-330. Recreation Building, Type RB-1, 1941
Wood on concrete piers
Current status: salvaged

Building No. T-333. Recreation Building, Type A-5, 1941
Wood on concrete piers
Current status: salvaged

Building No. T-350. Barracks, 1941
Wood on concrete piers
Current status: salvaged

Building No. T-351. Barracks, 1941
Wood on concrete piers
Current status: salvaged

Building No. T-352. Barracks, 1941
Wood on concrete piers
Current status: salvaged

Building No. T-353. Barracks, 1941
Wood on concrete piers
Current status: salvaged

Building No. T-368. Post Exchange, B-2, 1941
Wood on concrete piers
Current status: salvaged

Building No. T-371. Officers' Quarters and Mess, 1941
Wood on concrete piers
Current status: salvaged

Building No. T-374. Infirmary, T-1, 1941
Wood frame on concrete piers
Current status: salvaged

Building No. T-387. SB-6-Shop, 1941
Wood frame on concrete foundation
Current status: salvaged

(Note: Additional temporary housing may have been constructed in 1942 and 1943 to house the personnel associated with Battery 205 and the AMTB battery.)

Location number 149--Sisters Point, Gerrish Island, Kittery

Observation Tower, 1944
5 stories, concrete
3 observing levels serving Battery 205 at Fort Foster and the two batteries at Fort Dearborn in New Hampshire. Observation position for an Anti-Aircraft Artillery Information Service (AAIS) observer. There

were also two radar installations at the site, one of which served Battery 205, and a combination barracks and mess hall.
Current status: tower unaltered; good condition. Privately owned.

Location number 150--Seal Head Point, York

Observation Tower, 1944

3 stories, concrete with wood trim to camouflage it as a large summer cottage; built-in combination barracks and mess hall.

3 observing levels serving Battery 205 at Fort Foster and the two batteries at Fort Dearborn in New Hampshire. Observation position for an AAIS observer. Current status: Apparently destroyed.

Location number 151--Cape Neddick, York

Observation Tower, 1944

2 stories, concrete and wood, built to resemble cottage, with combination barracks and mess hall, and a fire control telephone switchboard building designed to look like a garage.

2 observing levels serving Battery 205 at Fort Foster and 16 inch Battery Seaman at Fort Dearborn in New Hampshire; observation position for AAIS observer.

Current status: Complex survives with little apparent external alteration. Privately owned.

Location number 152--Bald Head Cliff, York

Observation Tower, 1944

3 stories, concrete with wood cover, designed to look like a cottage, with a built-in combination barracks and mess hall, and a water pump and generator house designed to look like a garage.

1 observing level serving Battery Seaman at Fort Dearborn, New Hampshire. Observation position for AAIS observer.

Current status: destroyed

Location number 153--Moody Beach, Wells

Observation tower, 1944

3 stories, concrete and wood, designed to look like a cottage, with a built-in combination barracks and mess hall.

1 observing level serving Battery Seaman at Fort Dearborn in New Hampshire. Observing position for AAIS observer.

Current status: tower altered to look like lighthouse. Barracks reduced to one story. Privately owned.

Location number 154--Gelaspus Point, Kennebunkport

Observation Tower, 1944

5 stories, concrete and wood, built to resemble a cottage, with a built-in barracks and mess hall.

1 observing level serving 16 inch Battery Seamans at Fort Dearborn in New Hampshire. Observing position for AAIS observer.
Current status: destroyed

Location number 155--Cape Porpoise, Kennebunkport

Observation Tower, 1944

8 stories, concrete, completed 1944. Two observing levels, one of which served Battery Steele and the other a spare, plus a telephone switchboard, and a combination barracks and mess hall.
Current status: destroyed

Location number 156--Fletcher Neck, Biddeford Pool, Biddeford

Observation Tower, 1944

6 stories, concrete, camouflaged as a windmill
3 observing levels which served Battery 201 in Cape Elizabeth, Battery Foote, and Battery Steele.
Current status: destroyed

155mm mobile gun battery, 1943.

four 155mm breechloading rifles on mobile mounts emplaced on "Panama mounts," circular concrete rings which allowed the guns to be easily traversed. The guns were removed January 17, 1944, as the modern batteries were completed.
Current status: emplacements apparently buried. Privately owned.

Location number 157--Prouts Neck, Scarborough

Observation Tower, 1944

7 stories, concrete
4 observing levels served Battery 201, Battery Foote, Battery Steele, and Battery Cravens. Unique monumental design. Combined barracks and mess hall nearby.
Current status: unaltered; good condition. Privately owned.

Location number 158--Cape Elizabeth, Town of Cape Elizabeth

Battery 201, 1944

1 story, concrete central traverse magazine structure with earth cover containing shell rooms, powder magazine, electrical power room and gas-proof plotting, telephone switchboard and radio room and latrine. Designed to mount two 6 inch breechloading rifles mounted on barbette carriages (Model 4) with steel shields. Battery was completed in 1944 but guns were not mounted.
Current status: unaltered; good condition. Two Lights State park.

Observation Tower, 1943

6 stories, round, concrete
2 observing levels served as the Battery Commander's Station, base end station and spotting station for Battery 201. Located adjacent to an

existing barn and built of a round design to disguise it as a silo.
(Barn destroyed by fire.)

Current status: Tower in generally good condition with some minor deterioration of concrete on exterior. Two Lights State park.

Farm House, n.d.

Existing farm house modified for use by personnel of battery, perhaps as officer's quarters.

Current status: good condition. Used as office and residence for manager of Two Lights and Crescent Beach State Parks.

Searchlight Shelter, 1922

1 story, wood, located near lighthouses

Current status: destroyed

Observation Tower, 1943

(converted lighthouse)

2 observing levels to serve Battery Steele and Battery 202 and a radar installation on the top.

Current status: Tower has been given a new roof of different design; otherwise unaltered. Privately owned.

Radar Station, 1944

Steel tower on concrete foundation with operations building.

Current status: tower salvaged, operations building apparently demolished.

Location number 159--Trundy Point, Cape Elizabeth

Observation Tower, 1921

steel with wood and steel observing station serving Battery Foote.

Current status: steel tower in good condition; metal stairs partially vandalized; wooden station deteriorated. Privately owned.

Observation Tower, 1944

6 stories, concrete

2 observing levels to serve Battery Ferguson and Battery Cravens.

Combination barracks and mess hall nearby.

Current status: tower unaltered; good condition. Privately owned.

Location number 160--Fort Williams, Cape Cottage, Cape Elizabeth

Public property, Fort Williams Park, Town of Cape Elizabeth

Endicott and Taft Period, 1891-1916

Mine Casemate, ca. 1891

Remodeled, 1903. Addition, 1907. Gas-proofed, ca. 1944

Current status: Civil Defense Emergency Communications Center.

Mine Loading and Service Dynamite Room, 1907

1 story wood

Current status: destroyed

Torpedo Storehouse, 1908

2 stories, concrete with roof of plastered ferroinclave

Current status: destroyed

Cable Tank, 1908

1 story, concrete tank protected by steel building with wood frame

Current status: destroyed

Meteorological Station, 1908

1 story, cement plaster on wood frame

Current status: destroyed

Tide Gauge Station, 1909

1 story, wood, located near wharf

Current status: destroyed

Mine Wharf and Tramway, 1909

concrete

Current status: end of wharf destroyed, but portions of the wharf and tramway survive.

Peace Storage Magazine, 1902

1 story, brick with wood trim on concrete foundation designed to keep powder dry during peace time.

Current status: destroyed

Battery DeHart, 1898

2 stories, concrete

first level: magazines, shell rooms and storerooms; second level: emplacements, shell delivery tables, shell truck storage rooms, and observation stations

Two 10 inch breechloading rifles (Model 1888) mounted on disappearing carriages (Model 1894). Guns removed during World War II.

Observing/Battery Commander's Station, 1908, in rear of battery, 1 story, concrete with wood roof, and Plotting Room, 1908, 1 story, cement plaster on wood frame.

Current status: battery has been buried to the level of the parapets.

Battery Sullivan, 1898

2 stories, concrete

first level: magazines, shellrooms, shell hoists and storerooms; second level: emplacements, shell delivery tables, shell truck storage rooms, and observation stations.

Three 10 inch breechloading rifles (Model 1888) mounted on disappearing carriages (Model 1894). Guns removed during World War II.

Observing/Battery Commander's Station, 1908, in rear of battery, 1 story, concrete with wood roof, and Plotting Room, 1908, 1 story, cement plaster on wood frame.

Current status: battery buried to the level of the parapets.

Battery Hobart, 1898

1 story, concrete emplacement and magazine

one 6 inch breechloading rifle (Model 1898) on barbette carriage (Model 1898), manufactured by the British Armstrong Co., the only foreign-made gun in the modern harbor defenses of Maine. The gun was

removed in 1908 and not replaced. Battery officially abandoned in 1929.

Current status: unaltered; concrete structure in generally good condition. Metal door to built-in telephone box missing; entrance to magazine blocked.

Battery Blair, 1903

2 stories, concrete

first level: magazines, shell rooms, shell hoists and storerooms;
second level: emplacements, shell delivery tables, shell truck storage rooms, telephone booths and observation stations.

Two 12 inch breechloading rifles (Model 1888) mounted on disappearing carriages (Model 1894). Guns removed during World War II.

Battery Commander's Station, 1909, in rear of battery, 1 story, cement plaster on wood frame.

Current status: battery buried to the level of the parapets with the exception of one emplacement which is buried only to the level of the loading platform.

Battery Erasmus Keyes, 1906

1 story, concrete emplacements, two magazines and a storeroom

two 3 inch rapid fire guns (Model 1902) on pedestal mounts (Model 1902). Guns removed after World War II.

Double mine observation station constructed on top of magazine, 1908.

Rangefinder station built adjacent to the battery, 1921, and splinter-proofed, 1944.

Current status: Good condition, except that the front of the parapet has been removed in one emplacement. Doors on magazines and storeroom in place and the railing behind the mine station has been recently replaced.

Battery Garesche', 1906

1 story, concrete emplacements with earth cover over magazines, shell rooms, guard room and office.

two 6 inch breechloading rifles (Model 1900) mounted on disappearing carriages (Model 1903). Guns were removed during World War I and not replaced. The battery was officially abandoned in 1929.

Latrine adjacent to battery, 1 story, cement plaster on metal frame.

Two 3 inch anti-aircraft guns mounted on concrete gun blocks on top of the battery in 1920 (guns removed during World War II).

Current status: generally good condition; one metal door off its hinges; metal stairs to battery commander's station at rear of central traverse removed.

Observing Station, 1905

1 story, brick

Dormitory, 1909, and Latrine, 1909, adjacent to station.

Used as Harbor Entrance Control Post during World War II.

Current status: station destroyed; dormitory survives.

Battle Commander's (Observing) Station, 1908

1 story, cement plaster on wood frame

Current status: destroyed

Fire Commander's (Observing) Station, ca. 1901

1 story, brick, remodeled 1908.

Current status: unaltered; some damage due to vandalism.

Combined (Observing) Station, 1907

1 story, cement plaster on wood frame

7 observing stations serving Batteries Blair, Garesche', Kendrick, Bowdoin, and Chase and the Fire Commanders at Forts Levett and Preble. Included a plotting room and an officers' and an enlisted men's dormitories. Separate Latrine, 1909.

Current status: destroyed

Double Mine Primary Observation Station, 1908

2 stories, cement plaster on wood frame

2 observing rooms, 2 plotting rooms, 2 storerooms and living room

Current status: destroyed

Double Mine Secondary Observation Station, 1908

1 story, cement plaster on wood frame

constructed on top of the magazine of Battery Keyes

Current status: unaltered; good condition

Switchboard Building, 1907

1 story, cement plaster on wood frame

Current status: destroyed

Powerhouse, 1905

1 story, concrete

Current status: unaltered; good condition

Non-Tactical Buildings

(Numbers are those assigned by the Quartermaster Corps)

Building No. 1

Artillery Engineer Storehouse, 1914

(1932 changed to Quartermaster Storehouse)

2 stories, brick with wood trim on concrete foundation

Current status: unaltered; very good condition; used as maintenance shop for park.

Building No. 2

U.S. Engineer Storehouse, no date

(1929 changed to Quartermaster Garage)

1 story, wood, no foundation

Current status: destroyed

Building No. 3

Quartermaster Storehouse #2, 1898

1 story, wood on brick piers

Current status: destroyed

Building No. 4

Blacksmith Shop, no date

1 story, wood on concrete foundation

Current status: destroyed

Building No. 5
Sentry Box, no date
1 story, wood on wood posts
Current status: destroyed

Building No. 6
Ordnance Storehouse # 2, 1899
1 1/2 stories, wood on brick piers
Current status: destroyed

Building No. 8
Storehouse, 1899
1 story, stone with wood roof
Current status: destroyed

Building No. 9
Non-Commissioned Officers Quarters, 1899
1 story, wood on brick foundation
Current status: destroyed

Building No. 10
[Electrical] Substation, 1910
1 story brick with wood trim on concrete foundation
Current status: unaltered; good condition

Building No. 11
Stonecrusher, 1898
(later Engineer Storehouse)
1 story, wood
Current status: destroyed

Building No. 12
Blacksmith Shop and Utility Warehouse, 1899
(1942 Utility Office)
1 story, wood on brick piers
Current status: destroyed

Building No. 13
Stable, no date
1 story, wood on brick piers
Current status: destroyed

Building No. 14 and 15
Double Non-Commissioned Officers Quarters, 1898
1 story, wood on brick piers
Current status: destroyed

Building No. 16 and 17
Double Officers Quarters, 1899
2 1/2 stories, brick with wood trim on stone foundation
Current status: destroyed

Building No. 18 and 19
Double Officers Quarters, 1901
2 1/2 stories, brick with wood trim on stone foundation

Current status: destroyed

Building No. 20

Field Officers Quarters, 1902

2 1/2 stories, brick with wood trim on stone foundation

Current status: destroyed

Building No. 21

Field Officers Quarters, 1902

2 1/2 stories, brick with wood trim on stone foundation

Current status: destroyed

Building No. 22

Band Barracks, 1906

2 1/2 stories, brick with wood trim on stone foundation

Current status: destroyed

Building No. 23

Field Officers Quarters, 1902

2 1/2 stories, brick with wood trim on stone foundation

Current status: destroyed

Building No. 24

Quartermaster Oil House

(1939 changed to Garage)

1 story, steel on wood frame

Current status: destroyed

Building No. 25

Coal Pocket, 1915

1 story, concrete

Current status: destroyed

Building No. 26

Militia Storehouse, 1915

(1939 changed to National Guard Storehouse)

1 story, concrete with wood roof

Current status: unaltered; good condition

Building No. 27

Gasoline Storage Tank and Pump, no date

Current status: extant

Building No. 28

Barracks, 1902

2 1/2 stories, brick with wood trim on stone foundation

Current status: destroyed

Building No. 29

Barracks, 1901

2 1/2 stories, brick with wood trim on stone foundation

Current status: destroyed

Building No. 30 and 31

Double Non-Commissioned Officers Quarters, 1900

2 stories, brick with wood trim on stone foundation
Current status: destroyed

Building No. 32
Sergeant 1st Class Non-Commissioned Quarters, 1903
2 stories, brick with wood trim on stone foundation
Current status: destroyed

Building No. 33
Hospital, 1901
2 1/2 stories, brick with wood trim on stone foundation
Current status: destroyed

Building No. 34
Power House Coal Shed, 1904
1 story, wood on stone foundation
Current status: destroyed

Building No. 35
Post Exchange, 1904
1 story, brick with wood trim on stone foundation
Current status: destroyed

Building No. 36
Old Goddard Mansion, n.d.
Non-Commissioned Officers Quarters
2 stories, stone
Current status: only stone walls survive.

Building No. 37
Basketball Court, no date
Crushed stone and asphalt
Current status: unknown

Building No. 41
Barracks, Double Set, 1908
2 1/2 stories, brick with wood trim on stone foundation
Current status: destroyed

Building No. 43
Gymnasium, 1908
1 story, brick with wood trim on stone foundation
Current status: destroyed

Building No. 44
Bandstand, ca. 1911
1 story, wood on wood posts
Current status: unaltered; good condition

Building No. 46 and 47
Double Non-Commissioned Officers Quarters, 1909
2 stories, brick with wood trim on stone foundation
Current status: destroyed

Building No. 48 and 49

Double Non-Commissioned Officers Quarters, 1909
2 stories, brick with wood trim on stone foundation
Current status: destroyed

Building No. 50 and 51
Double Fireman's Quarters, 1909
1 story, brick on brick foundation
Current status: destroyed

Building No. 52
Bachelor Officers Quarters, 1909
2 stories, brick with wood trim on stone foundation
Current status: unaltered; good condition; in use as headquarters for
Girl Scouts of America.

Building No. 53
Barracks, 1910
2 stories, brick with wood trim on stone foundation
Current status: destroyed

Building No. 54
Captain's Quarters, 1911
2 1/2 stories, brick with wood trim on stone foundation
Current status: unaltered; good condition; in use as day care
facility.

Building No. 56 and 57
Double Officers Quarters, 1911
2 stories, brick with wood trim on stone foundation
Current status: destroyed

Building No. 58 and 59
Double Officers Quarters, 1911
2 stories, brick with wood trim on stone foundation
Current status: destroyed

Building No. 60 and 61
Double Officers Quarters, 1911
2 stories, brick with wood trim on stone foundation
Current status: destroyed

Building No. 62
Administration Building, ca. 1910
2 stories, brick with wood trim on stone foundation
Current status: destroyed

Building No. 63
Bakery, 1910
1 story, brick with wood trim on stone foundation
Current status: destroyed

Building No. 64
Guard House, 1911
1 story, brick with wood trim on stone foundation
Current status: destroyed

Building No. 65
 Quartermaster Storehouse & Office, 1910
 2 1/2 stories, brick with wood trim on stone foundation
 Current status: destroyed

Building No. 66
 Flagstaff, 1910
 iron on concrete foundation
 Current status: extant

Building No. 67
 Fire Station, 1911
 1 story with hose tower, brick with wood trim on stone foundation
 Current status: unaltered; good condition

Building No. T-69
 Non-Commissioned Officers Quarters, no date
 1 story, wood on wood posts
 Current status: destroyed

Building No. T-70
 Non-Commissioned Staff Quarters, no date
 1 story, wood on wood posts
 Current status: destroyed

Building No. T-71
 Mine Casemate Building, 1907
 (changed to Temporary Non-Commissioned Officers Quarters and then to Library)
 1 story, cement plaster on concrete foundation
 Current status: destroyed

Building No. T-75
 Carpenter and Plumber Shop, no date
 1 story, wood on brick piers
 Current status: destroyed

World War I and the Inter-War Period, 1917-1938

Disappearing Searchlight, 1920
 Steel tower with concrete counter-weight on concrete base which could be raised into vertical position.
 Current status: steel tower salvaged; concrete base and counterweight remains.

Protected Telephone Switchboard, 1920
 1 story, concrete with earth cover
 Current status: concrete structure remains; wood interior destroyed.

Building No. T-75
 Veterinary Office, 1937
 1 story, wood on wood posts (destroyed 1942)

Building No. T-76

Officers Club, 1925

1 1/2 stories, wood on concrete foundation

Current status: destroyed

Building No. T-78

Quartermaster Garage, 1932

1 story, sheet galvanized iron on concrete foundation

Current status: destroyed

Building No. T-79

Balloon Hanger, 1921

1 story, asbestos-protected corrugated iron on steel frame and concrete foundation (demolished 1941)

Building No. T-80

Balloon Storehouse, 1921

(later Storehouse)

1 story, wood on concrete piers

Current status: destroyed

Building No. T-81

Balloon Garage, 1921

1 story, wood on concrete foundation

Current status: destroyed

Building No. T-82

Hydrogen Generator House, 1921

1 story, corrugated iron on steel frame and concrete foundation

Current status: destroyed

Building No. T-84

Post Exchange, National Guard Camp, 1926

1 story, wood on concrete piers

Current status: destroyed

Building No. T-85

Officers Garage, 1926

1 story, wood on concrete foundation

Current status: unaltered; good condition

Building No. T-88

Gasoline Pump Shelter, 1932

1 story, wood on concrete foundation

Current status: destroyed

Building No. T-89

Civilian Conservation Corps Garage, 1933

(later Quartermaster Garage)

1 story, wood on concrete foundation

Current status: destroyed

Building No. T-90

Quartermaster Warehouse & Carpenter Shop, 1934

1 story, wood on wood posts

Current status: destroyed

Building No. T-91
Civilian Conservation Corps Building, 1933
(later Reserve Officers School and Quartermaster Barracks)
1 story, wood on wood piers
Current status: destroyed

Building No. T-92
Wagon Scales, no date
Concrete base
Current status: unknown

Building No. T-100
Administration Building, National Guard Area, 1930
1 story, wood on concrete foundation
Current status: destroyed

Building No. T-101
Commissary, National Guard Area, 1930
1 story, wood on concrete foundation
Current status: destroyed

Building No. T-102
Gun Shed for National Guard, 1934
1 story, wood on concrete foundation
Current status: unaltered; very good condition; used by park department.

Building No. T-103
Officers Mess, National Guard Area, 1930
1 story, wood on concrete foundation
Current status: destroyed

Building No. T-104
Officers Lavatory, National Guard Area, 1930
1 story, wood on concrete foundation
Current status: destroyed

Building No. T-105
Enlisted Men's Lavatory, National Guard Area, 1930
1 story, wood on concrete foundation
Current status: destroyed

Building No. T-106 through T-115
Mess Kitchens, National Guard Area, 1930
1 story, wood on concrete foundation
Current status: destroyed

Building No. T-120
Civilian Conservation Corps Building, 1935
(changed to Office and Officers Quarters and 1939, Reserve Officers Quarters)
1 story, wood on wood posts
Current status: destroyed

Building No. 124
Civilian Conservation Corps Garage, 1935
(later Quartermaster Garage)
1 story, wood on wood posts
Current status: destroyed

Building No. T-125
Civilian Conservation Corps Oil House, 1935
Galvanized iron on wood posts
Current status: destroyed

Building No. 126
Swimming Pool, 1935
Concrete
Current status: destroyed

Building No. 127
Bleachers, 1935
Concrete
Current status: unaltered; good condition

Building No. 128
Lily Pad Pond, 1935
Stone walls, built by Economic Recovery Act labor
Current status: unaltered

Buildings No. 129 through 131
Single Officer's Garages, 1937
1 story, wood on concrete foundation
Current status: destroyed

Building No. 134
Greenhouse, 1937
1 story, wood on wood post
Current status: destroyed

Building No. T-135
Civilian Conservation Corps Field Water Heater House, 1936
1 story, wood on stone foundation
Current status: destroyed

Building No. 136
War Department Theater, 1938
1 story, brick with wood trim on concrete foundation
Current status: destroyed

Building No. T-137
Shower House, Swimming Pool, 1937
1 story, wood on concrete foundation, built by Works Progress
Administration Current status: destroyed

Building No. T-138
Enlisted Man's Garage, 1937
1 story, corrugated iron on concrete foundation
Current status: destroyed

Building No. 139
 Bandstand, 1937
 Stone, built by Works Progress Administration
 Current status: unaltered; very good condition

Building No. 140
 Mess and Kitchen, National Guard Area, 1938
 1 story, wood on concrete foundation
 Current status: destroyed

Building No. 141
 Tennis Court, Officers, East, no date
 Concrete foundation
 Current status: extant

Building No. 142
 Tennis Court, Officers, West, no date
 Concrete foundation
 Current status: extant

Building No. 143
 Tennis Court, Enlisted Men's, 1938
 Concrete foundation, built by Works Progress Administration
 Current status: unknown

Building No. 144
 Tennis Court, Non-Commissioned Officers, 1937
 Asphalt, built with WPA funds and post labor
 Current status: unknown

World War II Structures

90mm Anti-Motor Torpedo Boat Battery No. 961, 1943
 2 fixed guns on concrete gun blocks and two mobile guns
 1 story, wood, range-finder/battery commander's station
 2 one-story, wood magazine with earth cover
 2 one-story, wood generator houses
 3 one-story barracks
 one-story officers quarters
 Current status: only concrete gun blocks survive.

SCR-582 Radar Station, 1944
 tower and operations building
 Current status: salvaged

Building No. T-37
 Storehouse, 1941
 1 story, wood on concrete foundation
 Current status: salvaged

Building No. T-40
 Storehouse, 1941
 1 story, wood on concrete foundation
 Current status: salvaged

Building No. T-68
Barracks #1, 1941
2 stories, wood on concrete foundation
Current status: salvaged

Building No. T-72
Barracks #2, 1941
2 stories, wood on concrete foundation
Current status: salvaged

Building No. T-73
Barracks, 1941
2 stories, wood on concrete foundation
Current status: salvaged

Building No. T-74
Mess Hall, 1941
1 story, wood on concrete foundation
Current status: salvaged

Building No. T-83
Company Administration & Storehouse, 1941
1 story, wood on concrete foundation
Current status: salvaged

Building No. T-86
Recreation Building, 1941
1 story, wood on concrete foundation
Current status: salvaged

Building No. T-87
Officers Quarters & Mess, 1941
2 stories, wood on concrete foundation
Current status: salvaged

Building No. T-94
Sentry Box, 1941
1 story, wood on wood posts
Current status: salvaged

Building No. T-117 through T-123
Garages, 1940
1 story, wood on concrete foundation
Current status: salvaged

Building No. T-146
Utility Office, 1941
2 stories, wood on concrete foundation
Current status: salvaged

Building No. T-147
Radio Shelter, 1941
1 story, wood on concrete foundation
Current status: salvaged

Building No. T-148
Nurses Quarters & Mess, 1941
1 story, wood on concrete foundation
Current status: salvaged

Building No. T-149
Post Chaple, 1941
1 story, wood on concrete foundation
Current status: salvaged

Building No. T-150
National Guard Battery Lavatory, 1941
1 story, wood on concrete foundation
Current status: salvaged

Building No. T-153
Storehouse, 1942
1 story, wood on concrete foundation
Current status: salvaged

Location number 161--Fort Levett, Cushing Island, Portland
Privately owned.

Endicott and Taft Periods, 1891-1916

Battery Bowdoin, 1903
2 story, concrete
first level: magazines, shell rooms, shell hoists and storerooms;
second level: emplacements, shell delivery tables, shell truck storerooms, telephone booths and observation stations.
Three 12 inch breechloading rifles (Model 1895) mounted on disappearing carriages (Model 1897). Guns removed during World War II.
Battery Commander's Station, 1909, 1 story, cement plaster on wood frame, in rear of battery.
Current status: unaltered; generally good condition.

Battery Kendrick, 1903
2 stories, concrete
first level: magazines, shell rooms, shell hoists, and storerooms;
second level: emplacements, shell delivery tables, shell truck storage rooms and observation stations.
Two 10 inch breechloading rifles (Model 1895) mounted on disappearing carriages (Model 1896). Guns removed during World War II.
Battery Commander's Station, 1909, 1 story, cement plaster on wood frame, in rear of battery.
Current status: unaltered; generally good condition.

Battery Ferguson, 1906
2 stories, concrete
first level: magazines, shell rooms, shell hoists and storerooms;
second level: emplacements, shell delivery tables, plotting room and battery commander's station.
two 6 inch breechloading rifles (Model 1900) mounted on pedestal mounts (Model 1900). Guns removed after World War II.

Range-finder/Battery Commander's Station added 1920.
 Modernization, 1943-44. Range-finder/Battery Commander's Station and
 Plotting Room splinterproofed, concrete, 1943; gun platforms extended,
 concrete, 1944
 Current status: unaltered; generally good condition.

Battery Daniels, 1903

1 story, concrete emplacements, magazines and storerooms
 three 3 inch rapid-fire guns (Model 1898) on masking parapet mounts
 (Model 1898). Guns removed after World War I. Battery officially
 abandoned, 1929. Temporary wood battery commander's station for AMTB
 Battery 962 built in one emplacement during World War II, and
 magazines also may have been used.
 Current status: unaltered; generally good condition; wooden battery
 commander's station in poor condition.

Fire Commander's (Observation) Station, 1909

1 story, cement plaster on wood frame
 1 observing room which served Fort Preble
 Current status: collapsed

Fire Commander's (Observation) Station, 1909

1 story, cement plaster on wood frame
 1 observing room which served Fort Levett
 Current status: collapsed

Fire Commander's (Observation) Station, 1909

1 story, cement plaster on wood frame
 1 observing room which served Battery Ingalls at Fort McKinley
 Current status: collapsed

Combined Secondary (Observation) Station, 1909

1 story, cement plaster on wood frame
 4 observing rooms which served the Fire Commander and Batteries Blair,
 DeHart and Sullivan at Fort Williams.
 Current status: collapsed

Observing Station, 1909

1 story, cement plaster on wood frame
 1 observing room which served Battery Chase at Fort Preble
 Current status: collapsed

Observing Station, 1909

1 story, cement plaster on wood frame
 1 observing level serving Battery Kendrick
 Current status: collapsed

Observing Station, 1909

1 story, cement plaster on wood frame
 1 observing room serving Battery Bowdoin
 Current status: collapsed

Telephone Switchboard Building, 1909

1 story, cement plaster on wood frame with concrete foundation
 Current status: collapsed

Dormitory, 1909

1 story, cement plaster on wood frame with concrete foundation
Current status: collapsed

Meteorological Station, 1909

1 story, cement plaster on wood frame
Current status: unknown

Tide Gauge Station, 1909

1 story, wood, on wharf
Current status: destroyed

District Signal (Radio) Station, 1909

1 story, brick on concrete foundation
Current status: unaltered; very good condition

Non-Tactical Buildings

(Numbers are those assigned by the Quartermaster Corps)

Building No. 3

Stone Cottage, n.d
2 1/2 stories, first floor stone, second floor wood.
Current status: unaltered; very good condition

Building No. 4/5

Double Officers Quarters, 1905
2 1/2 stories, brick with wood trim and stone foundation
Current status: one half damaged by fire in 1980s.

Building No. 6/7

Double Officers Quarters, 1905
2 1/2 stories, brick with wood trim and stone foundation.
Current status: unaltered; very good condition

Building No. 16

Administration Building, 1905.
2 stories, brick with wood trim and stone foundation
Current status: unaltered; good condition

Building No. 17

Guard House, 1905.
1 story, brick with wood trim and stone foundation
Current status: unaltered; good condition

Building No. 18

Hospital, 1905
3 1/2 stories, brick with wood trim and stone foundation
Current status: dormer has been added to roof, otherwise unaltered;
good condition.

Building No. 19

Hospital Steward's Quarters, 1905
2 stories, brick with wood trim and stone foundation
Current status: unaltered; good condition

Building No. 24
Company Barracks, 1905
2 stories, brick with wood trim and stone foundation
Current status: demolished

Building No. 26/27
Double Non-Commissioned Officers Quarters, 1905
2 stories, brick with wood trim and stone foundation
Current status: unaltered; good condition

Building No. 28/29
Double Non-Commissioned Officers Quarters, 1905
2 stories, brick with wood trim and stone foundation
Current status: unaltered; good condition

Building No. 30
Electric Power House, 1903
1 story, concrete
Current status: unaltered; good condition

Building No. 34
Bake House, 1905
1 story, brick with wood trim and stone foundation
Current status: minor alterations; good condition

Building No. 36
Quartermaster and Commissary Storehouse, 1905
1 1/2 stories, brick with wood trim and stone foundation
Current status: minor alterations; being used as a summer house.

Building No. 37
Coal Shed, 1905
1 story, wood
Current status: destroyed

Building No. 38
Ordnance Storehouse, 1905
1 story, wood.
Current status: significant alterations; has been converted into summer house.

Building No. 39
Wagon Shed, 1905
1 story, wood
Current status: unaltered; good condition

Building No. 41
Quartermaster Stable, 1905
1 story, brick with wood trim and stone foundation
Current status: unaltered; good condition

Building No. 42
Oil House, 1905
1 story, corrugated iron.

Current status: unaltered; good condition

Building No. 43

Well Shelter, 1912

1 story, brick on concrete foundation

Current status: unaltered; good condition

Building No. 44

Wharf, 1898

Wood

Current status: needs repair

Building No. 45

Pump House, 1906

Wood

Replaced by Well Shelter, 1912

1 story, brick on concrete foundation

Current status: unaltered; good condition

Building No. 46

Flagstaff, 1906

Iron on concrete foundation (salvaged, 1934)

Building No. 47

Pumping Station, 1912

1 story, brick on concrete foundation

Current status: unaltered; good condition

Building No. 48

Reservoir, 1912

concrete

Current status: unaltered

Building No. 49

Water Tank, 1912

concrete

Current status: unaltered

World War I and the Inter-War Period, 1917-1938

Anti-Aircraft Battery, 1918

three 3 inch anti-aircraft guns mounted on concrete gun blocks.

Modernized 1944 with earthen parapets and concrete emplacements, apparently for 50 caliber anti-aircraft guns (guns removed after World War II).

Current status: two gun blocks survive along with 50 caliber emplacements

Protected Telephone Switchboard Room, 1920

1 story, concrete with earth cover

Current status: unaltered; good condition

Battery Foote, 1920

1 story, concrete traverse magazine structure with earth cover

containing magazines, shell rooms, plotting and telephone switchboard rooms, electrical power room, and latrine. Battery Commander's Station constructed on top of traverse, 1921.

two 12 inch long range guns mounted on barbette carriages.

Modernized, 1944. Concrete casemates for guns, new concrete electric power room, gas-proof plotting and switchboard room, and new battery commander's station on top of early station (guns removed after World War II).

Current status: unaltered; good condition. Test holes were drilled in various spots throughout the interior in the 1960s to determine the thickness of the walls and ceilings in anticipation of converting the structure into a bombproof records storage facility.

World War II, 1939-1945

Observation Tower, 1944

6 stories, concrete

3 observing levels served Battery Carpenter and Battery 202 and as the command post and observation station of the battalion commander of the AMTB batteries covering the main channel (Gun Group 5).

Current status: unaltered; very good condition

Observation Tower, 1944

6 stories, concrete

3 observing levels served Battery 201, Battery Ferguson and Battery Foote

Current status: unaltered; very good condition

Observation Tower, 1944

2 stories, concrete

1 observing level and plotting room which served as the command post and observation station for the battalion commander of the long range batteries, Foote and Steele (Gun Group 1).

Current status: unaltered; very good condition

Mine Observation Station, 1944

2 stories, concrete

Current status: unaltered; very good condition

Searchlight Tower, ca. 1943

wood on concrete piers

Current status: the base of one of the main timbers has rotted.

90mm Anti-Motor Torpedo Boat Battery No. 962, 1943

four 90mm rapid-fire guns, two mounted on concrete gun blocks with steel shields, two mobile mounts in temporary emplacements

two 37mm rapid-fire guns on mobile mounts in temporary emplacements
Battery commander's station, 1 story, wood, in emplacement of old Battery Daniels; magazines may also have been used. Two 1 story generator buildings, wood. Four barracks, one mess hall, and one combination latrine, lavatory and warehouse, all one story, wood on concrete foundations.

Current status: concrete gun blocks survive in good condition, along with wooden battery commander's station in deteriorated condition.

SCR-296 Radar Station, 1944
steel tower on concrete foundation
Current status: salvaged

Radar Operations Building, 1944
1 story, concrete block
Current status: unaltered

Non-Tactical Buildings

(Numbers are those assigned by the Quartermaster Corps)

Building No. T-20
Barrack #10, 1941
2 stories, wood with concrete foundation
Current status: salvaged

Building No. T-21
Barrack #9, 1941
2 stories, wood with concrete foundation
Current status: salvaged

Building No. T-22
Company Administration and Storehouse #3, 1941
1 story, wood with concrete foundation
Current status: salvaged

Building No. T-23
Mess Hall #4, 1941
1 story, wood with concrete foundation
Current status: salvaged

Building No. T-25
Post Exchange, 1941
1 story, wood with concrete foundation
Current status: salvaged

Building No. T-31
Recreation Building # 4, 1941
1 story, wood with concrete foundation
Current status: salvaged

Building No. T-32
Recreation Building #3, 1941
1 story, wood with concrete foundation
Current status: salvaged

Building No. T-33
Barrack #8, 1941
2 stories, wood with concrete foundation
Current status: salvaged

Building No. T-35
Barrack #7, 1941
2 stories, wood with concrete foundation
Current status: salvaged

Building No. T-37
Company Administration and Storehouse #4, 1941
1 story, wood with concrete foundation
Current status: salvaged

Building No. T-40
Recreation Building #1, 1941
1 story, wood with concrete foundation
Current status: salvaged

Building No. T-46
Company Administration and Storehouse #2, 1941
1 story, wood with concrete foundation
Current status: salvaged

Building No. T-50
Barrack #5
2 stories, wood with concrete foundation
Current status: salvaged

Building No. T-51
Barracks #6
2 stories, wood with concrete foundation
Current status: salvaged

Building No. 52
Barrack #4, 1941
2 stories, wood with concrete foundation
Current status: salvaged

Building No. T-53
Mess Hall #3, 1941
1 story, wood with concrete foundation
Current status: salvaged

Building No. T-54
Mess Hall #2, 1941
1 story, wood with concrete foundation
Current status: salvaged

Building No. T-55
Mess Hall #1, 1941
1 story, wood with concrete foundation
Current status: salvaged

Building No. T-56
Barrack #3, 1941
2 stories, wood with concrete foundation
Current status: salvaged

Building No. T-57
Barrack #2, 1941
2 stories, wood with concrete foundation
Current status: salvaged

Building No. T-58
 Barrack #1, 1941
 2 stories, wood with concrete foundation
 Current status: salvaged

Building No. T-59
 Recreation Building #2, 1941
 1 story, wood with concrete foundation
 Current status: salvaged

Building No. T-60
 Company Administration and Storehouse #1, 1941
 1 story, wood with concrete foundation
 Current status: salvaged

Building No. T-61
 Storehouse #8, 1941
 1 story, wood with concrete foundation
 Current status: salvaged

Building No. T-62
 Storehouse #9, 1941
 1 story, wood with concrete foundation
 Current status: salvaged

Location number 162--Fort Preble, Spring Point, South Portland
 Now Southern Maine Vocational-Technical Institute

Endicott-Taft Period, 1891-1916

Battery Constantine Chase, 1901
 1 story, concrete with earth cover over magazines and shell rooms
 8 (later 4) 12 inch breechloading rifled mortars (Model 1890) on
 mortar carriages (Model 1896) located in two pits (guns removed during
 World War II)
 Current status: buried

Battery Kearney, 1901
 1 story, concrete with earth cover over magazines and shell rooms
 8 (later 4) 12 inch rifled mortars (Model 1890) on mortar carriages
 (Model 1896) located in two pits (guns removed during World War II)
 Current status: buried

Battery Rivardi, 1906
 1 story, concrete with earth cover over magazines and shell rooms
 two 6 inch breechloading rifles (Model 1903) mounted on disappearing
 carriages (Model 1903) which were removed during World War I and not
 replaced. The battery was officially abandoned in 1929. Two 3 inch
 anti-aircraft guns were emplaced on concrete gun blocks on the top of
 the battery in 1920.
 Current status: good condition; unaltered, except that metal stairs to
 battery commander's station at rear of magazine have been removed.

Battery Mason, 1906

2 stories, concrete with earth cover over magazine and storeroom
 One 3 inch rapid-fire breechloading rifle on pedestal mount.
 Gun removed in 1943 from Battery Mason and reemplaced on new concrete gun block in old South Battery to cover White Head Passage and the main channel (gun removed after World War II)
 Current status: good condition; unaltered, except that entrance to storeroom has been covered by recent landscaping.

Telephone Switchboard Building, ca. 1900

1 story, wood, in emplacement of old North Battery.
 In 1920 the building was protected by constructing a concrete structure around it with an earth cover. In 1937, a new anti-aircraft gun emplacement was built on top of the protected switchboard.
 Current status: unaltered; exterior in good condition; floor of switchboard building has collapsed.

Cable Tank, 1901

1 story, wood on concrete foundation
 Current status: destroyed

Tide Gauge Station, 1909

1 story, wood, located on the wharf
 Current status: destroyed

Observing Station, 1907

3 stories, cement plaster over wood frame on concrete foundation with 3 story concrete instrument pillar; building was designed to look like a church.
 1 observing level serving the fire commander. The building also included a plotting room, office and dormitory.
 Current status: building demolished, but concrete instrument pillar survives and is used as a memorial to the Coast Artillery Corps.

Observing Station, 1905

1 story, wood on steel tower
 1 observing level serving Batteries Chase and Kearney
 Current status: destroyed

Non-Tactical Buildings

(Building numbers assigned by the Quartermaster Corps)

Building No. 1

Single Officer's Quarters, 1901
 (later Field Officer's Quarters)
 2 1/2 stories, brick with wood trim on stone foundation
 Current status: good condition; deck added to rear, otherwise unaltered

Building No. 2

Single Officer's Quarters, 1901
 (later Commanding Officer's Quarters)
 2 1/2 stories, brick with wood trim on stone foundation
 Current status: unaltered

Building No. 3 and 4
Double Officers Quarters, 1900
2 1/2 stories, brick with wood trim on stone foundation
Current status: unaltered

Building No. 5
Single Officer's Quarters, 1878
2 stories, wood on brick and stone foundation
Current status: destroyed

Building No. 6 and 7
Double Officers Quarters, 1902
2 1/2 stories, brick with wood trim on stone foundation
Current status: unaltered

Building No. 8
House Cart House, no date
1 story, wood, no foundation (torn down 1919)

Building No. 9
Quartermaster and Commissary Storehouse, 1904
1 1/2 stories, brick with wood trim on stone foundation
Current status: good condition; unaltered, but a wooden building has been constructed flush with the south side of the storehouse.

Building No. 10
Ordnance Storehouse, 1989
1 story, wood on wood posts (torn down, 1920)

Building No. 11 A and B
Double Non-Commissioned Officers Quarters, no date
2 stories, wood on brick foundation
Current status: destroyed

Building No. 12
Cable Storehouse, 1910
1 story, concrete with wood roof
Current status: unaltered; good condition

Building No. 13
Post Quartermaster Sergeant's Quarters, 1890
2 stories, wood on stone foundation
Current status: destroyed

Building No. B
Non-Commissioned Officer's Quarters, no date
2 stories, wood on brick foundation (sold 1906)

Building No. 13
Boat House, no date
1 story, wood on pilings
(1918, moved and used as storehouse; 1919, torn down)

Building No. 14
Boat House, 1900

1 story, wood on pilings
Current status: destroyed

Building No. 15
Ordnance Machine Shop, 1902
1 story, brick, on stone foundation
Current status: unaltered; good condition

Building No. 16
Coal Shed, no date
1 story, wood, no foundation (torn down 1919)

Building No. 17
Blacksmith Shop, no date
1 story, wood, no foundation (torn down 1919)

Building No. 18
Quartermaster Stable, 1892
2 stories, wood on stone foundation
Current status: destroyed

Building No. 19
Engine House, no date
(later Plumbing Shop)
Current status: destroyed

Building No. T-20
Carpenter and Paint Shop, 1897
(1919, Shelter for Artillery Repair Truck)
1 story, wood on concrete foundation
Current status: destroyed

Building No. 21
Ordnance Shop, 1910
1 story, brick with wood trim on stone foundation
Current status: good condition; unaltered except for temporary shelter at end of building. Currently in use as museum.

Building No. 22
Guard House, 1900
1 story, brick with wood trim on stone foundation
Current status: dormer removed; roof replaced; wheelchair ramp added in front; building attached to new student center, but otherwise exterior is unaltered.

Building No. 23
Administration Building, 1904
2 stories, brick with wood trim on stone foundation
Current status: unaltered; good condition

Building No. 24
Hospital, 1901
(changed to Barracks, 1939)
2 stories, brick with wood trim on stone foundation
Current status: one porch removed, but otherwise unaltered.

Building No. 25

Artillery Barracks, 1903

2 stories, brick with wood trim on stone foundation

Current status: porches removed and addition built at rear of barracks, but otherwise unaltered.

Building No. 26

Bake House, 1902

(changed to Storehouse, 1928)

1 story, brick with wood trim on stone foundation

Current status: unaltered; good condition

Building No. 27

Artillery Barracks, 1901

2 stories, brick with wood trim on stone foundation

Current status: burned, ca. 1970

Building No. 28

Wharf and Pier Head, 1903

Stone and wood

Current status: unknown

Building No. 29

Flagstaff, no date

Wood on concrete foundation

Current status: taken down

Building No. L

Married Soldier's Quarters, no date

1 1/2 stories, wood on stone foundation (torn down, 1919)

Building No. 31

Temporary Mess Hall, 1898

(1909, moved and made Post Exchange and Post Library)

Current status: destroyed

Building No. T-35

Non-Commissioned Officers Quarters, no date

1 story, wood on wood blocks

Current status: destroyed

World War I and the Inter-War Period, 1917-1938

Anti-Aircraft Battery, 1937

concrete emplacements constructed in the earth cover on top of the protected switchboard building, apparently for 50 caliber machine guns.

Current status: unaltered; some frost damage to concrete

Building No. 30

Wagon Shed, 1930

1 story, wood on concrete foundation

Current status: destroyed

Building No. 17
Stable Annex, 1930
2 stories, wood on concrete foundation
Current status: destroyed

Building No. 16
Machine Gun Cart Shed, 1930
1 story, wood, no foundation
Current status: destroyed

Building No. 10
Fire Station, 1921
1 story with hose tower, brick on concrete foundation
Current status: unaltered; good condition

Building No. 8
Blacksmith Shop, 1930
1 story, wood on concrete foundation
Current status: destroyed

Building No. T-32
Garage, 1924
1 story, wood on concrete foundation
Current status: destroyed

Building No. 34
Non-Commissioned Officers Quarters, 1932
1 story, wood on concrete foundation
Current status: destroyed

Building No. T-39
Quartermaster Storehouse, 1917
1 story, wood on concrete blocks
Current status: destroyed

Building No. T-40
Quartermaster Storehouse, 1917
1 story, wood on concrete blocks
Current status: destroyed

Building No. T-41
Chemical House, 1917
1 story, wood on wood foundation
Current status: destroyed

Building No. T-42
Service Club, 1917
1 story, wood on wood blocks
Current status: destroyed

Building No. T-44
Wood Shed, 1932
1 story, wood on stone blocks
Current status: destroyed

Building No. T-46
 Officers Garage, 1936
 1 story, metal lath and stucco on concrete foundation
 Current status: destroyed

Building No. T-47
 Tennis Court, no date
 Gravel base with wood and wire walls
 Current status: destroyed

Building No. T-48
 Badminton Court, 1937
 Concrete (salvaged, 1940)

World War II, 1939-1945

New Battery Mason, 1943
 3 inch rapid fire gun (Model 1902) on pedestal mount (Model 1902). Gun removed from old Battery Mason and mounted on new concrete gun block in old South Battery to cover White Head Passage (gun removed after World War II).
 Current status: gun block removed ca. 1975

37mm Section of Anti-Motor Torpedo Battery No. 961, ca. 1943
 Mobile guns emplaced at end of parade ground to cover submarine net between the mainland and Cushing Island.

Building No. 20
 Quartermaster Dock, 1940
 Wood on wood pilings
 Current status: apparently unaltered; good condition

Building No. T-33
 Recreation Building (RB-1), 1941
 1 story, wood on concrete foundation
 Current status: salvaged

Building No. T-36
 Garage, 1940
 1 story, wood on concrete foundation
 Current status: salvaged

Building No. T-37
 Garage, 1940
 1 story, wood on concrete foundation
 Current status: salvaged

Building No. T-38
 Storehouse, 1941
 1 story, wood on concrete foundation
 Current status: extant; apparently unaltered

Building No. T-43
 Storehouse, 1941
 1 story, wood on concrete foundation

Current status: salvaged

Building No. T-49

Recreation & Company Administration & Storehouse #1, 1941

1 story, wood on concrete foundation

Current status: salvaged

Building No. T-50

Barracks #1, 1941

2 stories, wood on concrete foundation

Current status: salvaged

Building No. T-51

Barracks #2, 1941

2 stories, wood on concrete foundation

Current status: salvaged

Building No. T-52

Recreation & Company Administration & Storehouse #2, 1941

1 story, wood on concrete foundation

Current status: salvaged

Building No. T-53

Barracks #3, 1941

2 stories, wood on concrete foundation

Current status: salvaged

Building No. T-54

Barracks #5, 1941

2 stories, wood on concrete foundation

Current status: salvaged

Building No. T-55

Barracks #6, 1941

2 stories, wood on concrete foundation

Current status: salvaged

Building No. T-56

Company Administration & Storehouse #3, 1941

1 story, wood on concrete foundation

Current status: salvaged

Building No. T-57

Barracks #4, 1941

2 stories, wood on concrete foundation

Current status: salvaged

Building No. T-58

Mess Hall #1, 1941

1 story, wood on concrete foundation

Current status: salvaged

Building No. T-59

Mess Hall #2, 1941

1 story, wood on concrete foundation

Current status: salvaged

Building No. T-60
Officers Quarters & Mess, 1941
2 stories, wood on concrete foundation
Current status: salvaged

Fort Gorges, Hog Island Ledge

Torpedo (Mine) Storehouse and Tramway, ca. 1901.
Current status: demolished; only concrete foundation of storehouse remains.

Fort Scammel, House Island

Anti-Aircraft Battery, 1918
concrete gun blocks for two 3 inch anti-aircraft guns
Current status: gun blocks remain; surface deterioration on one.

Mining Casemate (temporary), ca. 1900.
Located in East Bastion of old Fort Scammel.
Current status: cable manhole survives

Location number 163--Peaks Island Military Reservation, Portland
Public and private ownership

World War I and the Interwar Period, 1917-1938

Disappearing Searchlight, 1920
Steel tower with concrete counter-weight on concrete base
Current status: steel salvaged, but concrete base and counterweight remain; property of City of Portland.

Searchlight Powerhouse, 1911
1 story, concrete with concrete roof.
Current status: good condition; property of City of Portland.

Combined Rangefinding Station, 1909
1 story, cement plaster on wood frame with concrete foundation
3 observing stations serving Fort Preble and Fort McKinley
Current status: building destroyed, but concrete foundation remains.

World War II, 1939-1945

Observation Tower, 1944
6 stories, concrete
3 observing levels serving Battery Cravens, as the battery commander's station for Battery Steele and as a mine observing station.
Current status: good condition, unaltered, but doorway and lower windows sealed with concrete; property of City of Portland.

Observation Tower, 1944

6 stories, concrete

3 observing levels serving Battery Steele, as the battery commander's station for Battery Cravens and as the battalion commander's station for the 6 inch batteries.

Current status: good condition; unaltered, but the doorway and lower windows have been sealed with concrete; property of City of Portland.

Battery Steele (Battery 102), 1944

1 story concrete with earth cover over gun casemates and traverse which contained powder magazines, shell rooms, latrine, storerooms and electrical power generating room

two 16 inch guns (Mark II, Model 1) on barbette carriages (Model 4 and Model 5), casemated with steel shields (guns removed after World War II).

Current status: unaltered; good condition; owned by Solar Technology and Research.

Plotting and Telephone Switchboard Room, Battery Steele, 1944

1 story, concrete with earth cover

Current status: earth cover removed. Privately owned.

SCR-296 Radar Station, 1943

steel tower on concrete foundation

operating room, 1 story steel on concrete foundation

electrical generator house, 1 story steel.

Current status: steel tower and operating room salvaged; generator house survives somewhat damaged. Privately owned.

Battery Cravens (Battery 203), 1944

1 story, concrete traverse magazine structure with earth cover containing powder magazines, shell rooms, plotting, telephone switchboard and radio rooms, latrine, and electrical power generating room.

two 6 inch guns (Model T2) on barbette carriages (Model 3) with steel shields (guns removed after World War II).

Current status: unaltered, but a portion of the earth cover removed; two of three entrances blocked with fill. Privately owned.

Mine Casemate, 1944

1 story, concrete gas-proof structure with earth cover on top only, containing mine plotting, telephone switchboard and operating room and latrine.

Current status: house has been constructed on the roof. Privately owned.

3 inch Anti-Motor Torpedo Boat Battery, 1943

2 story concrete range-finder station and magazine

two 3 inch rapid-fire guns (Model 1902) on pedestal mounts (Model 1902) mounted on concrete gun blocks (guns removed ca. 1943). 2

barracks and mess hall to house personnel of battery, 1 story, wood on concrete foundations.

Rebuilt as 90mm Anti-Motor Torpedo Boat Battery 963, 1943

four 90mm rapid-fire guns, two mounted on concrete gun blocks with steel shields, two mobile guns in temporary emplacements; two 37mm mobile guns in temporary emplacements (guns removed after World War

II). 2 additional barracks and addition to mess hall constructed, 1 story, wood on concrete foundations, 1943.
Current status: range-finder station and magazine, one 3" gun block and two 90mm gun blocks survive, unaltered. Privately owned.

90mm Anti-Motor Torpedo Boat Battery No. 964, 1943
four 90mm rapid-fire guns (Model 1), two with pedestal mounts (Model 1A1) on concrete gun blocks with steel shields, two mobile guns in temporary emplacements; two 37mm mobile guns in temporary emplacements (guns removed after World War II) 4 barracks, mess hall, and combination latrine lavatory and warehouse adjacent to battery, 1 story, wood on concrete foundations.
Current status: two gun blocks remain, one with earth parapet, along with foundations of temporary buildings.

Location number 164---Fort McKinley, Great Diamond Island, Portland
Privately owned.

Endicott and Taft Period --- Tactical Structures

Battery Berry, 1901
2 stories, concrete
first level: magazines, shell rooms, shell hoists, and storerooms;
second level: emplacements, shell delivery tables, shell truck storerooms, telephone booths, and observation stations. Gun platforms extended, 1910.
two 12 inch breechloading rifles (Model 1888) mounted on disappearing carriages (Model 1896). Guns removed during World War II.
Current status: unaltered, apparently good condition.

Battery Thompson, 1902
2 stories, concrete
first level: magazines, shell rooms, shell hoists, and storerooms;
second level: emplacements, shell delivery tables, shell truck storerooms and observation stations. Unique use of stone in walls of first level.
three 8 inch breechloading rifles (Model 1888) mounted on disappearing carriages (Model 1896). Guns removed during World War II.
Current status: unaltered; good condition.

Battery Acker, 1902
2 stories, concrete
first level: magazines, shell rooms, shell hoists, and storerooms;
second level: emplacements, shell delivery tables and observation stations. Unique construction of gun blocks and unique brickwork on lower level; some walls have been finished with cement plaster.
two 6 inch breechloading rifles (Model 1897) mounted on disappearing carriages (Model 1898). Guns removed during World War II.
Current status: unaltered; good condition.

Battery Farry, 1902
1 story, concrete emplacements and magazine
two 3 inch rapid fire guns (Model 1898) on masking parapet mounts (Model 1898)

1 story rangefinder station added adjacent to the battery in 1921. Guns and carriages removed after World War I; battery abandoned in 1929.

Current status: unaltered; good condition.

Battery Ingalls, 1904

1 story, concrete structure with earth cover over magazines, shell rooms, storerooms and power room. Two, 1 story, concrete data booths at rear of gun pits.

eight 12 inch breechloading mortars (Model 1890) on mortar carriages (Model 1896), reduced to four guns in 1918. Guns removed during World War II.

Current status: unaltered; good condition.

C2 Station, 1908

1 story, cement plaster on wood frame with concrete foundation and tar and gravel roof.

Current status: collapsed

Fire Commander's Station, 1905

1 story, brick with concrete and glass roof on concrete foundation

Current status: unaltered; good condition

Dormitory, 1908

1 story, cement plaster on wood frame with concrete foundation and tar and slag roof.

Current status: unknown

Observation Station, Battery Ingalls, 1905

1 story, brick with concrete and glass roof on concrete foundation

Current status: unaltered; good condition

Dormitory, 1909

1 story, cement plaster on wood frame with concrete foundation and tar and slag roof.

Current status: unknown

Latrine and Lavatory, 1909

1 story, cement plaster on wood frame with concrete foundation and steel roof

Current status: unknown

Observation Station, Battery Berry, 1905

1 story, brick with concrete and glass roof on concrete foundation plotting room and dormitory added in 1907, cement plaster on wood frame with concrete foundation and tin roof.

Current status: brick station unaltered, good condition; addition collapsed.

Observation Station, Battery Thompson, 1905

1 story, brick with concrete and glass roof on concrete foundation plotting room and dormitory added in 1907, cement plaster on wood frame with concrete foundation and tin roof.

Current status: brick station unaltered, good condition; addition collapsed.

Observation Station, Battery Acker, 1908

1 story, cement plaster on wood frame with tar and slag roof
Current status: unknown

Telephone Switchboard Building, North Fork, 1908

1 story, cement plaster on wood frame on concrete foundation with steel roof
Current status: unaltered; apparently good condition

Mining Casemate, North Fork, ca. 1891

1 story, brick and concrete. New casemate completed in 1902, brick and concrete. Dormitory, engine room and storage battery room added in 1909, cement plaster on wood frame with tar and slag roof.
Current status: casemate unaltered, good condition; wooden floor of addition has collapsed.

Battery Weymouth, 1901

2 stories, concrete
first level: magazines, shell rooms, shell hoists and storerooms;
second level: emplacements, shell delivery tables and observation stations.
three 8 inch breechloading rifles (Model 1888) mounted on disappearing carriages (Model 1896). Guns removed during World War II.
Current status: unaltered; some deterioration of concrete on exposed surfaces.

Battery Honeycutt, 1901

2 stories, concrete
first level: magazines, shell rooms, shell hoists and storerooms;
second level:
emplacements, shell delivery tables, and observation stations.
two 8 inch breechloading rifles (Model 1888) mounted on disappearing carriages (Model 1896). Guns removed during World War II.
Current status: unaltered; some deterioration of concrete on exposed surfaces.

Battery Carpenter, 1906

2 stories, concrete
first level: magazines, shell rooms, shell hoists and storerooms.
second level: emplacements and shell delivery tables
two 6 inch breechloading rifles (Model 1900) on pedestal mounts (Model 1900)
gun platforms extended, 1943 (guns removed after World War II)
Current status: unaltered; metal stairs to loading platform damaged; several pieces of granite trim on rear of battery dislodged.

Battery Ramsay, 1906

1 story, concrete emplacements, magazines and storeroom
two 3 inch rapid-fire guns (Model 1898) on masking parapet mounts (Model 1898)
rangefinder station added above battery in 1921, 1 story, concrete (guns and carriages removed after World War I and battery officially abandoned in 1929)
Current status: unaltered; good condition

Combined Observation Station, 1905

1 story, brick with concrete and glass roof on concrete foundation
5 room addition, 1909, 1 story, cement plaster on wood frame with
concrete foundation and tar and slag roof

Current status: brick station unaltered, good condition; addition has
collapsed.

Observation Station, Battery Carpenter, 1908

1 story, cement plaster on wood frame with concrete foundation and tar
and slag roof

Current status: unaltered; apparently good condition

Observation Station, Battery Honeycutt, 1905

1 story, brick with concrete and glass roof on concrete foundation
1 story addition, 1909, cement plaster on wood frame with concrete
foundation and tar and slag roof

Current status: brick station unaltered; good condition; addition has
collapsed.

Telephone Switchboard Building (South Fork), 1908

1 story, cement plaster on wood frame with concrete foundation and tar
and slag roof

Current status: unaltered; apparently good condition.

Meterological Station, 1908

1 story, cement plaster on wood frame with concrete foundation and tar
and slag roof

Current status: unaltered; apparently good condition.

Tide Gauge Station, 1909

1 story, wood, on mine wharf

Current status: destroyed

Latrine and Lavatory, 1909

1 story, cement plaster on wood frame with concrete foundation and tar
and slag roof

Current status: unaltered; apparently good condition.

Mining Casemate (South Fork), ca. 1891

1 story, brick. Rebuilt in brick and concrete, 1903; addition added
1907

Current status: unaltered; good condition

Mine Loading Room, 1907

1 story, wood

Current status: unaltered; good condition

Service Dynamite Room, 1907

1 story, wood

Current status: unaltered; good condition

Torpedo Storehouse, 1908

2 stories, concrete with roof and partitions of ferro-inclave
plastered on both sides on concrete foundation

Current status: unaltered; basic structure appears sound; roof needs replacement.

Cable Tank, 1907

1 story, wood on steel frame with concrete foundation

Current status: destroyed

Endicott and Taft Periods -- Non-Tactical Structures

Building No. 1 A/B

Double Officers Quarters, 1903

2 1/2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 2

Officer's Quarters, 1903

2 1/2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 3

Commanding Officer's Quarters, 1904

(later three married officers apartments)

2 1/2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 4

Officer's Quarters, 1904

2 1/2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 5 A/B

Double Officers Quarters, 1903

2 1/2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 6 A/B

Double Officers Quarters, 1903

2 1/2 stories, brick with wood trim on stone foundation

Current status: Current status: unaltered; scheduled for restoration

Building No. 7 A/B

Double Officers Quarters, 1904

2 1/2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 8 A/B

Double Officers Quarters, 1904

2 1/2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 9 A/B

Double Officers Quarters, 1904

2 1/2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 10

Bachelor Officers Quarters, 1910

2 stories, brick with wood trim on stone foundation

Current status: burned 1977

Building No. 11

Post Exchange and Gymnasium, 1905, addition 1915

1 story, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 12

Administration Building, 1903

2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 13

Barracks, 1909

2 stories, brick with wood trim on stone foundation

Current status: burned 1987

Building No. 14

Barracks, 1904

Burned 1929, rebuilt, 1931

2 stories, brick with wood trim on stone foundation

Current status: under restoration

Building No. 15

Barracks, 1904

2 stories, brick with wood trim on stone foundation

Current status: under restoration

Building No. 16

Barracks, 1904

2 stories, brick with wood trim on stone foundation

Current status: under restoration

Building No. 17

Barracks, 1903

2 stories, brick with wood trim on stone foundation

Current status: under restoration

Building No. 18

Hospital Steward's Quarters, 1905

2 stories, brick with wood trim on stone foundation

Current status: under restoration

Building No. 19

Hospital, 1903

2 1/2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 20

Fire Apparatus Building, 1905

1 story, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 21

Double Non-Commissioned Officers Quarters, 1903

2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 22

Pumping Plant, 1904

1 story, brick with wood trim on stone foundation

Current status: unaltered; good condition

Buildings No. 22-A, B, C

Well Shelters, 1904

1 story, brick with wood trim on stone foundation

Current status: unaltered; good condition

Building No. 23 A/B

Double Non-Commissioned Officers Quarters, 1904

2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 24 A/B

Double Non-Commissioned Officers Quarters, 1904

2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 25 A/B

Double Non-Commissioned Officers Quarters, 1905

(later Civilian Employees Quarters)

2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 26

Bakery, 1903

1 story, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 27

Guard House, 1903

1 story, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 28

Coal Shed, 1903

Wood on stone foundation

Current status: destroyed

Building No. 29

Quartermaster Storehouse, 1904

1 1/2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 30

Quartermaster and Commissary Storehouse, 1903 (later carpenter shop)

1 1/2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 31

Ordnance Storehouse, 1903

1 1/2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 32

Workshops, 1903

1 story, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 33

Wagon Shed, 1905

Wood on stone foundation (salvaged 1933)

Building No. 34

Quartermaster Stable, 1903

2 stories, brick on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 35

Oil House, 1903

1 story, steel with tin roof on brick piers

Current status: unaltered; good condition

Building No. 36

Temporary Barrack, 1901 (burned ca. 1924)

Building No. 36

Triple Married Enlisted Men's Quarters, 1901

Wood on wood posts (burned 1931)

Building No. 36

Citizens Military Training Camp Mess Hall, 1932

Wood on concrete foundation

Current status: destroyed

Building No. 37

Scale House, 1904

Wood

Current status: destroyed ca. 1985

Building No. 38

Coal Shed, 1905

Wood on stone foundation

Current status: destroyed

Building No. 39

Picket Guard House, 1905

Wood on stone foundation

Current status: destroyed

Building No. T-40

Married Enlisted Men's Quarters, 1917

(later Non-Commissioned Officers Quarters)
Wood on wood foundation
Current status: destroyed

Building No. 40
Garbage Crematory, 1905
Corrugated iron on stone foundation
replaced by new building 1940s
brick on concrete foundation
Current status: unaltered; good condition

Building No. 41
Ice House, 1906
Wood on stone foundation
Current status: destroyed

Building No. 42
Bandstand, ca, 1905
Wood on brick piers
Current status: under restoration

Building No. 43
Mining Boat House, 1906
Wood on piles
Current status: destroyed

Building No. 45
Bowling Alley, 1909
1 story, brick on stone foundation
Current status: unaltered; scheduled for restoration

Building No. 46 A/B
Double Barrack, 1910
2 1/2 stories, brick with wood trim on stone foundation
Current status: unaltered; scheduled for restoration

Building No. 47 A/B
Double Non-Commissioned Officers Quarters, 1909
2 stories, brick with wood trim on stone foundation
Current status: unaltered; scheduled for restoration

Building No. 48 A/B
Double Fireman's Quarters, 1909
(later double Non-Commissioned Officers Quarters)
1 story, brick with wood trim on stone foundation
Current status: unaltered; scheduled for restoration

Building No. 49
South Fork Pump Shelter, n.d.
1 story, wood on stone foundation
Current status: destroyed

Building No. 50
North Fork Pump Shelter, n.d.
1 story, brick on stone foundation

Current status: unaltered; good condition

Building No. 51

Well Shelter, 1909

1 story, brick on stone foundation

Current status: unaltered; good condition

Building No. 52

Well Shelter, 1909

1 story, brick on stone foundation

Current status: unaltered; good condition

Building No. 53

Well Shelter, 1909

1 story, brick on stone foundation

Current status: unaltered; good condition

Building No. 54 A/B

Double Non-Commissioned Officers Quarters, 1910

2 stories, cement plaster with wood trim on concrete foundation

Current status: unaltered; scheduled for restoration

Building No. 55 A/B

Double Non-Commissioned Officers Quarters, 1910

2 stories, cement plaster with wood trim on concrete foundation

Current status: unaltered; scheduled for restoration

Building No. 56

Quartermaster Storehouse, 1910

1 1/2 stories, brick with wood trim on stone foundation

Current status: unaltered; scheduled for restoration

Building No. 57

Ice House, 1911

1 story, wood on concrete foundation

Current status: destroyed

Building No. 58

Power Plant, 1903

1 story, concrete

Current status: unaltered; good condition

Building No. 59

Flag Staff, 1903 (replaced 1932)

Steel on concrete foundation

Current status: unaltered; good condition

Building No. 60

Wagon Shed, 1911

1 story, wood on concrete piers

Current status: destroyed

Building No. T-61

Teamsters Quarters, 1911

1 story, wood on brick piers

Current status: unaltered; good condition

Building No. 62

Water softening plant, 1911

Brick on concrete foundation

Current status: unaltered; good condition

Building No. 63

Water tank and heater house, 1904

Tank steel, heater house concrete

Current status: tank survives

Building No. 64

Boat House, 1908

Wood on piles

Current status: destroyed

Building No. 65

Wood Shed, 1909

Wood on stone foundation

Current status: destroyed

Building No. 65

Saw Mill, no date

Wood on earth foundation (torn down 1931)

Building No. 66

Quartermaster Wharf, 1905

Wood on stone and piles

Current status: good condition

Building No. 66

Mine Wharf and Tramway, 1910

Wood on wood piles, remodeled in 1910, 3 foot gauge tramway with concrete house for hoisting engine and boiler

Current status: wharf collapsed; tramway and hoister house extant

Building No. 67

U.S. Engineers Wharf, no date (North Fork Dock)

Stone filled with cinders (transferred to Quartermaster Corps 1929)

Current status: unaltered; good condition

Building No. 68

U.S. Engineers Wharf, no date (Pleasant Cove Wharf)

Wood on piles (transferred to Quartermaster Corps 1929)

Current status: destroyed

Building No. 74

Pumping Plant Reservoir, 1904

Concrete

Current status: apparently good condition

Building No. 79

U.S. Engineers Field Office, 1908

Plaster on concrete piers

Current status: destroyed

Building No. 80

U.S. Engineers Store House, 1898

Wood on stone piers (burned, 1936)

World War I and Inter-War Period, 1917-1939

Disappearing Searchlight, 1920

Steel tower with concrete counter-weight on concrete base

Current status: steel salvaged after World War II; concrete base and counter-weight survive.

Searchlight Powerhouse, 1920

1 story, concrete with concrete roof

Current status: unaltered; good condition

Protected Telephone Switchboard, North Fork, 1920

1 story, concrete, with earth cover

Current status: unaltered; good condition

Protected Telephone Switchboard Building, South Fork, 1920

1 story, concrete, with earth cover

Current status: concrete structure sound; wooden interior gone.

Mine Casemate, ca., 1920

1 story, concrete with earth cover

Current status: unaltered; good condition

Building No. T-65

Married Enlisted Men's Quarters, 1931

(later Non-Commissioned Officers Quarters)

Current status: destroyed

Building No. T-69

Service Club, no date, ca. 1917 (formerly theater)

Wood on wood posts

Current status: collapsed

Building No. 70

Balloon Garage, 1921

Wood on concrete foundation

Current status: destroyed

Building No. 71

Balloon Storehouse, 1921

Wood on concrete foundation

Current status: destroyed

Building No. 72

Balloon Hanger, 1921

Asbestos protected corrugated iron on steel frame

Current status: salvaged

Building No. 73

Hydrogen Generator House, 1921
Corrugated iron on steel frame
Current status: salvaged

Building No. 75
Gasoline Tank, 1918
Wrought iron (salvaged 1948)

Building No. 76
Engine House, 1923
Wood on piling (torn down 1941)

Building No. 77
Officers Club, 1926
Wood on concrete foundation
Current status: unaltered; good condition

Building No. 78
School House, 1929
Wood on concrete piers
Current status: unaltered; good condition

Building No. 80
Tennis Court, Officers, no date
Wire screen walls on concrete foundation
Current status: unknown

Building No. 81
Tennis Court, Enlisted Mens, no date
Wire screen walls on crushed rock foundation
Current status: unknown

Building No. 82
War Department Theater, 1938
Brick on concrete foundation
Current status: burned 1977

Building No. 83
Citizens Military Training Camp, 1938
Wood on concrete foundation
Current status: destroyed

Building No. T-84
Married Enlisted Men's Quarters, 1931
(later Non-Commissioned Officers Quarters)
Wood on wood posts
Current status: destroyed

Outdoor Chapel, ca. 1930
Stone and concrete altar
Current status: unaltered; good condition

World War II, 1939-1945

Sentry Box, ca. 1940

1 story, wood
Current status: unaltered; good condition

Rangefinder Station, Battery Carpenter, 1943
2 stories, concrete
Current status: unaltered; good condition

Barracks and Mess Hall, Battery Carpenter, 1943
1 story, wood on concrete foundation
Current status: salvaged

Building No. T-85
Garage, 1940
Wood on concrete foundation
Current status: salvaged

Building No. T-86
Garage, 1940
Wood on concrete foundation
Current status: salvaged

Building No. T-87
Recreation #2, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-88
Company Administration #2, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-89
Mess Hall #2, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-90
Mess Hall #1, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-91
Company Administration #1, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-92
Recreation #1, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-93
Barracks #6, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-94
Barracks #5, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-95
Barracks #4, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-96
Barracks #3, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-97
Barracks #2, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-98
Barracks #1, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-99
Officers Quarters and Mess, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-100
Post Chapel, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-101
Nurses Quarters and Mess, 1941
Wood on concrete foundation
Current status: salvaged

Building No. T-102
Hospital Barracks, 1941
Wood on concrete foundation
Current status: salvaged

Location number 165---Fort Lyon, Cow Island, Portland
Private property

Endicott and Taft Periods, 1891-1905

Battery Abbott, 1909
1 story, concrete emplacements and magazines
three 3 inch rapid-fire guns (Model 1903) on pedestal mounts (Model

1903). Guns removed after World War II. Battery Commander's Station added on parapet, 1943
Current status: unaltered; good condition

Battery Bayard, 1907

1 story, concrete emplacements, concrete magazines, shell rooms, guard rooms and offices with earth cover
three 6 inch breechloading rifles (Model 1903) mounted on disappearing carriages (Model 1903); guns removed during World War I and not replaced. Battery officially abandoned in 1929. Rooms in battery were apparently used during World War II, with steam heat from boiler house, as piping survives.
Current status: unaltered; concrete structure sound; vandalism to steel doors, shutters and stairways.

Latrine and Lavatory, 1908

1 story, cement plaster on wood frame with concrete foundation and tar and slag roof
Current status: destroyed

Double Mine Observation Station, 1908

1 story, cement plaster on wood frame with concrete foundation and tar and slag roof
Current status: collapsed

Searchlight Observing Station, 1910

1 story, wood with asbestos roof
Current status: destroyed

Electric Powerhouse, 1907

1 story concrete with concrete roof
Current status: unaltered; good condition

Building No. 1

Temporary Barracks, 1907
(changed to Non-Commissioned Officers Quarters, 1939)
Destroyed in January, 1942, to make room for new barracks.

Building No. 2

Landing Stage for Small Boats, 1911
Wood pile crib filled with stone. Rebuilt 1941.
Current status: deteriorated

World War I and the Inter-War Period, 1917-1938

Anti-Aircraft Battery, 1920

three 3 inch anti-aircraft guns mounted on concrete gun blocks (guns removed after World War II). Earth parapets added, 1943, along with concrete emplacements, apparently for 50 caliber anti-aircraft guns.
Current status: gun blocks and parapets in good condition

World War II, 1939-1945

37mm Section of Anti-Motor Torpedo Boat Battery 965, 1943
two 37mm breechloading rifles on mobile mounts in temporary

emplacements

Battery Commander's Station, 1943
1 story, concrete
built on parapet of Battery Abbott
Current status: unaltered; good condition

Range-Finder Station, 1943
1 story, concrete
Current status: unaltered, good condition

Observing Station, 1943
1 story, concrete
Current status: unaltered; good condition

Building No. 1 Barracks, 1941
2 story, wood on concrete foundation
Current status: salvaged

Building No. 2. Barracks and Officers Quarters, 1941
2 story, wood on concrete foundation
Current status: salvaged

Building No. 3 Mess Hall, 1941
1 story, wood on concrete foundation
Current status: salvaged

Building No. 4 Boiler House, 1941
1 story, wood on concrete foundation
Current status: salvaged

Location number 166--Long Island, Portland
Private property

World War I and the Inter-War Period, 1917-1938

Searchlight Shelter and Tramway, 1917
1 story, concrete
Current status: unaltered; good condition; steel doors off hinges.

Searchlight Powerhouse, 1917
1 story, concrete with wood trim protected by earth berm
Current status: unaltered; good condition

Dormitory, 1917
1 story, cement plaster on wood frame on concrete foundation
Current status: unaltered; good condition

World War II, 1939-1945

Observation tower, 1944
7 stories, round, concrete
3 observing levels which served Battery Carpenter, the Battalion Commander's Station for the AMTB batteries protecting Hussey Sound,

and the Mine Observation Station for Hussey Sound. A SCR-296 radar antenna was located on the top of the tower, 1944.

Current status: unaltered; good condition

Radar Operations Building, 1944

1 story, concrete block with wood roof on concrete foundation

Current status: altered into summer house

Generator Building, 1944

1 story, concrete with wood roof on concrete foundation

Current status: apparently unaltered

3 inch Anti-Motor Torpedo Boat Battery, 1943

two 3 inch rapid-fire guns with pedestal mounts on concrete gun blocks (guns removed ca. 1943)

2 story concrete Range-finder Station and Magazine, 1944

2 barracks and mess hall, 1 story, wood on concrete foundation

Rebuilt as 90mm Anti-Motor Torpedo Boat Battery No. 966, 1943.

four 90mm breechloading rifles, two mounted on concrete gun blocks with steel shields, two mobile guns in temporary emplacements (guns removed after World War II)

2 barracks and addition to mess hall constructed, 1 story, wood on concrete foundation

Current status: 3 inch and 90mm gun blocks survive; range-finder station and magazine have been incorporated into summer house.

90mm Anti-Motor Torpedo Boat Battery No. 965, 1943

four 90mm breechloading rifles, two mounted on concrete gun blocks with steel shields, two mobile guns in temporary emplacements (guns removed after World War II)

Battery Commander's Station, 4 barracks and mess hall, 1 story, wood on concrete foundations, 1944

Current status: concrete gun blocks apparently survive

Location number 166A--Chebeague Point, Chebeague Island, Cumberland
Private Property

World War II, 1939-1945

3 Inch Anti-Motor Torpedo Boat Battery, 1943.

two 3 inch rapid-fire guns with pedestal mounts on concrete gun blocks (guns removed 1943)

2 story range-finder station and magazine, concrete

2 barracks and mess hall, 1 story, wood on concrete foundations

Rebuilt as 90mm AMTB No. 969, 1943

four 90mm breechloading rifles, two mounted on concrete gun blocks with steel shields and two mobile guns in temporary emplacements. (Guns removed after World War II)

2 additional barracks and addition to mess hall built, 1 story, wood on concrete foundations

Current status: 3 inch gun blocks survive; rangefinder station survives but roof has been lowered.

37mm Section of Anti-Motor Torpedo Boat Battery No. 969, 1944

Mobile guns emplaced on Bar Point to guard the submarine net between Chebeague and Littlejohn islands.

Location number 167--Jewell Island Military Reservation, Portland State Park

World War I and the Inter-War Period, 1917-1938

Observation Station, 1921
1 story, concrete (demolished, 1935)

Observation tower, 1935
4 stories concrete
3 observing levels which were used during World War II to serve Battery 201, Battery Foote and as the Battalion Commander's Station for the AMTB batteries (Gun Group 7) protecting Broad Sound.
Current status: unaltered; good condition

Searchlight shelter and power house, 1936.
1 story, concrete
Current status: unaltered; good condition

World War II, 1939-1945

Battery No. 202, 1944
1 story, concrete traverse magazine structure with earth cover containing shell rooms, powder magazines, electric power room, a gas-proof plotting and telephone switchboard room, with the battery commander's station on the top of the structure.
two 6 inch breechloading rifles (Model T2) on barbette carriages (Model 3) with steel shields on concrete gun blocks (removed after World War II)
Current status: unaltered; good condition

Observation Tower, 1944
8 stories, concrete
3 observing levels to serve Battery Steele, Battery Cravens, and Battery 202.
Current status: unaltered; good condition

90mm Anti-Motor Torpedo Boat Battery No. 967, 1944
four 90mm breechloading rifles, two on concrete gun blocks with steel shields, two mobile guns in temporary emplacements (guns removed after World War II)
Battery Commander's Station, 4 barracks, mess hall, combination latrine, lavatory and warehouse, 1 story, wood on concrete foundations (salvaged or collapsed), concrete block pump and water storage house with wood roof.
Current status: concrete gun blocks and concrete pump and water storage house survive, along with concrete foundations of buildings and collapsed earth-covered wood magazines.

90mm Anti-Motor Torpedo Boat Battery No. 968, 1944
four 90mm breechloading rifles, two on concrete gun blocks with steel

shields, two mobile guns in temporary emplacements; two 37mm breechloading rifles on mobile mounts in temporary emplacements (guns removed after World War II)
 Battery Commander's Station, 4 barracks, mess hall, combination latrine, lavatory and warehouse, 1 story, wood on concrete foundations (salvaged or collapsed)
 Current status: concrete gun blocks survive along with concrete foundations of buildings; wood battery commander's station was blown down in 1987.

Radar Tower, 1944
 steel tower on concrete piers
 Current status: salvaged

Radar Operations Building, 1944
 1 story, corrugated steel on steel frame on concrete foundation
 Current status: roof has recently collapsed.

Reservation Housing, 1943
 1 story, wood buildings on concrete foundations

3 Barracks, Type B-A-T
 Mess Hall, Type M-C-T
 2 Dispensaries, Type T-D
 Officers Quarters, Type OQ-A-T
 Service Club and Post Exchange, Type PX-A-T
 Chaple and Theater Type, RCC-A-T
 Storehouse Type, SH-A-T
 Lavatory, Type C-D-T
 Fire Station Type FS-C-T
 Well Shelter, concrete (extant)
 Storehouse, 1 story, concrete block on concrete foundation (extant)
 Current status: all buildings were either salvaged or have now collapsed, with the exception of the well shelter, the concrete storehouse, and a large chimney.

Location number 168--Bailey Island, Harpswell
 Private property

World War II, 1939-1940

90mm Anti-Motor Torpedo Boat Battery No. 970, 1944
 four 90mm breechloading rifles, two mounted on concrete gun blocks with steel shields, two mobile guns in temporary emplacements (guns removed after World War II)
 Battery Commander's Station, 1 story, wood
 Current status: concrete gun blocks survive; battery commander's station appears to have been moved and is in use as a summer house. Two other wooden structures on site may date to World War II.

Observation Tower, 1944
 6 stories, concrete
 2 observing levels serving Battery Foote and Battery 202.
 Current status: unaltered; good condition

Observation Tower, 1944

8 stories, concrete,

2 observing levels serving Battery Steele and Battery Cravens and a SCR-296 radar antenna on the roof

Current status: radar antenna and housing removed; otherwise, unaltered and in good condition.

Radar Operations Building, 1944

1 story, concrete block

Current status: unaltered; good condition

Reservation Housing, 1943

3 barracks and mess hall, 1 story, wood on concrete foundations

Current status: salvaged; concrete foundations survive

Location 168A--Drinkwater Point, Yarmouth37mm Section of AMTB No. 970, 1943

two 37mm breechloading rifles on mobile mounts in temporary emplacements to guard submarine net between the mainland and Cousins Island. Housing would have been provided for the gun's crews. Private property.

Location number 169--Small Point, PhippsburgObservation Tower, 1944

6 stories, concrete

2 observing levels serving Battery Steele and Battery Cravens and a telephone switchboard. There would have been a combination barracks and mess hall on site.

Current status: tower apparently unaltered; in use as summer cottage; private property.

Location number 170--Fort Baldwin, Popham Beach, Phippsburg

Fort Baldwin was abandoned after World War I and was acquired by the state for park. The property was returned to the Army for use during World War II and then turned back to the state after the war.

Endicott and Taft Periods, 1891-1905Battery Patrick Cogan, 1908

1 story, concrete emplacements, magazines and guard room

two 3 inch breechloading rifles (Model 1903) on pedestal mounts (Model 1903). Guns removed after World War I.

Range-finder Station added on parapet, 1921, 1 story, concrete

Current status; unaltered; good condition

Battery John Hardman, 1908

1 story, concrete emplacement, shell room, magazine, guard room and office

one 6 inch breechloading rifle (Model 1902) on disappearing carriage

(Model 1902). Gun removed in 1917.
Current status: unaltered; good condition

Battery Joseph Hawley, 1908
2 stories, concrete emplacements, concrete magazines, shellrooms, guard room and office with earth cover; battery commander's station at rear of magazine structure.
two 6 inch breechloading rifles (Model 1900) on barbette carriages (Model 1900). Guns removed in 1917. Two "Panama Mounts," circular concrete emplacements for 155mm mobile guns were built on the old emplacements in 1942.
Current status: unaltered; good condition.

Fort Buildings listed in 1920
all were apparently 1 story, wood

Primary Mine Observation Station (Improvised)
Secondary Mine Observation Station (Improvised)
Mine Casemate (Improvised) in old Fort Popham
Torpedo Storehouse (in old Fort Popham)
No. 3 Officers Quarters
No. 6 Non-Commissioned Officers Quarters
No. 4 Hospital
No. 8 Guard House
No. 12 Boat House
No. 13 Stable
No. 14 Wood Shed
No. 15 Store House
No. 31 Ordnance Storehouse
No. 41 Hoister House and Cement Shed
Water Tank

Quartermaster wharf
Current status: all buildings salvaged or destroyed; pilings of wharf survive.

World War II

155mm Mobile Coast Defense Gun Battery, 1943
four 155mm breechloading rifles on mobile mounts, emplaced on concrete "Panama" mounts, two built in the emplacements of Battery Joseph Hawley, two adjacent to it. Guns removed January 17, 1944, when modern batteries completed. Temporary barracks, mess hall and observation station provided for battery.
Current status: Panama mounts are unaltered and in good condition; temporary buildings have been salvaged or destroyed.

Observation tower, 1944.
5 stories, concrete
1 observing level served Battery Steele
Current status: unaltered; good condition

Popham Beach, Phippsburg
Fort Popham State Park

Spanish-American War Battery, 1898

1 story, concrete emplacement and magazine, adjacent to Fort Popham
one 8 inch breechloading rifle on reinforced 15 inch Rodman carriage
(gun removed after war)

Current status: unaltered; apparently good condition

Fort Knox, Prospect

State Park

Torpedo Storehouse, ca. 1900

1 story, brick with wood trim

Current status: unaltered; good condition

Bar Harbor

Spanish-American War Battery, 1898

Four temporary earth and wood emplacements:

one 8 inch converted rifle (smooth-bore, muzzle-loading gun with
rifled sleeve installed in bore) mounted on iron carriage on wooden
platform at Schooner Point, Mount Desert Island.

two 10 inch smooth-bore, muzzle-loading Rodman guns mounted on iron
carriages on wooden platforms, Egg Rock, Winter Harbor.

one 8 inch converted rifle mounted on iron carriage on wooden platform
on Turtle Island, Winter Harbor.

Current status: according to a recent newspaper article the remains of
the earth emplacement on Schooner Point are still visible, and the
Rodman guns remain on Egg Rock.

III. EVALUATION OF SPECIFIC SITES AND STRUCTURES

A number of harbor defense sites have been acquired by state and local governments and are worthy of preservation. Fort Foster in Kittery and Fort Williams in Cape Elizabeth were purchased by their respective communities and are maintained as town parks. Fort Baldwin in Phippsburg and the Cape Elizabeth and Jewell Island Military Reservations were purchased by the State of Maine, and they have been incorporated into the state park system. Fort Preble was also acquired by the state and is used as the campus of a vocational-technical school; the shorefront of the fort has been leased by the City of South Portland and has been incorporated into the city's park system. Portions of Fort Levett and the Peaks Island Military Reservation have been placed by their private owners in resource protection zones. The remaining sites are privately-owned, but most of the permanent structures at these locations survive and worthy of preservation.

Fort Foster, Gerrish Island, Kittery

Fort Foster, an Endicott period installation used through World War II, survives with only minor modification of its permanent structures as a town park, and the site is certainly worthy of preservation. Battery Edward Chapin (1904) survives in excellent condition. Battery Henry Bohlen (1901) has been buried to the level of its gun platforms, but the second level presents the visitor with an impressive view of the main working level of the large battery. A searchlight shelter (1920) and several World War II structures--a mine casemate (ca. 1944), double mine observing station (1942) and the gun

blocks of a 90mm AMTB battery (ca. 1944)--all survive in excellent condition. Some distance from the early batteries is Battery 205 (1944) and an observation tower (1943), both in excellent condition. The buildings at the fort were all temporary wooden structures, but the concrete foundations of many of them survive.

The most critical and unique of the structures at Fort Foster which must be preserved, if at all possible, are the searchlight shelter (ca. 1920), the double mine observing station (1942) and the mine casemate (ca. 1944) which are the only surviving unaltered examples of their respective types in Maine.

Observation Towers on Isolated Sites

Several observation towers survive on individual sites from Kittery to Popham Beach, some on public and others on private property. A number of these towers on the southern coast were camouflaged to appear to be summer cottages, but only two apparently survive. The tower at Cape Neddick in York is used as a summer residence and the appearance has not been radically altered. The tower at Moody Beach in Wells, on the other hand, has been altered to look like a lighthouse and its barracks has been reduced from two to one stories. The tower at Prouts Neck in Scarborough is of a unique design which appears to have been intended to appear to be a monument or elaborate civilian observation tower. At Two Lights in Cape Elizabeth an unused lighthouse was converted to an observation tower during World War II; it has been recently renovated, but the exterior has not been significantly altered. One of the few survivors of the many steel observation towers built in the United States during the 1920s--and the only one in New England before 1941--can be found at Trundy Point

in Cape Elizabeth, along with a conventional square concrete tower built in 1944. The towers at Sisters Point in Kittery and Small Point in Phippsburg are conventional square towers which were usually covered with "haze" paint which was used to allow the towers to blend into the horizon. Each of these towers is worthy of preservation.

Most unique and critical of the towers which must be preserved, if at all possible, are: the tower and associated buildings at Cape Neddick, which appears to be the only unaltered example of its type in Maine; the tower at Prouts Neck which is the only one of its type in the United States; and the steel tower at Trundy Point which is the only one of its type in New England.

Cape Elizabeth Military Reservation

World War II Battery 201 and its observation tower survive in excellent condition as part of Two Lights State Park, and the site is certainly worthy of preservation. The most critical and unique of these structures is the tower, which was custom-built in a round design adjacent to a barn to camouflage it as a silo, and it must be preserved if at all possible.

Fort Williams, Cape Elizabeth

The majority of the buildings at Endicott period Fort Williams were demolished by the Town of Cape Elizabeth when the property was being turned into a park in the 1960s and 1970s. However, most of the batteries and some of the buildings survive, and the town has made a commitment to preserve and interpret those that remain. These surviving structures in this public park are certainly worthy of preservation. Battery Keyes (1906), Battery Hobart (1898) and Battery

Garesche' (1906) survive in very good condition, as do the gun blocks for the anti-aircraft battery (1920) and 90mm Anti-Motor Torpedo Boat Battery No. 961 (1943). Battery Blair (1903) has been buried, except for the loading platform of one emplacement which the town plans to use as an outdoor interpretive center. The Mine Casemate (ca. 1891/1902/1920/1944) is still used by Civil Defense authorities as an emergency communications center. Two cable huts survive in good condition, and the remains of the mine wharf and tramway are still visible. A brick Fire Commander's Station (ca. 1901) survives with some damage. Nearby is the foundation and counter-weight of a disappearing searchlight (1920). The powerhouse (ca. 1904), electrical substation (1910) and protected telephone switchboard (1920) remain, along with one officer's quarters (1911), the bachelor officers' quarters (1909), a large officers' garage (1926), the Militia Storehouse (1915), the Artillery Engineer Storehouse (1914), the Fire Station (1911), a small dormitory (ca. 1908), and the National Guard Gun Shed (1934). Other structures include wooden (1911) and stone (1937) bandstands, concrete bleachers (1935), a lily pond (1935), officers' tennis courts (1938) and the post flagpole (1910).

There are a number of critical and unique structures at Fort Williams that must be preserved, if at all possible. The mine casemate was built circa 1891 and modified and used through World War II, the only one of its type in Maine. Battery Hobart (1898) is of a unique design and was the only battery built in Maine to mount a foreign-made gun. The following structures are the only examples of their types to have been built in Maine: Artillery Engineer Storehouse (1914), Militia Storehouse (1915), National Guard Gun Shed (1934), stone band stand (1937), bleachers (1935), electrical substation (1910), and lily

pond (1935). The following structures are the only examples of their types to survive in Maine: bachelor officers' quarters (1909), captain's quarters (1911) and an officers' garage (1926). The brick observation station (ca. 1901) is the only one of its type to survive on the mainland.

Fort Levett, Cushing Island

All of the batteries and most of the permanent buildings at this privately-owned summer colony survive, and the fort is certainly worthy of preservation. Fort Levett's batteries include: four fine Endicott period structures (1903-1906)--Batteries Bowdoin, Kendrick, Ferguson, and Daniels, an unusual three gun, 3 inch battery; the only 12 inch long range battery in northern New England, Battery Foote (1920); a 3 inch anti-aircraft battery (1918); and a 90mm AMTB battery (1943). Fort Levett has a District Signal Station (1909), probably one of the few to survive in the country. World War II structures (1943-44) include two observation towers, a unique double mine observing station, a group commander's station, and a wooden searchlight tower. The entire southern portion of the island containing the batteries and observation towers has been placed in a resource conservation zone so that it will never be developed. Only two major buildings have been lost, the brick barracks and half of a double officers' quarters. Other of the Endicott period buildings have been renovated but not substantially altered.

There are numerous unique and critical structures at Fort Levett that must be preserved, if at all possible. Battery Bowdoin (1903) is the only three gun 12 inch battery in Maine. Battery Sullivan is the only surviving 10 inch battery in the State. Battery

Daniels (1903) is the only three gun 3 inch battery in Maine using masking parapet mounts. Battery Ferguson (1906) was built as a four gun battery, but quickly modified to mount just two 6 inch guns. It is the only battery of its type in Maine and was used through World War II. The District Signal Station (1909) is the only one north of Boston. The wagon shed (1905) may be one of the few to survive in the United States. Battery Foote (1920) is the only battery of its type in northern New England. The searchlight tower (ca. 1943) is the only one in the state. The battalion commander's observation station (1944) and double mine observing station (1944) are the only buildings of their type in Maine.

Fort Preble, Spring Point, South Portland

Half of the Endicott period batteries and most of the permanent buildings at this publicly owned-site survive, along with structures which date from the Second, Third and 1870s systems of fortifications. The fort is certainly worthy of preservation. Battery Rivardi (1906) was built on the site of Second System Fort Preble (1808) utilizing its front face as a retaining wall and incorporating its keystone into the rear wall of the concrete magazine structure. Battery Mason (1906) was built into one of the 1870s gun emplacements, while the telephone switchboard building (ca. 1900) was also constructed in an emplacement of the North Battery, using the 1870s magazine of the battery as protection and an entranceway. In 1920, the switchboard was protected by building a concrete structure with earth cover around and over the building, and in 1937 an anti-aircraft battery was built on top of the structure. One of the two Endicott period barracks was lost in a fire in the 1970s, but the other

Endicott period buildings (1900-1910) all survive with minor modifications. These include a barracks (1903), two single officers quarters, two double officers quarters, administration building (1904), guard house (1900), hospital (1901), bake house (1902), fire station (1921), quartermaster storehouse (1904), ordnance storehouse (1910), ordnance machine shop (1902), mine cable storehouse (1910), and wharf (1903). Fort Preble also includes the only World War II temporary wooden Army building to survive on site in the Portland forts.

Fort Preble includes a number of unique and critical structures which must be preserved, if at all possible. Battery Rivardi (1906) is unique in that it was built on the site of old Fort Preble (1808), utilizing the front wall of the old fort as a retaining wall and incorporating the keystone of the old fort in the rear wall of the battery. Battery Mason (1906) is the only single gun 3 inch battery in the United States, and it was built into an 1870s gun emplacement of the North Battery. The telephone switchboard building (ca. 1900) was also built into the North Battery and then protected in place in 1920, the only use of this method in Maine. The switchboard's uniqueness is enhanced by the fact that an anti-aircraft gun position was built on top of it in 1937. Fort Preble has the only ordnance machine shop (1902), the only Cable storehouse (1910) and the only World War II temporary wooden building (1941) surviving on site.

Forts Gorges, Hog Island Ledge, and Fort Scammel, House Island

A torpedo (mine) storehouse was constructed on the parade ground of Third System Fort Gorges (begun in 1858) early in the 1900s, but only the concrete foundation survives. The east bastion of Second,

Third, and 1870s System Fort Scammel (1808) was designated a temporary mining casemate at the same time, and in 1918 concrete gun blocks were installed for two 3 inch anti-aircraft guns. Both forts are listed on the National Register of Historic Places.

Peaks Island Military Reservation

The military reservation has been subdivided into individual lots and is privately owned with the exception of the northern portion of the reservation which was given to the City of Portland and placed in a resource conservation zone. This area contains two World War II observation towers, the foundation of a combined range-finding station (1909), the foundation and counterweight of a disappearing searchlight (1920) and a searchlight powerhouse (1911), all of which are worthy of preservation. There are several individual structures which have survived and would also be worthy of preservation: Battery Steele (1944), the double mine observing station (1944) and the range-finder station and magazine (1943) for one of the two AMTB batteries on the island. A portion of the earth and sand cover of the traverse magazine of Battery Cravens (1944) has been removed, but if it could be replaced, the battery would be worthy of preservation. Unfortunately, the earth and sand cover has been completely removed from Battery Steele's plotting, telephone switchboard and radio room (1944).

The most unique and critical of the structures on Peaks Island, which must be preserved, if at all possible, are: Battery Steele (1944), the only 16 inch battery in Maine; Battery Cravens (1944), the only named 6 inch World War II battery in Maine; and AMTB Battery 963, which has the only unaltered AMTB range-finder station and magazine in Maine.

Fort McKinley, Great Diamond Island

All of the batteries and the majority of the permanent structures survive in relatively good condition on this large, privately-owned site. Fort McKinley is certainly one of the few Endicott-era installations in the United States at which so many pre-World War I structures have survived without modification. The fort is the largest of its era in Maine with the most batteries, mine facilities, observation and range-finding stations, barracks, officers quarters and service buildings of any fort in the State. Fort McKinley has the only 8 inch batteries in Maine (1901-02), the only school house (1929), the only bowling alley (1909), and the only water pumping plant (1904), and it was the only fort with three mine casemates. Today, it has the only surviving two gun 12 inch battery built for disappearing carriages (1901), the only twin gun 3 inch batteries built for masking parapet mounts (1898), the only mortar battery (1904), the only unaltered mine casemates (1903-1909), the only two-story torpedo storehouse (1908), the only mine loading room (1907), the only service dynamite room (1907), the only hoister house (1910), the only double barracks (1910), the only fireman's quarters (1909), the only officers club (1926), the only outdoor chapel (ca. 1930), the only ice pond (ca. 1900) and the only sentry box (ca. 1940) in Maine. The brick barracks, officers quarters, and other buildings constructed and maintained by the Quartermaster Corps have already been placed on the National Register as a historic district. The batteries and other surviving permanent structures built and maintained by the Corps of Engineers are certainly worthy of preservation.

Fort McKinley has numerous unique and critical structures which must be preserved, if at all possible. Battery Berry (1901) is now the only two gun 12 inch battery whose guns were mounted on disappearing carriages in Maine; it is also the only 10 or 12 inch battery which did not face the open sea, but rather guarded interior passages. Battery Ingalls (1904) is now the only mortar battery in the state. Battery Thompson (1902), is the best preserved and most unique of the 8 inch batteries--the only ones in Maine---featuring magazine walls elaborately built of stone rather than concrete. Battery Thompson is attached to Battery Acker (1902), an early 6 inch battery which features a unique design for its gun blocks and elaborate use of brick trim in its construction. Adjacent to Battery Acker is Battery Farry (1902), one of two 3 inch batteries in Maine built for masking parapet mounts, whose range-finder station is constructed on top of one of the fort's unaltered early mining casemates (1891/1902). This battery line is unique and incorporates three of the fort's important batteries and one of the mining casemates. Battery Carpenter (1906) is the only six inch battery of its type built in Maine, and it was manned through World War II. Carpenter's range-finding station (1943) is the only one of its kind in Maine, and behind it stands the battery's 1908 observation station. Fort McKinley's mining facilities are very important, including the only mine casemate built in 1920 and the only surviving mine loading room (1907), service dynamite room (1907), two-story torpedo storehouse (1908), and hoister house (1910). Fort McKinley has the finest collection of early tactical buildings in the United States, and an effort should be made to preserve as many types as possible. Essential would be the inclusion of one of the unaltered early brick observing stations (ca. 1903) and one of those

which did receive an addition in 1907. Also important would be the preservation of an example of one of the cement plaster buildings (1907-1909), such as a switchboard building. Finally, the ice pond (ca. 1900), outdoor chapel (ca. 1930) and sentry box (ca. 1940) must be preserved, if possible.

Fort Lyon, Cow Island

All of the batteries and permanent structures survive in very good condition on this small, privately-owned island and are worthy of preservation. Most critical and unique are: Battery Bayard (1907), the only battery in Maine designed to mount three 6 inch guns on disappearing carriages; Battery Abbott (1909), the only three gun, 3 inch battery in the United States with its emplacements laid out in a triangle rather than in line; Battery Abbott's World War II range-finder station (1944), the only one of its type built in Maine; and the three gun anti-aircraft battery (1920), the only one in the State that has all of its World War II earthen parapets intact.

Long Island Military Reservation

This privately owned site contains a unique World War I searchlight installation (1917) with a shelter housing two lights mounted on small rail cars which rolled on tracks out of either end of a buried shelter through a covered way to positions which illuminated two sections of the bay. Above the shelter is a searchlight powerhouse protected by a large earth berm, and a small dormitory building, all dating from 1917. On the same site is a round World War II observation tower, the only one in Maine built to a standardized design, and a

concrete block radar operations building and generator building. All of these structures are worthy of preservation, and all are unique, with the exception of the radar operations building.

Jewell Island Military Reservation

All of the batteries and permanent structures on this state-owned island survive in good condition, and the reservation is certainly worthy of preservation. The island includes an observation tower and a combination searchlight shelter and powerhouse built in the 1930s, and numerous World War II structures: an observation tower, a steel radar operations building, a 6 inch battery, two 90mm AMTB batteries, and the foundations of several World War II temporary buildings.

The following structures are critical and must be preserved, if at all possible. The 1935 observation tower is the only one of its type built in the United States. It is of a unique style, perhaps camouflaged to make it appear to be part of a summer hotel or estate. The combination searchlight shelter and powerhouse built in 1936 is also the only one of its type in Maine, and very rare in the United States. The World War II 6 inch Battery 202 (1944) is one of three such batteries in the nation built with the battery commander's station on the top of the traverse magazine and entered from inside the structure.

Bailey Island Military Reservation

This privately-owned site contains two World War II observation towers, a concrete block radar operations building, and the gun blocks of 90mm Anti-Motor Torpedo Boat Battery No. 970. Nearby

is what appears to be the wooden battery commander's station for the battery, moved to a new location and used as a summer house; if so, it could be the only surviving structure of its type in the United States. These surviving structures are all worthy of preservation. Most critical are the two towers which have become a part of the cultural and visual landscape of northern Casco Bay and must be preserved, if at all possible.

Fort Baldwin, Popham Beach

All of the batteries at this site survive as part of a State park, and the fort has been placed on the National Register of Historic Places.

Bar Harbor, Mount Desert Island

The Spanish-American War battery (1898) is certainly worthy of preservation. The remains of the emplacements and the surviving guns are unique and must be preserved, if at all possible.

APPENDICES

1. Major Gun Batteries, 1898-1944
2. Tactical Structures, 1891-1916
3. Tactical Structures, 1917-1945
4. Non-Tactical Permanent Structures

Appendix 1--Major Gun Batteries, 1898-1944

date	no. guns	dia.	type	carriage model	battery name	location fort	comment
1906	one	3"	BLR M1902 P	M1902	Mason	Preble	
1904	two	3"	BLR M1902 P	M1902	Chapin	Foster	
1906	two	3"	BLR M1902 P	M1902	Keyes	Williams	
1908	two	3"	BLR M1903 P	M1903	Cogan	Baldwin	
1902	two	3"	BLR M1898 MP	M1898	Farry	McKinley	
1906	two	3"	BLR M1898 MP	M1898	Ramsay	McKinley	
1909	three	3"	BLR M1903 P	M1903	Abbott	Lyon	
1903	three	3"	BLR M1898 MP	1898	Daniels	Levett	
1898	one	6"	BLR M1898 P	M1898	Hobart	Williams	
1908	one	6"	BLR M1905 DC	M1903	Hardman	Baldwin	
1906	two	6"	BLR M1900 P	M1900	Carpenter	McKinley	
1906	two	6"	BLR M1900 P	M1900	Ferguson	Levett	
1908	two	6"	BLR M1900 P	M1900	Hawley	Baldwin	
1902	two	6"	BLR M1897 DC	M1898	Acker	McKinley	
1906	two	6"	BLR M1903 DC	M1903	Rivardi	Preble	
1906	two	6"	BLR M1900 DC	M1903	Garesche	Williams	
1907	three	6"	BLR M1903 DC	M1903	Bayard	Lyon	
1901	two	8"	BLR M1888 DC	M1896	Honeycutt	McKinley	
1901	three	8"	BLR M1888 DC	M1896	Weymouth	McKinley	
1902	three	8"	BLR M1888 DC	M1896	Thompson	McKinley	
1898	two	10"	BLR M1888 DC	M1894	DeHart	Williams	(buried)
1906	two	10"	BLR M1895 DC	M1896	Kendrick	Levett	
1898	three	10"	BLR M1888 DC	M1894	Sullivan	Williams	(buried)
1901	three	10"	BLR M1895 DC	M1896	Bohlen	Foster	(buried)

DC barbette carriage DC disappearing carriage MC mortar carriage
 BLR breech-loading rifle LR long range MP masking parapet
 BLM breech-loading mortar M model P pedestal mount

date	no. guns	dia.	type model	carriage model	battery name	location fort	comment
1901	eight	12"	BLM M1890	MC M1896	Chase	Preble	(buried)
1901	eight	12"	BLM M1890	MC M1896	Kearney	Preble	(buried)
1904	eight	12"	BLM M1890	MC M1896	Ingalls	McKinley	
1901	two	12"	BLR M1888	DC M1896	Berry	McKinley	
1903	two	12"	BLR M1895	DC M1897	Blair	Williams	(buried)
1903	three	12"	BLR M1895	DC M1897	Bowdoin	Levett	
1920	two	12"	BLR LR	BC	Foote	Levett	
1944	two	6"	BLR (not installed)		201	Two Lights Mil. Res.	
1944	two	6"	BLR Type2	BC M3	202	Jewell Is. Mil. Res.	
1944	two	6"	BLR	BC	Cravens	Peaks Is. Mil. Res.	
1944	two	16"	BLR M1	BC M4/M5	Steele	Peaks Is. Mil. Res.	

BC	barbette carriage	DC	disappearing carriage	MC	mortar carriage
BLR	breech-loading rifle	LR	long range	MP	masking parapet
BLM	breech-loading mortar	M	model	P	pedestal mount

Appendix 2--Tactical Structures, 1891-1916

structure	date construction	fort	current status
BC Station	1908 concrete	Williams	(destroyed)
BC Station	1908 concrete	Williams	(destroyed)
BC Station	1909 cem/plaster	Williams	(destroyed)
BC Station	1909 cem/plaster	Levett	
BC Station	1909 cem/plaster	Levett	
Cable Tank	1901 conc/wood	Preble	(destroyed)
Cable Tank	1907 conc/wood	McKinley	(destroyed)
Cable Tank	1908 conc/steel	Williams	(destroyed)
Dormitory	1908 cem/plaster	McKinley	
Dormitory	1909 cem/plaster	Levett	(destroyed)
Dormitory	1909 cem/plas	Williams	
Dormitory	1909 cem/plaster	McKinley	
Latrine	1908 cem/plaster	Lyon	(destroyed)
Latrine	1909 cem/plaster	Williams	(destroyed)
Latrine	1909 cem/plaster	McKinley	
Latrine	1909 cem/plaster	McKinley	
Loading Rm	1907 wood	Williams	(destroyed)
Loading Rm	1907 wood	McKinley	
Met Station	1908 cem/plas	Williams	(destroyed)
Met Station	1908 cem/plaster	McKinley	
Met Station	1909 cem/plaster	Levett	
Mine Station	1907 cem/plaster	McKinley	(destroyed)
Mine Station	1908 cem/plaster	Williams	(destroyed)
Mine Station	1908 cem/plaster	Williams	(destroyed)
Mine Station	1909 cem/plaster	Foster	(destroyed)
Mine Station	1909 cem/plaster	Lyon	(destroyed)
Mine Wharf	1909 cement	Williams	(destroyed)
Mine Wharf	1910 wood	McKinley	(destroyed)
Mining Case	1891/03/07 brk/cem	Williams	
Mining Case	1891/02/09 brk/cem	McKinley	
Mining Case	1891/02/07 brk/cem	McKinley	
Mining Case	1920 brick/cem	McKinley	
Obser Bldg	1907 cem/plaster	Preble	(destroyed)
Obser Sta	1900 brick	McKinley	
Obser Sta	1900 brick	McKinley	
Obser Sta	1900 brick	McKinley	
Obser Sta	1900 brick	McKinley	
Obser Sta	1900 brick	McKinley	
Obser Sta	1900 brick	McKinley	
Obser Sta	1900 brick	Williams	
Obser Sta	1900 brick	Williams	(destroyed)

structure	date	construction	fort	comment
Obser Sta	1907	cem/plaster	Williams	(destroyed)
Obser Sta	1908	cem/plaster	McKinley	(destroyed)
Obser Sta	1908	cem/plaster	McKinley	(destroyed)
Obser Sta	1908	cem/plaster	Williams	(destroyed)
Obser Sta	1908	cem/plaster	McKinley	(destroyed)
Obser Sta	1909	cem/plaster	Levett	(destroyed)
Obser Sta	1909	cem/plaster	Levett	(destroyed)
Obser Sta	1909	cem/plaster	Levett	(destroyed)
Obser Sta	1909	cem/plaster	Levett	(destroyed)
Obser Sta	1909	cem/plaster	Levett	(destroyed)
Obser Sta	1909	cem/plaster	Levett	(destroyed)
Obser Sta	1909	cem/plaster	Levett	(destroyed)
Obser Sta	1909	cem/plaster	Peaks	(destroyed)
Obser Tower	1905	wood/steel	Preble	(destroyed)
Peace Mag	1902	brick	Williams	(destroyed)
Power Hse	1905	concrete	Levett	
Power Hse	1905	concrete	McKinley	
Power Hse	1905	concrete	Williams	
Power Hse	1907	concrete	Lyon	
Ser Dyn Rm	1907	wood	Williams	(destroyed)
Ser Dyn Rm	1907	wood	McKinley	
SL Power Hs	1910	concrete	Peaks	
SL Station	1900	wood	Lyon	(destroyed)
Signal Sta	1909	brick	Levett	
Switch Bld	1905	cem/plaster	Williams	(destroyed)
Switch Bld	1908	cem/plaster	McKinley	
Switch Bld	1908	cem/plaster	McKinley	
Switch Bld	1909	cem/plaster	Levett	(destroyed)
Tide Gg Sta	1909	wood	Levett	(destroyed)
Tide Gg Sta	1909	wood	McKinley	(destroyed)
Tide Gg Sta	1909	wood	Preble	(destroyed)
Tide Gg Sta	1909	wood	Williams	(destroyed)
Torpedo SH	1900	brick	Knox	
Torpedo SH	1900	wood	Popham	(destroyed)
Torpdeo SH	1900	wood	Gorges	(destroyed)
Torpedo SH	1908	concrete	Williams	(destroyed)
Torpedo SH	1908	concrete	McKinley	

Appendix 3--Tactical Structures, 1917-1945

structure	date construction	location	current status
Balloon Hanger	1921	steel	Fort McKinley (salvaged)
Balloon Hanger	1921	steel	Fort Williams (salvaged)
Bat Com Sta	1943	concrete	Fort Lyon
Generator Bld	1944	steel	Peaks Island
Generator Bld	1944	steel	Peaks Island
Generator Bld	1944	steel	Jewell Island
Generator Bld	1944	conc block	Long Island
Mine Casemate	1920	concrete	Fort McKinley
Mine Casemate	1944	concrete	Fort Foster
Mine Casemate	1944	concrete	Peaks Island
Mine Obs Sta	1943	concrete	Fort Foster
Mine Obs Sta	1944	concrete	Fort Levett
Mine Obs Sta	1944	concrete	Peaks Island
Obser Tower	1943	concrete	Fort Foster
Obser Tower	1944	concrete	Sister's Pt.
Obser Tower	1944	concrete	Seal Head (destroyed)
Obser Tower	1944	conc/wood	Cape Neddick
Obser Tower	1944	conc/wood	Bald Head (destroyed)
Obser Tower	1944	conc/wood	Moody Beach (altered)
Obser Tower	1944	concrete	Cape Porpoise (destroyed)
Obser Tower	1944	concrete	Fletcher Neck (destroyed)
Obser Tower	1944	concrete	Prouts Neck
Obser Tower	1943	concrete	Two Lights
Obser Tower	1943	lighths	Two Lights
Obser Tower	1921	steel/wd	Trundy Point
Obser Tower	1944	concrete	Trundy Point
Obser Tower	1944	concrete	Fort Levett
Obser Tower	1944	concrete	Fort Levett
Obser Tower	1944	concrete	Fort Levett
Obser Tower	1944	concrete	Peaks Island
Obser Tower	1944	concrete	Peaks Island
Obser Tower	1944	concrete	Long Island
Obser Tower	1935	concrete	Jewell Island
Obser Tower	1944	concrete	Jewell Island
Obser Tower	1944	concrete	Bailey Island
Obser Tower	1944	concrete	Bailey Island
Obser Tower	1944	concrete	Small Point
Obser Tower	1944	concrete	Fort Baldwin
Plot/Swb Room	1944	concrete	Peaks Island
Radar Ops Bld	1944	conc block	Long Island
Radar Ops Bld	1944	conc block	Fort Levett
Radar Ops Bld	1944	steel	Jewell Island (damaged)

structure	date	construction	location	current status
Radar Ops Bld	1944	steel	Peaks Island	(salvaged)
Radar Ops Bld	1944	conc block	Bailey Island	
Radar Tower	1944	steel/con	Fort Williams	(salvaged)
Radar Tower	1944	steel/con	Fort Levett	(salvaged)
Radar Tower	1944	steel/con	Two Lights	(salvaged)
Radar Tower	1944	steel/con	Peaks Is.	(salvaged)
Radar Tower	1944	steel/con	Jewell Is.	(salvaged)
Range Find Sta	1943	concrete	Peaks Is	
Range Find Sta	1943	concrete	Fort McKinley	
Range Find Sta	1943	concrete	Long Island	
Range Find Sta	1943	concrete	Chebeague Is.	
Range Find Sta	1943	concrete	Fort Lyon	
SL/Disappearing	1920	steel/con	Fort Williams	(salvaged)
SL/Disappearing	1920	steel/con	Fort McKinley	(salvaged)
SL/Disappearing	1920	steel/con	Peaks Island	(salvaged)
SL Shelter	1917	concrete	Long Island	
SL Shelter	1920	concrete	Fort Foster	
SL Shel/Powrhs	1936	concrete	Jewell Island	
SL Powerhouse	1920	concrete	Fort Levett	
SL Powerhouse	1920	concrete	Fort McKinley	
SL Powerhouse	1917	concrete	Long Island	
SL Powerhouse	1920	concrete	Peaks Island	
SwBdRm/Protectd	1920	conc/wood	Fort Preble	
SwBdRm/Protectd	1920	conc/wood	Fort McKinley	
SwBdRm/Protectd	1920	conc/wood	Fort McKinley	
SwBdRm/Protectd	1920	conc/wood	Fort Levett	
SwBdRm/Protectd	1920	conc/wood	Fort Williams	

Appendix 4--Non-Tactical Permanent Structures

Structure	Fort Levett no/status	McKinley no/status	Preble no/status	Williams no/status
Administration	1 exist	1 exist	1 exist	1 destroyd
Artillery Engineer SH				1 exist
Barracks	1 destroyd	5/4 exist	2/1 exist	3 destroyd
Barracks--Double		1 exist		1 destroyd
Bachelor Officers Qtrs		1 burned		1 exist
Band Stand		1 exist		3/2 exist
Barracks--Double		1 exist		1 destroyd
Bakery	1 exist	1 exist	1 exist	1 exist
Blacksmith Shop		1 destroyd	1 destroyd	1 destroyd
Bowling Alley		1 exist		
Carpenter/Plumb Shop				1 destroyd
Fire Station	1 exist	1 exist	1 exist	1 exist
Fireman's Qtrs-Dble		1 exist		1 destroyd
Guard House	1 exist	1 exist	1 exist	1 destroyd
Gymnasium		1 exist		1 destroyd
Harbor Defense HDQs				1 destroyd
Hospital	1 exist	1 exist	1 exist	1 destroyd
Hosp Steward's Qtrs	1 exist	1 exist	1 exist	1 destroyd
Militia Storehouse				1 exist
Non-Comm Off Qtrs				3 destroyd
Non-Comm Off Qtrs-Dbl	2 exist	7 exist	3 exist	1 destroyd
Officers Club		1 exist		
Officers Quarters		3 exist	2 exist	4/1 exist
Officers Qtrs-Dble	2 exist	6 exist	3 exist	7 destroyd
Ordnance Machine Shp			1 exist	
Ordnance Storehouse	1 exist	1 exist	1 exist	2 destroyd
Post Exchange		1 exist		1 destroyd
Post Theater		1 burned		1 destroyd
Quartermaster Store Hse	1 exist	1 exist	1 exist	2 destroyd
Schoolhouse		1 exist		
Sentry Box		1 exist		
Stable	1 exist	1 exist	1 destroyd	1 destroyd
US Engineers Store Hse		1 destroyd		1 destroyd
Workshops		1 exist		

THE AUTHOR

Joel W. Eastman was born in Bridgton, Maine, in 1939 and was educated in the public schools of Portland and Buxton, Maine. He attended the University of Maine in Portland and Orono, earning his B.A. in English in 1962 and his M.A. in History in 1965. Eastman received his Ph.D. in United States history from the University of Florida in 1973, serving there as an Interim Instructor of History and Assistant to the Editor of the Florida Historical Quarterly. In 1968, he was appointed to the position of Assistant Editor of the Business History Review at Harvard University after a year as an Instructor of History at Appalachian State University in Boone, North Carolina. In 1970, he was hired as an Assistant Professor of History at the University of Southern Maine, where he has risen to the rank of Professor and served for five years as the chairman of the Department of History.

Professor Eastman is the author, co-author or editor of six books, thirty-one articles, eight reports, nine papers, nineteen book reviews and six successful grant proposals. He has served on four Master of Arts in History thesis committees, serving as chairman of three of them. He has been a consultant on a number of public and private historical projects and has lectured widely to historical and civic groups. He has served as trustee and vice president of both the Maine Historical Society and Greater Portland Landmarks. Eastman is listed in Contemporary Authors and the Directory of American Scholars.

Eastman's interest in the history of the coast defenses of modern Maine was first sparked when he was appointed to a committee to evaluate Battery Steele, a 16 inch World War II gun battery on Peaks

Island which had been offered to the University of Southern Maine. He began conducting research on the topic shortly thereafter, locating local source material and interviewing veterans who had served in the 240th Coast Artillery Regiment of the Maine National Guard and the 8th Coast Artillery Regiment. This research led to a series of public lectures, walking tours and articles, an hour-long television documentary, and consulting work with the public owners of several of the sites, including Fort Preble, Fort Williams, Jewell Island and Two Lights. During the years 1983 to 1987, he supervised the research and writing of a Master's thesis on the harbor defenses of Portland. In 1987 and 1988, he was awarded university research grants to fund trips to the National Archives in Washington, D.C.

Selected Publications and Projects

"Fort Preble: An Overlooked Landmark." Greater Portland Landmarks Observer, July-August, 1983, pp. 6-7.

"Who Will Fight for Fort Gorges?" Greater Portland Landmarks Observer, April-May, 1984, pp. 6-7.

A Guide to Fort Scammel, 1808. Portland: Maine Historical Society, 1984. 2 page folder.

"Fort Scammel Changes with the Times." Greater Portland Landmarks Observer, September-October, 1984, pp. 8-9.

"The Guns of Casco: Twentieth Century Fortifications of Portland Harbor." Island Journal, 5(1987), 15-17.

"Portland at War--Deciphering Casco Bay's Elaborate Defense System." Portland Monthly, July-August, 1987, pp. 12-16, 22.

Co-author with Donna J. McKinnon, A Guide to Fort Preble, 1808-1950. South Portland: Southern Maine Vocational-Technical Institute, 1981. 2 page folder.

Historical Markers

Reviewed text for historical markers for the City of South Portland's Shoreway Project at Fort Preble, 1982. Funded by a grant from U.S.

Housing and Urban Development Department.

Researched data for building identification signs for surviving military buildings at Southern Maine Vocational-Technical Institute (formerly Fort Preble), and prepared text for a bronze marker for a Coast Artillery Memorial at SMVTI, 1982-1983.

Researched and wrote text for historical markers at Fort Williams Park, Cape Elizabeth, Maine, 1985. Funded by a grant from UNUM Corporation.

Television Productions

"Never in Anger: The Forts of Portland." Writer, co-producer and on-camera host of an hour-long documentary produced by the Cable Television Consortium, 1987. Broadcast on Greater Portland area cable television systems, August, 1987, and on the Maine Public Broadcasting Network, December, 1987.

Consulting

City of South Portland and Southern Maine Vocational-Technical Institute in regard to Fort Preble, 1982- .

Town of Cape Elizabeth, Fort Williams Park, 1984- .

Maine Parks and Recreation Commission in regard to the military sites at Jewell Island and Two Lights, 1985- .

Local Arrangements Chair, Annual Meeting of the Coast Defense Study Group, August 14-17, 1986, *SMVTI, South Portland.

Spring Point Museum, in regard to exhibit on Fort Preble, 1988.

Major Lectures

"The Forts of Modern Maine." Last in a series of lectures on the history of Maine forts sponsored by the Maine Historical Society, April 23, 1980.

"Fort Preble, 1808-1945." Illustrated lecture at Spring Point Festival, South Portland, June 26, 1982.

"Fort Scammel, 1808-1917." Illustrated lecture at the Annual Meeting of the Maine Historical Society, Portland, Maine, June 9, 1984.

"The Forts of Maine during the Civil War." Illustrated lecture presented before the Civil War Round Table, Brunswick, October 23, 1986.

"Casco Bay during World War II." Illustrated lecture presented as part of a series on Maine in the twentieth century sponsored by the Maine Historical Society, April 19, 1988.

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