

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form 2280



This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: Round Island Passage Light
Other names/site number: _____
Name of related multiple property listing: Light Stations of the United States

(Enter "N/A" if property is not part of a multiple property listing)

2. Location

Street & number: Round Island Passage Channel
City or town: Mackinac Island State: Michigan County: Mackinac
Not For Publication: Vicinity:

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this X nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property X meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___ national ___ statewide X local

Applicable National Register Criteria:

X A ___ B X C ___ D

Signature of certifying official/Title: _____		Date
<u>United States Coast Guard</u> <i>[Signature]</i> CG FPO		<u>17 April 2013</u>
State or Federal agency/bureau or Tribal Government		

In my opinion, the property <u>X</u> meets ___ does not meet the National Register criteria.	
Signature of commenting official: _____	
<i>[Signature]</i>	
Title: <u>MI SHPO</u>	Date: <u>5/16/13</u>
State or Federal agency/bureau or Tribal Government	

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4. National Park Service Certification

I hereby certify that this property is:

- entered in the National Register
- determined eligible for the National Register
- determined not eligible for the National Register
- removed from the National Register
- other (explain:)


Signature of the Keeper

8/7/2013
Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

- Private:
- Public – Local
- Public – State
- Public – Federal

Category of Property

(Check only **one** box.)

- Building(s)
- District
- Site
- Structure
- Object

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Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
_____	_____	buildings
_____	_____	sites
<u>1</u>	_____	structures
_____	_____	objects
<u>1</u>	<u>0</u>	Total

Number of contributing resources previously listed in the National Register 0

6. Function or Use

Historic Functions

(Enter categories from instructions.)

Transportation
Water-related

Current Functions

(Enter categories from instructions.)

Transportation
Water-related

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7. Description

Architectural Classification

(Enter categories from instructions.)

No style

Materials: (enter categories from instructions.)

Principal exterior materials of the property: Wooden crib foundation, reinforced concrete pier, steel superstructure.

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Round Island Passage Light is an offshore lighthouse in Mackinac County, Michigan. It was established in 1948 to mark the navigation channel between Mackinac Island and Round Island in Lake Huron. This property includes an underwater wooden crib foundation, a rectangular concrete pier that rises to approximately 10 feet above water level, and a steel superstructure approximately 60 feet tall. The superstructure includes a rectangular first story and a flat-roofed octagonal light tower. A row of 1.5-foot tall by four-foot wide windows surrounds the tower near the roof. Four sides of the tower below the windows include an attached plaque representing the profile of *Petoskey (Petosegay)*, a famous Michigan Native American. The lighthouse's concrete pier and light tower are painted white. The superstructure's rectangular first story and four built-in access ladders on the concrete pier are painted red. This lighthouse is owned by the U.S. Coast Guard and identified as number 12580 on the Great Lakes light list. It is equipped with a modern automated beacon mounted atop the tower roof that signals a flashing red light visible for 11 miles in clear weather. The lighthouse is also equipped with a RACON radar beacon and an automated fog signal. All three aids to navigation are powered by batteries charged using a solar array. The Round Island Passage Light retains structural integrity and is largely unchanged in appearance since its original construction. It is accessible by water and is not open for public visitation.

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Narrative Description

The Round Island Passage Light is located in northwestern Lake Huron near the Straits of Mackinac. It sits in 26 feet of water on the northern side of Round Island Passage between Mackinac Island and Round Island in Mackinac County, Michigan. This lighthouse is owned by the U.S. Coast Guard and was established as a Federal aid to navigation in 1948. It is identified as number 12580 on the Great Lakes Light List. The Round Island Passage Light is accessible by water and is not open for public visitation.

This lighthouse structure includes a wooden crib foundation, reinforced concrete pier, and a steel superstructure. The crib foundation is rectangular and is approximately 80 feet long on each side by 26 feet tall. It is constructed of heavy timbers and was assembled on land, towed to the site and sunk, and then filled with rock and concrete. A concrete slab atop the crib supports the lighthouse's rectangular pier, which rises to an elevation approximately 10 feet above water level. The pier's sides are oriented north-south and east-west. It is painted white. A steel mooring bollard is mounted at each of its four corners near the water level. The pier's rising sides slope inward at approximately a 45-degree angle as they rise to the pier's deck from each of these corners. The pier's four sides between the sloping faces are vertical and triangular in configuration. A steel rung ladder is built into a 1.5-foot wide recessed vertical channel at the center of each vertical side. These four ladders are painted red. The pier is topped with a rectangular concrete deck 41 feet long on each side. The deck is bounded by concrete parapet walls that are three feet tall, 34 feet long, and 1.5 feet thick. A three-foot wide gap between the parapet walls at each corner provides an opening for the pier's access ladders.

The lighthouse's basement is inside the concrete pier and includes three rooms. Its ceiling is 13.5 feet above the floor. The basement's floor, walls, and ceiling are concrete. The central room measures 43 feet long east-west by 30 feet wide north-south. Four 2-foot by 2-foot concrete columns support the superstructure above. The floor includes a center drain and low concrete pedestals that formerly supported machinery or tanks. A steel stairway with 20 steps and pipe handrails leads to the superstructure's first story, directly above. The other two rooms are on the basement's northern side. The northwestern one is 33 feet long east-west by 11 feet wide north-south. The concrete wall separating it from the central room is one foot thick and is fitted with a steel door. Electrical cables and panels are attached to the room's outer wall as well as inside. The basement's third room is in the northeastern corner. It measures 10.5 feet wide east-west by 17.5 feet long north-south. The door formerly fitted to its entry has been removed. The northeastern room includes a circular well opening in the floor that is surrounded by a rectangular concrete collar 40 inches long on each side by six inches tall. It is capped with a circular steel cover 30 inches in diameter. The room's floor includes two rectangular concrete pedestals that are one foot tall and approximately 1.5 feet long on each side. These formerly supported machinery or tanks.

The lighthouse's five-story superstructure is centered atop the concrete pier and rests on a concrete platform approximately nine inches tall. It is surrounded on all sides by 8.5 feet of open deck space. The superstructure is approximately 60 feet tall and is built with a steel beam

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framework clad with welded steel plates. Its first story is 20 feet long by 20 feet wide by 10 feet tall. The rectangular first story is painted red. It has a flat roof that measures 22.5 feet long on each side. A solar array is mounted atop the roof's southern side and a modern automated fog signal stands atop its western side. The fog signal operates from May to October. The solar array charges batteries that power the lighthouse's aids to navigation.

The lighthouse's five-story light tower rises from the center of the first story roof. It is octagonal, 12 feet in diameter, and has a flat roof. The tower is painted white. It holds a row of rectangular glass windows that piece each of its eight sides just below the roof. These eight windows are each 1.5 feet tall by four feet wide. Below this row of windows, four identical bronze bas relief plaques painted black are attached to four sides of the tower's exterior. These plaques display the profile of *Petoskey (Petosegay)*, a prominent nineteenth century Native American who lived in the northern part of Michigan's Lower Peninsula.

The light tower's roof is bounded by an octagonal guard rail that is painted white. It is made with four rows of horizontal steel slats welded to steel posts. The property's signal light is mounted on a steel platform centered atop the roof. It is a modern automated VRB-25 marine beacon that displays a flashing red light that is visible for 11 miles in clear weather. Its focal plane is 71 feet above water level. A RACON radar beacon is mounted above the guard rail on the roof's southern side. It automatically signals the lighthouse's designated identifier, the letter **X** in Morse code, when an approaching vessel's radar is detected.

The superstructure's first story interior is accessed from the pier deck through a two-leaf steel door on the northern side. This doorway is approximately nine feet wide. There is a circular port-light 18 inches in diameter to the left of the doorway and another to the right. The first story's other three sides are each pierced with identical port-lights, two on each side. The first story's interior floor is concrete and the ceiling is 10 feet above. The walls and ceiling are made with steel beams and plates. Non-original wood-frame partition walls enclose an added room inside the first story. This room is nine feet wide east-west by 13.5 feet long north-south by eight feet tall. It is vacant except for an electrical panel and wiring on a wall and florescent light fixtures.

A steel stairway with pipe handrails leads from the first story down to the basement. Additional access to the basement is provided by a rectangular hatch with a steel cover. A rectangular opening in the first story's ceiling provides access to the light tower, above. It is accessed by a steel ladder attached to one wall of the added wood-frame room. A steel stairway that formerly led up to this ceiling opening has been removed.

The superstructure's second story is octagonal and is the light tower's lowest room. A steel plate partition wall with a steel door separates the second story room from the floor opening to the first story. The second story room is approximately 7.5 feet long by eight feet wide by eight feet tall. A small steel door approximately two feet wide by three feet tall pierces the exterior wall on the northeastern side. It provides access to the first story's roof. A steel ladder on the room's eastern side rises from the floor through an opening in the ceiling. This provides access to the third story.

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The third story room is 12 feet in diameter with its ceiling eight feet above the floor. It is vacant except for a steel ladder on the northern side. This ladder rises continuously upward all the way to the tower's highest room, and provides access to each of the tower rooms in between. The fourth story room is also 12 feet in diameter with a ceiling eight feet above the floor and is vacant. A 17-inch diameter circular opening on the eastern wall and an identical one on the western wall have both been covered with steel plates. The fifth story room is 12 feet in diameter with its ceiling 10 feet above the floor. It is also vacant.

The superstructure's sixth story is the highest room in the light tower. It is octagonal and 12 feet in diameter. Its ceiling is six feet, nine inches above the floor. A 1.5-foot tall by four-foot wide steel sash window pierces each of the lantern room's eight sides. These windows are hinged at the bottom. The latches for opening them are at the top.

An original steel ladder provides access from the sixth story room to the light tower roof through a rectangular hatch in the ceiling. This hatch is directly above the opening for the continuous ladder that rises from the third story. A second, newer rectangular hatch has also been installed in the sixth story ceiling. It provides access to the roof using a portable folding ladder.

The Round Island Passage Light's structural character today is virtually the same as when it was first commissioned in 1948. Its foundation, pier, and superstructure have not been altered. The changes that have been made relate to the property's day mark coloration, equipment, and interior fixtures.

The lighthouse's original appearance is shown in the enclosed historic photograph (see continuation sheet). Its 1948 day mark was all white from top to bottom. This continued until 1968 when the superstructure's rectangular first story was painted red. Since then, the lighthouse's day mark has been a white tower above a red base above a white pier.

Another original feature was a 41-foot tall skeletal tower that stood atop the light tower's roof. This supported the antenna for the property's radiobeacon which transmitted a signal used for identifying and determining direction to the lighthouse. The lighthouse's radiobeacon was discontinued in 1993. The skeletal tower atop the roof remained in place until the early 2000s when it was removed.

The lighthouse's interior structure remains generally the same as when originally built, though there have been changes to its equipment and fixtures. The lighthouse's original 1948 beacon consisted of seven sets of five General Electric sealed beam lamps arranged horizontally. One set was mounted at each window except for the northern window facing Mackinac Island. The original beacon array signaled a green light. It was discontinued in 1959 and replaced with a red beacon mounted atop the light tower roof. The lighthouse's original fog signal included air compressor equipment located in the basement that was connected to a diaphragm horn mounted atop a steel pole at the pier deck's southeastern corner. This diaphragm fog signal was removed and replaced with modern equipment. The existing fog signal is powered by electricity and

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mounted atop the superstructure's first story roof. The property's original radiobeacon included a radio transmitter in the light tower's fifth story room. This was removed when the radiobeacon was discontinued. A RACON radar beacon was installed atop the light tower in 1984 and remains in use today. The lighthouse was originally powered using an electrical cable that extended from Mackinac Island. This has been removed. The property's existing aids to navigation are powered by batteries recharged using a solar array.

The lighthouse's interior fixtures remain largely unchanged from when it was built, though there have been some changes. One was the addition of a wood-framed room inside the rectangular first story. Another first story change was removal of the steel stairway that originally rose to the light tower's lowest room. It was identical to the existing stairway that extends between the first story and the basement. The removed stairway has been replaced by a steel ladder attached to a wall of the added first story room. Another change was installation of a second roof hatch in the light tower's sixth story ceiling. This provides additional access to the roof.

The Round Island Passage Light was formerly operated by USCG personnel stationed in a control house at the southern tip of Mackinac Island, approximately 0.25 mile northwest of the lighthouse. It was constructed at the same time as the lighthouse and was a one story, gable roof building with a stone chimney, clapboard siding, and six-over-six double-hung sash windows. The control house was approximately 20 feet long by 15 feet wide, and was painted white with black window shutters. It contained equipment for operating the lighthouse's beacon light, fog signal, and radiobeacon. Control and power cables ran underwater between them. The control house was designated excess property after the Round Island Passage Light was automated in 1973 and was subsequently disposed.

The overall exterior and interior characteristics of the Round Island Passage Light remain the same as when it was originally established in 1948. The changes that have occurred relate largely to the lighthouse's coloration, equipment and fixtures, and are reversible. The property's offshore location and setting remain essentially unaltered as well. Mackinac Island to the north retains its historic character, and the nineteenth century Round Island Lighthouse to the south continues standing in its original position.

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8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B. Property is associated with the lives of persons significant in our past.
- C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D. Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

- A. Owned by a religious institution or used for religious purposes
- B. Removed from its original location
- C. A birthplace or grave
- D. A cemetery
- E. A reconstructed building, object, or structure
- F. A commemorative property
- G. Less than 50 years old or achieving significance within the past 50 years

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Areas of Significance

(Enter categories from instructions.)

Maritime History

Transportation

Engineering

Period of Significance

1948 to 1963

Significant Dates

1948

Significant Person

(Complete only if Criterion B is marked above.)

Cultural Affiliation

N/A

Architect/Builder

U.S. Coast Guard, Ninth District

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Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Round Island Passage Light is significant in the local history of Mackinac County, Michigan and is eligible for listing in the National Register of Historic Places under Criteria A and C. It is significant under Criterion A for its association with Federal efforts to provide for an integrated system of navigational aids throughout the United States. This property also qualifies for National Register listing under Criterion C because it embodies and exemplifies distinctive aspects of architectural design and engineering characteristic of steel tower lighthouses built on crib and pier foundations in the Great Lakes circa the middle twentieth century. The Round Island Passage Light's period of significance begins in 1948 when it was established as a Federal aid to navigation and ends in 1963, the most recent year of its operation 50 years before the present. This property retains integrity in terms of location, setting, design, materials, workmanship, association, and feeling. It is a well-known and widely recognized Mackinac County historical landmark.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

Significance under Criterion A

The Round Island Passage Light is eligible for listing in the National Register of Historic Places (NRHP) under Criterion A for its association with local events in Mackinac County related to Federal efforts to provide for an integrated system of navigational aids throughout the United States. This lighthouse exemplifies how the Federal government's program was manifested in Michigan state waters. The Round Island Passage Light has been important to Great Lakes maritime commerce since it was established as an aid to navigation in 1948. It has guided mariners and enhanced navigational safety in northwestern Lake Huron and the Straits of Mackinac vicinity for more than 50 years. This lighthouse has assisted in the safe passage for thousands of ships and remains an operating Federal aid to navigation today. The Round Island Passage Light is historically significant because of its contribution to the broad historical patterns of maritime transportation and commerce in Mackinac County. It is a well-known and widely recognized historical landmark.

Significance under Criterion C

This property also qualifies for NRHP listing under Criterion C. The Round Island Passage Light embodies and exemplifies distinctive aspects of architectural design and engineering characteristic of steel tower lighthouses built on crib and pier foundations in the Great Lakes circa the middle twentieth century. This structure retains integrity in terms of

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location, setting, design, materials, workmanship, association, and feeling. Its good state of preservation attests to the durable and weather-resistant character of the materials used and construction methods, as well as the lasting success of its design and appropriateness to this natural setting. The appearance and character of the Round Island Passage Light remains essentially the same as during the property's 1948 to 1963 period of historical significance. Changes made to this lighthouse have been limited and are largely related to fixture modifications, replacement of obsolete equipment, and a change to its original day mark coloration. These changes do not significantly detract from the property's historic character and are largely reversible.

Regional and Local Historical Context

This NRHP registration form is submitted as an individual listing under the overarching *Light Stations of the United States* multiple property documentation form (MPDF). The specific historic context that applies is *Lighthouses under the U.S. Coast Guard (1939-present)*. The property type sections of the MPDF relating to this registration are *U.S. Lighthouse Construction Type – Non-cast-iron Tower*, and *Foundation Type – Crib Foundation*. Information and historic contexts available in the *Light Stations of the United States* MPDF are not repeated here. This submission emphasizes facts and details supporting the historical significance of the Round Island Passage Light as an individual property.

This property's Great Lakes regional setting includes Lakes Superior, Michigan, Huron, Erie, and Ontario, along with their connecting waters and the St. Lawrence River. This is one of the largest concentrations of fresh water on earth. It encompasses a waterway system having a total shore length of approximately 11,000 statute miles and a total water surface area of about 95,000 square miles. Round Island Passage Light is situated offshore of Michigan's Upper Peninsula (U.P.) in northwestern Lake Huron, near the Straits of Mackinac. This setting is characterized by a natural feature important to twentieth century maritime trade, Round Island Passage. It is the channel between Mackinac Island and Round Island, and lies along the most direct shipping route between ports along Lake Superior and Lake Michigan ports.

The historical context of Round Island Passage and its vicinity is directly related to its strategic location near the Straits of Mackinac, the narrows that separates Lake Michigan from Lake Huron, and Michigan's Upper and Lower Peninsulas. During prehistoric times, Native American groups were able to exploit a variety of subsistence resources in the straits area and conduct trade facilitated by waterborne transport.

The first Europeans to visit the Round Island Passage vicinity were seventeenth century French Canadian explorers and fur traders. Jesuit missionaries soon followed. They established their first mission in the Straits area at St. Ignace on the U.P. shore near Mackinac Island. During the early eighteenth century, the French constructed Fort Michilimackinac on the northern tip of Michigan's Lower Peninsula at the Straits. It soon became an important center for fur trading and other commerce. Rivalry between France and Great Britain during the middle

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eighteenth century led to warfare in North America. The subsequent British victory resulted in the loss of French control over Canada and the Great Lakes.

British forces occupied Fort Michilimackinac in 1761. Tensions involving the region's Native Americans led to the 1763 outbreak of Chief Pontiac's rebellion during which the fort was captured. The British regained control a year later. During the American Revolution in 1780 to 1781 they decided to relocate their military presence to Mackinac Island where they established Fort Mackinac. The 1783 Treaty of Paris that closed the American Revolution included the cession by Britain to the United States of a large portion of the Great Lakes region known as the Northwest Territory. This included the Upper and Lower Peninsulas of Michigan, along with Mackinac Island, Round Island, and others in the Straits vicinity.

Mackinac Island was strategically located for controlling movement through the Straits of Mackinac, and during the early nineteenth century grew in economic importance as a center for the fur trade and other commerce. It was also located far from the main populated areas of the United States and dangerously near to British Canada. Following the outbreak of the War of 1812, British forces captured Fort Mackinac and held it until after peace was restored by the 1814 Treaty of Ghent. After being returned to U.S. control, Mackinac Island and its fur trading industry flourished. Eventually, resource depletion led to the main focus of fur trapping and trading activities being relocated westward to the Rocky Mountains.

Elsewhere in the Great Lakes region following the War of 1812, the U.S. government worked to secure land ownership through a series of treaties with Native American tribes. The 1836 Treaty of Washington involving Chippewa and Ottawa Native Americans in Michigan transferred ownership of a vast area, including the Upper Peninsula (U.P.), to the Federal government.

As the Great Lakes region's vast lands were opened to settlement and development, economic and population growth increased. During the first half of the nineteenth century, most of this activity was distributed across the Lower Peninsula of Michigan and in Wisconsin, Illinois, Indiana, and Ohio. The 1840s discovery in Michigan's Upper Peninsula of rich iron ore deposits in the Marquette Range and the beginning of the U.P.'s copper mining industry in the Keweenaw Peninsula began a sustained period of settlement expansion and economic development along northern Michigan's Lake Superior shore. The only reliable means for the mass transport of people and goods in this area during those times was aboard vessels navigating between Sault Sainte Marie at the eastern end of the U.P. and ports to the west. This maritime traffic expanded through time, especially after the St. Mary's Falls Ship Canal (the Soo Locks) opened at Sault Ste. Marie in 1855. The ship canal allowed vessels to navigate between Lake Huron and Lake Superior, and led to increasing vessel traffic along the shipping route between Lake Michigan and the mouth of the St. Mary's River. The most direct navigation route between Lake Superior and Lake Michigan is through Round Island Passage, the channel separating Mackinac Island and Round Island.

From the second half of the nineteenth century to the middle twentieth century, the Great Lakes region was characterized by substantial growth in commerce and population. The lumber

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industry accounted for a major part of the early development and expansion of marine traffic. In addition, the large-scale development of iron ore production in Michigan's Upper Peninsula, northern Wisconsin, and Minnesota, as well as grain from farms and flour from mills in the Midwest and northern Great Plains, furnished cargoes carried aboard vessels bound for the lower Great Lakes. These shipments corresponded with the heavy up-bound movement of coal and manufactured goods from ports in the lower lakes.

By 1910, the amount of goods shipped annually on the Great Lakes increased to 80 million tons. Most of this was bulk cargo such as iron ore and coal. Shipped freight tonnage reached a record of 217 million tons in 1948. The combined movement of lumber, grain, flour, iron ore and coal, together with limestone cargoes from the Lake Michigan area to centers of steel production, resulted in the greatest bulk freight marine commerce the world had ever seen. With the opening of the St. Lawrence Seaway in 1959, the industrial and agricultural heartland of North America became accessible to deep-draft oceangoing vessels navigating the Great Lakes. In addition, barge and small craft traffic reaches the Great Lakes from the Gulf of Mexico via the Mississippi River and the Illinois Waterway, as well as from the Hudson River by way of the New York State Barge Canal System.

The need for aids to navigation on the Great Lakes increased with the expansion of shipping relating to the growth of settlement and commerce. Seven lighthouses were built in the region between 1818 and 1822, and 32 were completed during the 1830s. From 1841 to 1852, the U.S. Lighthouse Establishment added 33 new lights. Between 1852 and 1860, the total number of Great Lakes aids to navigation increased from 76 to 102.

A lighthouse was established on Bois Blanc Island in 1829, approximately 10 miles east of Round Island Passage. A number of additional aids to navigation including lightships and buoys were subsequently established in the Straits area with additional lighthouses being built from the 1870s to the early 1900s. These include Round Island Light which was established in 1894 to mark the south side of Round Island Passage. By the beginning of the twentieth century, the Great Lakes had 334 major lighted aids, 67 fog signals, and 563 buoys.

Several distinct designs or types of lighthouses were constructed in the Great Lakes region during the nineteenth century. Until 1870 or so, the most common design consisted of a wood, stone, or brick keeper's dwelling that exhibited the lighthouse's optic in a lantern on the roof or atop an attached square tower. By the 1870s, taller towers that were connected to a keeper's dwelling by an enclosed passageway became popular. From 1870 to around 1910, lighthouse engineers practiced and perfected the construction of light stations built on isolated islands and atop submerged reefs and shoals.

The wooden crib design concept was used for the construction of lighthouses on submerged land in the Great Lakes region from the middle nineteenth century through the middle twentieth century. This included lights built on piers that extended into the lakes from shore, as well as offshore lights. The crib type of construction involved assembling a massive wooden box (crib) onshore using heavy timbers. These were tall enough to reach the water's surface at the designated offshore location. The cribs included several open-top compartments. When

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completed, a crib was towed to its designated location and sunk using ballast. Additional ballast and concrete were added to stabilize and strengthen the structure.

The superstructures of lighthouses built on piers in the Great Lakes region also went through an evolution in design and technology. The earlier ones were built of wood, but this material deteriorated over time. Cast iron came into widespread use for building U.S. lighthouses during the middle nineteenth century. Cast iron lighthouse structures were commonly built from parts manufactured to specification at a foundry and sent to the designated site as a prefabricated kit for onsite assembly. Steel products to build structures became available for lighthouse construction during the late nineteenth century. The expansion of mass production steel mills in the United States through time led to a decline in the cost of steel as a building material. By the 1920s, the cost versus benefit ratio for building a structure using steel instead of cast iron led to the adoption of steel as the preferred material for constructing both pier and offshore lighthouses.

History of the Round Island Passage Light

The amount of commercial shipping traversing the Straits of Mackinac and Round Island Passage increased substantially during the period from the 1860s to 1900. So did incidents of collision, stranding, and shipwreck in the vicinity. Federal government activity to promote maritime safety included the establishment of Round Island Light in 1894. Other Federally funded navigation improvements were undertaken by the U.S. Army Corps of Engineers (USACE). This included the construction of breakwaters to shelter Mackinac Island's harbor.

The Round Island Passage navigation channel used by commercial shipping is approximately midway between Mackinac Island and Round Island. The channel's northern edge adjoins shallow water hazardous to vessels, and buoys were used initially for marking its boundaries.

By the early 1940s the U.S. Coast Guard determined that a permanent lighthouse should be constructed to mark Round Island Passage's northern limit. The Round Island Passage Light was designed to be operated remotely from Mackinac Island. Construction of the new lighthouse began in 1947 and included building a control house at the island's southern tip. Control and power cables extended underwater to the offshore structure. The onshore control house eliminated the need for personnel to be continually stationed at the offshore lighthouse itself.

Round Island Passage Light was commissioned on 15 April 1948. The entire structure was painted white from top to bottom and a 41-foot tall skeletal tower stood atop its light tower. The lighthouse was equipped with a beacon light, fog signal, and radiobeacon. Its light was an array of sealed beam lamps mounted in horizontal sets of five inside the narrow windows at the light tower's top. This array flashed a green signal that was visible for 16 miles in clear weather. The lighthouse's diaphragm fog signal operated using compressed air provided by machinery located in the basement inside the concrete pier. Its horn was mounted on a vertical pole affixed to the pier deck's southeastern corner. The radiobeacon transmitted a distinctive signal that identified the lighthouse and enabled vessels or aircraft to determine direction to the lighthouse

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from their position. The fog signal and radiobeacon were also operated in tandem to serve as a distance-finding station by synchronizing a radio signal transmission with a fog horn blast. The crew of an approaching vessel could determine its distance from a lighthouse by timing the seconds between the instantaneous radio signal and hearing the sound of the fog horn. Dividing the number of seconds by five provided the distance in statute miles to within an error of approximately ten percent.

Through time, the Coast Guard made modifications to Round Island Passage Light's aid to navigation (AtoN) equipment. This was done in response to advances in technology and changes in AtoN policy. The lighthouse's beacon characteristic was changed from green to a flashing red light in 1959 to conform with the "red-right-return" rule, meaning that a vessel must keep red-colored AtoNs on its right-hand side when returning to port or during a Great Lakes down-bound voyage from an upper lake towards a lower one.

The lighthouse's radiobeacon distance-finding system was discontinued in 1962, although the radiobeacon remained in operation as a marker that transmitted a distinctive signal that served to identify the lighthouse. The widespread adoption of radar units aboard commercial vessels following World War II made the previous distance-finding system obsolete. Radar provided the capability for identifying the presence of features as well as determining distance to them.

The distinctive day mark coloration of Passage Island Light remained all white until 1968. In that year it was changed to a white light tower above a red rectangular base atop a white pier. The replacement day mark has remained characteristic of Round Island Passage Light to the present day.

The Round Island Passage Light was automated in 1973. This meant that its AtoN equipment was henceforth operated without human intervention, making the control house on Mackinac Island no longer necessary. The control house was shut down and subsequently disposed.

A RACON radar beacon was installed atop the light tower's roof in 1984. It automatically transmits the Morse code letter "X" when an approaching vessel's radar is detected, thus communicating the lighthouse's identity and location to the receiving vessel. The lighthouse's radiobeacon was discontinued in 1993. Its usefulness had been superseded by the RACON. The skeletal tower atop the light tower which supported the radiobeacon's antenna was removed during the early 2000s. The Round Island Passage Light's existing modern automated VRB-25 beacon is powered by batteries recharged using a solar array. Its flashing red signal is visible for 11 miles in clear weather. The lighthouse's modern automated fog signal operates from May to October.

Today, the Round Island Passage Light remains standing in its historical location adjoining the shipping channel between Mackinac Island and Round Island. Its basic structure, appearance, and setting remain essentially unchanged from the property's 1948 to 1963 period of historical significance. This lighthouse continues to fulfill its original role of aiding mariners to

Round Island Passage Light
Name of Property

Mackinac County, MI
County and State

safely navigate Round Island Passage. It stands as a prominent Mackinac County landmark near the entry to Mackinac Island harbor. This distinctive property serves as a lasting reminder of the role that Mackinac Island has played in Great Lakes maritime commerce, and evokes feelings that recall the dedication to duty characteristic of lighthouse keepers in American history.

9. Major Bibliographical References

Hyde, Charles K. 1995. *Northern lights: lighthouses of the Upper Great Lakes*. Detroit: Wayne State University Press.

Pepper, Terry. 2007. Round Island Light, Mackinac Straits, Michigan. Available on the internet at: < <http://terrypepper.com/lights/huron/roundisland/index.htm> >.

Northern Michigan University. 2013. A chronology of Great Lakes navigation. Available on the internet at: < <http://www.nmu.edu/upperpeninsulastudies/node/63> >.

U.S. Geological Survey. 1964, photorevised 1976). *Round Island, Mich. 7.5' quadrangle topographic map, scale 1:24,000*. Washington: U.S. Geological Survey.

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____
- recorded by Historic American Landscape Survey # _____

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository: U.S. Coast Guard Civil Engineering Unit Cleveland, Cleveland, Ohio; U.S. Coast Guard Historian's Office, USCG Headquarters, Washington, DC; U.S. National Archives, Washington DC.

Historic Resources Survey Number (if assigned): _____

Round Island Passage Light
Name of Property

Mackinac County, MI
County and State

10. Geographical Data

Acreeage of Property Less than one (1) acre.

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates

Datum if other than WGS84: _____

(enter coordinates to 6 decimal places)

- | | |
|--------------|------------|
| 1. Latitude: | Longitude: |
| 2. Latitude: | Longitude: |
| 3. Latitude: | Longitude: |
| 4. Latitude: | Longitude: |

Or

UTM References

Datum (indicated on USGS map):

NAD 1927 or NAD 1983

- | | | |
|-------------|-----------------|-------------------|
| 1. Zone: 16 | Easting: 685175 | Northing: 5079145 |
| 2. Zone: | Easting: | Northing: |
| 3. Zone: | Easting: | Northing: |
| 4. Zone: | Easting : | Northing: |

Verbal Boundary Description (Describe the boundaries of the property.)

The lighthouse's boundary is the exterior limit of its crib foundation.

Boundary Justification (Explain why the boundaries were selected.)

The property's boundary encompasses the footprint of the lighthouse structure.

Round Island Passage Light
Name of Property

Mackinac County, MI
County and State

11. Form Prepared By

name/title: Daniel Koski-Karell, Ph.D., USCG Office of Environmental Management
organization: United States Coast Guard (COMDT CG-47)
street & number: 2100 Second Street SW – STOP 7901
city or town: Washington state: DC zip code: 20593-7901
e-mail: daniel.a.koski-karell@uscg.dhs.gov
telephone: 202-475-5683
date: 11 April 2013

Additional Documentation

Submit the following items with the completed form:

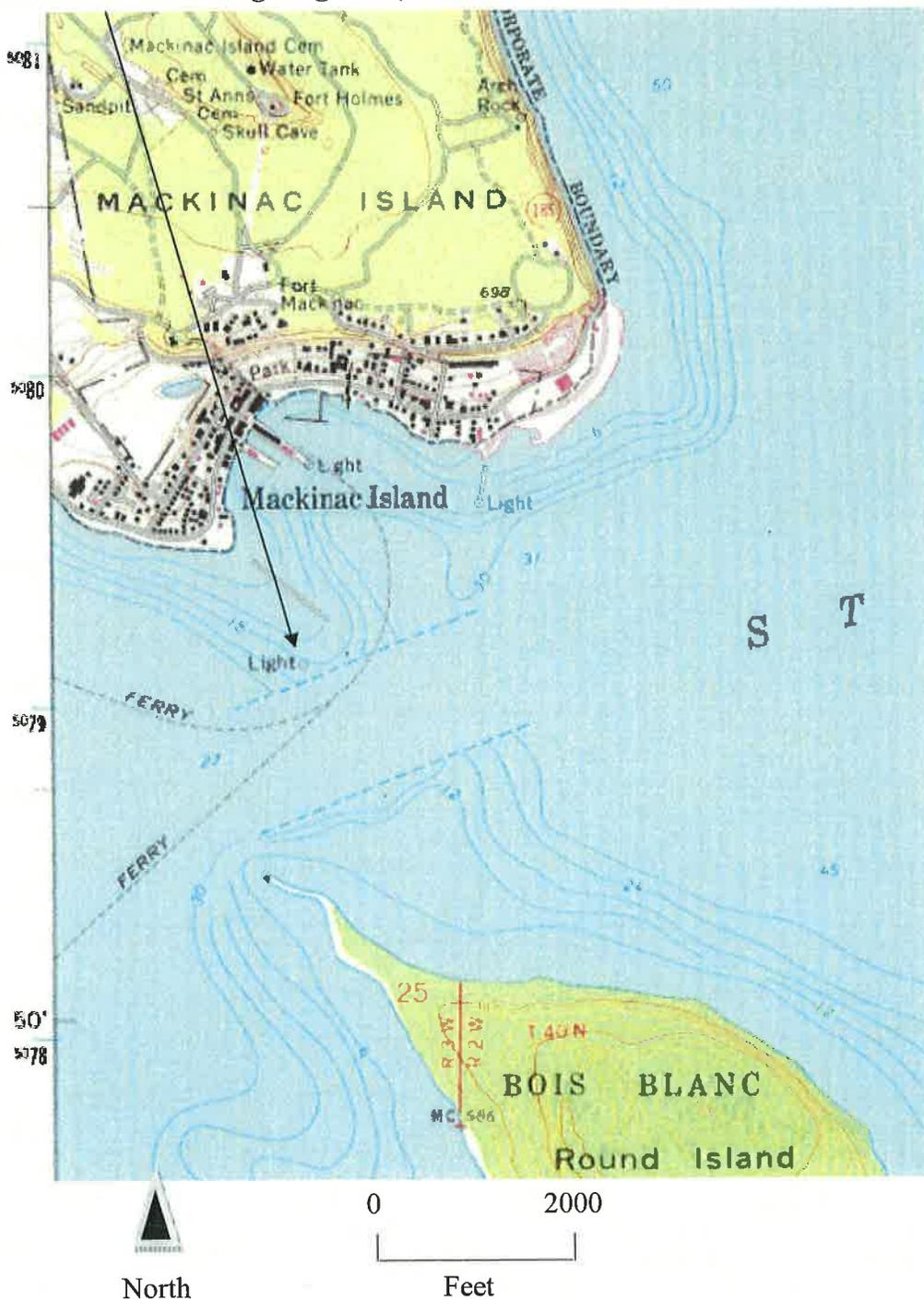
- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

Round Island Passage Light
Name of Property

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Location Map: This is a portion of the *Round Island, Mich. 7.5'* quadrangle topographic map (U.S. Geological Survey 1964, photorevised 1976).

Round Island Passage Light (UTM Zone 16 / Easting 685175 / Northing 5079145)

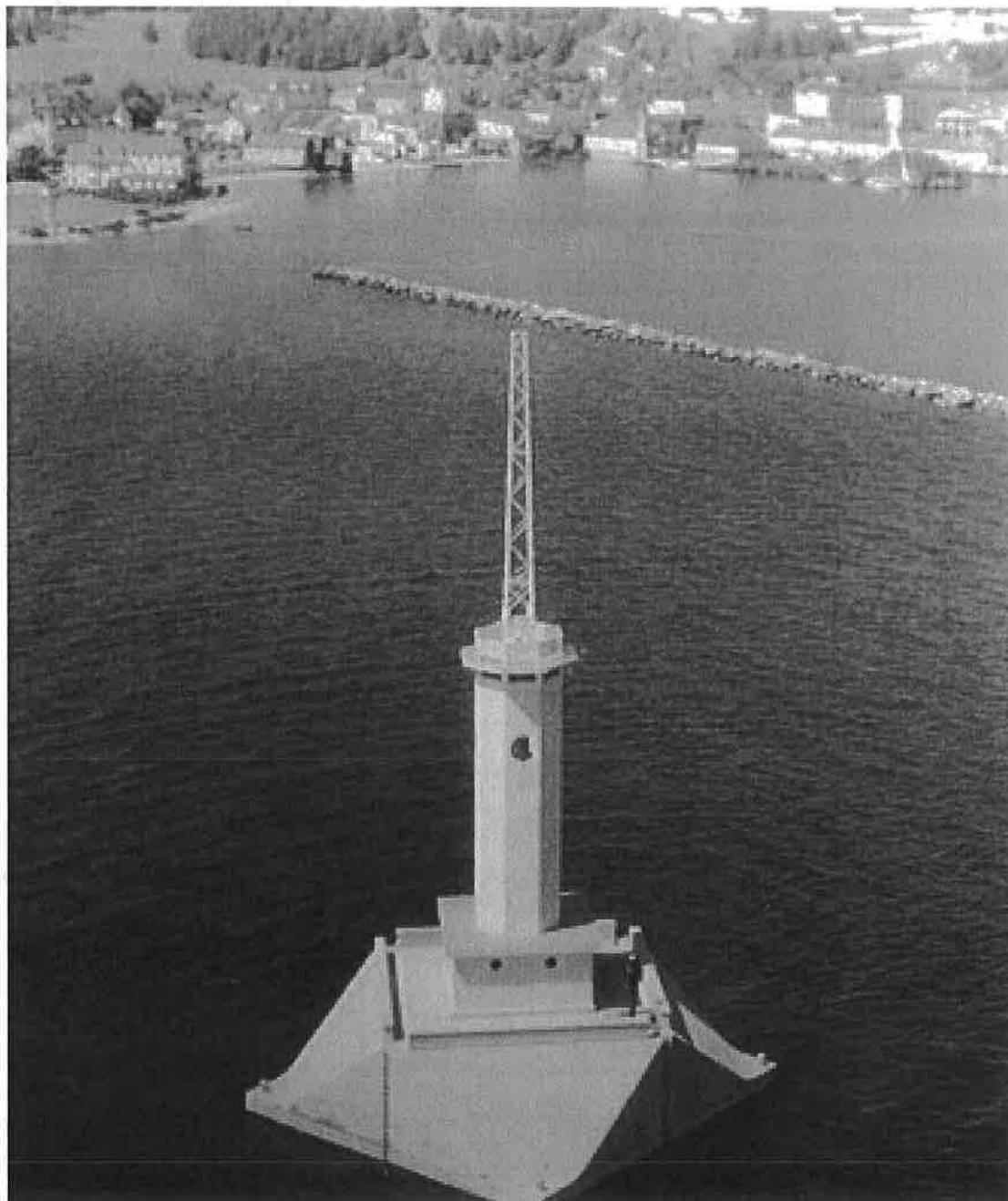


Round Island Passage Light
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Historic Photograph

Circa 1948 view of Round Island Passage Light, looking north toward Mackinac Island (U.S. Coast Guard photograph).



Round Island Passage Light
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Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property: Round Island Passage Light

City or Vicinity: Mackinac Island

County: Mackinac State: Michigan

Photographer: Daniel Koski-Karell

Date Photographed: August 2004

Description of Photograph(s) and number, include description of view indicating direction of camera:

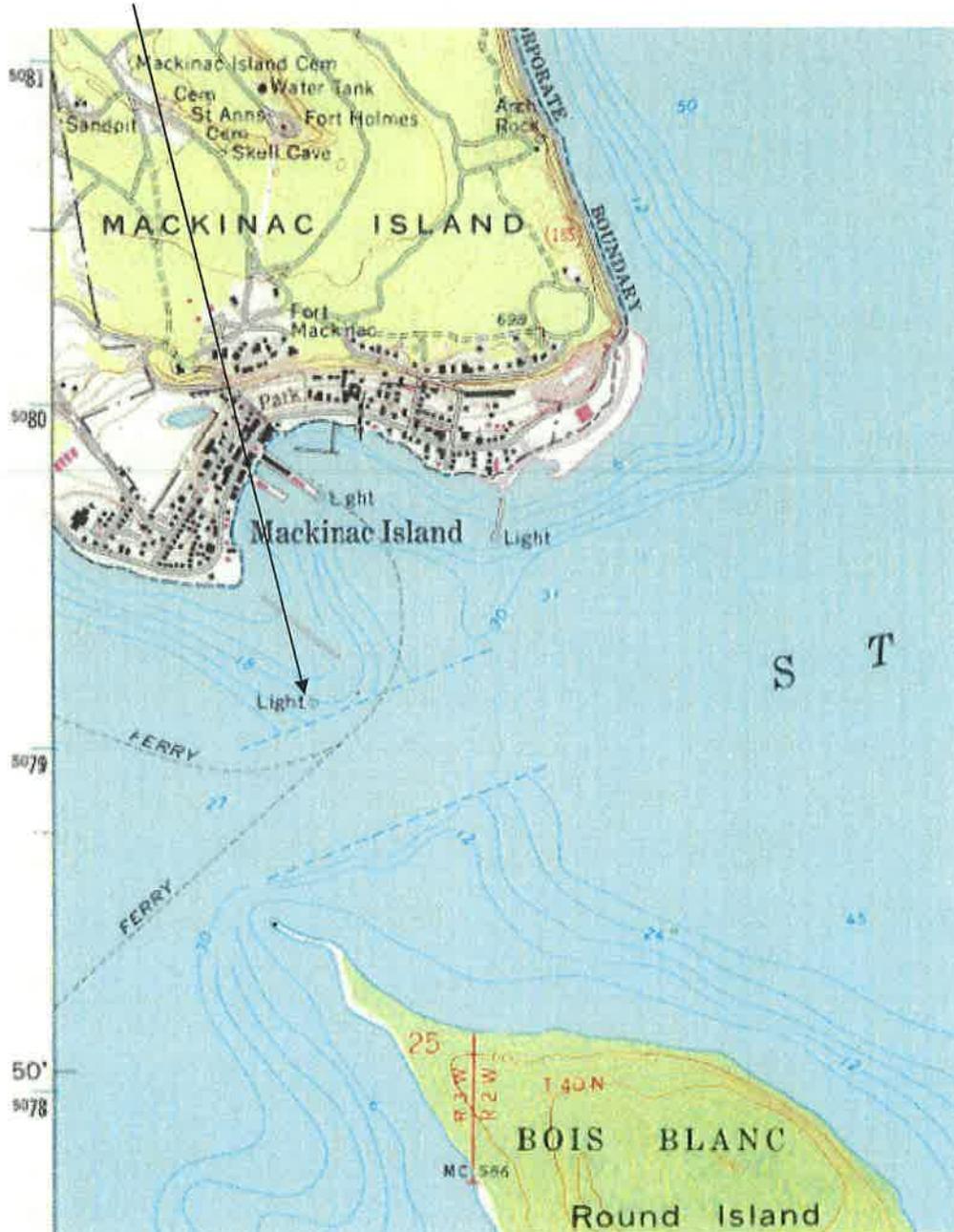
1. Lighthouse northwestern elevation, looking southeast.
2. Lighthouse northeastern elevation, looking southwest, with Round Island Lighthouse in the background.
3. Lighthouse pier deck with superstructure first story on the right, looking north with Mackinac Island in the background.
4. Superstructure first story with entrance doorway, looking east.
5. Light tower west elevation with fog signal in foreground, looking up towards east.
6. Pier basement interior with stairway to first story, looking west.
7. Light tower lantern room interior with ladder opening in floor, looking northwest.
8. Light tower lantern room interior with ladder leading to roof hatch, looking northwest.

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

Location Map

Round Island Passage Light



Part of the "Round Island, Mich." 7.5-minute series topographic map, Scale 1:24,000 (U.S. Geological Survey, 1964, photorevised 1976).

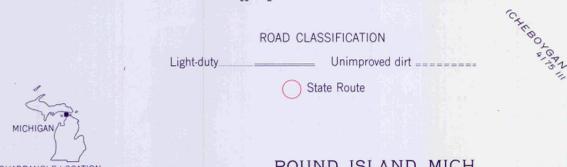
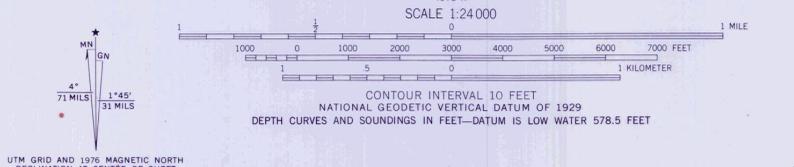
View of Round Island Passage Light, looking southeast





ROUND ISLAND PASSAGE LIGHT
MACKINAC COUNTY, MI
UTM 16/685175/5079145

Mapped, edited, and published by the Geological Survey
Control by USGS, USC&GS, and U. S. Lake Survey
Topography by photogrammetric methods from aerial
photographs taken 1954. Field checked 1964
Selected hydrographic data compiled from U. S. Lake Survey
Chart 60 (1961). This information is not intended
for navigational purposes
Polyconic projection. 1927 North American datum
10,000-foot grid based on Michigan coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks,
zone 16, shown in blue
Fine red dashed lines indicate selected fence and field lines where
generally visible on aerial photographs. This information is unchecked
Revisions shown in purple compiled from aerial photographs
taken 1976. This information not field checked



CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS LOW WATER 578.5 FEET
SCALE 1:24,000
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
ROUND ISLAND, MICH.
N4545—W8430/7.5
1964
PHOTOREVISED 1976
AMS 4075 I SE—SERIES V862



ROUND ISLAND PASSAGE LIGHT

MACKINAC COUNTY, MI

PHOTO # 1



ROUND ISLAND PASSAGE LIGHT

MACKINAC COUNTY, MI

PHOTO # 2



ROUND ISLAND PASSAGE LIGHT

MACKINAC COUNTY, MI

PHOTO # 3



ROUND ISLAND PASSAGE LIGHT
MACKINAC COUNTY, MI

PHOTO # 4



ROUND ISLAND PASSAGE LIGHT

MACKINAC COUNTY, MI

PHOTO # 5



ROUND ISLAND PASSAGE LIGHT

MACKINAC COUNTY, MI

PHOTO # 6



ROUND ISLAND PASSAGE LIGHT

MACKINAC COUNTY, MI

PHOTO # 7



ROUND ISLAND PASSAGE LIGHT

MACKINAC COUNTY, MI

PHOTO # 8