

MARITIME HERITAGE MINNESOTA



Ann Merriman
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Lake Minnetonka Survey 2 Report



Acknowledgments

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Cover: Steamboat *Puritan*, probably heading toward the Narrows from the Lower Lake's Lafayette Bay into the Upper Lake's Old Channel Bay (Ellis 1905, cover).



MINNESOTA HISTORICAL &
CULTURAL HERITAGE GRANTS

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Ann Merriman, Christopher Olson, and Maritime Heritage Minnesota

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AND PRESERVATION OF MINNESOTA'S FINITE MARITIME CULTURAL RESOURCES**

Introduction

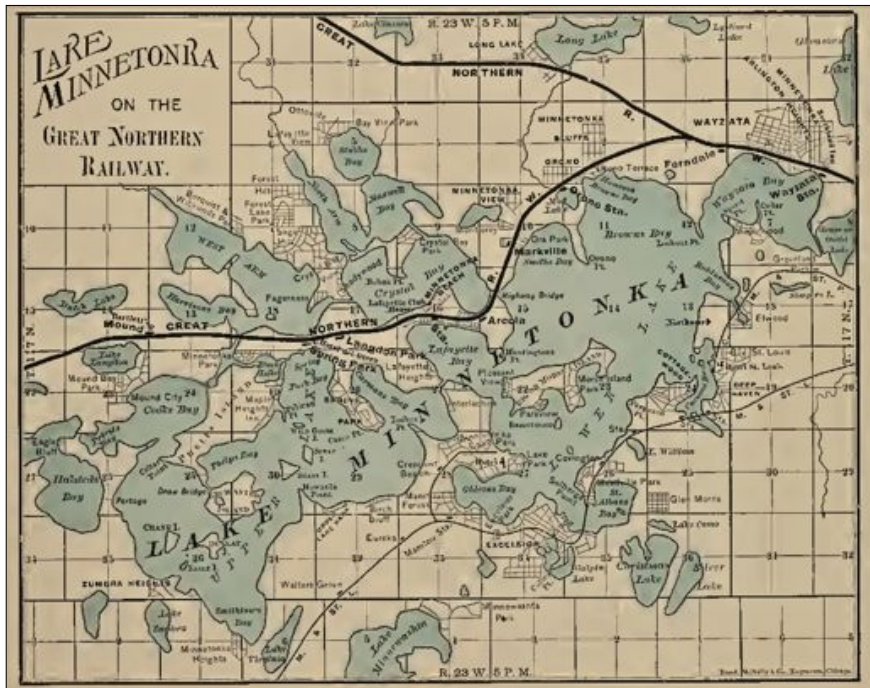
Maritime Heritage Minnesota (MHM) conducted side and down-imaging sonar surveys of Lower Lake Minnetonka and the Upper Lake's Crystal Bay in September and November 2011. In May 2012, MHM surveyed the remaining portions of Upper Lake Minnetonka, a project made possible by the Clean Water, Land and Legacy Amendment in the form of a Minnesota Historical and Cultural Heritage Grant. With the completion of the Lake Minnetonka Survey 2 (LMS-2) Project, Lake Minnetonka is the only body of water within the borders of Minnesota to have been completely surveyed for submerged archaeological resources. Prior to this survey, nine wrecks have been identified as nautical archaeological sites in Lower Lake Minnetonka and the steamboat pier, amusement park, and veteran's camp remains on Big Island were also recognized as an archaeological site. This report presents the findings of the Upper Lake Minnetonka survey and includes a brief history of this lesser-studied part of the lake. For a more detailed outline of the history of the Lower Lake Minnetonka, its boat-builders, transportation routes, shipwrecks, and potential underwater and nautical archaeological sites, please see MHM's *Lake Minnetonka Survey 1 Report*.

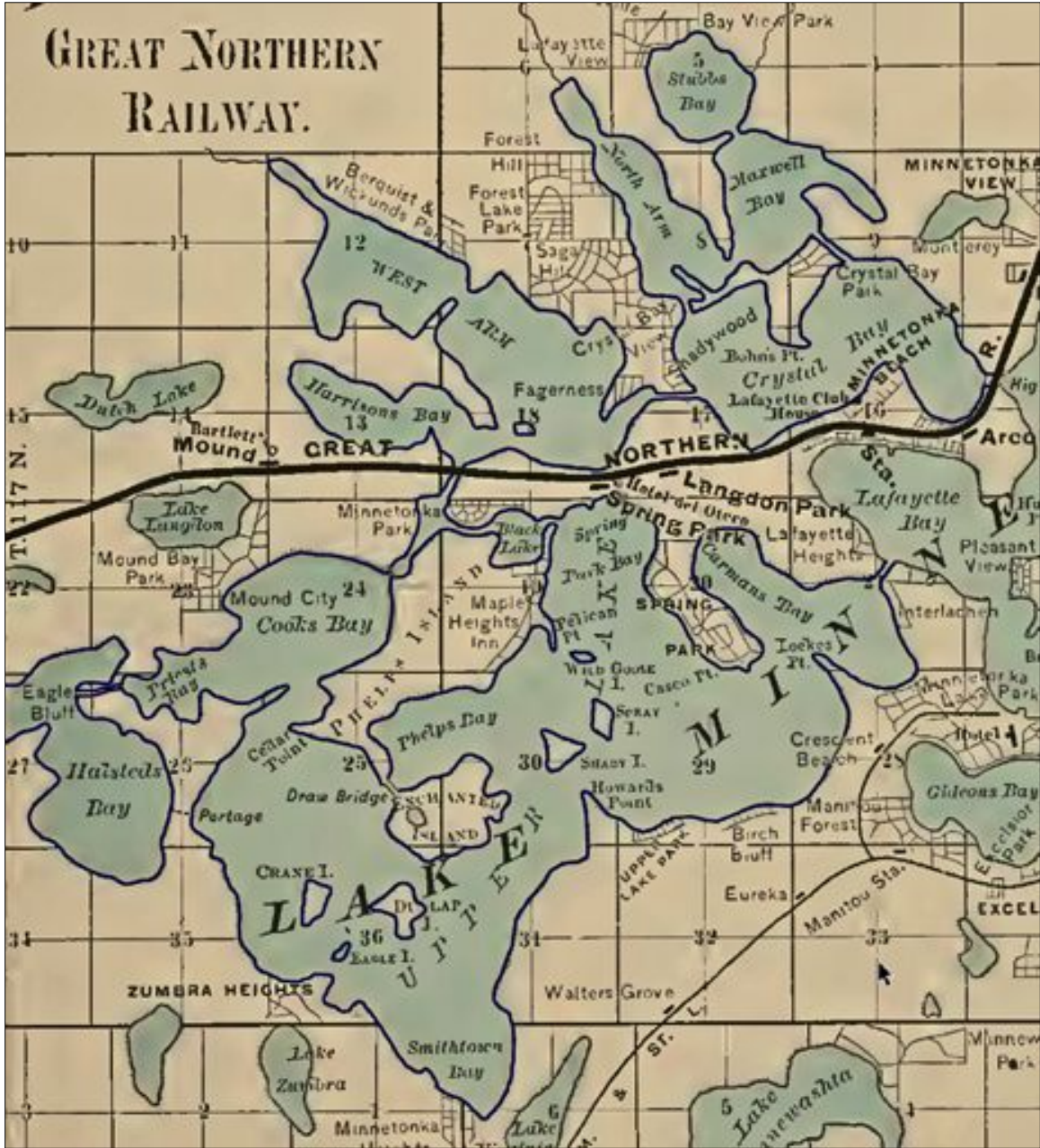
NOTE: The names of many boats on Lake Minnetonka underwent changes over time. A name change will look like this: *Governor Ramsey/Excelsior/Lady of the Lake/Minnetonka/Mermaid* or *George/Excelsior*.

Upper Lake Minnetonka

Like the Lower Lake, Upper Lake Minnetonka is comprised of a series of bays, some connected by narrow channels or other bays. Unlike the Lower Lake, the Upper Lake has less large open areas of water as attested by a greater number of islands and its bays are generally smaller. By the mid-1870s, Upper Lake Minnetonka was being touted as a natural wonder, with an abundance of wildlife, islands, and a number of boarding houses from which to enjoy fishing and boating. It was described as being “nowise inferior to the lower part, but, on the contrary, in natural beauty and variety of wild scenery, much superior”. In the West Upper Lake, Crane Island was described as being “held sacred by the residents in its vicinity, from the fact of its being the summer abode of a colony of blue heron...[and] there is a penalty attached to shooting these Upper Lake pets”. Eagle Island, likewise, was named for a pair of eagles spotted there early on, a rare site on Lake Minnetonka. Wawatasso Island, once called Dunlap’s Island and Fire-fly Island - or ‘Little Firefly’ in Dakota - is now a large Hennepin County Park and was home to a Minneapolis Boy Scout camp in the 1920s and 1930s. Phelps Island is the largest island in Lake Minnetonka and was claimed by Carrington Phelps. Enchanted Island was originally purchased by St. Paul photographer Charles Zimmerman and is now connected to Phelps Island by a bridge over Zimmerman’s Pass. Also connected to Enchanted Island, Rockwell’s Island was developed by Captain Rockwell of the steamer *May Queen* and became known as Shady Isle and now Shady Island. Rockwell constructed a hotel on his island in 1879. Close-by are Spray Island, further north Goose Island (once known as ‘Wild Goose Island’), and Pelican Island, part of Pelican Point as late as 1890. In the West Arm, Deering Island was the home base for the steamer *Florence M. Dearing*, owned by Charles W. Dearing in the 1880s (Brackett 1976, 46-47; *Lake Minnetonka Tourist* 1876; *Northwestern Tourist* 1890, *Tourist and Sportsman* 1877a, 1879, 1881). Smaller, unnamed islands also exist in Priests Bay and Stubbs Bay, connected to shore by sandbars in shallow water.

A map of Upper and Lower Lake Minnetonka produced by the Great Northern Railroad about 1905 (Ellis 1905, 19).



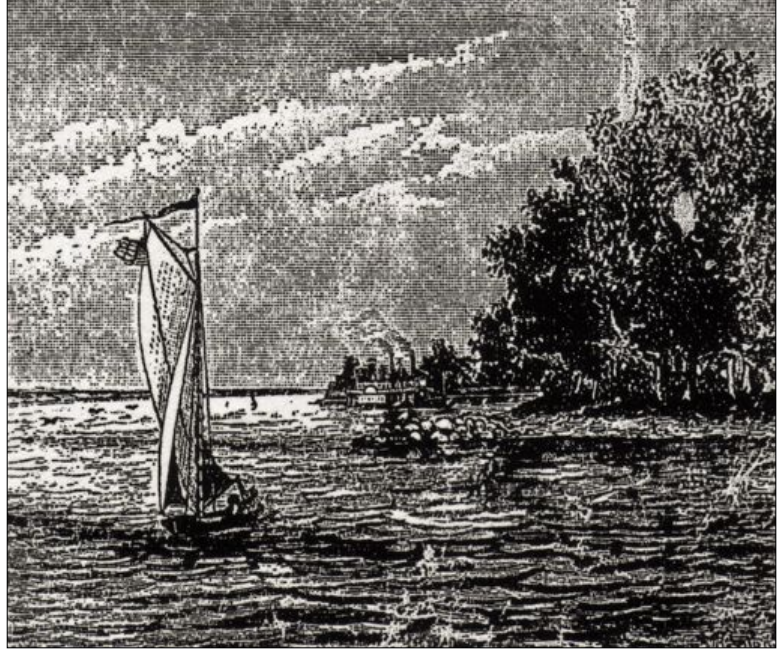


Upper Lake Minnetonka is outlined in blue (Ellis 1905, 19).

Crane Island around 1905 (MH5.1Lp1, by Sweet, Minnesota Historical Society).



A sailboat and steamer at Enchanted Island around 1895 (*Tourist and Sportsman* 1895).



Captain Rockwell's steamer *May Queen* about 1875 (HE5.11Mr21, Minnesota Historical Society).



The Streetcar Boat *White Bear* picking up passengers at Shady Island between 1906 and 1910 (Maritime Heritage Minnesota Collection).



It must be mentioned here that the Upper Lake is connected to the Lower Lake's Lafayette Bay by the Narrows Channel and the connection between Smith and Crystal Bays under the Arcola Bridge. Originally the Narrows was called 'Hull's Narrows', a marshy shallow 40-acre area of wild rice that served as an adequate passage for small boats and shallow-draft steamers. In 1877 the Narrows was described as a "narrow channel through a marsh forming the connecting link between Upper and Lower Lakes. It was, in early times, a passage for rowboats, but the advent of steamers required its dredging and widening, and it is now a good sized canal". This 'good sized canal' was not adequate for long, however, and the 'New Narrows' channel was dug just northwest of Hull's Narrows in 1884. By 1888 a road was constructed (current County Road 19) between the Upper and Lower Lakes and as a consequence, a ferry boat to bridge the gap between Minnetonka Lake Park (now Tonka Bay) and what is now Navarre on the way to Minnetonka Beach and Spring Park was needed. The ferry, a wooden flat boat, was constructed by Moses Bickford at the Excelsior Commons and measured 25 feet long with an 18-foot beam (McGinnis 2010, 72; *Northwestern Tourist* 1888; *Tourist and Sportsman* 1877a).

The Hulls Narrows or the 'Old' Narrows Channel around 1880
(MH5.1Lr15, by Jacoby, Minnesota Historical Society).



A map showing the location of Hulls Narrows or the 'Old' Narrows Channel and the location of the 'New' Narrows Channel to the northwest
(*Minnnetonka Record* 1888).



The steamer *Hattie May*, passing a dredge boat and a rowboat in the New Narrows Channel heading from the Lower Lake to the Upper around 1886. The Hotel Lafayette can be seen in the background (Photograph Album 219, Minnesota Historical Society)



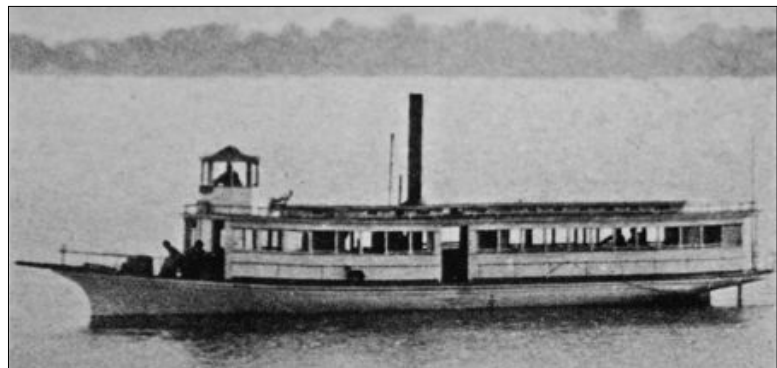
The steamer *City of St. Louis* heading toward the New Narrows around 1885 (MH5.1Lr16, by Jacoby, Minnesota Historical Society).

In 1874, Captain Rockwell's propeller *May Queen* was one of the first steamers to regularly connect the Upper Lake with Excelsior and Wayzata in the Lower Lake. In 1876 the propeller steamer *Mary*, owned, and mastered by Captain Frank W. Halsted, joined *May Queen* in this trade. Captain Halsted was a US Navy veteran of the American Civil War. In the summer of 1861, Halsted served on the flagship of the North Atlantic Blockading Squadron, USS *Minnesota*, under Flag Officer Silas Horton Stringer. As an Acting Ensign between May 1864 and May 1865, Halsted was in command of the 2-gun USS *General Pillow* in the Mississippi Squadron under Rear Admiral David D. Porter. The *General Pillow* was assigned as an ordnance guard boat at Cairo and Mound City, IL, during the time Halsted commanded her. After the Civil War, Captain Halsted lived in the well-known 'Hermitage', constructed by him in 1869, situated opposite Crane Island between Halsted Bay and the West Upper Lake. Halsted was the local Justice of the Peace and a well-known character around Lake Minnetonka (Fitch 1864, 554; *Lake Minnetonka Tourist* 1876; Lee 1864a, 731, 1864b, 749, 1865a, 79, 1865b, 145, 1865c, 175; Mowry 1884, 26-27; Porter 1864, 319).

This newspaper ad for the Excelsior House hotel in the Lower Lake showing the steamer *May Queen* and a sailboat on the lake. This image is an indicator of Upper and Lower Lake transportation since *May Queen* originated in the Upper Lake (*Lake Minnetonka Tourist* 1876).



Captain Frank W. Halsted's steamer *Mary* in 1879 (Reserve Album 111 #7, Minnesota Historical Society).



A portrait of Captain Frank W. Halsted and his home, Hermitage (Ellis 1905, 37).



An ad for the steamer Mary, working in the Lower Lake but she provided connecting service for Upper Lake steamers in 1877 (*Tourist and Sportsman* 1877b).

THE STAUNCH PROPELLER

MARY

Makes regular daily trips from Wayzata to Excelsior, connecting with trains on the St. Paul & Pacific R. R. at Wayzata, and landing passengers at any point on Lower Lake Minnetonka. Connects at Excelsior with steamers for

THE UPPER LAKE.

Special rates given for pic-nics and excursion parties. Good barges furnished.

By 1875, 'Mound City' was established on Upper Lake's Cooks Bay and was described as "a new village, with a store, post office, blacksmith shop and hotel...and a number of residences have also been built there. The purchase of cord wood and stave bolts is the principal feature of trade...[and] a saw mill was put in operation there during the past winter." The aforementioned hotel was the Lake View House, established by Mathias Cook as 'Cook's House' in 1854, being enlarged and renamed in 1867. Chapman House opened in July 1876 and was described as a "new and commodious hotel...to rival in size and elegance any house on the lake". These boarding houses boasted large grounds of shade trees, croquet, fleets of rowboats for fishing and sailboats for fun, ice houses for the 'daily catch', daily steamboat visits from Excelsior and Wayzata on the Lower Lake so patrons could enjoy several hours of lake excursions. Local boat-builders R. R. Cummings and E. K. Weeks constructed the rowboat fleets in Mound City (*Lake Minnetonka Tourist* 1876; Meyer 1997, 61-62; Mowry 1884, 40; *Tourist and Sportsman* 1877a).

Newspaper ads for Cook's Lake View House and Chapman House on Cooks Bay in Mound City list a variety of activities and amenities for Upper Lake Minnetonka visitors (*Lake Minnetonka Tourist* 1876).

COOK'S LAKE VIEW HOUSE,
UPPER LAKE MINNETONKA.

This well known Upper Lake rural resort is now ready for guests. Large additions have been made to the house, which makes it one of the finest on the lake. Handsomely located, offering extensive views of what is considered the most beautiful portion of Lake Minnetonka. Grounds neat, covered with shade and fruit trees, and the boat landing is within a few yards of the house, where boats and tackle are always ready for use. Famous fishing grounds in immediate vicinity. Steamers will make regular trips from Wayzata, via Excelsior, passing on the route all the points of interest in the Upper and Lower Lakes, and remain at this point about four hours, returning in time for evening trains. Fare for round trip, including dinner, \$2.00. Accommodations for regular or transient boarders, and especial care for invalids. Send for terms by mail. M...S. COOK, PROPRIETOR.

CHAPMAN HOUSE,
MOUND CITY, UPPER LAKE MINNETONKA.

This elegant hotel, now in course of erection, will be completed and ready for opening to the public about the 4th of July, with new equipments throughout, and it will be managed in first class style. The rooms are large, well ventilated, and the house commands a magnificent view of the lake. The grounds are beautiful, covered with a fine growth of forest trees, and will be furnished with swings, croquet, and other popular games. The steamers make same connections as with other Upper Lake points, and boats and tackle can be had at the landing. Every care taken for pleasure and comfort of guests. CHAPMAN BROTHERS, PROPRIETORS.

Sidewheel steamer *Belle of Minnetonka* at Chapman House about 1885 (HE5.13p11, by Jacoby, Minnesota Historical Society).



The Chapman House boathouse and dock, along with its fleet of rowboats around 1885 (MH5.9MDr10, by Jacoby, Minnesota Historical Society).



Swimmers among the rowboats in front of Chapman House around 1900. Note the large gasoline launch with the torpedo stern in the left of the photograph (GV3.61p7, Minnesota Historical Society).



Rowboats and small steamers at the Chapman House dock and landing around 1905 (HE5.13p68, by Zimmerman, Minnesota Historical Society).



In 1880 Spring Park was established on part of the land claimed by John Carman and was the location of the 'Bon Ami Club', founded by a group of St. Paulites. The club accommodated camping, croquet, sailing, rowing, picnics, was an excursion stop for steamboats, and supported several summer cottages. Into the 1880s and through the early 1900s, many hotels and boarding houses were scattered around the various Upper Lake islands and bays, including the Palmer House at Zumbra Heights, Pleasant View on Howard's Point, the Upper Lake House/Edgewood House on the south shore of the East Upper Lake, Hotel Harrow/Shady Isle House on Shady Isle, the Maple Heights Inn/Woolnough's Inn on Phelps Island, and the Hotel Del Otero in Spring Park. In Mound City itself, the Bartlett House, Mound City House, Dewey House, the Buena Vista Hotel, the Switzerland Hotel, and Sunset View Hotel greeted visitors to the lake. Advertisements for these Upper Lake establishments all stressed the fact that they were on the steamboat routes and boat owners published their schedules to the boarding houses and hotels as well (Meyer 1997, 64-73, 100; *Northwestern Tourist* 1883b; *Tourist and Sportsman* 1881).

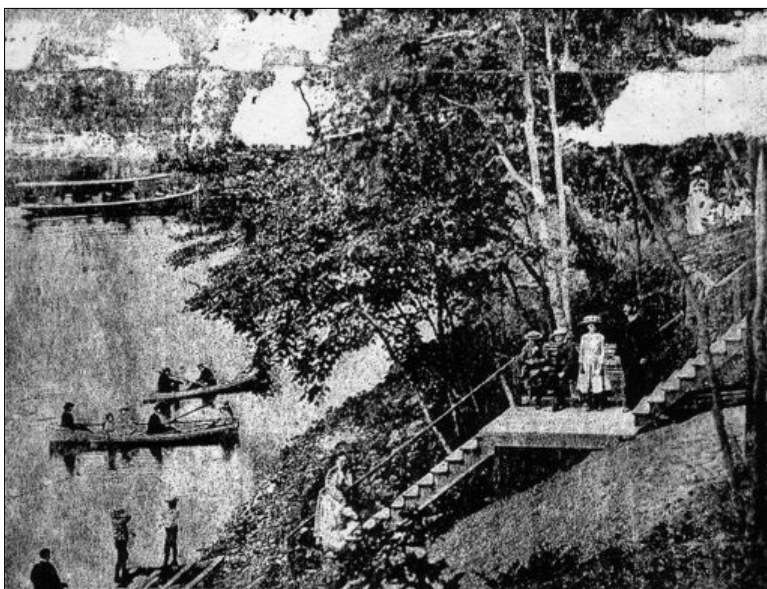


Beyond the large steamboats, many small steamers operated on Upper Lake Minnetonka from the 1880s onward. On the far side of the dock at Spring Park, probably in 1894, are (L to R) the *Acte*, *Alert*, *West Point*, and *Helena*, and on the near side of the dock are the *Twin City*, *Ralph*, and *Mabel Lane*. Note the coal bunker on the shoreline (HE5.11Tr9, Minnesota Historical Society).

Spring Park around 1910. Hotel Del Otero is across the street to the right among the trees (MH5.9SPp5, Minnesota Historical Society).



Mr. E. F. Pabody's landing at Zumbra Heights in 1895, with small launch in the background and rowboats in the foreground. the Pabody land was 80 acres in size and had a vineyard (*Tourist and Sportsman* 1895)



Mr. Sampson advertised the amenities and cool, shady nature of the Upper Lake House in 1883 (*Northwestern Tourist* 1883a).

UPPER LAKE HOUSE.

Situated at Sampson's Upper Lake Park, on the South side of the Upper Lake, 2½ miles from Excelsior village, by pleasant road, and being in direct route of all steamers (to head of Lake), any of which will land passengers, or call for them to connect with early or late trains daily, will be opened for boarders June 1st. We need not say to all former patrons, for they already know that it is one of the coolest and most delightful places on the entire lake, as there is plenty of shade, and *no glare from reflection of sun.* Complete satisfaction guaranteed.

Board, \$8.00 to \$10.00 per week. \$1.50 per day. Single meal, 50 cents. Superior tenting grounds, and tents furnished with board, at reduced rates.

W. A. SAMPSON,
Proprietor.

1-t

An ad for the Shady Isle House in 1889
(*Minnetonka Record* 1889).

THE SHADY ISLE HOUSE,
SHADY ISLE, UPPER LAKE MINNETONKA.

Open for the season. Shady Isle House affords pleasant quarters for summer boarders at reasonable rates. It is the great fishing resort of Minnetonka

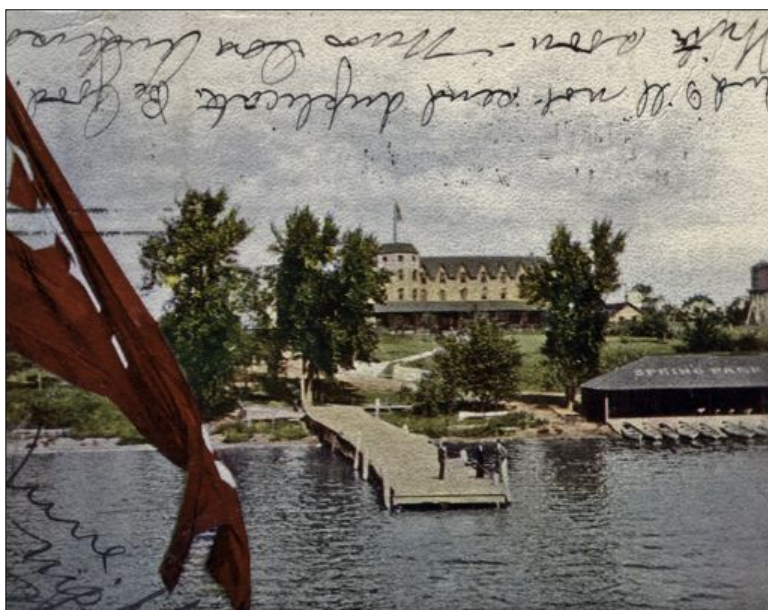
A NEAT EIGHT ROOM COTTAGE FOR RENT.

Post office address, **MRS. S. J. WALLY, EXCELSIOR, MINN.**

Woolnough's Maple Heights Inn
(Maritime Heritage Minnesota Collection).



Hotel Del Otero seen from a steamboat.
Note the steamer's pennant in the foreground (Maritime Heritage Minnesota Collection).



An ad for Mound City House (*Tourist and Sportsman* 1881).

MOUND CITY HOUSE,
UPPER LAKE MINNETONKA MINN.

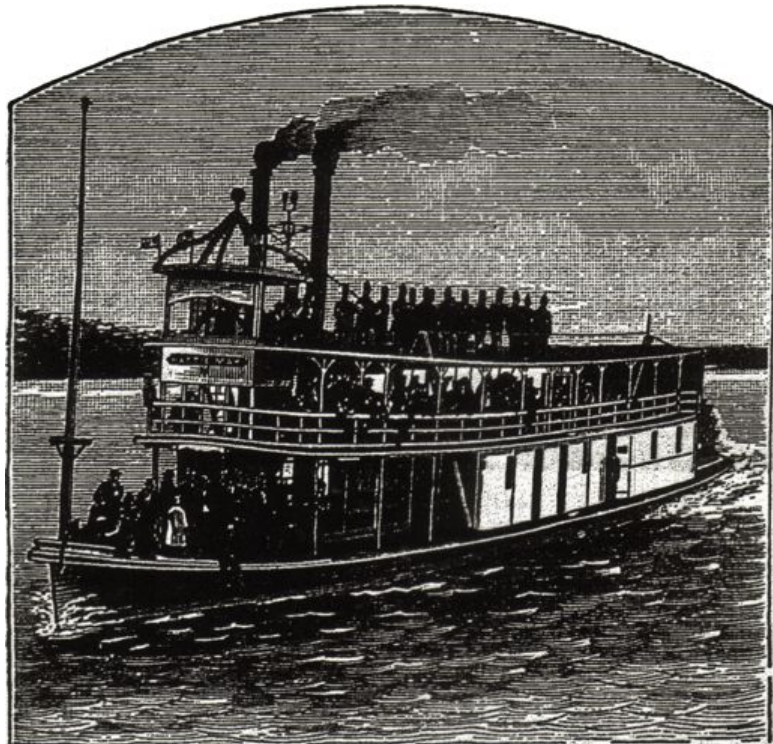
Will be opened June 15th, and will accommodate about 25 boarders. The house is handsomely located in the grove between Minnetonka and Lake Landon, overlooking both places, and is within a few rods of the Chapman House steamer landing. It has all the advantages of the lake possessed by any hotel.

Building lots for summer cottages for sale, at reasonable prices. Plat may be seen at house.

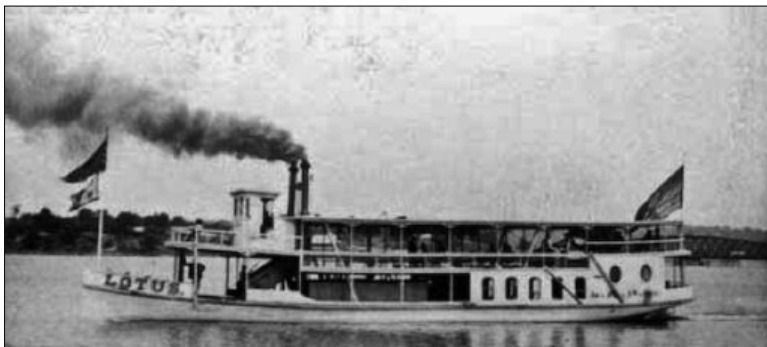
Address **SEYMOUR A. CHAPMAN,**
Mound City, Minn.

In the Upper and Lower Lake in 1881, the Lake Minnetonka Navigation Company operated four steamboats, the sternwheeler *Hattie May* and the propellers *City of Minneapolis*, *Nautilus*, and *Lotus*, to accommodate summer resort and lake residents. The large new sidewheeler *City of St. Louis* and the smaller propellers *Saucy Kate* and *Mercury* operated on both sections of the lake as well. In 1882, the largest steamer to work on Lake Minnetonka – the sidewheeler *Belle of Minnetonka* – was launched and provided service on the Upper and Lower Lakes as well. The 1883 fleet was comprised of the *Belle of Minnetonka*, *City of St. Louis*, *Hattie May*, *Lotus*, *Saucy Kate*, and *Star* (the former *Mary* mentioned above). A detailed 1883 schedule for these steamboats indicated the *Belle of Minnetonka*, *Saucy Kate*, *Lotus*, and *City of St. Louis* regularly traveled between the Upper and Lower Lakes on a timetable. The number of steamboat excursionists that year totaled more than 90,000 people between 1 June and 1 October for both the Upper and Lower Lakes. A cottage industry also sprang up in Mound City with the ‘Lake Minnetonka Supply Boat’ operated by T. B. Carman. The boat made “regular trips around the lake to supply groceries, vegetables, canned goods, and about everything wished for, to camps, cottages and hotels”. Mr. Carman made it easy for tourists and weekenders to use his services because orders for the supply boat could be left in Wayzata, Mound City, or by flagging down the boat herself. A. Thompson ran a similar supply boat service out of Excelsior (*Lake Minnetonka Tourist* 1876; McGinnis 2010, 15; Mowry 1884, 7; *Northwestern Tourist* 1883a, 1883b; *Tourist and Sportsman* 1881).

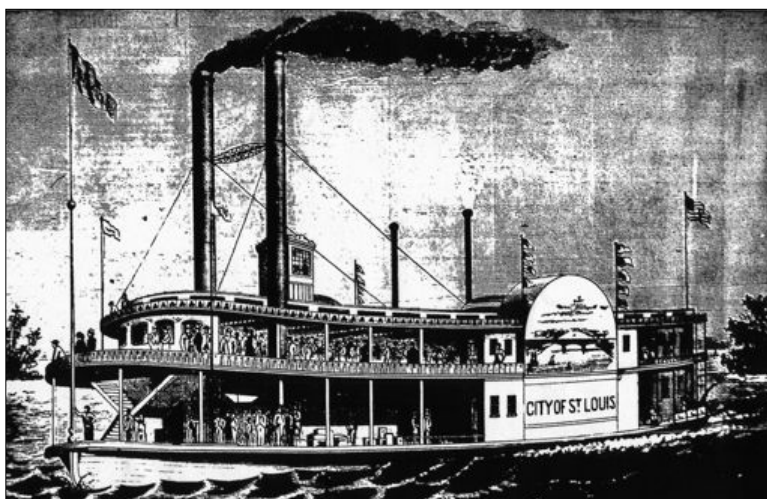
Sternwheeler *Hattie May*
(*Northwestern Tourist* 1886).



Propeller *Lotus* in 1881 (Reserve Album 111 #11, Minnesota Historical Society).



Large sidewheeler steamer *City of St. Louis* (*Tourist and Sportsman* 1881).



Above: A stereoview of the *Saucy Kate* about 1889 (HE5.13r64, Minnesota Historical Society).

Right: An ad for *Saucy Kate's* services in 1885 (*Tourist and Sportsman* 1881).

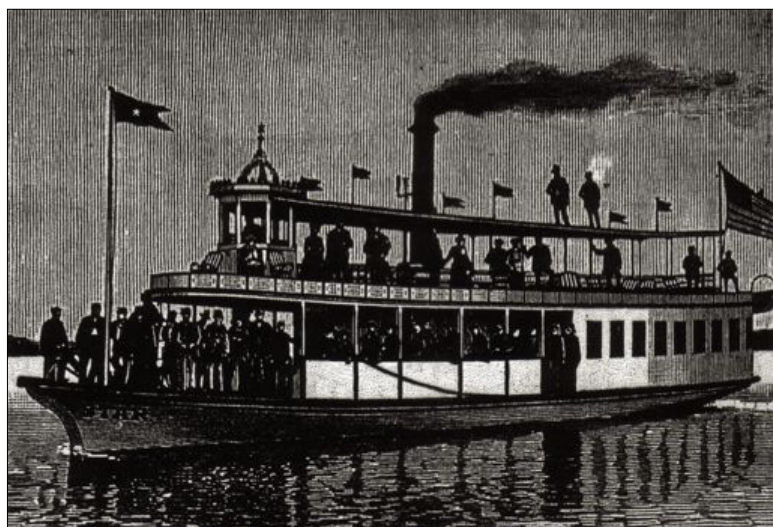
The Lake Minnetonka
PROPELLER SAUCY KATE,
 L. F. SAMPSON, Proprietor.

Will make trips to meet regular trains at Wayzata, and make the run to Excelsior, Upper Lake, and all intermediate points daily. The boiler of the Saucy Kate has been inspected and pronounced safe by the State Board of Inspection, and every measure will be taken for the comfort and safety of passengers. The boat has been handsomely fitted up, and is now neater and pleasanter than ever before.

Commutation tickets at liberal rates. Will charter for excursions.

Passengers desiring to travel on the Saucy Kate, should buy their round-trip tickets to Wayzata.

The largest steamer on Lake Minnetonka, *Belle of Minnetonka*, approaching the shoreline about 1885 (HE5.13p11, by Jacoby, Minnesota Historical Society).



LAKE MINNETONKA
PROPELLER STAR.
 R. L. McKENZIE, Master.
 Makes Regular Daily Trips to Upper Lake.
 Special Attention to Excursion Parties.
Tourists bringing baskets will find accommodations on board for spreading their dinners so as to enjoy them.
Hot Coffee and Tea, by the Cup, Quart or Gallon. Sandwiches, Confectionery, Fruit, Cigars, etc., for sale at the Launch Counter.
 Special Rates to Large Excursions. Capacity for 200 Passengers.
The Star has been refitted, and is the newest, most convenient and comfortable Propeller on the Lake. The machinery is first-class in every particular, and she is run by one of the safest and best engineers ever employed on Lake Minnetonka. For information, address
R. L. McKENZIE, Excelsior.

The propeller steamer *Star*, formerly *Mary*, worked on both Upper and Lower Lake Minnetonka (*Northwestern Tourist* 1886). Her service was advertised in 1884 (Mowry 1884, 41).

The Lake Minnetonka Supply Boat was operated by T. B. Carman in 1883 (*Northwestern Tourist* 1883a).

LAKE MINNETONKA SUPPLY BOAT
 Makes regular trips around the lake to supply groceries, vegetables, canned goods, and about everything wished for, to camps, cottages and hotels.
 New camps can leave word for calls with Bushnell Bros., Wayzata, F. M. Carman, Mound City store, or flag the boat.
 4-2t T. B. CARMAN, Proprietor

Beginning in 1906, the Twin City Rapid Transit Company's (TCRT) Streetcar Boats provided public transportation around both the Lower and Upper Lake. These boats were the *Como*, *Harriet*, *Hopkins*, *Minnehaha*, *Stillwater*, *White Bear*, and by 1915, the *Excelsior*. Initially, all the Streetcar Boat routes originated in Excelsior, the western terminus of the electric streetcar line at that time. The 'Upper Lake Division' consisted of

the 'Zumbra Heights Express' and 'Spring Park Express' lines. By 1907, the Streetcar Boats connected at Wayzata with the Great Northern Railway and in 1908, the streetcar line established stops at Deephaven on Carsons Bay and at Wildhurst between the Lower Lake's Gideon Bay and the East Upper Lake, and Tonka Bay, where the streetcar line terminated. Throughout the working history of the Streetcar Boats, the Upper Lake routes and service stops varied during any given season and year-by-year, depending on business and necessity, and stopped at public and private docks. Over the years, the Upper Lake scheduled stops included the Narrows, Casco Point, Isle View, Spring Park, Maple Heights Inn/Woolnough's, Pembroke (on Phelp's Island), Wildhurst, Birch Bluff, Edgewood, Shady Isle, Enchanted Island, Woodside, Zumbra Heights, Crane Island, and Mound (Olson 1976, 207-212).



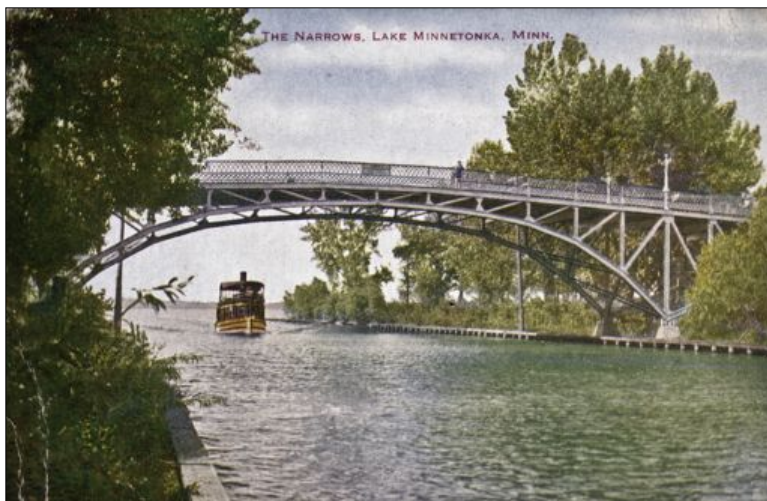
The Streetcar Boat *Como* at a Zumbra Heights stop in the Upper Lake (Maritime Heritage Minnesota Collection).

In 1911 the Narrows Bridge, a steel span with concrete abutments built by the Minneapolis Steel and Machinery Company, was designed to rise 25 feet above the channel. This height was not sufficient to accommodate Class A and B yachts, vessels that carried 32-foot masts, and members of the Minnetonka Yacht Club objected to this restriction to the Board of County Commissioners. It was underscored that "it is customary, in building a bridge, to provide for the passage of all ordinary navigation. Neither of the three ferry boats [*Minneapolis*, *Minnetonka*, *St. Paul*] nor the *Puritan* could go under the proposed bridge, to say nothing of dredges, pile drivers, or larger sail boats." After much discussion that included re-opening the Old Narrows channel and installing a draw bridge there – an idea not favored by yachtsmen due to poor wind at the old channel – no design changes were made to the new bridge because of the expense involved and certain vessels became trapped either in the Upper Lake or the Lower Lake (*Minnetonka Record* 1911a-1911c). However, in the case of some sailboats, they could de-mast and go under the Narrows Bridge when necessary.

Tall-masted sailboats using the New Narrows around 1896 (MH5.1Lp17, Minnesota Historical Society).



A Streetcar Boat steaming through the Narrows under the new steel and concrete bridge, 1911 or later (Maritime Heritage Minnesota Collection).



The era of seasonal hotels and resorts on the Upper Lake started to dwindle in the early 1900s, with both the Chapman House and Lake View House gone by 1912, the Mound City Hotel by 1924, and the Buena Vista Hotel by 1926. The large and popular Hotel Del Otero lasted 60 years, burning down in early July 1945, and the Maple Heights Inn survived until 1964 – the last summer hotel or resort on the Upper Lake (Meyer 1997, 56, 64, 66, 68, 73). Throughout the first part of the 20th Century, the Upper Lake witnessed private dwellings filling up the large expanses of land vacated by the hotels and resorts, changing the character of the lake itself. No longer needed were the excursion steamboats for lake sightseeing, or Mr. Carman’s supply boat, or the Streetcar Boats, and private pleasure steam and gasoline launches were replaced by fast runabouts and speed boats.

Carrington Phelps’s island was broken up and offered for sale in the early 1900s (Ellis 1905, 99).

North Shore Park

Formerly
Phelps Island.

The Gem of Lake Minnetonka.

Five hundred and fifty acres of finely wooded land covered with fine young trees, having five miles of shore line. This land has all been cleaned and brushed out. Roads have been cut and a line of boats will take you to any dock. The shores are mostly sandy, parts of this land lies one hundred feet above the lake level. Two bridges connect North Shore Park with the main land. Truly a picturesque and beautiful place to locate a summer home. Platted into lots of one-half to ten acre tracts. For Maps, Information and prices, call on

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EXCLUSIVE AGENTS.

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Easy terms if so desired.

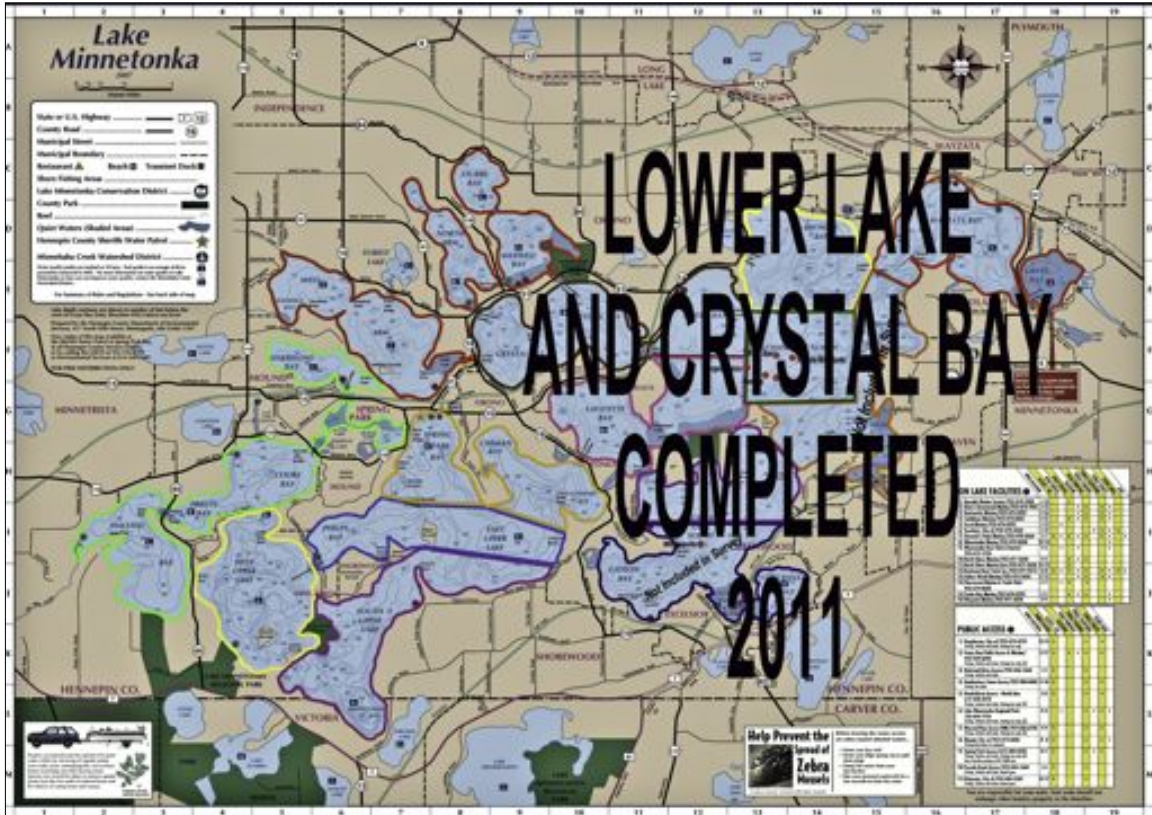
Nautical and Maritime Archaeological Sites in Lake Minnetonka

Prior to the beginning of the LMS-2 Project, there were nine known wrecks in Lake Minnetonka and acknowledged by the Minnesota's Office of the State Archaeologist – *Como* (21-HE0397), *George/Excelsior* (21-HE0399), *Hercules* (21-HE0398), *Hopkins/Minnetonka* (21-HE0396), *Minneapolis* (21-HE0403), *White Bear* (21-HE0281), the Wayzata Bay Wreck (21-HE0401), the St. Albans Bay Wreck (21-HE0400), and Wreck 1 (21-HE0404). During the LMS-1 Project, MHM completed the required paperwork to have the wrecks listed above – with the exception of *White Bear* – recognized as nautical archaeological sites in addition to the Big Island Steamboat Pier, Park, and Veteran's Camp (21-HE0402) site. The Wayzata Bay Wreck, St. Albans Bay Wreck, and Wreck 1 were first recognized by MHM during the LMS-1 Project. MHM is confident that several more anomalies recorded during the LMS-1 Project are wrecks as well, but without diving on them to gather more information, the ages of these wrecks are at present undetermined and remain 'anomalies'. It must be acknowledged that Minnesota's submerged archaeological sites – wrecks as well as artifacts – are protected by the Minnesota Field Archaeology Act of 1963. Minnesota recognized early on that the protection of our shipwrecks and submerged cultural resources are important to our shared history. Beyond this, all of Minnesota's wrecks also fall under Federal protection under the Abandoned Shipwreck Act of 1987.

LMS-2 Project Survey Methodology

Maritime Heritage Minnesota's LMS-2 Project is the second part of the third systematic side and down imaging sonar survey of a body of water in Minnesota; the first was the Mississippi River Aitkin County Survey (MRACS) in 2010 and the Minnesota River Survey 1 (MRS-1) in 2011, both conducted by MHM. The State Historic Preservation Office (SHPO) sponsored a targeted sonar survey of a section of Lower Lake Minnetonka in 1996 to produce sonar images of the six wrecks that were known at the time – *Como*, *George/Excelsior*, *Hercules*, *Hopkins/Minnetonka*, and *White Bear* located north of Big Island, and the *Minneapolis*, east of Sunrise Point. These researchers also conducted two reconnaissance dives on the *White Bear* to record her basic measurements (Hall, Birk, and Newell 1997, 53-62). The fieldwork portion of the LMS-2 Project was designed to be completed in May 2012.

MHM began the LMS-2 Project on 4 May 2012, first surveying the Upper Lake's North Arm, 'mowing the lawn' in the survey boat in parallel transects spaced 500 feet apart, with the sonar's transducer sending out acoustical waves 250 feet on each side of the boat. MHM then surveyed Halsted Bay, Cooks Bay, Priests Bay, the northern section of the West Upper Lake, Harrison Bay, a portion of the West Arm, Stubbs Bay, Maxwell Bay, the rest of the West Arm, Jennings Bay, the southern portion of the West Upper Lake, Phelps Bay, Spring Park Bay, the South Upper Lake, Smithtown Bay, Carman Bay, and Old Channel Bay. MHM completed the survey on 16 May 2012, with two additional trips onto the lake to review some interesting anomalies on 25 May and 4 June. Throughout the survey, MHM relied upon the GPS maps linked into the sonar unit for water depth and navigation, as well as the extensive navigation buoy system put in place by Hennepin County.



MHM's survey map indicating the different sections of the Upper Lake surveyed in May 2012. MHM intended to survey the different colored areas together but adjustments were made due to wind conditions.



MHM's survey boat at the North Arm launch on the first day of the survey.

North Arm and the launch ramp. The lake water level was down nearly 3 feet during the survey.



MHM's Christopher Olson operating the boat and its 7.5 hp motor.



MHM's Ann Merriman watching the sonar screen, looking for anomalies, recording data on a memory card, and noting anomalies in the notebook. The white mast is holding the sonar unit's GPS receiver.



The Halsted Bay launch.



Cooks Bay and launch in Mound.



Maxwell Bay and launch.



On the West Arm looking east.



An early morning on the West Upper Lake, traveling toward Crane Island and Wawataso Island.



The LMS-2 Project Sonar Anomalies

Maritime Heritage Minnesota noted 165 anomalies during the LMS-2 Project. Of these, 54 appear to be human-made objects that may warrant further investigation. MHM is confident that two of these anomalies are wrecks, but the ages of these sunken vessels cannot be determined and they remain 'anomalies' and not archaeological sites – for the time being. MHM is considering another 9 anomalies as 'probable wrecks' upon close examination of their sonar signatures, and 24 other anomalies are possible wrecks. Lastly, 19 recorded anomalies may be human-made objects and MHM can hypothesize about their nature, but without further investigations, they are unidentifiable. MHM will prioritize and investigate these anomalies by SCUBA in the near future if all goes as planned. A note must be made here about the numbering of the LMS-2 Project anomalies; MHM continued the numbering system that was used for the LMS-1 Project, a series that ended with 75. Therefore, the 54 anomalies shown below are numbered 76-129.

Spring Park Bay Wreck

Anomaly 91, the Spring Park Bay Wreck, is probably a runabout that could be a Chris-Craft, Hacker-Craft, or even a locally-built Ramaley fast speedboat. MHM cannot designate this wreck as a nautical archaeological site without further underwater investigations to determine her probable age. If she sank at least 50 years ago, MHM will complete a Minnesota archaeological site form that will give her a site number and recognize her as a protected nautical archaeological site. The probability of this wreck being old enough to qualify as a site is good, since runabouts and motorized speed boats were developed in the 1920s. If it appears that this wreck is not old enough to qualify as an archaeological site, MHM will determine the date at which this will be possible and fill out the proper paperwork in the future.

Anomaly 91

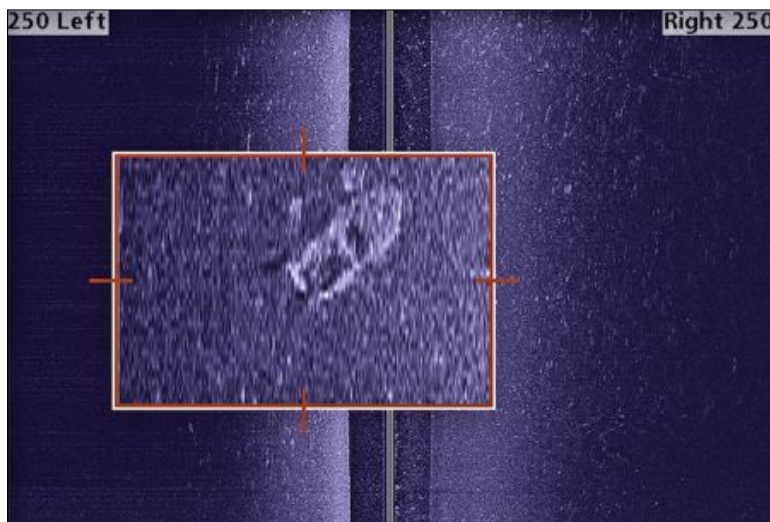
Recorded: 5/14/2012

Identification: Spring Park Bay Wreck

Size: Approximately 15 feet long

Location: Spring Park Bay

Analysis: This wreck appears to be a motorized runabout whose age cannot be determined without diving and therefore cannot be designated an archaeological site at this time; it is presumed the stern is to the left; the square objects next to the wreck may be related debris



A Chris-Craft inboard motor boat about 1959. This boat is larger than the Spring Park Bay Wreck but the designs may be similar (GH3.61Pm1, by Keagle, Minnesota Historical Society).



However, another hypothesis may be valid in considering Anomaly 91 and her possible identification. In August 1912, Harry M. Rubey's 46-foot gasoline launch *Elizabeth* caught fire, "burned to the water's edge, then broke in two and sank" in Spring Park Bay. MHM suggests that this wreck may be part of the *Elizabeth* due to the appearance of other sonar images produced during the LMS-2 Survey. The differences in sonar images can be accounted for by different boat speeds, transect directions, and beam lengths. It has been suggested by McGinnis that *Elizabeth* is the same vessel as the naphtha launch *Florence*, constructed by Moore Boat Works of Wayzata in 1899-1900, and owned by Rubey and his brother-in-law Thomas E. Wardell. MHM believes McGinnis's argument has merit (McGinnis 2010, 63-64, 78-79; *Minnetonka Record* 1912).

Anomaly 91

Recorded: 6/4/2012

Analysis: In this sonar image of the wreck, what is the presumed stern does not look as defined as the image above and may indicate a breaking point for the *Elizabeth*; as the differences in these two images indicates, diving on these wrecks is the only method to answer certain archaeological questions



West Arm Pontoon Boat Wreck

The acoustical signature of Anomaly 83, the West Arm Pontoon Boat Wreck, could not be more clear – it is comprised of two pontoons sitting off the bottom of the lake and it appears that the pontoons are still attached to the boat deck underneath them. As with the probable runabout, the age of this pontoon boat wreck cannot be determined and therefore cannot be designated as a nautical archaeological site. Moreover, it is doubtful that this wreck is old enough to qualify as an archaeological site since the pontoon boat is a somewhat recent maritime development. Ambrose Weeres of Richmond, MN, experimented with "steel barrels, welded together end to end" that supported a flat platform boat deck and produced "The Empress" in 1952. Mr. Weeres sold several of

these pontoon boats around Richmond and with their success, Weeres Pontoons was founded and is still in business (Weeres Pontoons 2012). However, if this pontoon wreck is determined to have been on the bottom of the lake for 50 years, she would have been constructed within the first 10 or 11 years of pontoon boat construction and therefore probably one of the oldest pontoons boats in existence – and she may even be a Weeres Pontoon.

Anomaly 83

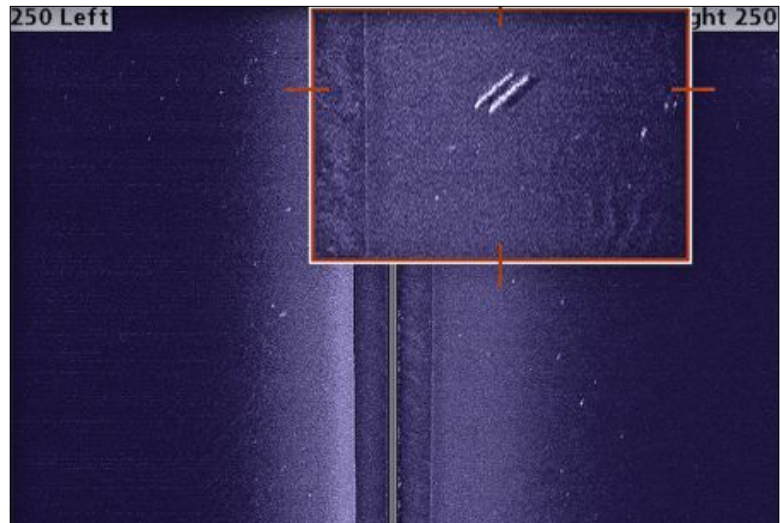
Recorded: 5/10/2012

Identification: West Arm Pontoon Boat Wreck

Size: Approximately 32 feet long

Location: West Arm

Analysis: This anomaly is probably an overturned pontoon boat



The Remaining Anomalies

Anomaly 76

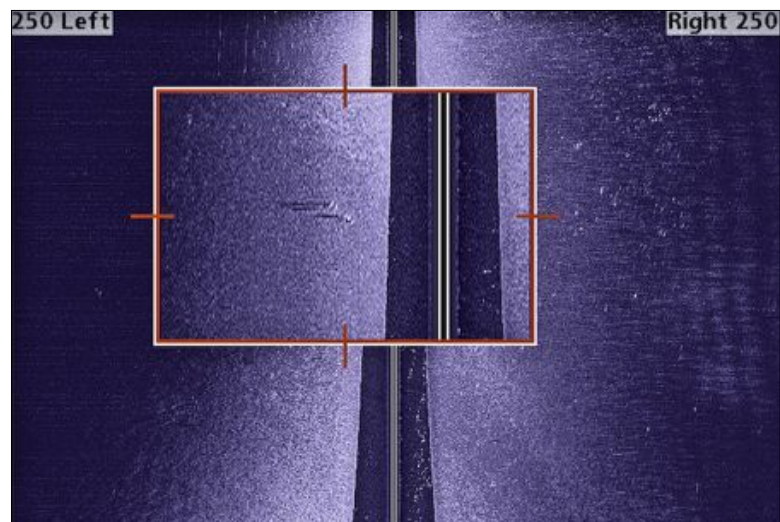
Recorded: 5/10/2012

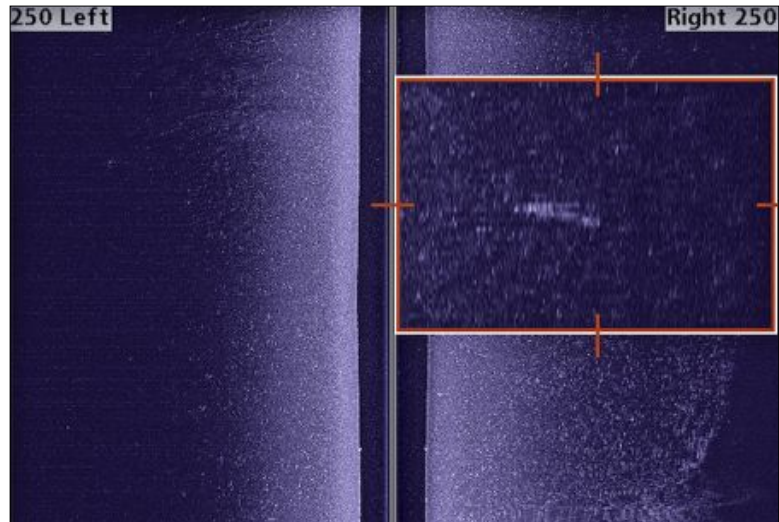
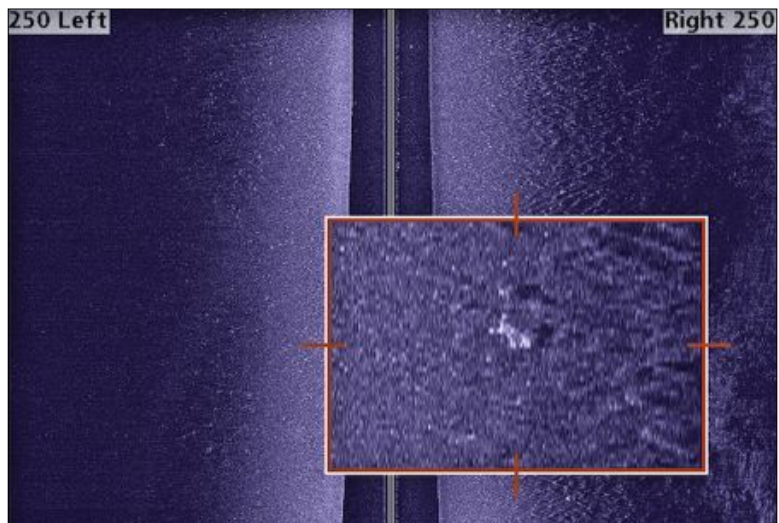
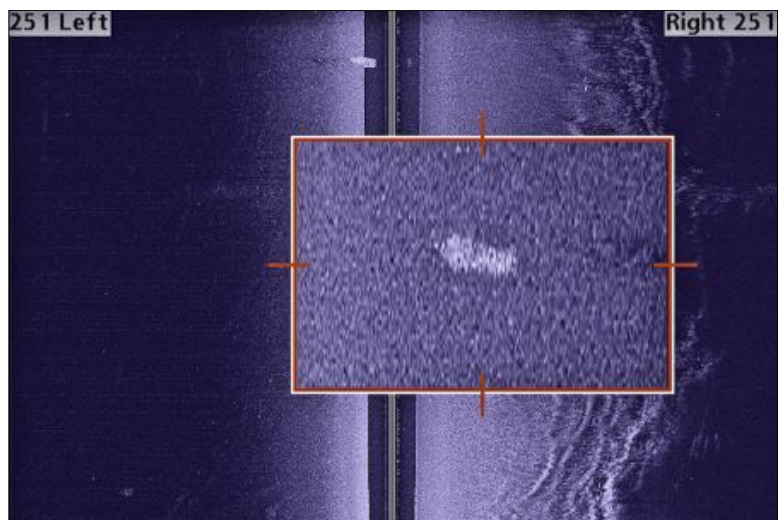
Identification: Irregularly-shaped feature

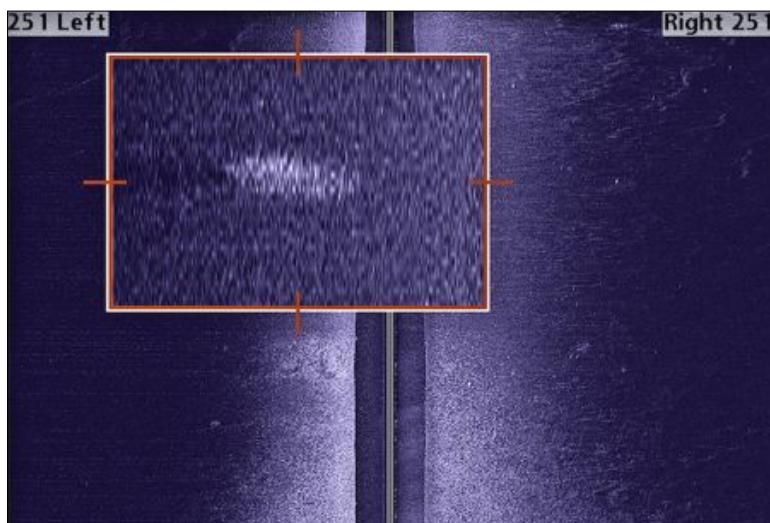
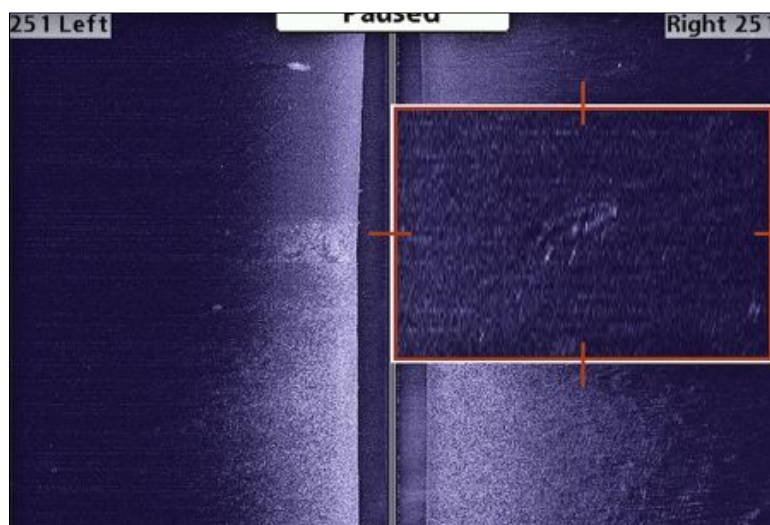
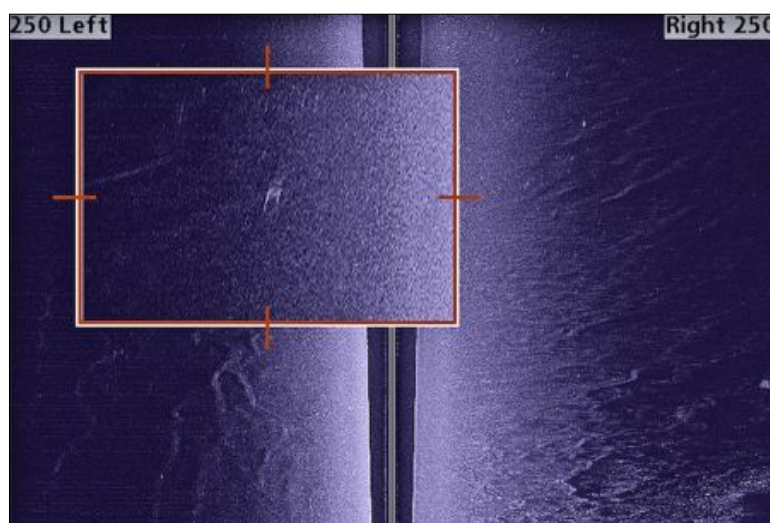
Size: Approximately 11 feet long

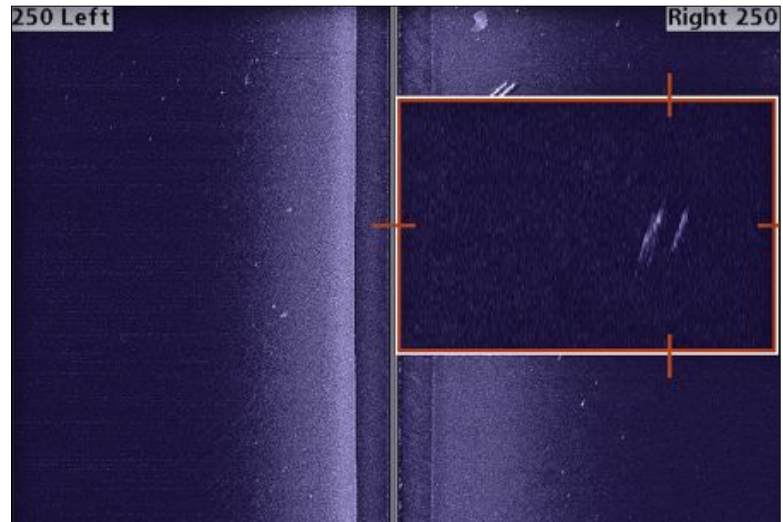
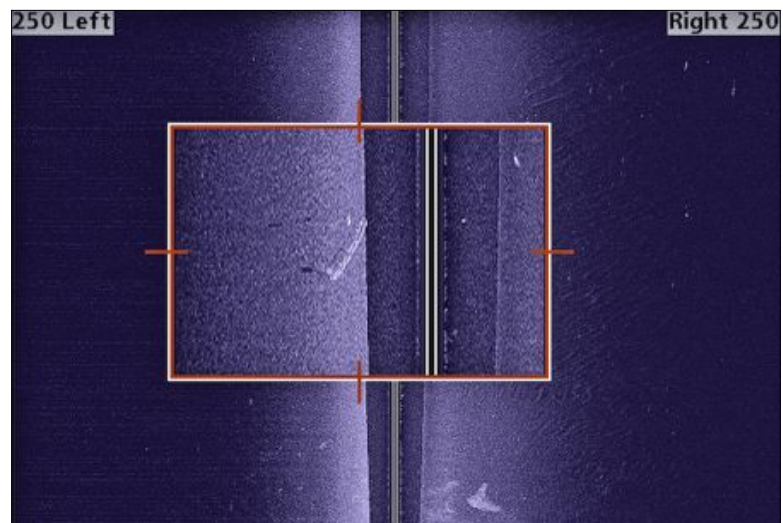
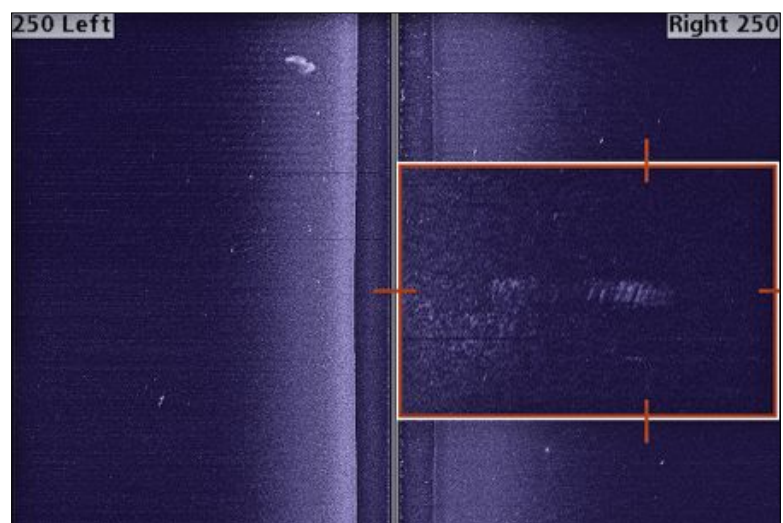
Location: Stubbs Bay

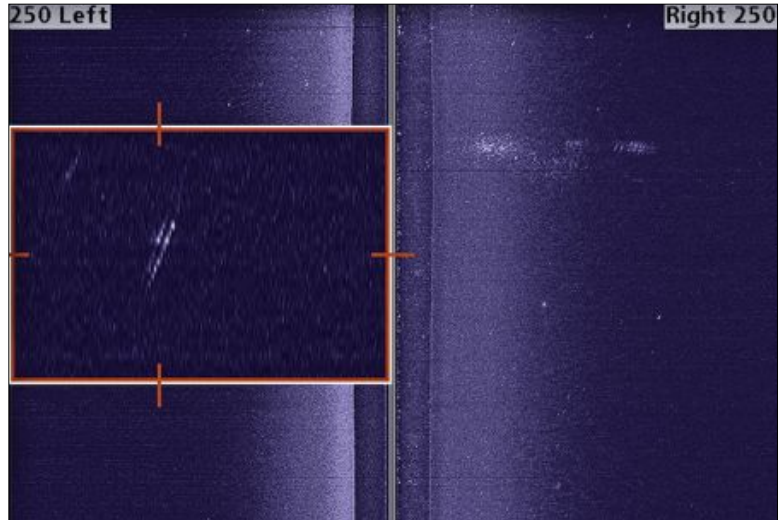
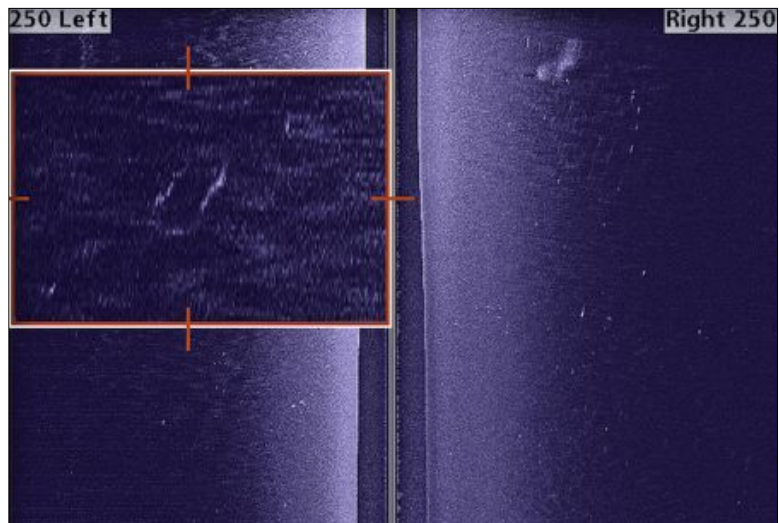
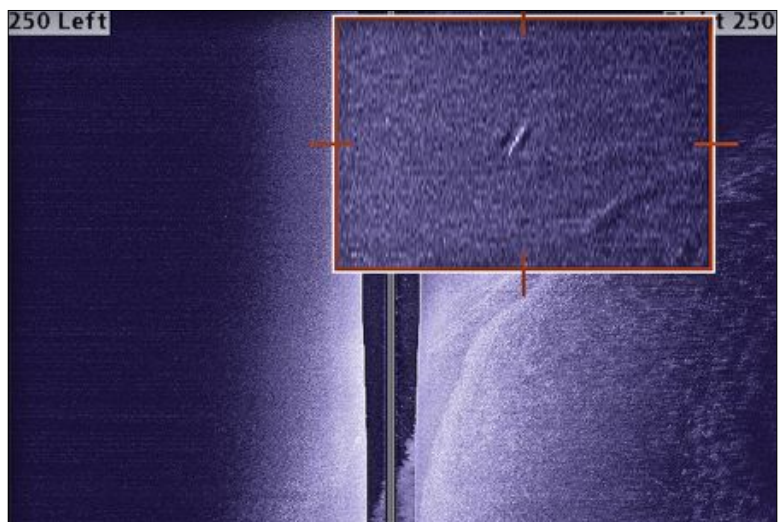
Analysis: Unknown

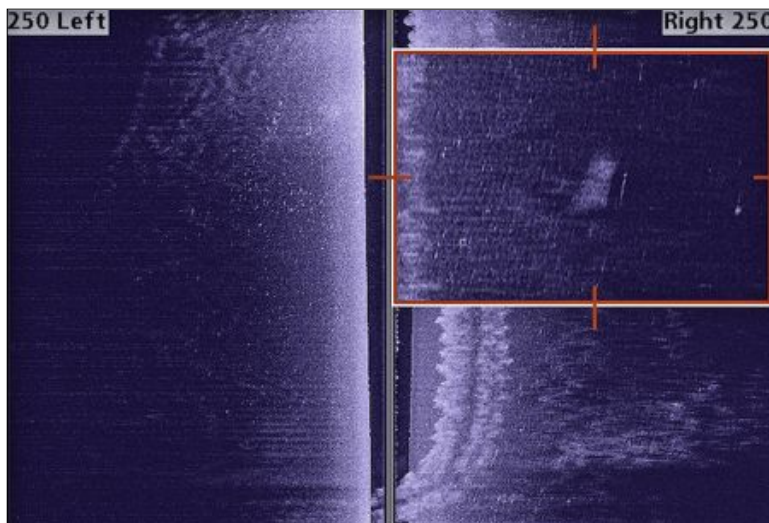
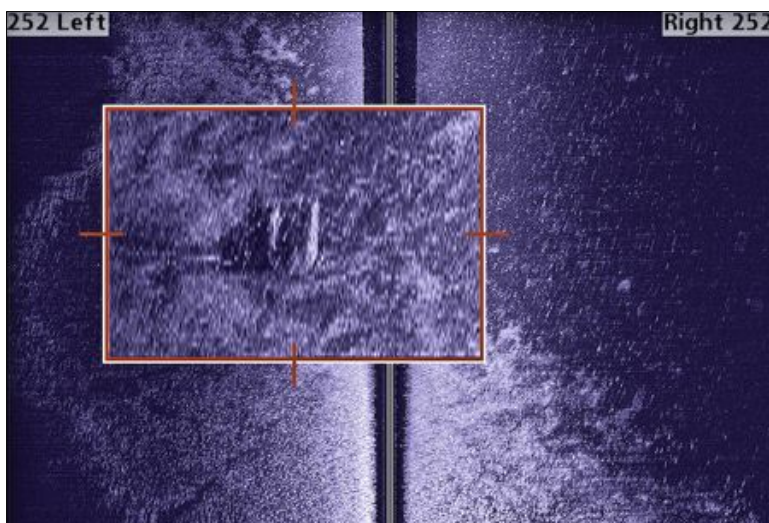
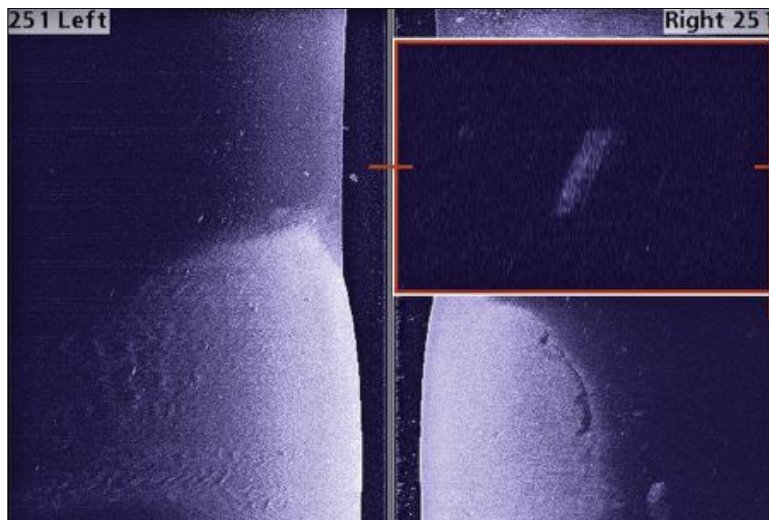


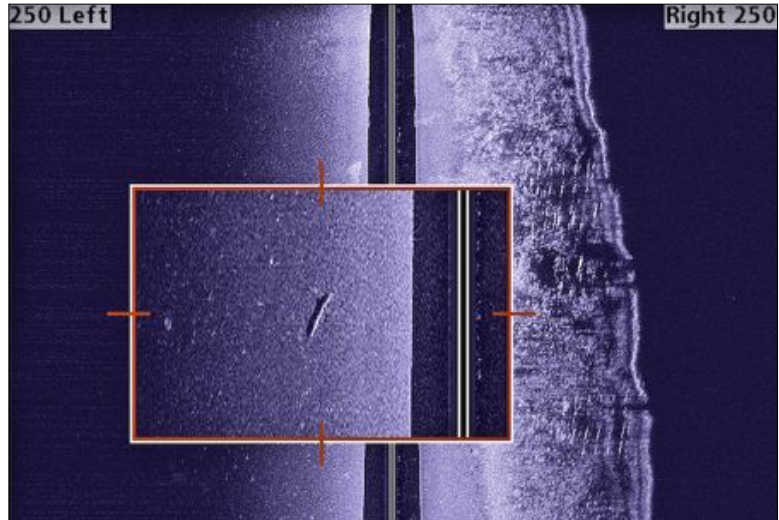
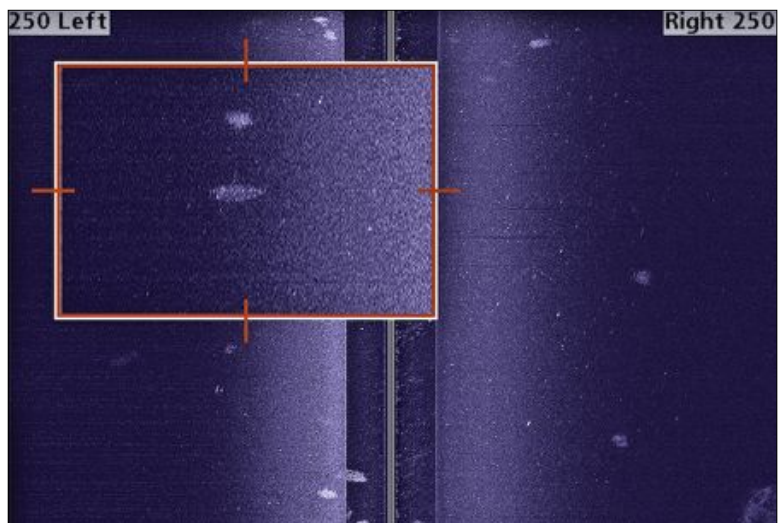
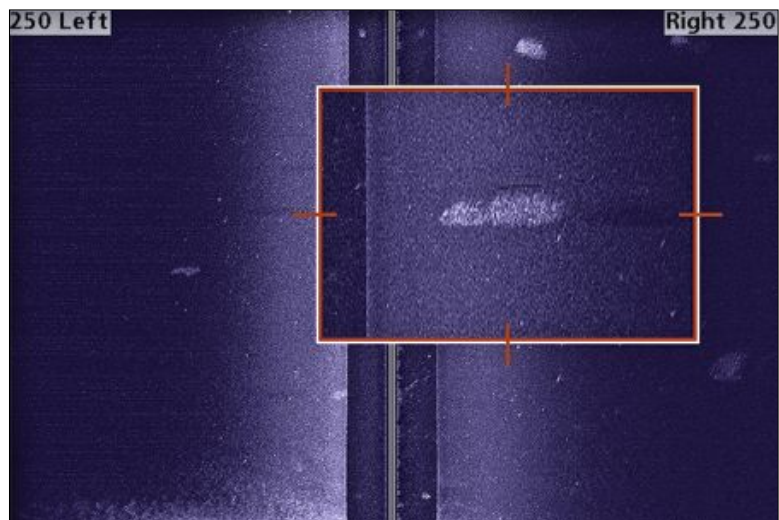
Anomaly 77**Recorded:** 5/4/2012**Identification:** V-shaped feature**Size:** Approximately 13 feet long**Location:** North Arm**Analysis:** This anomaly resembles the bow of a boat**Anomaly 78****Recorded:** 5/4/2012**Identification:** Irregularly-shaped feature**Size:** Unknown**Location:** North Arm**Analysis:** Unknown**Anomaly 79****Recorded:** 5/12/2012**Identification:** Boat-shaped feature**Size:** Approximately 12 feet long**Location:** West Arm**Analysis:** This anomaly is suggestive of a small boat

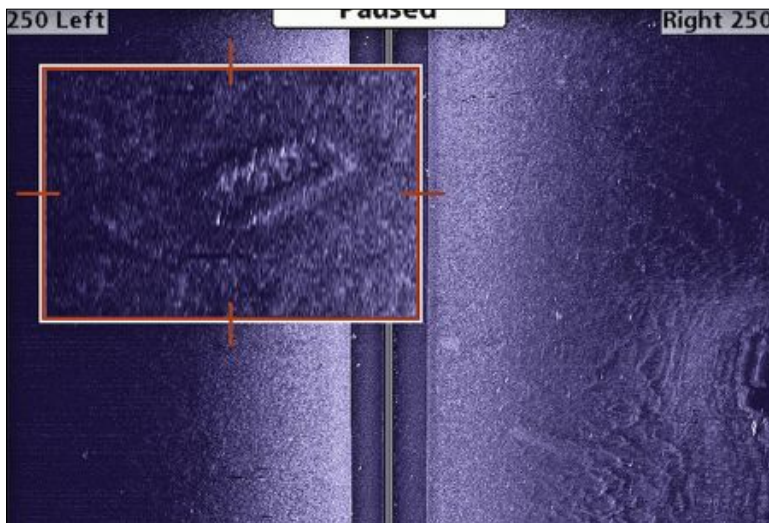
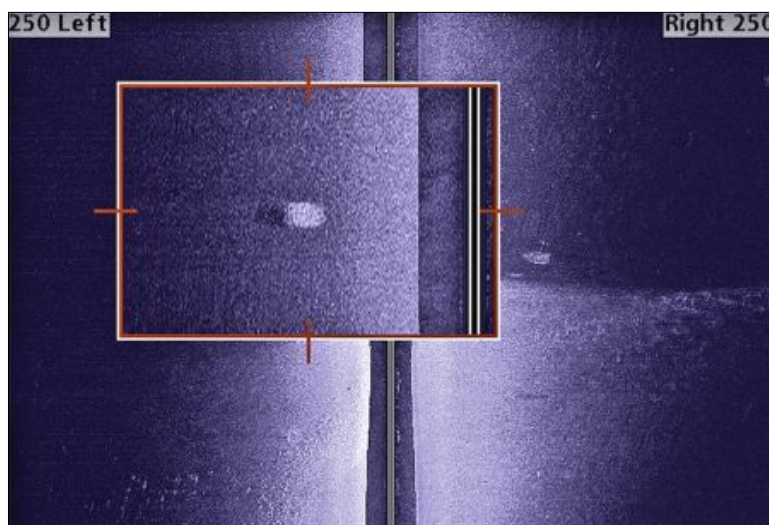
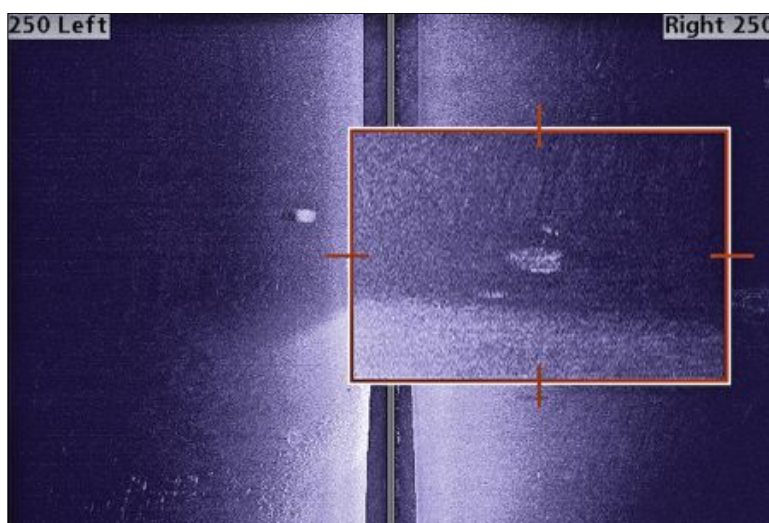
Anomaly 80**Recorded:** 5/12/2012**Identification:** Boat-shaped feature, probable wreck**Size:** Approximately 11 feet long**Location:** West Arm**Analysis:** This anomaly is strongly suggestive of a small boat**Anomaly 81****Recorded:** 5/12/2012**Identification:** Boat-shaped feature**Size:** Approximately 20 feet long**Location:** West Arm**Analysis:** This anomaly is suggestive of a boat**Anomaly 82****Recorded:** 5/12/2012**Identification:** Irregularly-shaped feature**Size:** Approximately 4 feet long**Location:** West Arm**Analysis:** Unknown

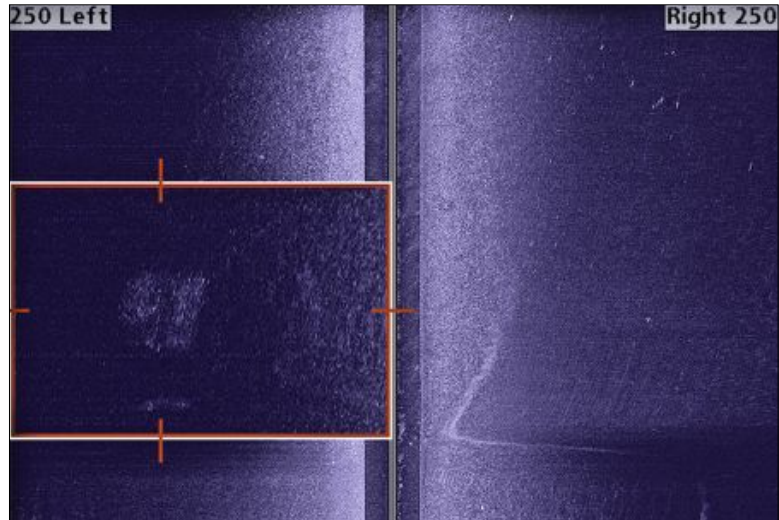
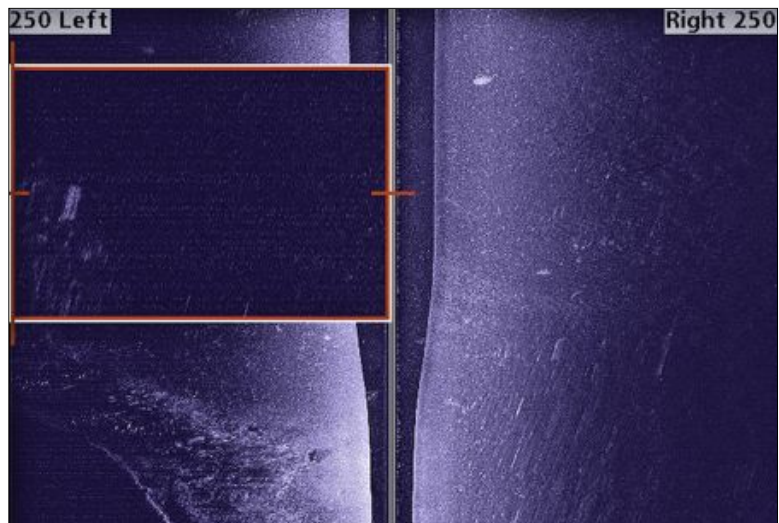
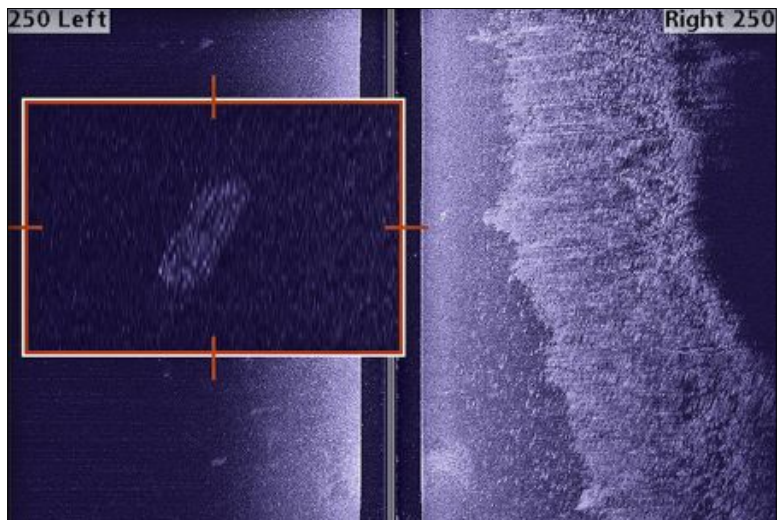
Anomaly 84**Recorded:** 5/10/2012**Identification:** Feature**Size:** Approximately 10 feet long**Location:** West Arm**Analysis:** This anomaly appears partially buried**Anomaly 85****Recorded:** 5/10/2012**Identification:** Long rectangular feature**Size:** Approximately 33 feet long**Location:** West Arm**Analysis:** This anomaly may be partially buried and it has some relief that casts a small shadow**Anomaly 86****Recorded:** 5/10/2012**Identification:** Possible wreck**Size:** Approximately 29 feet long**Location:** West Arm**Analysis:** The appearance of the anomaly suggests it may be a boat

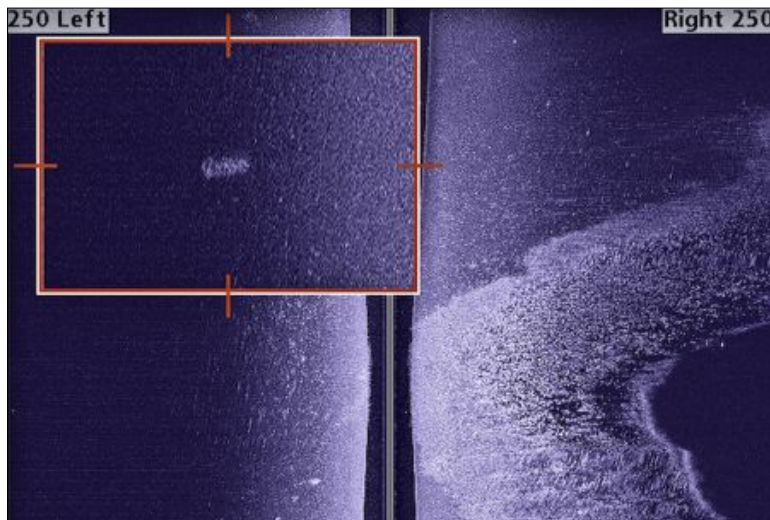
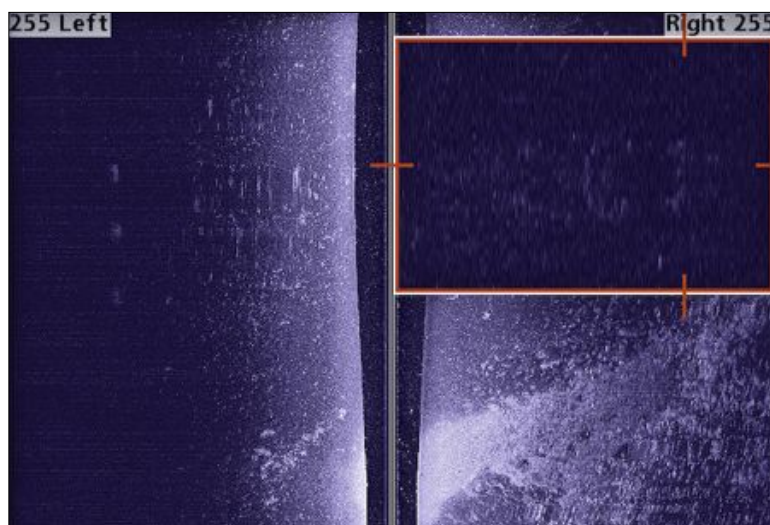
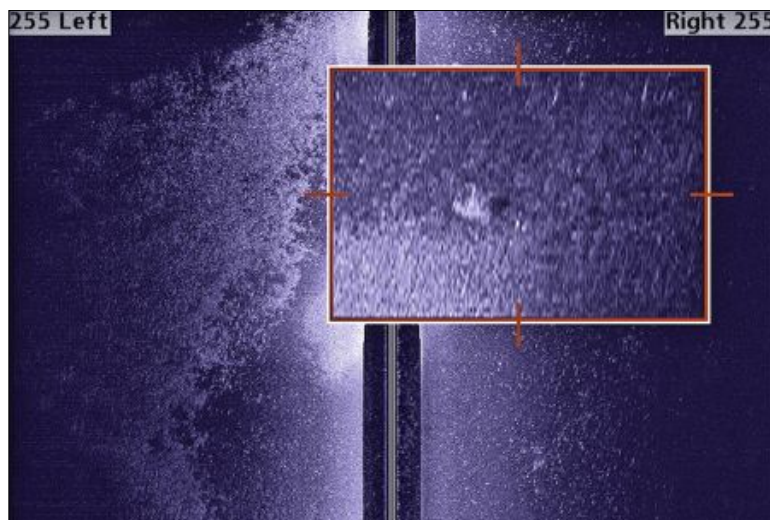
Anomaly 87**Recorded:** 5/10/2012**Identification:** Rectangular feature**Size:** Approximately 18 feet long**Location:** West Arm**Analysis:** Unknown**Anomaly 88****Recorded:** 5/10/2012**Identification:** Rectangular feature**Size:** Approximately 17 feet long**Location:** West Arm**Analysis:** This anomaly appears to be hollow**Anomaly 89****Recorded:** 5/10/2012**Identification:** Thin rectangular feature**Size:** Approximately 7 feet long**Location:** West Arm**Analysis:** Unknown

Anomaly 90**Recorded:** 5/12/2012**Identification:** Rectangular feature**Size:** Approximately 27 feet long**Location:** West Arm**Analysis:** Unknown, but it may be two-sided and sitting off the bottom like a V**Anomaly 92****Recorded:** 5/16/2012**Identification:** Rectangular Feature**Size:** Approximately 16 feet long**Location:** Spring Park Bay**Analysis:** Unknown, but it casts a substantial shadow**Anomaly 93****Recorded:** 5/14/2012**Identification:** Boat-shaped feature**Size:** Approximately 24 feet long**Location:** East of Goose Island**Analysis:** This anomaly resembles a boat with a square bow and stern

Anomaly 94**Recorded:** 5/9/2012**Identification:** Boat-shaped feature on its side**Size:** Approximately 23 feet long**Location:** Cooks Bay**Analysis:** This feature resembles a long sleek motorboat on its side, probable wreck**Anomaly 95****Recorded:** 5/9/2012**Identification:** Boat-shaped feature**Size:** Approximately 13 feet long**Location:** Cooks Bay**Analysis:** This anomaly may be a small boat, probable wreck**Anomaly 96****Recorded:** 5/9/2012**Identification:** Boat-shaped feature**Size:** Approximately 33 feet long**Location:** Cooks Bay**Analysis:** This anomaly may be a boat, possibly overturned

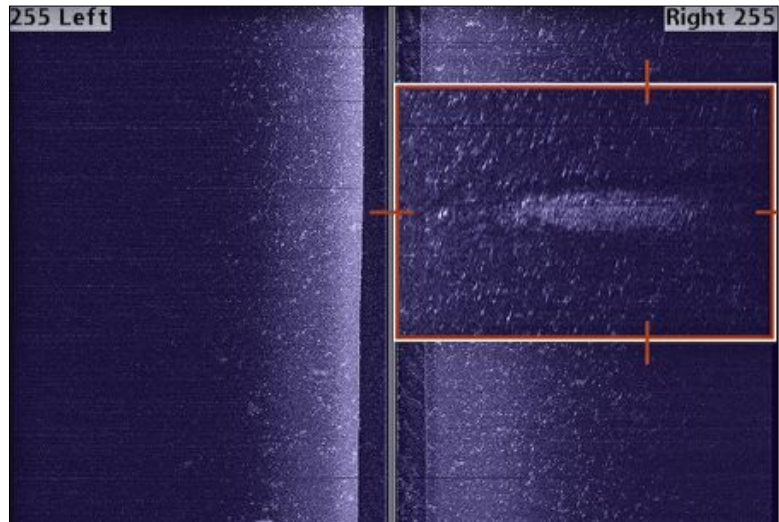
Anomaly 97**Recorded:** 5/7/2012**Identification:** Rectangular feature**Size:** Approximately 22 feet long**Location:** Halsted Bay**Analysis:** This feature could be a barge or part of a dock, probable wreck**Anomaly 98****Recorded:** 5/7/2012**Identification:** Boat-shaped feature**Size:** Approximately 11 feet long**Location:** Halsted Bay**Analysis:** This anomaly could be a boat**Anomaly 99****Recorded:** 5/7/2012**Identification:** Boat-shaped feature**Size:** Approximately 17 feet long**Location:** Halsted Bay**Analysis:** This anomaly could be an overturned boat, probable wreck

Anomaly 100**Recorded:** 5/7/2012**Identification:** Square feature**Size:** Approximately 23 feet long**Location:** Halsted Bay**Analysis:** Unknown**Anomaly 101****Recorded:** 5/9/2012**Identification:** Rectangular feature**Size:** Approximately 14 feet long**Location:** Priests Bay**Analysis:** Unknown**Anomaly 102****Recorded:** 5/9/2012**Identification:** Boat-shaped feature**Size:** Approximately 15 Feet Long**Location:** Off Hardscrabble Point**Analysis:** This anomaly strongly suggests a small boat, probable wreck

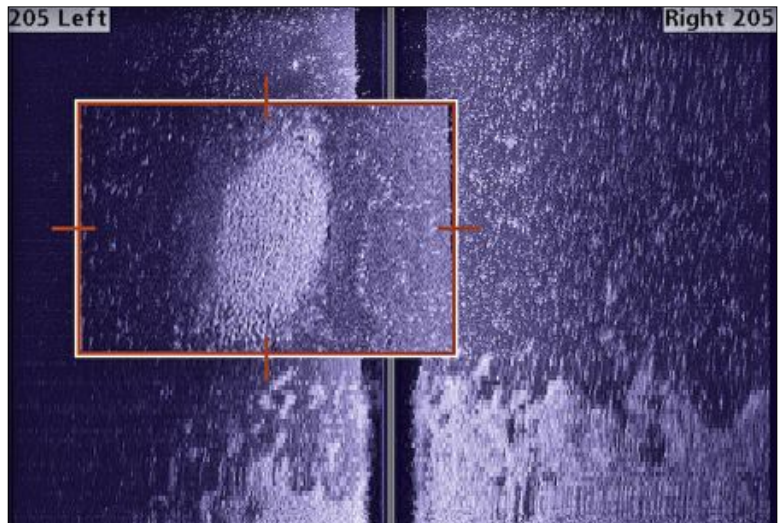
Anomaly 103**Recorded:** 5/9/2012**Identification:** Boat-shaped feature**Size:** Approximately 17 Feet Long**Location:** Off Hardscrabble Point**Analysis:** This anomaly may be a small boat**Anomaly 104****Recorded:** 5/14/2012**Identification:** Boat-shaped feature**Size:** Approximately 33 feet long**Location:** Phelps Bay**Analysis:** This anomaly resembles a large motorboat**Anomaly 105****Recorded:** 5/14/2012**Identification:** Square feature**Size:** Approximately 8 feet long**Location:** Northwest of Shady Island**Analysis:** Unknown

Anomaly 106**Recorded:** 5/14/2012**Identification:** Boat-shaped feature**Size:** Approximately 49 feet long**Location:** North of Shady Island

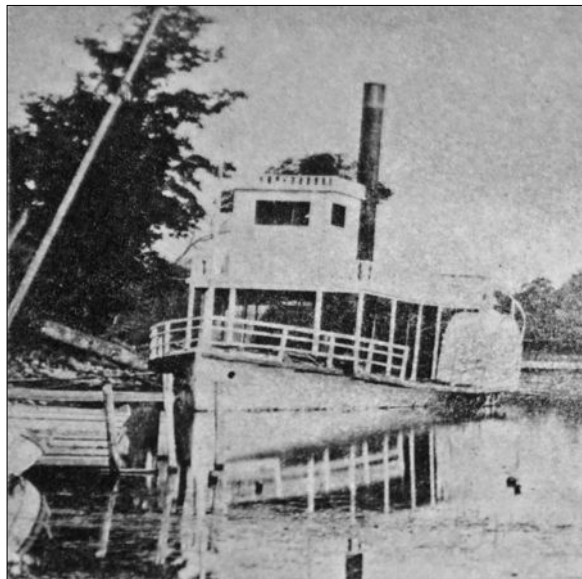
Analysis: This anomaly resembles a boat; the size suggests the 50-foot long *Governor Ramsey*, the first steamer on Lake Minnetonka abandoned on the north shore of Shady Island; MHM postulates that she could have been towed to this position and sunk



The second sonar image is different from the one above because of the different beam length and varying boat speeds. The bottom image shows a distinctive 'pointed end' at the top of the anomaly. It must be noted that the anomaly was swarming with fish and therefore some of the edges are blurred.



The barge *Mermaid*, formerly the *Governor Ramsey*, was left to rot on the north shore of Shady Isle on Upper Lake Minnetonka. MHM hopes she was towed into the lake and sunk (Reserve Album 111 #41, Minnesota Historical Society).



Sidewheeler *Governor Ramsey* was the first steamboat on Lake Minnetonka in 1860 (left). She also had the names *Excelsior*, *Lady of the Lake*, *Minnetonka* (above) and *Mermaid* (Reserve Album 111 #2 and #23, Minnesota Historical Society).

Anomaly 107

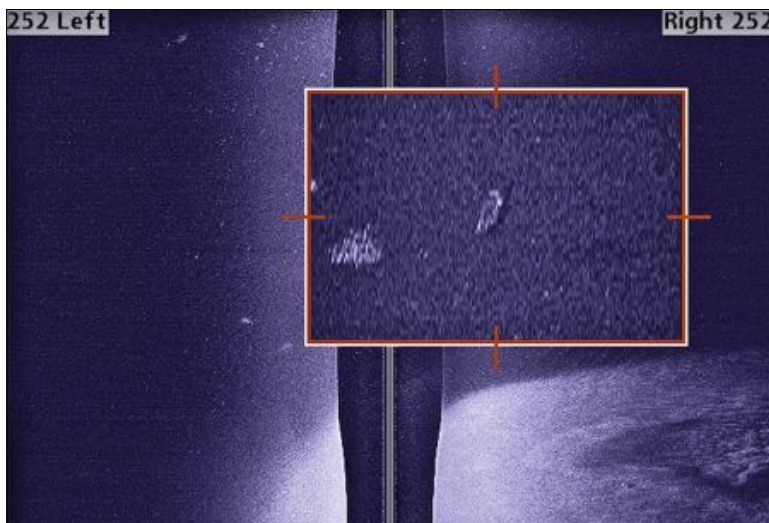
Recorded: 5/16/2012

Identification: Boat-shaped feature

Size: Approximately 10 feet long

Location: East of Casco Point

Analysis: This anomaly strongly suggests a small boat, probable wreck



Anomaly 108

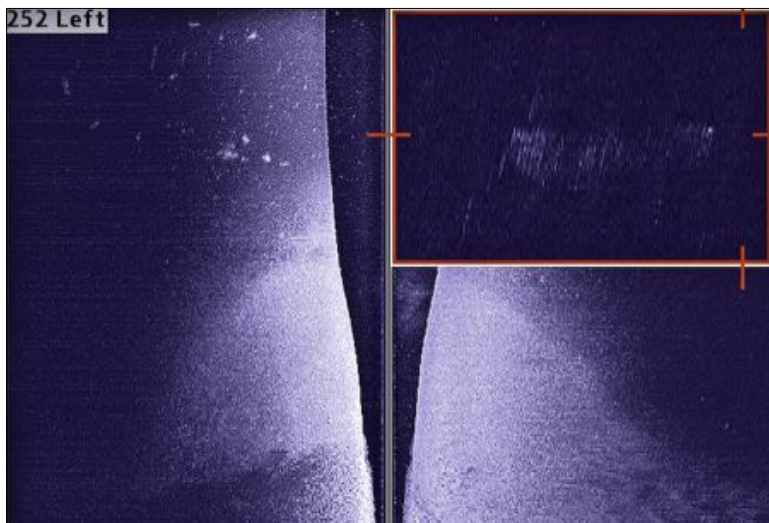
Recorded: 5/16/2012

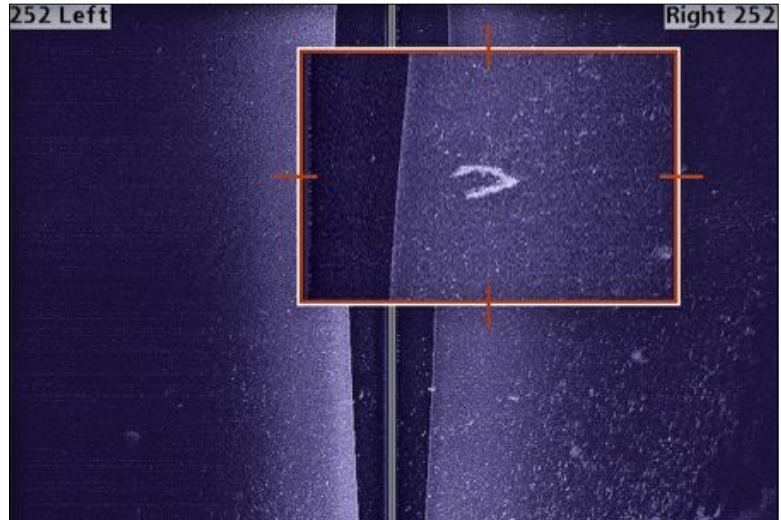
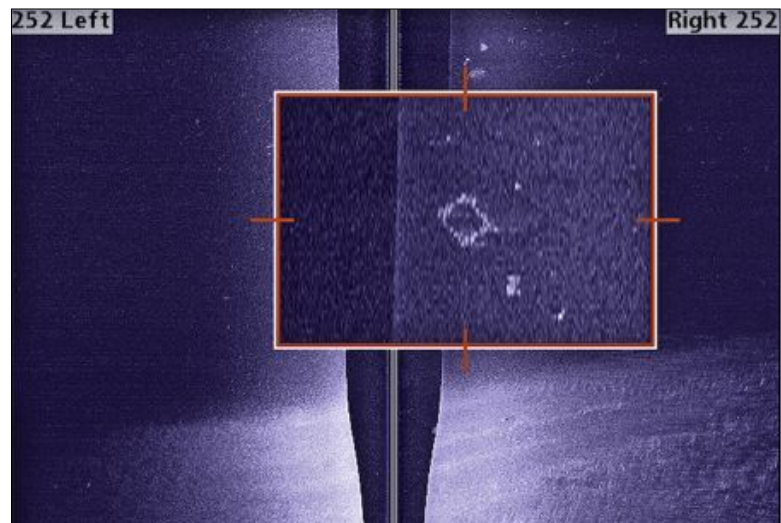
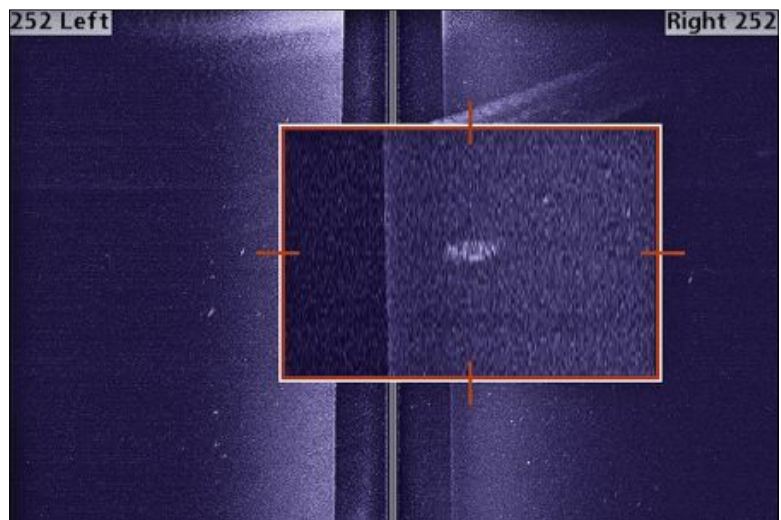
Identification: Boat-shaped feature

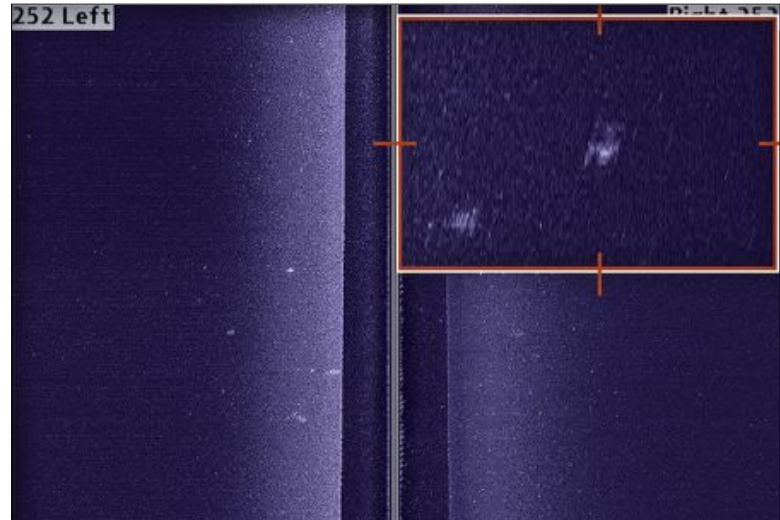
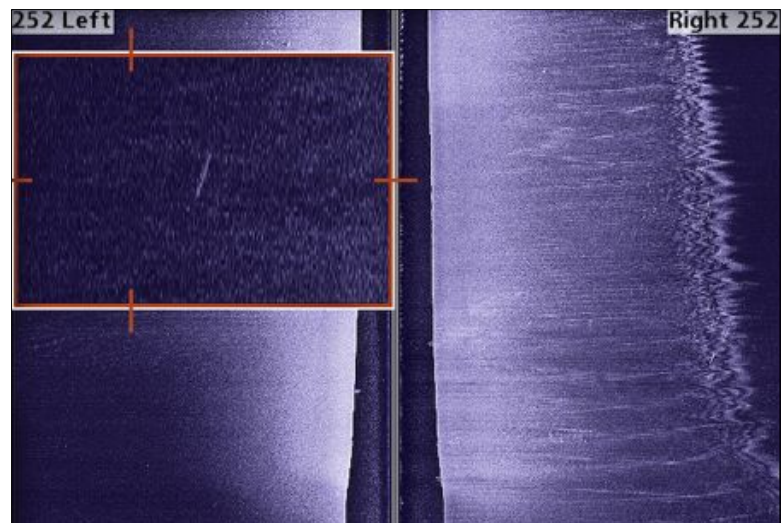
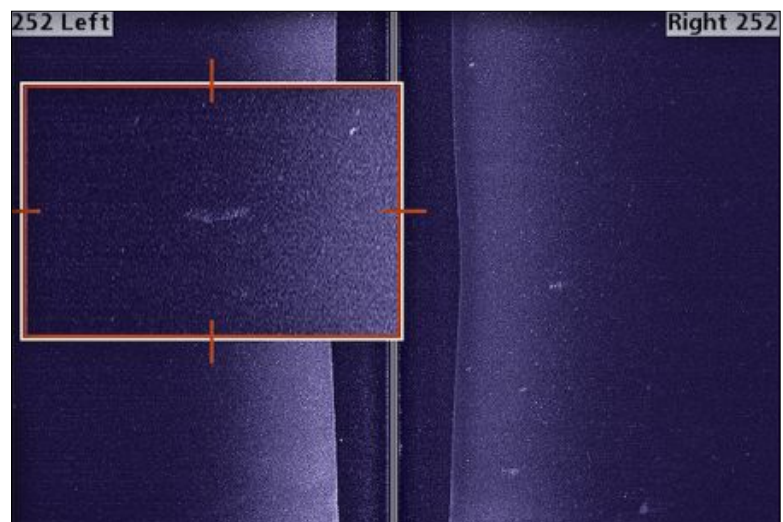
Size: Approximately 32 feet long

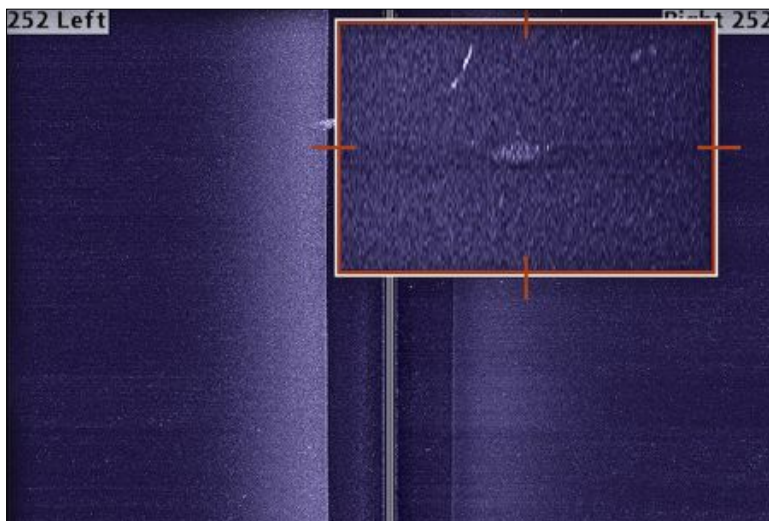
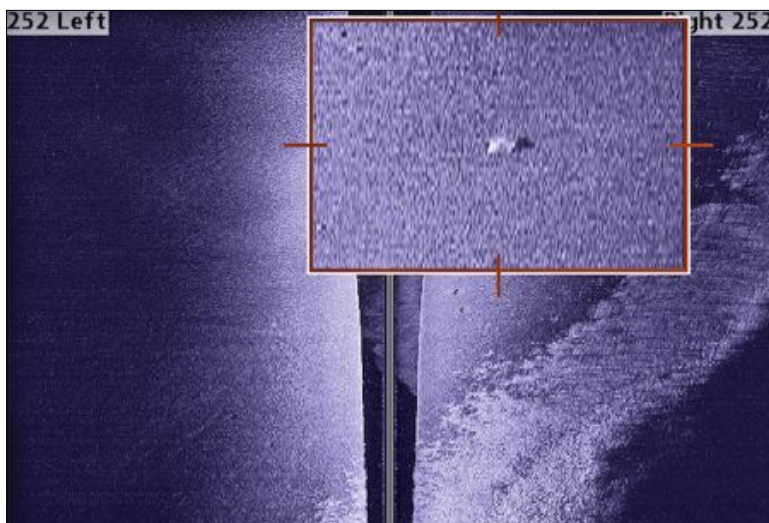
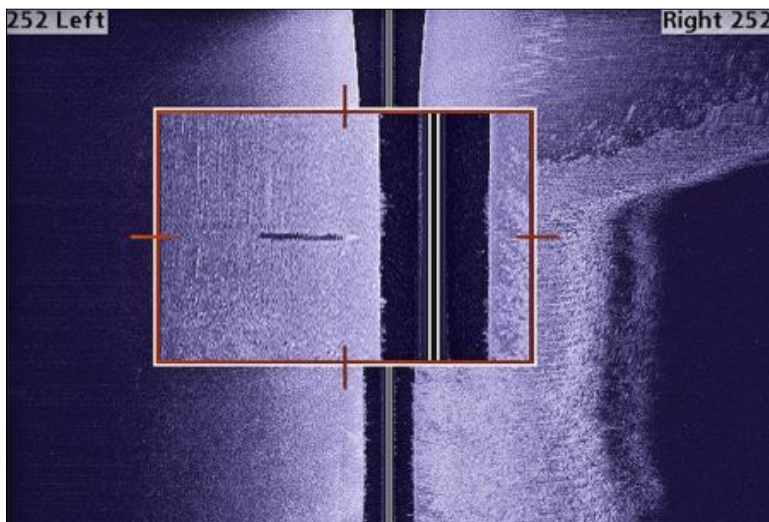
Location: North of Locke Point

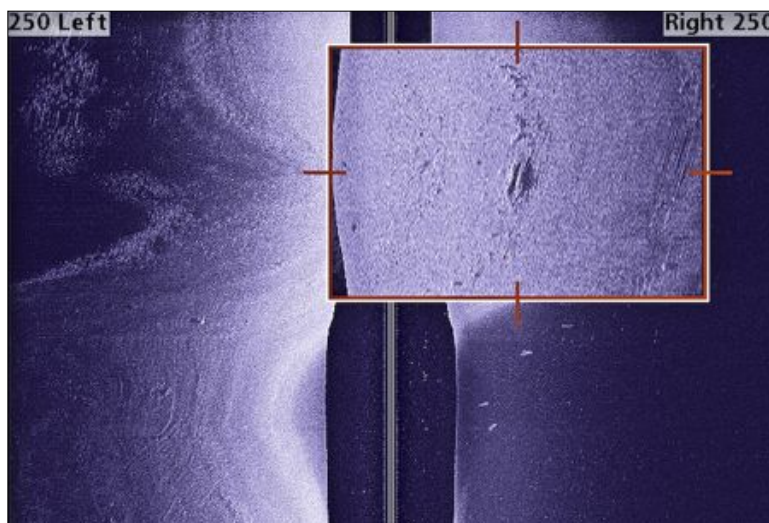
Analysis: The acoustical signature of this anomaly is suggestive of a wreck



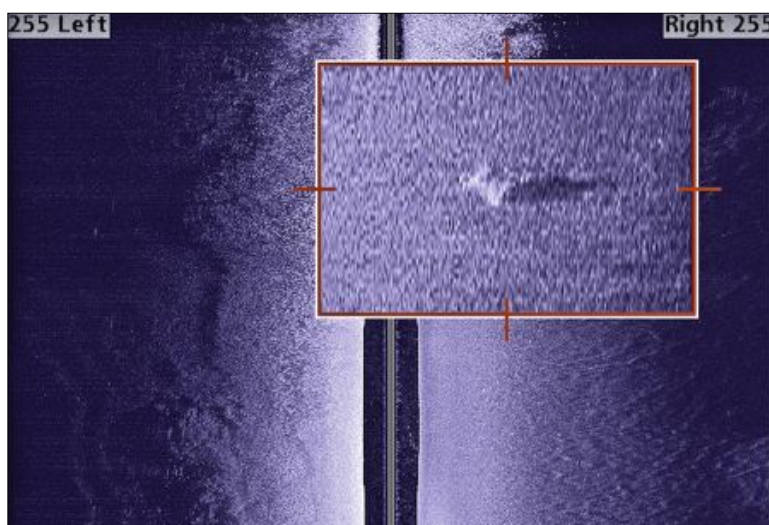
Anomaly 109**Recorded:** 5/16/2012**Identification:** Square feature**Size:** Approximately 23 feet long**Location:** Old Channel Bay**Analysis:** Unknown**Anomaly 110****Recorded:** 5/16/2012**Identification:** Square feature**Size:** Approximately 12 feet by 12 feet**Location:** East Upper Lake**Analysis:** Unknown, but this anomaly could be a fish house**Anomaly 111****Recorded:** 5/16/2012**Identification:** Boat-shaped feature**Size:** Approximately 14 feet long**Location:** East Upper Lake**Analysis:** This anomaly may be a small boat

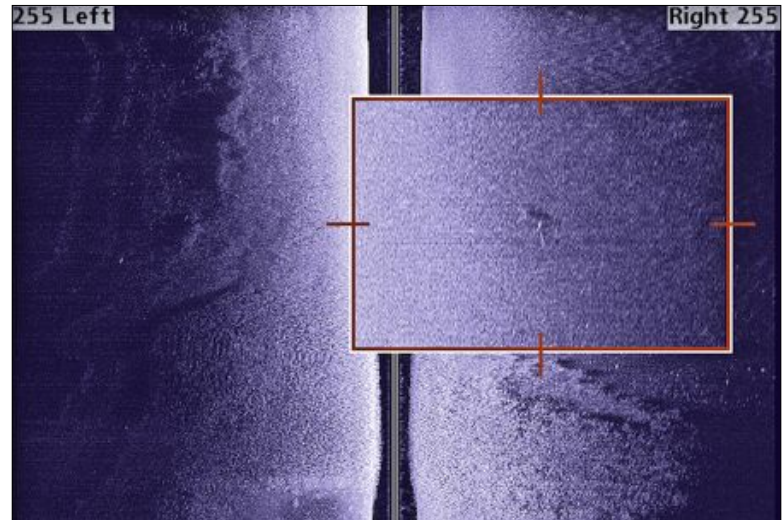
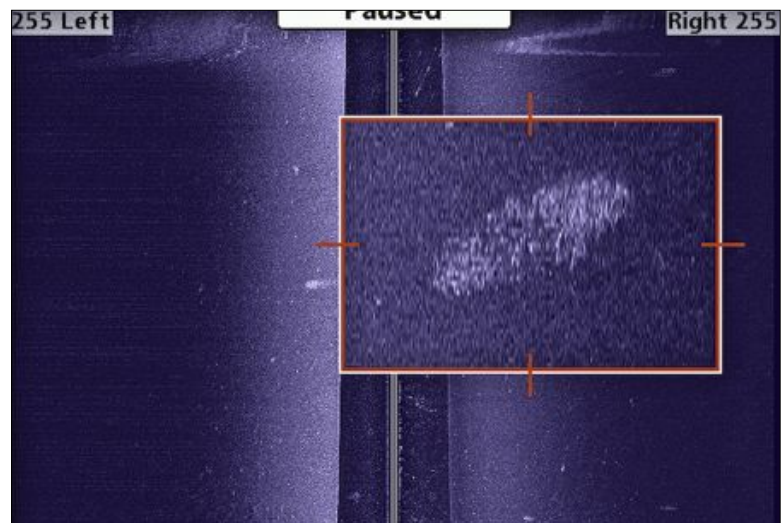
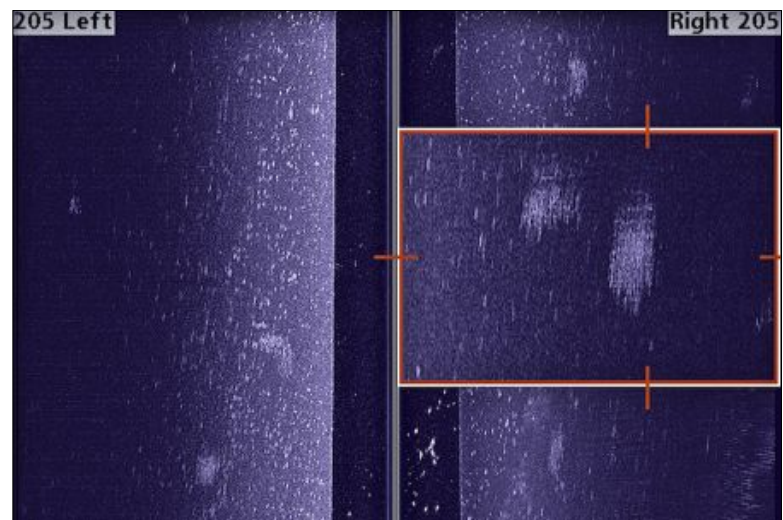
Anomaly 112**Recorded:** 5/16/2012**Identification:** Rectangular feature**Size:** Approximately 3 by 17 feet**Location:** East Upper Lake**Analysis:** Unknown**Anomaly 113****Recorded:** 5/16/2012**Identification:** Small feature**Size:** Approximately 7 feet long**Location:** East of Spray Island**Analysis:** Unknown**Anomaly 114****Recorded:** 5/16/2012**Identification:** Boat-shaped feature**Size:** Approximately 19 feet long**Location:** East Upper Lake**Analysis:** This anomaly may be a small boat

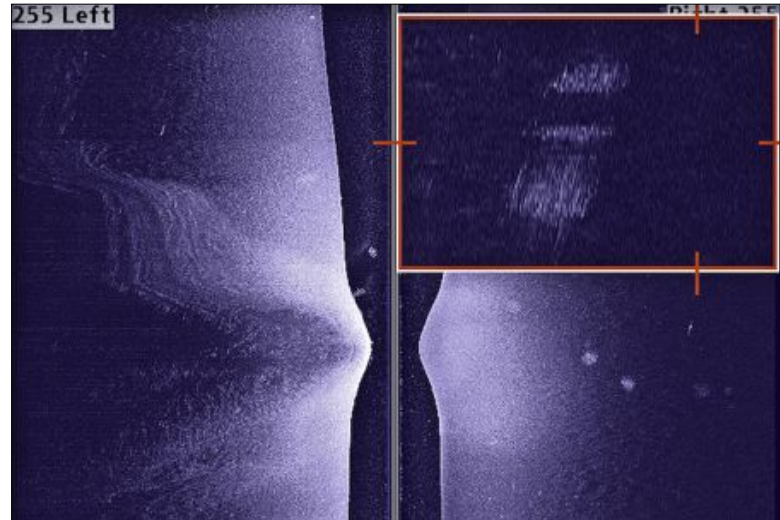
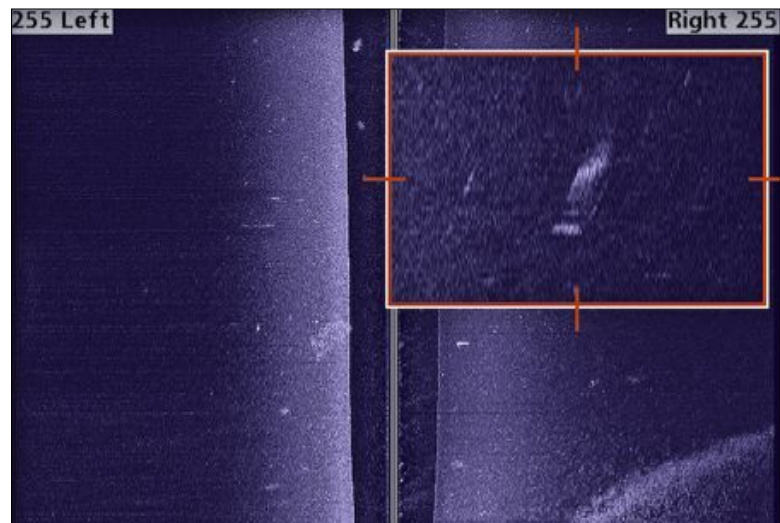
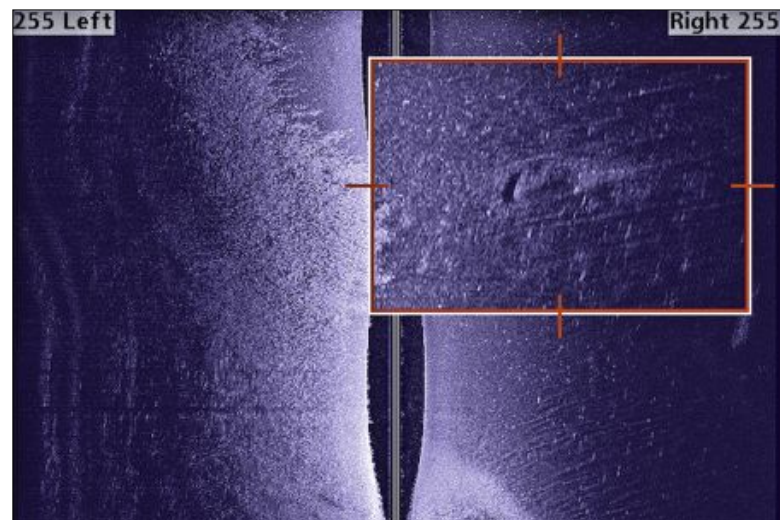
Anomaly 115**Recorded:** 5/16/2012**Identification:** Boat-shaped feature**Size:** Approximately 13 feet long**Location:** East Upper Lake**Analysis:** This anomaly may be a small boat**Anomaly 116****Recorded:** 5/16/2012**Identification:** Square feature**Size:** Approximately 3-4 feet long**Location:** East Upper Lake**Analysis:** Unknown**Anomaly 117****Recorded:** 5/16/2012**Identification:** Feature**Size:** Unknown**Location:** East Upper Lake**Analysis:** Unknown, but the anomaly casts a substantial acoustical shadow, indicating it stands off the bottom

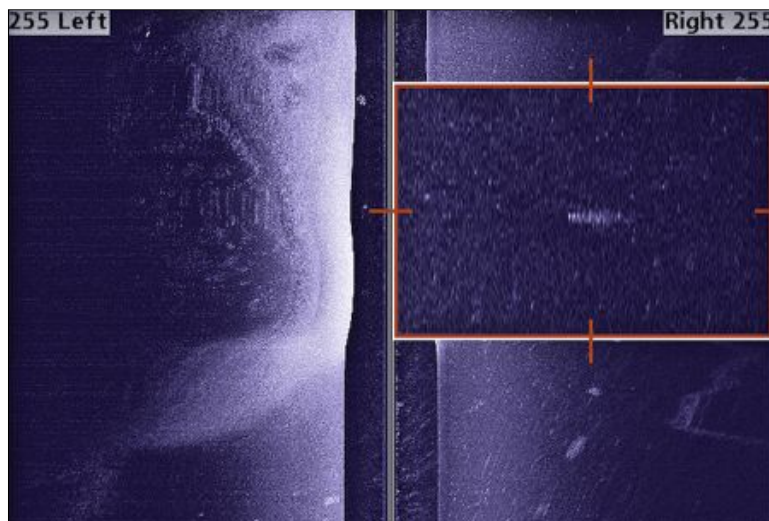
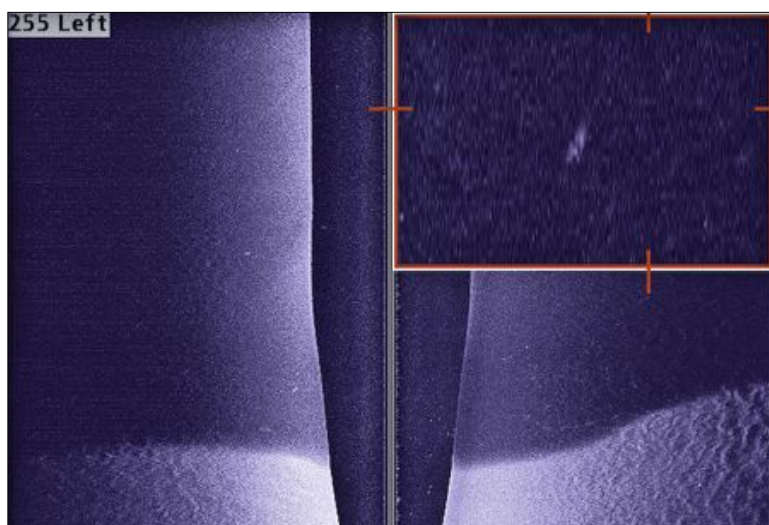
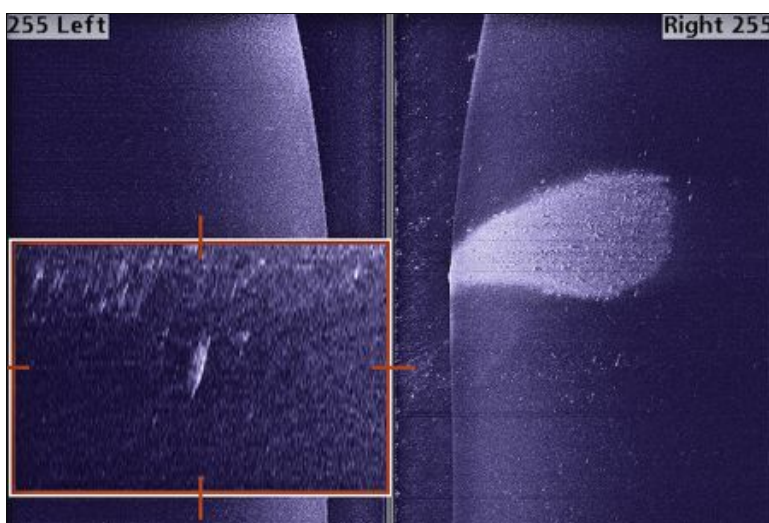
Anomaly 118**Recorded:** 5/9/2012**Identification:** Possible dugout canoe**Size:** Approximately 7 feet long**Location:** West Upper Lake**Analysis:** This anomaly strongly suggests a dugout canoe similar to one pulled from Lake Minnetonka in 1934, probable wreck

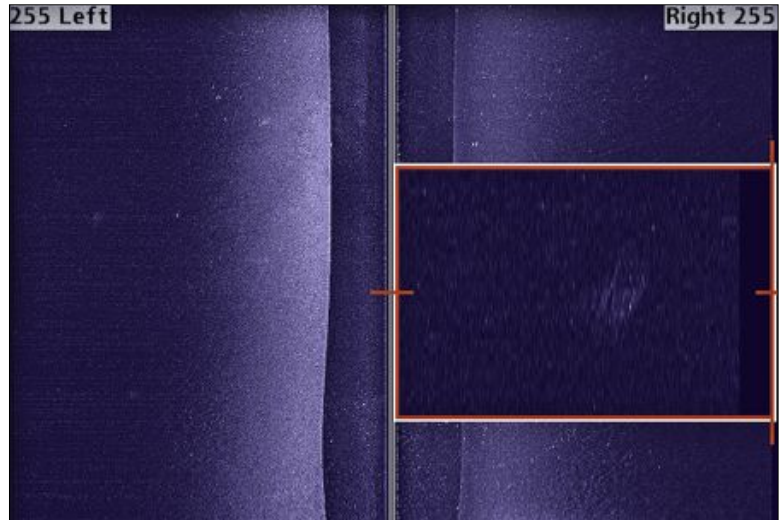
This Native American, probably Dakota, dugout canoe was dragged from the North Arm of Upper Lake Minnetonka in 1934. MHM is hopeful that Anomaly 118 is a better preserved version of the canoe is this image. The location of the rare watercraft shown in this photograph is unknown (HE5.19p17, Minnesota Historical Society).

**Anomaly 119****Recorded:** 5/12/2012**Identification:** Feature**Size:** Approximately 8 feet long**Location:** Northwest of Wawatasso Island**Analysis:** Unknown, but it casts a substantial acoustical shadow

Anomaly 120**Recorded:** 5/14/2012**Identification:** Boat-shaped feature**Size:** Approximately 9 feet long**Location:** South Upper Lake**Analysis:** This anomaly may be a small boat**Anomaly 121****Recorded:** 5/14/2012**Identification:** Boat-shaped feature**Size:** Approximately 33 feet long**Location:** East of Crane Island**Analysis:** This anomaly may be a good sized boat**Anomaly 122****Recorded:** 5/14/2012**Identification:** Boat-shaped feature**Size:** Approximately 14 feet long**Location:** East of Crane Island**Analysis:** This anomaly may be a small boat

Anomaly 123**Recorded:** 5/14/2012**Identification:** Boat-shaped feature**Size:** Approximately 9 feet long**Location:** South of Crane Island**Analysis:** This anomaly suggests a possible runabout**Anomaly 124****Recorded:** 5/14/2012**Identification:** Boat-shaped feature**Size:** Approximately 29 feet long**Location:** Southwest of Crane Island**Analysis:** This anomaly may be a good sized boat**Anomaly 125****Recorded:** 5/14/2012**Identification:** Boat-shaped feature**Size:** Approximately 36 feet long**Location:** North of Eagle Island**Analysis:** This anomaly may be a good sized boat

Anomaly 126**Recorded:** 5/14/2012**Identification:** Boat-shaped feature**Size:** Approximately 10 feet long**Location:** Southeast of Wawatasso Island**Analysis:** This anomaly suggests a small boat with a narrow beam**Anomaly 127****Recorded:** 5/16/2012**Identification:** Boat-shaped feature**Size:** Approximately 13 feet long**Location:** Southwest of Wawatasso Island**Analysis:** This anomaly suggests a small boat**Anomaly 128****Recorded:** 5/16/2012**Identification:** Boat-shaped feature**Size:** Approximately 10 feet long**Location:** Southeast of Wawatasso Island**Analysis:** This anomaly may be a small boat

Anomaly 129**Recorded:** 5/16/2012**Identification:** Boat-shaped feature**Size:** Approximately 17 feet long**Location:** Southeast of Wawatasso Island**Analysis:** This anomaly suggest a boat with a wide beam

Recommendations

Maritime Heritage Minnesota has developed several specific suggestions for future maritime historical and nautical archaeological work in both Upper and Lower Lake Minnetonka. Listed below are the sites and anomalies in an MHM-prioritized list from the LMS-1 and LMS-2 Projects in ascending order. MHM determined the list from an analysis of sites and anomalies that were deemed the most historically and archaeologically significant, that could answer the most archaeological and historical questions, and those that may be in danger. Images of the Lower Lake and Crystal Bay anomalies can be found in MHM's *Lake Minnetonka Survey 1 Report*. As mentioned above, the numbering system from the LMS-1 Project was continued with the LMS-2 Project, with the anomalies numbered from 1-129. The anomalies numbered 1-9 are in the Upper Lake's Crystal Bay, the anomalies numbered 10-75 are in the Lower Lake, and the anomalies numbered 76-129 are in the remaining sections of the Upper Lake.

- **1. Anomaly 118, Upper Lake.** The original inhabitants of the Lake Minnetonka area were aboriginal bands of the Iowa, Cheyenne, and then the Mdewakanton Dakota. The Lake Minnetonka area was a major hunting ground for the Dakota, a place for planting crops and fishing, and a burial ground, using dugout and bark canoes for lake travel (Hasse 1976, 2, 5; Heffelfinger 1976, 6). If Anomaly 118 is a dugout canoe, it will be one of the rarest watercraft in Minnesota. MHM could only locate 4 historic/archaeological tribal dugouts within the state, housed at the Minnesota Historical Society (Lake Auburn context), Bloomington Historical Society (Minnesota River context), the McLeod County Historical Society, and the George W. Brown, Jr. Ojibwe Museum and Cultural Center of the Lac du Flambeau Band of Lake Superior Chippewa. MHM contends this anomaly deserves priority attention simply because it may be a dugout canoe and MHM's questions about the anomaly could be answered rather quickly since it lies in relatively shallow water. If this identification is confirmed, the historical scope of wrecks in Lake Minnetonka will include: a Dakota watercraft, sidewheel, sternwheel, and propeller steamers, a steam tug, a steam dredge, a launch, a probable fast runabout, probable rowboats and sailboats, and a mid-20th Century pontoon boat.
- **2. Anomaly 106, Upper Lake.** Anomaly 106 is a priority because it is easily accessible in relatively shallow water, it is close to Shady Island, and is near the size of the *Governor Ramsey/Excelsior/Lady of the Lake/Minnetonka/Mermaid*. MHM's questions about this anomaly could be answered quickly.
- **3. St. Albans Bay Wreck (21-HE0400), Lower Lake.** MHM is positive that the St. Albans Bay Wreck is a dredge boat; the sonar signature of the wreck is conclusive. However, documenting this wreck is a priority because of the fact that she is a dredge. The other identified wrecks in Lake Minnetonka represent public transportation (Streetcar Boats [whose construction details are known] and *Minneapolis*), an excursion boat (*George/Excelsior*), and a tug whose construction plans exist (*Hercules*). The St. Albans Bay Wreck represents a new Lake Minnetonka vessel type and therefore is a priority for documentation and wreck condition assessment.

- **4. Wayzata Bay Wreck (21-HE0401), Lower Lake.** Determining the exact hull shape of the Wayzata Bay Wreck may allow MHM to determine her function and perhaps identify her; her large size limits the number of candidates. As with Wreck 1, there are no reports of a large vessel sinking or being scuttled in Wayzata Bay.
- **5. Wreck 1 (21-HE0404), Lower Lake.** The interesting sonar signature of Wreck 1 makes her a priority for further research. She really looks like a steam or gasoline launch but she could also be a large sailboat. Determining her type and actual size would pare down the possibilities in identifying her, particularly since – as with the Wayzata Bay Wreck – no historical accounts exist of a boat of this size sinking at her current location.
- **6. Anomaly 54, Lower Lake.** MHM is confident that Anomaly 54 is a wreck and prioritizing her investigation will assist in determining her type and age – and possibly her identity.
- **7. Spring Park Bay Wreck (Anomaly 91), Anomaly 94, Upper Lake.** While MHM is positive the Spring Park Bay Wreck is a sunken vessel, diving on her may answer the question as to her age – if she has been on the lake bottom for 50 years she qualifies as a nautical archaeological site. Anomaly 94 may or may not be a motorboat lying on her side, but diving on the anomaly will answer this question. If Anomaly 91 is a runabout and Anomaly 94 is a motorboat, these wrecks would be similar types, both are in shallow water, and investigating them would allow MHM to answer questions about their nature quickly and easily.
- **8. Anomalies 1, 3, 4, Upper Lake.** The sailing boat *Coquette/Eugene Mehl* was sunk in Crystal Bay behind the Hotel Lafayette sometime around 1884 (McGinnis 2010, 46). The size of Anomaly 4 is suggestive of the sailboat but Anomalies 1 and 3 may be her as well. The distinct nature of the acoustical signatures of these anomalies make them a priority for investigation by MHM.
- **9. Anomaly 63, Lower Lake.** MHM is moderately confident that Anomaly 63 is a sunken sailboat with a railing around her bow. However, her age cannot be determined and therefore, her status as an archaeological site cannot be settled.
- **10. Anomalies 10, 27, 28, 33, 95, 99, 102, Lower and Upper Lakes.** Anomalies 10, 28, and 99 appear to be overturned boats with their keels evident. The sonar signature of Anomalies 27 and 95 are suggestive of sailboats with their single mast still standing upright. Anomaly 102 strongly suggests a boat with cockpits or divided compartments. The sonar image of Anomaly 33 suggests a wreck as well. These anomalies are of high priority. A sloop owned by George A. Brackett sank in 60 feet of water in 1894 north of Big Island; one of these anomalies – with the exception of Anomalies 95, 99, and 102 that are in the Upper Lake – may be that sloop. The best candidate for this vessel is Anomaly 28 due to her proximity to the Big Island, as it was reported that one of the vessel's occupants was 600 feet from the island (McGinnis 279-280), and Anomaly 28 lies nearly in the same depth of water. Anomaly 10 may be the sloop but she is in considerably shallower water than the reported sinking, as is Anomaly 33. Anomaly 27 is

probably a sailing boat, although her distance from Big Island indicates she may not be the Brackett sloop although she lies in the correct water depth. All six of these anomalies deserve priority investigation due to their distinct acoustical signatures. Further Anomalies 95, 99, and 102 are relatively close to top priority Anomaly 118 and all are located in under 30 feet of water; the initial investigation of these anomalies could be scheduled together and completed somewhat quickly.

- **11. Anomalies 12, 17, 80, 107, Lower and Upper Lakes.** These four anomalies appear to be small boats and Anomaly 17 is particularly interesting because of the details evident in the sonar image. The large number of anomalies that may be small boats is historically and archaeologically interesting for MHM, providing a greater number of locally-built watercraft to study – and to compare them with the Moore and Ramaley boat designs out of Wayzata.
- **12. Anomalies 22, 87, Lower and Upper Lakes.** The sonar images of Anomalies 22 and 87 suggest a hollowed-out log – dug out canoes – but they may well be a discarded piling or other long object. Investigating these anomalies would answer these questions.
- **13. Anomalies 21, 24, 29, 31, 39, 43, 79, 93, 96, 103, 104, 111, 114, 115, 121, 126, 129, Lower and Upper Lakes.** This series of anomalies resemble small boats, some overturned, but unlike Anomalies 10, 12, 17, 27, 28, 33, 80, 95, 99, 102, and 107 their sonar signatures are not distinct. MHM would like to investigate these objects to determine their nature if they are small boats, to compare with local Royal Moore and Ramaley boat designs.
- **14. Anomalies 15, 97, Lower and Upper Lakes.** Anomalies 15 and 97 deserve attention because of their unique acoustical signatures that suggest substantial objects, possibly a barge, a dredge, or a flatboat.
- **15. Anomalies 5, 50, 86, 108, 122, 123, 124, Lower and Upper Lakes.** These anomalies appear as vague images but they are strikingly similar to the first image produced by MHM of the Wayzata Bay Wreck, and their shapes suggest sunken vessels.
- **16. Anomalies 8, 13, 14, 45, 51, 56, 58, 66, 77, 81, 98, 120, 125, 127, 128, Lower and Upper Lakes.** In general, these anomalies are simply ‘shaped like boats’ – they may be boats or parts of boats, or they may be other types of debris that was dumped to the bottom of the lake, or they may be geological features. Diving on these anomalies to determine if they are wrecks will answer these questions.
- **17. Minneapolis (21-HE0403), Lower Lake.** While the appearance during her working life and the history of the sidewheeler *Minneapolis* is well known, the archaeology of the wreck is a challenge. The first sonar images of the site recorded in 1996 determined that the boat broke up during the wrecking process and spread out over a large area, with at least one of the sidewheels separated from the wreck (Hall, Birk, and Newell 1997, 58). MHM’s sonar images are

difficult to interpret due to the depth of the wreck but there is no doubt that the *Minneapolis* site is interesting, she is the only sidewheeler wreck known to exist in Lake Minnetonka, and warrants a detailed examination.

- **18. *George/Excelsior* (21-HE0399), Lower Lake.** As with *Minneapolis*, the history of sternwheeler *George/Excelsior* is known but the archaeology of the wreck is important because she is the only known sternwheeler wreck so far identified in Lake Minnetonka. There are no known plans of the vessel and a comparison of her construction to the Mississippi River sternwheeler wreck *Andy Gibson* would be interesting.
- **19. *Hercules* (21-HE0398), *Como* (21-HE0397), *Hopkins/Minnetonka* (21-HE0396), *White Bear* (21-HE0281), Lower Lake.** MHM's plans for the TCRT tug wreck *Hercules* and the Streetcar Boat wrecks *Como*, *Hopkins/Minnetonka*, and *White Bear* lie in the realm of wreck condition assessments, monitoring, and public education due to the popularity of these sites with recreational divers. Beyond intentional criminal damage from looting, divers will locate the wrecks by snagging anchors on the hulls and causing damage. MHM does not seek to limit sport diving on the wrecks, but there are concerns for their safety due to intentional and unintentional acts. Periodic assessments of the wrecks that result in site form updates to the OSA will track any changes to the wrecks over time and if extensive damage to these wrecks – or any others – occurs, alleviation of the causes of the damage will be pursued at that time.
- **20. Anomaly 26, Lower Lake.** The interesting signature of Anomaly 26, whether it is the sunken steamboat *Rush* or something else, is a question MHM would like to answer. If Anomaly 26 is the *Rush*, this site will provide interesting data because of that vessel's unique stern sidewheel design.
- **21. West Arm Pontoon Boat Wreck, Anomaly 83, Upper Lake.** The most important questions to answer concerning this wreck are when she sank and if possible, where she was manufactured. If this pontoon boat wreck is a Weeres vessel from the 1950s or 1960s, she would be a significant piece of Minnesota's nautical archaeological history.
- **22. Anomalies 2, 7, Lower Lake.** Anomaly 2 could be part a pontoon or another object entirely, while the acoustical shadow Anomaly 7 casts looks like a big chair, possibly an old life guard stand or a dive platform. The interesting sonar signatures of these two anomalies make them important, but not a priority.

An anchored dive platform near the Excelsior Commons with Gideon Bay in the background in 1905 (MH5.1Lp19, by Sweet, Minnesota Historical Society).



- **23. Anomalies 19, 37, 40, 47, 85, 88, 90, 92, 101, Lower and Upper Lake.** This group of rectangular sonar images are not distinct enough to make them priority targets, but their investigation will answer the question of their natures.
- **24. Remaining 54 Anomalies, Lower and Upper Lake.** The remaining 54 anomalies – 40 in the Lower Lake and 14 in the Upper Lake – would be checked out when diving on other anomalies nearby or when the other anomalies have been completed. They are a low priority for MHM.

Conclusion

In order to investigate Lake Minnetonka's sites and anomalies MHM will design projects to maximize data retrieval through the utilization of interested and dedicated volunteer divers. MHM staff, both qualified and licensed underwater archaeologists and divers, will instruct all volunteers on the proper procedures for wreck assessment, documentation, preservation, conservation, and dive safety. Several documentation tools will be used for this work including digital still photography, digital video, hands-on measurements, measured drawings, and triangulation – all dependent on the site being investigated. By including interested, ethical, and responsible volunteers in our projects, MHM will educate a wider audience in the proper treatment of all Minnesota's finite underwater and nautical cultural resources – wrecks, maritime infrastructure, artifact clusters, and lone artifacts that can be found on the bottom of our lakes, rivers, and streams throughout the state.

Maritime Heritage Minnesota's completion of the LMS-2 Project means that Lake Minnetonka is the first body of water within the state that has been completely surveyed using remote sensing archaeological techniques. MHM has compiled a comprehensive list of priority targets on the bottom of Lake Minnetonka for nautical and underwater archaeological assessment and documentation. The list of anomalies set for investigation will undergo a basic Phase I documentation by MHM using SCUBA. This process will determine the nature of the anomalies – whether they are wreck sites, other types of sites, whether they qualify as archaeological sites, or if they are naturally occurring features. From this work, MHM will produce an inventory of newly identified Lake Minnetonka archaeological sites, their basic components, vital statistics, and site forms will be prepared if appropriate. This future work advocated by MHM is in keeping with the recommendations submitted to the SHPO in 1997 concerning the historical significance of Lake Minnetonka's wrecks – those known and unknown. It was determined that “each of the individual vessels [*Como*, *George/Excelsior*, *Hercules*, *Hopkins/Minnetonka*, *Minneapolis*, *White Bear*] are potentially eligible for nomination to the National Register of Historic Places under criteria A, C, and D. As a group, these vessels...form a strong and important submerged cultural resource. The historic shipwrecks in Lake Minnetonka may be the single most well-preserved group of excursion vessels in the United States” (Hall, Birk, and Newell 1997, 62). Beyond the excursion vessel classification, MHM has already identified two new types of vessels that expand the base of historic wrecks in Lake Minnetonka – a dredge boat and a gasoline or steam launch – and the function of the tug *Hercules* cannot be overlooked as well. Further, with the addition of the possible dugout canoe, motor runabout, and a possibly early pontoon boat, the types of sites that exist in Lake Minnetonka are diverse, archaeologically and historical significant, and worthy of great attention. The data collected during MHM's LMS-1 and LMS-2 Projects sets the groundwork to develop a National Historic Shipwreck District (NHSD) nomination for Lake Minnetonka – a first for the State of Minnesota – and if appropriate, a State Underwater Archaeological Park.

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