United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

1. Name of Property

historic name  Francis Metallic Surfboat

other names/site number  Saugatuck-Douglas Historical Society

2. Location

street & number  130 West Center Street

city or town  Douglas

state Michigan code MI county Allegan code 005 zip code 49406

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,
I hereby certify that this 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 meets does not meet the National Register Criteria. I recommend that this
property be considered significant at the following level(s) of significance:

x national ___ statewide ___ local

Signature of certifying official/Title Date

MI SHPO
State or Federal agency/bureau or Tribal Government

In my opinion, the property meets does not meet the National Register criteria.

Signature of commenting official Date

Title State or Federal agency/bureau or Tribal Government

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 Date of Action

5. Classification
Francis Metallic Surfboat
Allegan, Michigan

Name of Property
County and State

Ownership of Property
(Alert as many boxes as apply.)

- [x] private building(s)
- [ ] public - Local district
- [ ] public - State site
- [ ] public - Federal structure

Category of Property
(Alert only one box.)

- [ ] contributing buildings
- [ ] noncontributing sites
- [ ] 1 contributing structures
- [ ] 0 noncontributing objects

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing
Noncontributing

Number of contributing resources previously listed in the National Register

N/A
None

6. Function or Use

Historic Functions
(Alert categories from instructions.)

Defense-Coast Guard Facility

Current Functions
(Alert categories from instructions.)

Recreation & Culture/Museum

7. Description

Architectural Classification
(Alert categories from instructions.)

Other: Metal Surfboat

Materials
(Alert categories from instructions.)

foundation: Iron hull
walls: other:
roof:__

Narrative Description
(Alert the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with a summary paragraph that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)
Summary Paragraph

This Francis Metallic Surfboat is a 26-foot, iron-hulled vessel dating from approximately 1854. It was designed by Joseph Francis, known as the father of the U.S. lifesaving services, and built under his supervision using an innovative technique. It is one of only two known surviving examples of the very first type of coastal rescue craft utilized by the federally sponsored, unmanned life-saving/shipwreck rescue program in the United States, during the period 1849 to 1857. The other known example of this craft is already listed on the National Register. The vessel, owned by the Saugatuck-Douglas Historical Society (SDHS), is now on display in its own dedicated building on SDHS property near the vessel’s original location. As one of the first types of rescue craft employed in the United States and the Great Lakes, this is a critical historic relic in illustrating the technology in use at the time, and the evolution of a distinctly American type of rescue boat, the “pulling” surfboat (designed to be pulled through the water by oar power rather than propelled by sail or motor).

Narrative Description

The vessel is 27 feet long and 6 feet wide at its widest point. It measures 27 inches from the top of the gunnels to the bottom of the keel. The weight of the vessel empty is estimated at approximately 2600 pounds. The bow and stern are both pointed so that the boat can be rowed from either end. Each end of the vessel contains an air chamber to improve its buoyancy. There are seven wooden seats located between the two air chambers to accommodate the crew, which moved the vessel by oars, since it lacked a sail or motor, as well as any rescued personnel.

The hull is fabricated from thin sheets of corrugated iron that were originally shaped in a special press designed by Mr. Francis. This innovative design, for which Francis obtained a patent, gave the hull the strength of wood without its negative characteristics when exposed to the elements.

The vessel is displayed at the Saugatuck-Douglas Historical Society’s museum complex in Douglas. It is displayed within a gable-roof wooden shed structure that, built specifically for it, contains related displays. The museum is located about one and one-half miles south-southeast of the original lighthouse location at the old Kalamazoo River outlet into Lake Michigan. The old river outlet was cut off by construction of a shorter, more direct channel to the lake in 1906. The former river outlet channel to the lake, cut off by the new one, no longer exists.
Francis Metallic Surfboat
Allegan, Michigan

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.)

Property is:

[ ] 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.

Areas of Significance
(Enter categories from instructions.)

- Maritime History
- Engineering

Period of Significance
1854-63

Significant Dates
1854

Significant Person
(N/A)

Cultural Affiliation
N/A

Architect/Builder
Francis Metallic Lifeboat Company, in association with the former Novelty Iron Works, Brooklyn, NY

Period of Significance (justification)

Approximately 1854-63. The Francis surfboats were used during the years 1849-71 immediately preceding the creation of the U.S. Life-Saving Service (USLSS), which functioned between 1871 and 1915, and its successor the U.S. Coast Guard (1915-present). Saugatuck’s surfboat was delivered about 1854 and served at least until 1863.
Francis Metallic Surfboat
Allegan, Michigan

Criteria Considerations (explanation, if necessary)

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance and applicable criteria.)

This Francis metallic surfboat is of national significance in that it is one of only two known surviving examples of this historically important type of rescue craft from the period leading to the creation of the U.S. Life Saving Service, the predecessor to the U.S. Coast Guard (Criterion A). It is also significant in that it is closely associated with its designer and manufacturer, Joseph Francis, who had an illustrious career as a designer of life-saving vessels and equipment, among other things (Criterion B). Finally, this vessel represents a distinctive construction (pressed iron) and period in maritime architecture (Criterion C).

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

Criterion A – Historic Events. The Francis metallic surfboat is representative of boat-building and rescue equipment technology that was considered “state-of-the-art” at the time it was developed and built in the 1850s. Out of a total of 137 Francis metallic surfboats built over the years 1849 to 1857, there are only two known examples of this type still in existence in the United States: the example owned by the SDHS and the object of this nomination, and another example on display in Toledo, Ohio, that was added to the National Register in 1979. There are at least two known instances where the Francis boats saved the lives of crew and passengers in rescues on the Great Lakes, and numerous more along the Atlantic coast, all documented in the bibliographic references.

All of the corrugated iron surfboats were purchased by the U.S. Treasury Department from the New York-based Francis Metallic Lifeboat Company. The company was founded and operated by Joseph Francis, who had developed and patented the technology used to hydraulically press iron sheets into the hull forms of small boats. The boats were actually constructed at the nearby Novelty Ironworks in Brooklyn, NY, which was the same firm that constructed the famous Civil War ironclad warship, the USS Monitor (See National Register Bulletin No. 20, which cites Novelty Ironworks). In 1852 Congress passed a Steamboat Law that required all passenger vessels to carry at least one metallic lifeboat.

This particular vessel is believed to have been delivered to the Saugatuck-Douglas area in or about 1854 as one of about 23 Francis surfboats acquired by the Treasury Department to provide lifesaving services on Lake Michigan (see Wreck Ashore, cited below, 12). It was most likely stationed near the mouth of the Kalamazoo River, probably near the Kalamazoo (later renamed Saugatuck) Lighthouse, where the lighthouse keeper would have been responsible for its care. The boat is believed to have been crewed by volunteers from a small fishing village (locally referred to as “Fishtown”) near the lighthouse, who were able to respond more quickly than people in the village of Saugatuck, two miles inland from Lake Michigan. Correspondence in the files of the SDHS reflects that the surfboat was in use at this site as late as 1863 and possibly as late as the early 1900s.

In 1906 a new, more direct channel was dug to connect the Kalamazoo River with Lake Michigan one-half mile to the north of the old channel. By 1917 the old harbor was enclosed by drifting sand. By that time the old lighthouse was abandoned and the surfboat with it. In late 1930 the boat was dug out of the sand by several local citizens, then in January 1931 it was placed on a sleigh, dragged across the frozen river, and towed behind
a car to a local shop where the rotted wooden parts were replaced and the vessel restored to a seaworthy condition. Although used for a time after World War II by the local troop of the Sea Scouts, by 1950 it was again abandoned behind the local American Legion Hall.

In 1995 the SDHS obtained possession of the vessel. A team from the SDHS embarked on a major program to restore the surfboat to its original, historically accurate, as-built appearance and configuration. This project was successfully completed in 2006, and since 2011 the surfboat has been displayed and maintained in a dedicated building as part of a permanent exhibit on the grounds of the society’s Old School House History Center in Douglas, MI. The site is within sight of the Kalamazoo River, in close proximity to the surfboat’s original location when it was in service in the 1800s.

This example of the Francis surfboat is deserving of special status by being added to the National Register; it is of significance not only to the State of Michigan, the local Saugatuck area, and the Great Lakes region, but to the United States as a whole. The other known surviving Francis lifeboat, located in Ohio and owned by the Great Lakes Historical Society, was added to the National Register in 1979.

**Criterion B – Joseph Francis.** Before he died in 1893, Joseph Francis was awarded the Congressional Medal of Honor in 1890 for his work that saved thousands of lives around the world, as well as medals from Napoleon III of France, and from Russia, Italy, the Franklin Institute, and the European Lifesaving Society. He was internationally known, as described by the references cited below, and was recognized in this country as the father of the USLSS.

Francis was born in 1801 in Boston. Growing up around seaports of the eastern U.S., he came to recognize the need for lifesaving vessels. Starting when he was only 11 years old, Francis developed and improved a design for a lifeboat using cork chambers for additional buoyancy. In the 1830s he received orders for his boat from many buyers in the U.S. and Europe. As of 1840, all U.S. men-of-war were required to carry Francis lifeboats. By 1847 he devised the notion of using corrugated iron sheets for the sides of a lifeboat to provide strength and resist the elements that would affect a wooden boat, and devised a special hydraulic press to mass produce the material. His invention was recognized by Congress, and his boats were purchased for use on ships of all kinds as well as in stations along the east coast and Great Lakes. He later invented a “lifecar” that allowed victims of a shipwreck to be carried from the vessel to shore in an enclosed compartment.

**Criterion C – Design.** As suggested above, Francis’ design for this metallic lifeboat was novel. No one had previously constructed a lifesaving vessel out of metal, which had a greater strength-to-weight ratio and greater durability than wood. Between 1841 and 1845 Francis developed the process for constructing a boat with metal sides. The process utilized two cast-iron dies that corrugated a sheet of iron under hydraulic pressure. The corrugation provided the necessary stiffness while retaining the strength of the metal. Francis was awarded U.S. Patent Nos. 3974 (1845) and 19,693 (1858) for his methods of making boats out of corrugated sheet iron or other metal. The Steamship Law of 1852 required every passenger vessel to carry at least one of these lifeboats. A model of his surfboat is contained in the collection of the Smithsonian Museum. Francis is also credited with designing air chambers in this and earlier designs to make them more buoyant and thus enable them to carry heavier loads even in rough seas.

**Developmental history/additional historic context information (if appropriate)**
Prior to 1848 there was no nation-wide organization, system, or set of facilities for the rescue of victims from shipwreck available in the United States. The Massachusetts Humane Society had, starting in the early 1800s, established boathouses and houses of refuge (manned by local volunteers) for coastal rescue purposes within that state, but there were no facilities in existence in other states. It was not until there was overwhelming public attention to, and outcries about, the significant loss of life resulting from the growing number of shipwrecks occurring along the coastlines of New Jersey and Long Island, that the U.S. Congress finally took action. With the sponsorship of William A. Newell, MD, Congressional representative from New Jersey, it passed legislation in 1848 that authorized the construction of the first federal coastal rescue boathouses, to include supplies of rescue equipment, to be used by local volunteers in the same manner as in Massachusetts.

A boathouse built in 1849 at Spermaceti Cove was the first of eight such boathouses authorized by the so-called Newell Act of August 1848 to be built and equipped along the New Jersey shoreline. A U.S. Revenue Marine officer, Captain Douglas Ottinger, was assigned by the U.S. Secretary of the Treasury to oversee the construction and equipping of these first stations. In carrying out his duties, Captain Ottinger obtained the assistance of local officials and experts from the maritime insurance companies, state coastal wreckmasters, and other individuals experienced in coastal boat operations. The intent of this project was for the federal government (i.e., the U.S. Treasury Department) to provide the buildings and the equipment, but then to turn over responsibility for their use and maintenance to responsible individuals locally, who could then muster volunteer crews to assist in rescue efforts. Once this project was accomplished, however, the U.S. Treasury Department was to have no further involvement in the boathouses, the equipment, or the use of these facilities.

After the first eight stations were completed, additional stations were constructed in New Jersey as well as along the Long Island coast such that by 1853 there were a total of 28 stations completed. From 1853 to just before the Civil War, additional stations were added along both the New Jersey and Long Island coasts. The boathouse rescue equipment initially supplied included a Francis corrugated iron hull (metallic) pulling surfboat of about 26-27ft. in length on a simple boat wagon, a corrugated iron lifecar for hauling groups of survivors ashore from a shipwreck, a small mortar and shot for shooting a lifeline to a shipwreck, and signal rockets for communicating with a shipwreck. Some stations were also equipped with larger rockets for the purposes of shooting lifelines to shipwrecks. In addition to the rescue boathouses built on the Long Island and New Jersey coastlines, Francis metallic surfboats were purchased during the mid to late 1850s and sited at a number of locations along the U.S. Gulf Coast, the Great Lakes (including the mouth of the Kalamazoo River in Michigan), and at one location on the Pacific Coast. In these instances, boathouses were not routinely provided for by the federal government, and instead (in most cases) the Francis surfboats were kept outdoors at a designated location, such as a nearby lighthouse. This was the case with the Francis surfboat that was sited at the mouth of the Kalamazoo River in 1854. Overall, a total of 48 Francis metallic surfboats were assigned to Great Lakes locations. (See continuation sheets below.)

A number of successful shipwreck rescues were achieved by local volunteers using the Francis vessels. The most famous was the Ayrshire rescue in January 1850 at Squan Beach, NJ, when 201 out of 202 victims were rescued by a crew using the Francis lifecar and other equipment from the nearby federal boathouse at Chadwick, NJ. However, from an overall perspective, this volunteer-manned system had a number of serious limitations and faults. The most critical of these were the lack of dedicated, trained professional rescuers to man each boathouse and operate the equipment properly, and the lack of a dedicated management and support infrastructure to supervise and maintain the boathouses and equipment, such that they would be always ready for use.
Francis Metallic Surfboat
Name of Property
Allegan, Michigan
County and State

This collection of boathouses and equipment was the sum total of the federal coastal rescue system up until the beginning of the Civil War in 1861. During the war, all of the Francis corrugated iron surfboats (except one) supplied to boathouses in New Jersey were removed and used by the Union Army for amphibious landings along the North Carolina coast (most of the iron surfboats assigned to the Long Island boathouses were retained). These boats were not returned to the New Jersey boathouses after the war ended and were scrapped, although most of the New Jersey boathouses had been re-equipped with a smaller cedar pulling surfboat similar in design to the famous Seabright Skiff. The Francis surfboats assigned to the Great Lakes remained in place. All of the surviving rescue boats, equipment, and boathouses fell into serious disrepair, with no resources available for maintenance, repair, or replacement due to the war effort. By the end of the war in 1865, the boathouses and equipment as a “system” had ceased to be effective, and shipwrecks with horrible loss of life once again became commonplace with no reliable means of rescue available.

In 1871 Congress agreed to re-establish through new legislation a federal coastal rescue system, but this time the plan was to improve on the limitations of the earlier 1848-49 arrangements. This change, along with additional legislation and re-organization in 1878, resulted in the establishment of the United States Life-saving Service (USLSS) and the development of a nation-wide system of newly built and equipped stations manned by professional keepers and crews. As part of the establishment of the USLSS, new types of rescue craft were developed and constructed, to include both surfboats and larger (and more capable) lifeboats; all of these new boats, however, were built of wood rather than corrugated iron since the Francis metallic type boats were no longer considered appropriate and state-of-the-art for coastal rescue purposes. In accomplishing this, the USLSS gradually decommissioned all of the old Francis surfboats, with only a few retained either as historic relics or for secondary purposes.

N.B. The SDHS wishes to acknowledge with gratitude the assistance in preparing this application of Timothy Dring, a retired U.S. Naval Reserve Commander currently on the Board of Directors of the U.S. Lifesaving Service Heritage Association.

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

Government Reports

Faunce, John, Captain, U.S. Revenue Marine; Report to the Secretary of the Treasury, dated 9 August 1871.


Ottinger, Douglass, Captain, U.S. Revenue Marine, Report to the Secretary of the Treasury, dated 21 May 1849.


Books

F. Bennett, Robert, *Surfboats, Rockets and Carronades*, 39-41 (U.S. Coast Guard 1976)

*Francis Metallic Lifeboat Company* (2d ed. William C. Bryant & Company 1852)


*History of Life-saving Appliances Invented by Joseph Francis*, compiled by James L. Pond (E.D. Slater 1885) with Appendix


Articles

[www.famousamericans.net/josephfrancis](http://www.famousamericans.net/josephfrancis)

*VI Dictionary of American Biography* 582-83 (Charles Scribner’s Sons 1931)

Abbott, Jacob, “Some Accounts of Francis’ Life-boats and Life-cars,” 3 Harpers Magazine 161-71 (July 1851)


Swayze, David D., “Serendipitous Lifeboat Demonstrations,” 53 Inland Seas 95-96 (Summer 1997)
Francis Metallic Surfboat
Name of Property

Allegan, Michigan
County and State

Name of Property

Primary location of additional data:
State Historic Preservation Office
Other State agency
Federal agency
Local government
University
Other
Name of repository: Saugatuck-Douglas Historical Society

Historic Resources Survey Number (if assigned):

10. Geographical Data

Not applicable (display site is < 1 acre)
Acreage of Property (Do not include previously listed resource acreage.)

UTM References
(Place additional UTM references on a continuation sheet.)

1 Zone  Easting  Northing  2 Zone  Easting  Northing
1 Zone  Easting  Northing  2 Zone  Easting  Northing

Verbal Boundary Description (Describe the boundaries of the property.)
Nominated property is the boat itself only, located within its own exhibit shed on the Saugatuck-Douglas Historical Society grounds at 130 W. Center St. in Douglas, MI. Location marked by Latitude and Longitude listed above.

Boundary Justification (Explain why the boundaries were selected.) Not applicable
Includes the entire nominated property.

11. Form Prepared By
name/title James Schmiechen and Richard E. Donovan, Members
organization Saugatuck Douglas Historical Society
date October 24, 2014
street & number 130 W. Center St.
telephone 269-857-1256
city or town Douglas
state MI
49406
e-mail rdono61@gmail.com

Additional Documentation
Francis Metallic Surfboat  
Allegan, Michigan  

Name of Property  
County and State  

Photographs:  
Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

<table>
<thead>
<tr>
<th>Description of Photograph(s) and number:</th>
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<td>2 of 5: vessel from the west side</td>
<td>MI_Allegan_FrancisMetallicSurfboat_0002</td>
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<td>3 of 5: vessel from the south/southeast side</td>
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<tr>
<td>5 of 5: vessel from the east side</td>
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Property Owner:  
(Complete this item at the request of the SHPO or FPO.)

<table>
<thead>
<tr>
<th>name</th>
<th>Sharon Kelly, President, Saugatuck-Douglas Historical Society</th>
</tr>
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<tbody>
<tr>
<td>street &amp; number</td>
<td>P. O. Box 617</td>
</tr>
<tr>
<td>city or town</td>
<td>Douglas</td>
</tr>
<tr>
<td>state</td>
<td>MI</td>
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<td>zip code</td>
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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 18 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.
<table>
<thead>
<tr>
<th>Name of Property</th>
<th>County and State</th>
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<tr>
<td>Francis Metallic Surfboat</td>
<td>Allegan, Michigan</td>
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# Assignment Sites for Francis Type Metallic Surfboats, with Dedicated Boathouse

<table>
<thead>
<tr>
<th>Station No./Location</th>
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<tbody>
<tr>
<td><strong>New Jersey Coastline (1849-50; all were early, original model Francis surfboats)</strong></td>
<td><strong>New Jersey Coastline (1849-50; all were early, original model Francis surfboats)</strong></td>
</tr>
<tr>
<td>1/Sandy Hook</td>
<td>15/Long Beach</td>
</tr>
<tr>
<td>2/Spermaceti Cove</td>
<td>16/Long Beach (8.3 miles south of #15)</td>
</tr>
<tr>
<td>3/Atlanticville/Wardell’s Beach (Seabright)</td>
<td>17/Tucker’s Beach/Short Beach</td>
</tr>
<tr>
<td>4/Green’s Pond/Long Branch (Monmouth Beach)</td>
<td>18/Brigantine Beach</td>
</tr>
<tr>
<td>5/Deal’s Beach</td>
<td>19/North Absecon Beach</td>
</tr>
<tr>
<td>6/Shark River</td>
<td>20/South Absecon Beach</td>
</tr>
<tr>
<td>7/North Side Squan Inlet/Squan Village</td>
<td>21/North Peck’s Beach (0.5 miles south of Great Egg Harbor Inlet)</td>
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<tr>
<td>8/South Side Squan Inlet/Squan Beach</td>
<td>22/South Peck’s Beach</td>
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<tr>
<td>9/Squan Beach/Maxon’s</td>
<td>23/Ludlam’s Beach</td>
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<td>10/Island Beach/Squan Beach (4 miles south from #9)</td>
<td>24/Cape May Courthouse (4 miles inland from beachfront)</td>
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<td>11/Island Beach/Squan Beach (4 miles south from #10)</td>
<td>25/Hereford Inlet</td>
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<td>26/Two Mile Beach (1 mile north of Cold Spring Inlet)</td>
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<td>13/Barnegat Inlet</td>
<td>27/East end of Cape May Island</td>
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<td>14/Long Beach</td>
<td>28/Cape May Lighthouse</td>
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<td><strong>Long Island Coastline (1849-52; all were modified model Francis surfboats)</strong></td>
<td><strong>Long Island Coastline (1849-52; all were modified model Francis surfboats)</strong></td>
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<tr>
<td>1/Coney Island Point</td>
<td>16/Moriches</td>
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<td>2/East end of Coney Island/Sheepshead Bay</td>
<td>17/Tanner’s Neck</td>
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<td>3/Barren Island/Rockaway Inlet</td>
<td>18/Quogue</td>
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<td>4/Rockaway Beach</td>
<td>19/Shinnecock</td>
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<td>5/West end of Lay Beach (17.75 miles east of Coney Island Point)</td>
<td>20/Southampton</td>
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<td>6/East end of Long Beach (Pt. Lookout)</td>
<td>21/Bridgehampton/Mecox</td>
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<td>7/Jones Beach</td>
<td>22/Georgica</td>
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<td>8/West end of Oak Island (Gilgo)</td>
<td>23/Amagansett</td>
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<tr>
<td>9/East end of Oak Island</td>
<td>24/Napeaque Beach</td>
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<tr>
<td>10/Fire Island</td>
<td>25/Ditch Plain</td>
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<tr>
<td>11/Point of Woods</td>
<td>26/Montauk Point (1852)</td>
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<tr>
<td>12/Lone Hill</td>
<td>27/West end Fisher’s Island</td>
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<tr>
<td>13/Blue Point</td>
<td>28/Oysterpond, Plum Gut</td>
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<tr>
<td>14/Bellport</td>
<td>29/Eatons Neck</td>
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<tr>
<td>15/Smith’s Point</td>
<td>30/Sands Point</td>
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<tr>
<td><strong>New England Sites (all were modified model Francis surfboats)</strong></td>
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</tr>
<tr>
<td>31/Watch Hill, RI</td>
<td>Chatham, MA (1853; MHS boathouse)</td>
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<td>Gloucester, MA (MHS boathouse)</td>
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<td>Scituate, MA (MHS boathouse)</td>
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<tr>
<td>Nauset, MA (MHS boathouse)</td>
<td>Notes: MHS = Massachusetts Humane Society</td>
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Assignment Sites for Francis Type Metallic Surfboats, with or without a Dedicated Boathouse

<table>
<thead>
<tr>
<th>Station No./Location</th>
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</thead>
<tbody>
<tr>
<td><strong>Atlantic Ocean and Gulf of Mexico Coastlines</strong></td>
<td><strong>Great Lakes Region</strong></td>
</tr>
<tr>
<td>Seal Harbor, ME (1853)</td>
<td>Oswego, NY (two surfboats)</td>
</tr>
<tr>
<td>Southwest Harbor, ME</td>
<td>Tibbits Point, NY</td>
</tr>
<tr>
<td>Millbridge, ME</td>
<td>Big Sandy, NY</td>
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<tr>
<td>Isle of Shoals, NH</td>
<td>Sodus Point, NY</td>
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<tr>
<td>Portsmouth Harbor, NH (1851)</td>
<td>Buffalo, NY</td>
</tr>
<tr>
<td>No Man’s Land Island, MA (1852)</td>
<td>Sturgeon Point, NY</td>
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<tr>
<td>Bodie Island, NC (1852)</td>
<td>Dunkirk, NY</td>
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<tr>
<td>Ocraoke, NC (1852)</td>
<td>Barcelona, NY</td>
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<tr>
<td>Wilmington, NC (1852)</td>
<td>Presque Isle Lighthouse, Erie, PA</td>
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<tr>
<td>Charleston, SC (1852)</td>
<td>Conneaut, OH</td>
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<tr>
<td>Seal Harbor, ME (1853)</td>
<td>Fairport, OH</td>
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<tr>
<td>South Most Boathouse, MI (1854)</td>
<td>Cleveland, OH (1852)</td>
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<tr>
<td>Kalamazoo (later renamed Saugatuck) Lighthouse, MI (1854)</td>
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<tr>
<td>Grand River Lighthouse, MI (1854)</td>
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<tr>
<td>White River, MI</td>
<td>None</td>
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<tr>
<td>South Black River, MI</td>
<td>Lake Ontario</td>
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<tr>
<td>Michigan City Lighthouse, IN (1854)</td>
<td>Rochester, NY</td>
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<tr>
<td>Calumet Harbor Lighthouse, IL (1854)</td>
<td>Salmon Creek, NY</td>
</tr>
<tr>
<td>Lake Superior</td>
<td>Youngstown, NY</td>
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<tr>
<td>Lake Michigan</td>
<td>Sodus Point, NY</td>
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<tr>
<td>Lake Huron</td>
<td>Buffalo, NY</td>
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<tr>
<td>Lake Erie</td>
<td>Avon Point, OH</td>
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<tr>
<td>Lake Huron</td>
<td>Vermilion, OH</td>
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<tr>
<td>Lake Michigan</td>
<td>Huron, OH</td>
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<td>Lake Superior</td>
<td>Sandusky, OH</td>
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<td>Marblehead, OH</td>
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<td>Put-In-Bay, OH</td>
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<td>Cunningham’s Island (Kelleys Island), OH</td>
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<td></td>
<td>Arrowpoint</td>
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<td></td>
<td>Chicago Lighthouse, IL (1854; two surfboats)</td>
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<td></td>
<td>Milwaukee Lighthouse, WI (1854)</td>
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<td></td>
<td>Twin River Lighthouse, WI (1854)</td>
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<td></td>
<td>Manitowoc Lighthouse, WI (1854)</td>
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<td></td>
<td>Port Washington Lighthouse, WI (1854)</td>
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<td></td>
<td>Waukegan, WI (1854; with collector of customs)</td>
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<tr>
<td></td>
<td>Racine, WI (1854; with collector of customs)</td>
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<tr>
<td></td>
<td>Kenosha, WI (1854; with collector of customs)</td>
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<td></td>
<td>Washington Harbor, WI</td>
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<td>Sheboygan Lighthouse, WI (1854)</td>
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<td></td>
<td>Baileys Harbor, WI</td>
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<td></td>
<td>Cape Disappointment Light Station, Bakers Bay, WA (1854)</td>
</tr>
</tbody>
</table>

**SOURCE:**
(The following are all available from the National Archives)

For assignments on the coastlines of Long Island and New Jersey:
- Inspection report of Captain John Faunce, U.S. Revenue Marine, to the U.S. Secretary of the Treasury, dated 9
Francis Metallic Surfboat
Allegan, Michigan

August 1871
-U.S. Secretary of the Treasury Report to Congress on the Finances, 1849-50, pp. 989-991
-U.S. Secretary of the Treasury Report to Congress on the Finances, 1848-49, pp. 828-832

For assignments at all locations:
-Letter dated 24 May 1854 from U.S. Secretary of the Treasury James Guthrie to U.S. Senator H. Hamlin
- U.S. Secretary of the Treasury Report to Congress on the Finances for the year ending 30 June 1858, No. 44, pp. 367-372
- Report of the U.S. Secretary of the Treasury to Congress dated 31 January 1857, pp. 1-18
- Letter from U.S. Secretary of the Treasury James Guthrie dated 16 August 1854 to Joseph Francis, New York
  (delivery order for completed Francis Metallic Surfboats to sites on the Great Lakes)
Francis Metallic Surfboat
Allegan, Michigan

Name of Property
County and State

Pre-U.S. Life-Saving Service Era
U.S. Federal Government Assignment of Francis Type Metallic Pulling Surfboats for Coastal Rescue

Characteristics:  

**General:** Neither self-righting or self-bailing; 27ft. overall length, 6ft. 10in. maximum beam, 2ft. 6in. depth amidships, sheer of gunwale 1ft. 6in., sheer of bottom 8in.; 6 thwarts for up to 14 oars rowed in double-banked configuration (some 27ft. double-ended versions were configured for 5 oars rowed in single-banked configuration); no sailing rig; weight approximately 1500lbs. empty/4000lbs. with full outfit of equipment. Oars were 16ft. in length.

**Construction:** Two versions, the original and a later modified model, were built (total of 137 Francis surfboats of both models). The original model was nearly double-ended but with a slightly squared stern, with bottom and stern of wood planking, and sides of hydraulically-pressed, corrugated galvanized iron, with some having air cases. The later modified model was double-ended, with the hull constructed entirely of corrugated galvanized iron with side and/or end air cases; cork-filled canvas fenders on some boats. All boats were built by Francis at the Novelty Ironworks facility in Brooklyn, NY.

Other:  
In earlier correspondence, these boats were erroneously referred to as “lifeboats” rather than as surfboats. The original 1848-49 rescue boathouses in New Jersey (14 boathouses total) were equipped with a single surfboat of the original Francis model (having a square stern and sharp bow). The remaining rescue boathouses emplaced in New Jersey and along Long Island, as well as at other locations later in the 1850s were equipped with the later, modified Francis model surfboat (having sharp bow and stern). Both models of the Francis surfboat were very heavy and difficult to manage through the launching process, and typically required a crew of 6-12 persons. If the Francis surfboat was holed in the iron section of the hull, they were nearly impossible to repair given the available metalworking technologies of that time. Iron hull boats, however, were impervious to rot. Flotation was entirely dependent upon the iron hull, iron air chambers, and cork fenders remaining intact. Cedar hull surfboats, by contrast, were lighter, easier to handle, and could be repaired by local artisans, with the boat’s buoyancy being less dependent upon intact air cases and cork fenders. Cedar boats, however, required regular maintenance, which was generally not available in the pre-USLSS era. Nearly all of the early model Francis metallic surfboats assigned to boathouses in New Jersey were requisitioned by the Union Army during the Civil War, and used for amphibious landing operations in the North Carolina Outer Banks region in 1861 and 1862. No detailed drawings or plans of either the early original or later modified models of the Francis surfboat are known to exist in the available archives.

Only known drawing of a Francis type (modified version) metallic surfboat  
(from contemporary Francis Metallic Lifeboat Company literature)
Francis Metallic Surfboat
Allegan, Michigan

1850s-period depiction of the modified model Francis metallic surfboat
(from contemporary Francis Metallic Lifeboat Company literature)

Period photograph of a Francis type (modified.double-ended version) metallic surfboat,
showing a crew located in the Chicago, IL area
(photograph courtesy of James Claflin)
Francis Metallic Surfboat
Allegan, Michigan
Name of Property
County and State

[add contemporary photographs]