

DeTour Reef Light Preservation Society Keeper's Handbook

INTRODUCTION:

Built in 1931, 4,050 feet South East from the onshore light station, the DeTour Reef Light (DRL) is a unique steel-framed square tower of three distinct levels in Classical Revival architectural styling. Sitting on a unique concrete (crib) platform that rises 20 feet above the surface of the water, the 63-foot high lighthouse which sits on top of the pier is painted white with a red roof. The lighthouse was manned from 1931 until the light was automated in 1974. Due to more sophisticated navigational equipment aboard ships, and the massive conversion to unmanned automated beacons, along with insufficient operating funds, the Coast Guard rendered DeTour Reef Lighthouse obsolete in 1997. Federal government regulations, however, do allow for nonprofit organizations to obtain long-term leases and ownership on such surplus property for the purpose of preservation. DRLPS has a 20 year lease on DRL and transfer of ownership from the Government to DRLPS in accordance with the National Historic Lighthouse Preservation Act has been approved by the Secretary of the Interior. DeTour Reef Light received the 2005 Michigan Governor's award for Historic Restoration and the 2006 Superior Award from the Historical Society of Michigan. It is listed on the National Registrar of Historic Places.

As a Keeper, you are joining many other individuals whose commitment and dedication over the years has contributed to our success. Volunteers have spent thousands of hours restoring, protecting and interpreting this irreplaceable part of Michigan history.

On the following pages, please find the scope of duties for the Keepers program as well as the specifics of the program. There is a fee to participate in the program and keepers are required to become familiar with the history of DeTour Reef Light and the restoration. Keepers are requested to view the DVD "Gateway to Superior: Saving the DeTour Reef Light" which is available from the Society. Frequently, keepers for a weekend buy one copy and pass it around to the other keepers of the weekend. A copy will also be in the DVD player at the lighthouse.

Keepers make it possible for many others to enjoy a visit to this historical site. This commitment is critical to continuing the restoration and preservation of DeTour Reef Lighthouse. Thank you for helping to keep the light shining.

SCOPE OF DUTIES:

The Keepers primary areas of duty are:

- Assist with getting tour visitors safely on and off DeTour Reef Light.
- Assuring that visitors to DRL conduct themselves in a safe manner and do not access the lantern, the deck at the lantern level, or the well (electrical power) room. (Under low wind conditions, visitors may have access to the watch room deck provided a keeper is present.)
- Preparing and serving refreshments to Tour visitors. This will usually involve baking cookies from frozen ready to bake cookies, cutting up cheese and setting out crackers, and mixing up ice tea and lemonade.
- Selling of Memorabilia.
- Lighthouse cleaning, including cleaning the deck of sea gull droppings.
- Occasional light maintenance.
- Maintain the Lighthouse Log including all events, visitors to DRL, descriptions of your experience, tour information, suggestions for changes to tours and keeper program (Please put suggestions in "Suggestion" notebook), weather conditions, etc...

At the time of orientation, Keepers will be advised of specific duties for their assigned period.

WHAT'S HERE AND WHAT TO BRING:

The living quarters are furnished and the kitchen is equipped with a period stove, cook top, a 9 cubic foot refrigerator, microwave, coffee maker, TV/DVD player, small bar-b-que (bring your own charcoal and lighter fluid), toaster, dishes, glass ware, utensils, pots and pans and an AM/FM radio. There are also six folding canvas chairs for use on the decks. Toilet paper is provided.

We encourage keepers to bring at least one cell phone per group and to provide that number to the Chairperson of the keeper programs (Dave Bardsley). Cameras and binoculars are always useful.

Keepers provide all their own food, beverages, soap, shampoo and other personal items. You will also need to bring a sleeping bag (or sheets and blanket), pillow cases, towels and wash cloths. This will avoid the cost of laundering linens and enable us to keep our charge for the program at a minimum. We do have linens, blankets and pillows on the beds at the lighthouse for decorative purposes. If you choose to use the pillows, please bring your own pillow case.

Every thing you bring must be loaded in the charter boat and hauled up the side of the lighthouse with ropes. Soft sided duffels are great as are tote bags with good handles and cooler chests (they may be hard sided and you may want to bring extra ice as the freezer in the lighthouse refrigerator is small.) Large heavy duty garbage bags also work well for pillows, clothing, and sleeping bags. Avoid paper bags and cardboard boxes as these don't do well if they get wet and tend to fall apart when being hauled up the side of the lighthouse.

For meals, past keepers have found that the more they prepare in advance the more time they have for fun. Pre-made lasagna, pasta, salads have been favorites with the keepers. DRLPS encourages keepers to contact each other prior to the weekend and plan their menus together as a group. You should be able to read the email addresses of people in your group from the all keeper emails that are sent out before and during the summer.

ARRIVAL:

Before your arrival date, please advise the DRLPS Keeper Chairperson of when you will arrive on Drummond Island, where you will be staying the night before your orientation and your cell phone number or other means to contact you (in case changes have to be made to your orientation schedule). The Drummond Island Resort and Conference Center www.drummondisland.com offers discounted rates to DRLPS keepers before and after their service date as does DeTour's River Bend Resort www.riverbendresort.com. There are many accommodations on Drummond Island www.drummondislandchamber.com and some in DeTour Village www.detourvillage.com. The Society highly recommends should your schedule permit that you stop at the DeTour Passage Historical Museum (opened in afternoons) which is located next to the Ferry Dock in DeTour Village. This museum has the 3 1/2 order Fresnel Lens and timing mechanism that was placed in the DeTour Point Lighthouse in 1909, relocated to DeTour Reef in 1931 and used there until the DeTour Reef Light was automated in 1974.

On your scheduled arrival date, please plan to arrive at the Drummond Island Historical Museum at 1pm, the opening time, unless otherwise directed. Keepers should review the DeTour Reef Display at the Museum. A DRLPS member will meet you at the Museum to continue your orientation and to transfer you to DeTour Reef Light.

POWERING UP THE LIGHTHOUSE:

Circuit breakers are located in the well room and the assistant keeper's room. The well pump, hot water heater and stove will have to be switched on when you arrive. The UV filter should be plugged in. All of these devices should be switched off or unplugged when you depart. The circuit breaker for the crane should always be off.

LIVING QUARTERS:

You will find the living quarters to be cozy and comfortable during your stay. The Keepers share the kitchen facilities, office, the living room and the bathroom. A lake water system purifies the water by use of filters and an ultra violet (UV) light. The blue glow at the top of the UV tank indicates that the system is working properly.

Bathroom notes: Hold the shower diverter valve up for several seconds until water pressure keeps it in place for a shower. Only human waste and toilet paper are to be flushed in the toilet. Other items will destroy the sanitation system which is located in the basement level and result in pollution of Lake Huron. Do not use soap, cleanser or detergents to clean the toilet bowl. Just water and arm power with a non-abrasive scrubber or sponge.

There are two bedrooms, the keeper's with a double bed and the assistant's with two bunk beds. Each bedroom has a double dresser and chair.

If you hang anything out side to dry on the railings, secure it well. Do not leave canvas chairs unattended on deck. Past keepers have had towels blow into the lake when an unexpected gust of wind came across the lake and also lost a chair.

Plaster and Paint. Typical of most structures of its day, the original plaster in DeTour Reef Light contains asbestos. A minimum amount of lead paint may be present in the structure. In 2000, the Coast Guard removed damaged lead paint and encapsulated the plaster (at a cost of \$66,000). Subsequent restoration by DRLPS resulted in removal of all asbestos floor tile, and additional paint and plaster removal by sandblasting, high-pressure washing and physical demolition of two interior walls. (The walls between the kitchen and bath and the dining room and hallway and the closets in the assistants' room are new and contain no asbestos.) Solid plaster, which could not be removed without damage to the internal tile structure was encapsulated with a skim coat of non-asbestos plaster and painted. When performing maintenance such as scraping or sanding loose paint, keepers are advised not to disturb the skim layer of encapsulating non-asbestos plaster. If there is any evidence that the skim layer is flaking off, the keepers should advise DRLPS, not remove the encapsulating layer and not disturb the original plaster. Additionally some lead paint, which could not be physically removed by the above processes, may exist in DRL.

The office: The office has a roll top desk, chair, bookcase and a marine radio, which should be monitored on channel 16. The office has a 12-volt power source that can be used to charge cell phones with a car power point charger. If the DVD player is at the lighthouse, you can also watch TV with use of the digital to analog converter. The TV will receive ABC, CBS, NBC, Fox, CMU public television and Create.

The office desk and bookcase contain useful and important information. Back Issues of our newsletter "Passages" are in the office and are free for the taking. Several notebooks, including those with instructions for the mechanical equipment on the lighthouse are in the bookcase, as are copies of this handbook. Reading material, puzzles, playing cards and reference books are in the office. Many of the books and items on the lighthouse are the personal property of DRLPS members. Please enjoy this reading material, but make ever effort to keep it in the condition that you found it.

Windows: In 2007, DRLPS added fabric screens for the windows that are attached with small disc magnets. The magnets are very powerful (and expensive) and electronic devices and magnetic media should not be located near them. Do not use pliers to remove the magnets – just slide them on to the glass or apart from each other. A metal window close assist device is kept on the window ledge of the dining room. To close windows, you will have to reach around the fabric screen and slide the closer between the frame of the window and the glass near where it catches the latch. This will enable you to pull the window closed. It will not close with the lever device at the base of the window.

SELLING MEMORABILIA:

- Enter all Memorabilia sales (including size and color of clothing) in Lighthouse Log. Fill out sales slip/receipt for all sales (again entering name of purchaser, full address, credit card number and expiration date if charged, items purchased with size and color. Original goes to purchaser and both carbons should be placed in the zipper bank envelope and given to DRLPS with revenue and charge card information.
- When items are purchased on the lighthouse, the Society will pay the sales tax – giving the purchasers a 6% discount.
- If items are not available in the stock at the lighthouse, DRLPS will pay shipping for items paid for in advance.
- U. S. Lighthouse Society “Passports” are available for sale on the lighthouse. These are sold for \$10. A large rubber stamp and stamp pad are in the office for stamping the DeTour Reef Light imprint in the Passport. Some lighthouse tour visitors may already have a “Passport” and be sure to ask if they would like it stamped with the DeTour Reef Light impression. More information is found on page 3 of the Spring 2007 issue of Passages (in the bookcase).
- Post cards sell for 50 cents each.
- When tours are not in process cover the clothing in the display with blue checked tablecloth so the colors of the shirts do not fade.

SCRUBBING THE DECK:

The lighthouse deck is subject to soiling by sea gulls. A pressure washer and brushes are used to clean the deck. The wand is used with the pressure washer must be set on the softest fan setting. A sharp, chisel setting will destroy the soft coating over the concrete and create significant damage to the deck. The power washer should not be used on the seams of the deck lights or on the deck lights. A heavy-duty long handle scrub bush is used in conjunction with the pressure washer to clean the deck. Do not spray the lighthouse sides or shutters as it will freeze up the locks and wash away insecticide applied to kill the spiders!

It is essential that the pier deck be cleaned of sea gull dropping prior to the arrival of the tour guests. The concrete deck had a rubberized coating that can be damaged easily. Extreme care must be used so that the coating is not damaged.

- Using the hose (located just inside the entrance doors, wet down the entire deck and allow to soak for about 20 minutes. This will soften the bird dirt. Start at the far corner of the deck and work toward the entrance doors
- Two yellow brushes on long handles are used to remove the bird dirt.
- The power washer should only be used on the wide fan setting. Loosen the bird dirt with the brushes and wash over board with the power washer. Again, start at the far (NW) corner and work toward the entrance door. The person with the power washer should follow the brush and keep water where the brush is cleaning. It is much more difficult when the person with the power washer is spraying independently. After all is loosened with the brushes, then the power washer can be used to spray/push the dropping over board.

LIGHTHOUSE RESTORATION:

DRLPS has ongoing restoration projects in accordance with the Secretary of Interior Standards for Rehabilitation and Guidelines for the Rehabilitation of Historic Buildings. No alterations to the facility, temporary or permanent, are permitted without prior written approval of the Board of Directors.

GENERAL MAINTENANCE & APPEARANCE:

Please keep the entire lighthouse as neat and clean as possible during your stay and particularly during tours. On the day that you are scheduled to leave, please give your quarters a thorough cleaning and leave them in “move-in” condition for those that follow you. A vacuum and cleaning supplies are kept on the lighthouse.

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LIGHTHOUSE SECURITY:

All exterior doors and shutters must be locked when the lighthouse is not occupied. Keepers are responsible not only for their personal property but also the DRLPS items and artifacts at the lighthouse. For example, it is important to assure no guest pilfers items such as the wing nuts and vent plates (1861 originals) from the watch room.

IMAGE AND IDENTIFICATION:

Keepers should always strive to provide visitors to the lighthouse with a positive experience similar to what they would find at other historical sites open to the public. Clothing should be casual and comfortable, but suitable for greeting visitors. Shorts and T-shirts are appropriate, but the following items are not during the period of public tours:

- Tank tops
- Any clothing with holes
- Bathing suits
- Bare feet or flip-flops (sandals, high heels should not be worn when climbing steps or ladders)

Everyone will be given nametags to wear which identify them as keepers. Please wear the nametag at all times when tour visitors are on the lighthouse. Keepers are encouraged, but not required, to wear the DeTour Reef Lighthouse attire that can be purchased from the Society.

GENERAL CONDUCT OF KEEPERS:

NO smoking is permitted inside the building. Smoking outside is permitted and all waste materials must be picked up and disposed of properly. Nothing is to be thrown overboard.

TELEPHONE AND RADIO USE:

Keepers are encouraged to bring cell phones and to provide their number to the DRLPS officer who is coordinating their service. The number of DRLPS Keeper Chairperson Dave Bardsley is 906-493-6609 (cell 906-440-1669) who should be called in all emergencies. Other contact numbers are provided below.

The marine radio may also be used for DRLPS to contact the lighthouse and for the lighthouse to contact DRLPS. The call identification for the lighthouse is DRL. The call identification for the DLRPS President's boat is LADY JAMES (Call identification for his home is JAMES ISLAND). A call should be made on channel 16 as follows: "Lady James, Lady James --- DRL" It can be repeated after a 30 second wait. Channel 16 should only be used for calling. Upon reply, the call should switch to another non-commercial channel, such as 68. 69. 71 or 72 with the message such as "DRL please switch and answer on 68". If you get a loud buzz when you transmit, switch to the 1 watt setting.

PUBLIC RELATIONS:

Keepers who receive inquiries from the press or other media about the DRLPS or its programs should refer the inquiries to your DRLPS contact person who will forward the information to DRLPS PR Chairperson Ann Green. Should people approach in a boat and want to secure to the lighthouse or climb on the lighthouse, they should be advised not to do so. You could, however, drop down a bucket on a rope with the tour brochure or a copy of Passages (which has contact information) for their information and suggest that they consider the public tour or keeper program.

STORM POLICY:

The lighthouse has been safe under storm conditions for 75 years. However, landing at the lighthouse with a boat can be very difficult during periods of high waves frequently caused by freighter and pleasure boat wakes. Tours may be cancelled and departures delayed due to weather conditions. The VHF marine radio has weather channels which can be used to get marine forecasts. However, channel 16 should be monitored as the society may desire to get wave conditions at the lighthouse prior to bringing tours out to the light. The charter boat Captain, hired by DRLPS for tour and keeper transportation, will make decisions regarding go or no go due to weather conditions.

In some cases during inclement weather, keepers will need to close the shutters on the lower windows in the event that waves come over the deck.

GUESTS:

Guests are not permitted on the lighthouse. Private boats are not to tie to the lighthouse. Damage to boats (due to waves and wakes from passing pleasure craft and freighters) and personal injury have occurred when boats have tied to the light. Persons desiring to see the lighthouse should be referred to the Tour Chairpersons or to the DRLPS President for consideration of a private tour. You may pass down tour brochure, copies of Passages, etc. in a bucket attached to a rope.

AIDS TO NAVIGATION:

DeTour Reef Light is an active aid to navigation. Under no circumstances should you tamper with the beacon, horn or radcon.

It features (from Light List of the Great Lakes published by the U.S. Coast Guard) are:

Item # 12770, De Tour Reef Light, Position: 45 56 54 N, 83 54 12 W

Structure: White square superstructure, square tower on concrete crib

Characteristic, Flashes White every 10s, (R sector from 079.5° to 189.5°.)

Height: 74 feet, White visible 18 miles, Red visible 15 miles

RACON (x/s): D (- • •), HORN: 2 blasts every 60s (3s bl-3s si-3s bl-51s silence).

IMPORTANT TELEPHONE NUMBERS:

Fire/Police (emergency)	911 (you are in Chippewa County just off Drummond Island and DeTour Village)
	Marine Radio, Use channel 16 and call the Coast Guard
DRLPS President & Keeper Chair	Dave Bardsley 906-493-6609, 906-440-1669 cell
	Marine Radio "Lady James" (sometimes "James Island")
DRLPS Director Chuck Feltner	906-493-6079. Marine Radio "Gemini"
DRLPS Tour Chairpersons	John and Sunny Covell: 906-493-5648
DRLPS Director Denny Bailey	906-493-5209 (h) 906-493-5232 (w)
	Marine Radio "Yacht Haven"
DRLPS Director Clif Haley	906-493-5806. Marine Radio "Budget's # 1"
DRLPS Director Don Gries	906-493-6919
Sturgeon Bay Charters	Captain Ivan Gable 810-516-9788 cell, 906-493-6087 (h),
	Marine Radio "Luk Dragon" monitors Ch 68
DeTour Harbor Marina	906-297-5947, Marine Radio "DeTour Harbor Marina"
Fort Drummond Marine	906-493-5471, Marine Radio "Fort Drummond Marine"

EMERGENCY EQUIPMENT

A first aid kit is located in the office. Fire extinguishers are located throughout the Lighthouse and extra extinguishers are located in the hallway closet of the living quarters. Two life rings are stored in the gallery level and should be put on the deck railings and tie with a throwing line when the lighthouse is occupied. Additionally, a few personal flotation devices (PFD's or lifejackets) are located in the gallery level.

TOUR PREPARATION:

- Yellow caution tape should be placed at:
 - All vertical pier ladders from the top of the stanchion to the inboard end of the deck mounted hand grabs.
 - (like a streamer) to the lower corners of the solar panels
 - The access ladder between the watch room deck and the lantern deck to prevent visitors or keepers from accessing the lantern deck. Visitors may partially climb the ladder to the point where their waist is even with the lantern deck
 - the entrance to the well and electrical power room
 - the top of the spiral stairs where a person could hit their head before passing through the hatch to the watch room
- Assure that the memorabilia is displayed in the display racks.
- Assign at least one keeper to record memorabilia sales in the log book and also to write out receipts for the sale. Master Card, Visa, Discover Card and American Express are accepted. We do need however the correct name on the charge card, the card number, expiration date and the billing address (put at the top of the receipt slip). Original goes to purchaser and both carbons should be placed in the zipper bank envelope and given to DRLPS with revenue and charge card information. For sales on the lighthouse DRLPS will pay the sales tax. If an item is not in stock, keepers can take an order and DRLPS will pay the sales tax and shipping.
- Prepare cheese and crackers. Make up lemonade and ice tea.
- Set up and start to bake the cookies just as the tour guests are arriving. Use the large baking tray and put parchment paper on the tray before setting the pre-made cookies on the tray. Instructions are on the box of ready to bake frozen cookies.
- The support structure for the safety tether should be attached to the stanchions at the ladder that will be used for visitor access. The leg sections of the structure should be secured with a double wrap of the ratchet straps to each stanchion. The lower part of the legs should be tied securely with the excess straps and additional short sections of strap. The tether is secured with the carabiner and chain.



- Keepers should read the instructions for use of the harness and tether that are contained in the three ring binder in the office. Additionally keepers will be instructed in use of the harness (four sizes available: S, M, L, XL) and tether system during orientation.
- Prepare refreshments (provided by DRLPS): bake pre-made cookies (try to bake so they are done about the same time guests are ready for refreshments so cookie aroma is in lighthouse), mix up lemonade and ice tea, and prepare cheese and crackers.
- Put on nametags
- Set up DVD video
- Greet tour guests as they access lighthouse. Assist with removing their safety harness.

- Ask if they have a U.S. Lighthouse Society “Passport” and would like to have it stamped.
- While DRLPS guides will lead the tour many guests will have questions for the keepers about their keeper experience and the lighthouse.
- Always accompany tour visitors around the lighthouse. Absolutely no tour visitor is to be allowed in the tower or on the watch room deck without being with a keeper.

DEPARTURE:

On the day you move out, please plan to have the Lighthouse clean, trash collected and be packed and have all personal items ready for removal prior to your scheduled departure time. Departure, unless other arrangements are made, will be at 5:30pm Sunday (or the end of the last Tour) or when otherwise requested and approved by DRLPS. Weather conditions may prevent departure at the scheduled time. Wind conditions are usually higher in the late afternoon and calm down late at night and early morning. Keepers should be prepared to spend Sunday night at the lighthouse should a storm prevent departure at the scheduled time. DRLPS will communicate with the keepers by phone or marine radio should forecast weather conditions indicate either an early or a delayed departure.

All trash must be packed in the grey Waste Management garbage bags and taken with you. A roll of Waste Management garbage bags are kept in the porcelain top Kitchen cabinets. (Note: we must use the Waste Management garbage bags to put them in the dumpster at Fort Drummond Marine or any other Public Dumpster on Drummond Island). Other garbage bags (white and black) are located in the hall closet. Recycle items (cans, newspaper, magazines, glass and plastic (recycle 1 & 2) should be put in a separate (not a Waste Management) bag as should cans and bottles with a deposit. A DRLPS member will be able to dispose of this material when you return to the dock.

When you move out and you would like to leave food and supplies that you brought to the lighthouse but did not use, including dry foods (coffee, sugar, etc.) and condiments (mayonnaise, mustard, etc.) please advise the Keeper or Tour Chairperson. Generally, if it won't spoil without refrigeration, and keepers are scheduled after you, it will be welcomed by the next team. Please fill the ice cube trays before you leave. Put crackers and other items that insects may get into in the microwave. Put other items like sugar and sweetener packets in zip lock bags.

If you are the last to leave the lighthouse, be sure the UV system is unplugged, water and heater circuits are turned off, heat is turned off on all baseboard heaters, lights are turned out, all shutters are closed and locked, life rings, harnesses, and self-retracting life line are stored inside, and the door to the lighthouse is padlocked. Use the checklist on the last page of this handbook.

ENJOY YOUR TIME ON DeTOUR REEF LIGHT STATION!

Before leaving DeTour Reef Light

Close and secure upper and lower latches on steel watch room door

Close and secure wooden doors in watch room

Leave hatch at top of spiral stairs open

Turn off VHF radio and power source

Turn off any baseboard heaters that may have been turned on

Check all burners, oven and warming drawer on stove to be sure they are off

Turn off the circuit breaker in the closet of the assistants room

Check warmer drawer in stove to be sure it is off (note -- this has been left on!!)

Close and lock all windows (use window closing tool - May require two people)

Bring back all garbage in Waste Management Garbage Bags

Bring back all recycling materials in regular garbage bags

Bring back all returnable cans and bottles in regular garbage bags

Return both carbons, any charge slips, checks and revenue from sales to DRLPS (complete record including size and color of clothing). Put in zipper bank envelope.

Make last entries in keepers log

Make entries in keepers suggestion book

In basement:

Unplug UV system

Trip breaker for water heater

Trip breaker for water pump

Assure breaker for crane is off

Close and pad lock all steel shutters on lower level

Bring in life rings

Bring in lifejackets

Bring in bench (made with heavy steel legs and sunken ships wood).

Bring in canvas chairs and put in storage bags on gallery level

Secure Crane and unplug motor

Replace any railings that were lowered

Turn off lights

Lock the door