

UPPER MISSISSIPPI RIVER
NAVIGATION CHARTS

Minneapolis, Minnesota to Cairo, Illinois
Minnesota and Saint Croix Rivers

Points of Contact Inside Front Cover

Table of Contents

Regulations

 River & Harbors Act – 1917 Sheets A-B

 River & Harbors Act – 1899 Sheet C

General Notes

 Navigation Information Sheets D-F

USCG Aids to Navigation Sheet G

Legend Sheet H

Map Index of Charts Sheets I-M

Navigation Charts Charts 1-156

Appendices

 Commercial Barge Facilities Appendix A

 Vertical Clearances Appendix B

 Submerged Utilities Appendix C

 Gage Information Appendix D

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REGULATIONS

PERSCRIBED BY THE SECRETARY OF THE ARMY FOR
OHIO RIVER, MISSISSIPPI RIVER ABOVE CAIRO, IL., AND
THEIR TRIBUTARIES; USE, ADMINISTRATION
AND NAVIGATION

(The following are excerpts)

THE LAW

Section 7 of the River and Harbor Act of August 8, 1917, provides as follows:

“That it shall be the duty of the Secretary of War to prescribe such regulations for the use, administration, and navigation of the navigable waters of the United States as in his judgment the public necessity may require for the protection of life and property, or of operations of the United States in channel improvement, covering all matters not specifically delegated by law to some other executive department. Such regulations shall be posted, in conspicuous and appropriate places, for the information of the public; and every person and every corporation which shall violate such regulations shall be deemed guilty of a misdemeanor, and on conviction thereof in any district court of the United States within whose territorial jurisdiction such offense may have been committed, shall be punished by a fine not exceeding \$500, or by imprisonment (in the case of a natural person) not exceeding six months, in the discretion of the court.”

In pursuance of the law above quoted, the following regulations were prescribed to govern the use, administration, and navigation of the Ohio River, Mississippi River above Cairo, Illinois, and their tributaries.

THE REGULATIONS

Sec. 207.300 Ohio River, Mississippi River above Cairo, Ill., and their tributaries; use, administration, and navigation.

- (a) *Authority of Lockmasters.*
The lockmaster shall be charged with the immediate control and management of the lock, and of the area set aside as the lock area, including the lock approach channels. He/she shall see that all laws, rules, and regulations for the use of the lock and lock area are duly complied with, to which end he/she is authorized to give all necessary orders and directions in accordance therewith, both to employees of the government and to any and every person within the limits of the lock and lock area, whether navigating the lock or not. No one shall cause any movement of any vessel, boat, or other floating thing in the lock or approaches except by or under the direction of the lockmaster or his/her assistants. In the event of an emergency, the lockmaster may depart from these regulations as he deems necessary. The lockmasters shall also be charged with the control and management of federally constructed mooring facilities.
- (b) *Safety rules for vessels using navigation locks.*
The following safety rules are hereby prescribed for vessels in the locking process, including the act of approaching or departing a lock:
(1) *Tows with flammable or hazardous cargo barges, loaded or empty.*
(i) Stripping barges or transferring cargo is prohibited.
(ii) All hatches on barges used to transport flammable or hazardous materials shall be closed and latched, except those barges carrying a gas-free certificate.
(iii) Spark-proof protective rubbing fenders (“possums”) shall be used.
(2) *All vessels.*
(i) Leaking vessels may be excluded from locks until they have been repaired to the satisfaction of the lockmaster.
(ii) Smoking, open flames, and chipping or other spark-producing activities are prohibited on deck during the locking cycle.
(iii) Painting will not be permitted in the lock chamber during the locking cycle.
(iv) Tow speeds shall be reduced to a rate of travel such that the tow can be stopped by checking should mechanical difficulties develop. Pilots should check with the individual lockmasters concerning prevailing conditions. It is also recommended that pilots check their ability to reverse their engines prior to beginning an approach. Engines shall not be turned off in the lock until the tow has stopped and been made fast.
(v) U.S. Coast Guard regulations require all vessels to have on board life saving devices for prevention of drowning. All crew members of vessels required to carry work vests (life jackets) shall wear them during a lockage, except those persons in an area enclosed with a handrail or other device which would reasonably preclude the possibility of falling overboard. All deckhands handling lines during locking procedure shall wear a life jacket. Vessels not required by Coast Guard regulations to have work vests aboard shall have at least the prescribed life saving devices, located for ready access and use if needed. The lockmaster may refuse lockage to any vessel which fails to conform to the above.
- (c) *Reporting of navigation incidents.*
In furtherance of increased safety on waterways the following safety rules are hereby prescribed for all navigation interests:
(1) Any incident resulting in uncontrolled barges shall immediately be reported to the nearest lock. The report shall include information as to the number of loose barges, their cargo, and the time and location where they broke loose. The lockmaster or locks shall be kept informed of the progress being made in bringing the barges under control so that he can initiate whatever actions may be warranted.
(2) Whenever barges are temporarily moored at other than commercial terminals or established fleeting areas, and their breaking away could endanger a lock, the nearest lock shall be so notified, preferably the downstream lock.
(3) Sunken or sinking barges shall be reported to the nearest lock both downstream and upstream of the location in order that other traffic passing those points may be advised of the hazards.
(4) In the event of an oil spill, notify the nearest lock downstream, specifying the time and location of the incident, type of oil, amount of spill, and what recovery or controlling measures are being employed.
(5) Any other activity on the waterways that could conceivably endanger navigation or a navigation structure shall be reported to the nearest lock.
(6) Whenever it is necessary to report an incident involving uncontrolled, sunken or sinking barges, the cargo in the barges shall be accurately identified.
- (d) *Precedence at locks.*
(1) The vessel arriving first at a lock shall normally be first to lock through, but precedence shall be given to vessels belonging to the United States. Licensed commercial passenger vessels operating on a published schedule or regularly operating in the “for hire” trade shall have precedence over cargo tows and like craft. Commercial cargo tows shall have precedence over recreational craft, except as described in paragraph (f) of this section.
(2) Arrival posts or markers may be established ashore above and/or below the locks. Vessels arriving at or opposite such posts or markers will be considered as having arrived at the locks within the meaning of this paragraph. Precedence may be established visually or by radio

communication. The lockmaster may prescribe such departure from the normal order of precedence as in his judgment is warranted to achieve best lock utilization.

- (e) *Unnecessary delay at locks.*
Masters and pilots must use every precaution to prevent unnecessary delay in entering or leaving locks. Vessels failing to enter locks with reasonable promptness when signaled to do so shall lose their turn. Rearranging or switching of barges in the locks or in approaches is prohibited unless approved or directed by the lockmaster. This is not meant to curtail “jackknifing” or set-overs where normally practiced.
- (f) *Lockage of recreational craft.*
In order to fully utilize the capacity of the lock, the lockage of recreational craft shall be expedited by locking them through with commercial craft, *provided That both parties agree to joint use of the chamber.* When recreational craft are locked simultaneously with commercial tows, the lockmaster will direct, whenever practicable, that the recreational craft enter the lock and depart while the tow is secured in the lock. Recreational craft will not be locked through with vessels carrying volatile cargoes or other substances likely to emit toxic or explosive vapors. If the lockage of recreational craft cannot be accomplished within the time required for three other lockages, a separate lockage of recreational craft shall be made. Recreational craft operators are advised that many locks have a pull chain located at each end of the lock which signals the lockmaster that lockage is desired. Furthermore, many Mississippi River locks utilize a strobe light at the lock to signal recreational type vessels that the lock is ready for entry. Such lights are used exclusively to signal recreational craft.
- (g) *Simultaneous lockage of tows with dangerous cargoes.*
Simultaneous lockage of other tows with tows carrying dangerous cargoes or containing flammable vapors normally will only be permitted when there is agreement between the lockmaster and both vessel masters that the simultaneous lockage can be executed safely. He shall make a separate decision each time such action seems safe and appropriate, provided:
(1) The first vessel or tow in and the last vessel or tow out are secured before the other enters or leaves.
(2) Any vessel or tow carrying dangerous cargoes is not leaking.
(3) All masters involved have agreed to the joint use of the lock chamber.
- (h) *Stations while awaiting a lockage.*
Vessels awaiting their turn to lock shall remain sufficiently clear of the structure to allow unobstructed departure for the vessel leaving the lock. However, to the extent practicable under the prevailing conditions, vessels and tows shall position themselves so as to minimize approach time when signaled to do so.
- (i) *Stations while awaiting access through navigable pass.*
When navigable dams are up or are in the process of being raised or lowered, vessels desiring to use the pass shall wait outside the limits of the approach points unless authorized otherwise by the lockmaster.
- (j) *Signals.*
Signals from vessels shall ordinarily be by whistle; signals from locks to vessels shall be by whistle, another sound device, or visual means. When a whistle is used, long blasts of the whistle shall not exceed 10 seconds and short blasts of the whistle shall not exceed 3 seconds. Where a lock is not provided with a sound or visual signal installation, the lockmaster will indicate by voice or by the wave of a hand when the vessel may enter or leave the lock. Vessels must approach the locks with caution and shall not enter nor leave the lock until signaled to do so by the lockmaster. The following lockage signals are prescribed:
(1) *Sound signals by means of a whistle.* These signals apply at either a single lock or twin locks.
(i) Vessels desiring lockage shall on approaching a lock give the following signals at a distance of not more than one mile from the lock:
(a) If a single lockage only is required: One long blast of the whistle followed by one short blast.
(b) If a double lockage is required: One long blast of the whistle followed by two short blasts.
(ii) When the lock is ready for entrance, the lock will give the following signals:
(a) One long blast of the whistle indicates permission to enter the lock chamber in the case of a single lock or to enter the landward chamber in the case of twin locks.
(b) Two long blasts of the whistle indicates permission to enter the riverward chamber in the case of twin locks.
(iii) Permission to leave the locks will be indicated by the following signals given by the lock:
(a) One short blast of the whistle indicates permission to leave the lock chamber in the case of a single lock or to leave the landward chamber in the case of twin locks.
(b) Two short blasts of the whistle indicates permission to leave the riverward chamber in the case of twin locks.
(iv) Four or more short blasts of the lock whistle delivered in rapid succession will be used as a means of attracting attention, to indicate caution, and to signal danger. This signal will be used to attract the attention of the captain and crews of vessels using or approaching the lock or navigating in its vicinity and to indicate that something unusual involving danger or requiring special caution is happening or is about to take place. When this signal is given by the lock, the captains and crews of vessels in the vicinity shall immediately become on the alert to determine the reason for the signal and shall take the necessary steps to cope with the situation.
- (2) *Lock signal lights.* At locks where density of traffic or other local conditions make it advisable, the sound signals from the lock will be supplemented by signal lights. Flashing lights (showing a one-second flash followed by a two-second eclipse) will be located on or near each end of the land wall to control use of a single lock or of the landward lock of double locks. In addition, at double locks, interrupted flashing lights (showing a one-second flash, a one-second eclipse and a one-second flash, followed by a three-second eclipse) will be located on or near each end of the intermediate wall to control use of the riverward lock. Navigation will be governed as follows:
(i) *Red light.* Lock cannot be made ready immediately. Vessel shall stand clear.
(ii) *Amber light.* Lock is being made ready. Vessel may approach but under full control.
(iii) *Green light.* Lock is ready for entrance.
(iv) *Green and amber.* Lock is ready for entrance but gates cannot be recessed completely. Vessel may enter under full control and with extreme caution.

- (3)

Radio communications. VHF-FM radios, operating in the FCC authorized Maritime Band, have been installed at all operational locks (except those on the Kentucky River and Lock 3, Green River). Radio contact may be made by any vessel desiring passage. Commercial tows are especially requested to make contact at least one half hour before arrival in order that the pilot may be informed of current river and traffic conditions that may affect the safe passage of his tow. All locks monitor 156.8 MHz (Ch. 16) and 156.65 MHz (Ch. 13) and can work 156.65 MHz (Ch. 13) and 156.7 MHz (Ch. 14) Ch. 16 is the authorized call, reply and distress frequency, and locks are not permitted to work on this frequency except in an emergency involving the risk of immediate loss of life or property. Vessels may call and work Ch. 13, without switching, but are cautioned that vessel to lock traffic must not interrupt or delay Bridge to Bridge traffic which has priority at all times.
- (k)

Rafts.
Rafts to be locked through shall be moored in such manner as not to obstruct the entrance of the lock, and if to be locked in sections, shall be brought to the lock as directed by the lockmaster. After passing the lock the sections shall be reassembled at such distance beyond the lock as not to interfere with other vessels.
- (l)

Entrance to and exit from locks. In case two or more boats or tows are to enter for the same lockage, their order of entry shall be determined by the lockmaster. Except as directed by the lockmaster, no boat shall pass another in the lock. In no case will boats be permitted to enter or leave the locks until directed to do so by the lockmaster. The sides of all craft passing through any lock shall be free from projections of any kind which might injure the lock walls. All vessels shall be provided with suitable fenders, and shall be used to protect the lock and guide walls until it has cleared the lock and guide walls.
- (m)

Mooring

(1)

At locks.

(i)

All vessels when in the locks shall be moored as directed by the lockmaster. Vessels shall be moored with bow and stern lines leading in opposite directions to prevent the vessel from “running” in the lock. All vessels will have one additional line available on the head of the tow for emergency use. The pilothouse shall be attended by qualified personnel during the entire locking procedure. When the vessel is securely moored, the pilot shall not cause movement of the propellers except in emergency or unless directed by the lockmaster. Tying to lock ladders is strictly prohibited.

(ii)

Mooring of unattended or non-propelled vessels or small craft at the upper or lower channel approaches will not be permitted within 1200 feet of the lock.

(2)

Outside of locks.

(i)

No vessel or other craft shall regularly or permanently moor in any reach of a navigation channel. The approximate centerline of such channels are marked as the sailing line on Corps of Engineers' navigation charts. Nor shall any floating craft, except in an emergency, moor in any narrow or hazardous section of the waterway. Furthermore, all vessels or other craft are prohibited from regularly or permanently mooring in any section of navigable waterways which are congested with commercial facilities or traffic unless it is moored at facilities approved by the Secretary of the Army or his authorized representative. The limits of the congested areas shall be marked on Corps of Engineers' navigation charts. However, the District Engineer may authorize in writing exceptions to any of the above if, in his judgment, such mooring would not adversely affect navigation and anchorage.

(ii)

No vessel or other craft shall be moored to railroad tracks, to riverbanks in the vicinity of railroad tracks when such mooring threatens the safety of equipment using such tracks, to telephone poles or power poles, or to bridges or similar structures used by the public.

(iii)

Except in case of great emergency, no vessel or craft shall anchor over revetted banks of the river, and no floating plant other than launches and similar small craft shall land against banks protected by revetment except at regular commercial landings. In all cases, every precaution to avoid damage to the revetment works shall be exercised. The construction of log rafts along mattedressed or paved banks or the tying up and landing of log rafts against such banks shall be performed in such a manner as to cause no damage to the mattress work or bank paving. Generally, mattress work extends out into the river 600 feet from the low water line.

(iv)

Any vessel utilizing a federally constructed mooring facility (e.g., cells, buoys, anchor rings) at the points designated on the current issue of the Corps' navigation charts shall advise the lockmaster at the nearest lock from that point by the most expeditious means.

(n)

Draft of vessels.
No vessel shall attempt to enter a lock unless its draft is at least three inches less than the least depth of water over the guard sills, or over the gate sills if there be no guard sills. Information concerning controlling depth over sills can be obtained from the lockmaster at each lock or by inquiry at the office of the district engineer of the district in which the lock is located.

(o)

Handling machinery.
No one but employees of the United States shall move any lock machinery except as directed by the lockmaster. Tampering or meddling with the machinery or other parts of the lock is strictly forbidden.

(p)

Refuse in locks.
Placing or discharging refuse of any description into the lock, on lock walls or esplanade, canal or canal bank is prohibited.

(q)

Damage to locks or other work.
To avoid damage to plant and structures connected with the construction or repair of locks and dams, vessels passing structures in the process of construction or repair shall reduce their speed and navigate with special caution while in the vicinity of such work. The restrictions and admonitions contained in these regulations shall not affect the liability of the owners and operators of floating craft for any damage to locks or other structures caused by the operation of such craft.

(r)

Trespass of lock property.

Trespass on locks or dams or other U.S. property pertaining to the locks or dams is strictly prohibited except in those areas specifically permitted. Parties committing any injury to the locks or dams or to any part thereof will be responsible therefor. Any person committing a willful injury to any U.S. property will be prosecuted. No fishing will be permitted from lock walls, guide walls, or guard walls of any lock or from any dam, except in areas designated and posted by the responsible District Engineer as fishing areas. Personnel from commercial and recreational craft will be allowed on the lock structure for legitimate business reasons: e.g., crew changes, emergency phone calls, etc.

(s)

Restricted areas at locks and dams.
All waters immediately above and below each dam, as posted by the respective District Engineers, are hereby designated as restricted areas. No vessel or other floating craft shall enter any such restricted area at any time. The limits of the restricted areas at each dam will be determined by the responsible District Engineer and market by signs and/or flashing red lights installed in conspicuous and appropriate places.

(t)

[Reserved]

(u)

Operations during high water and floods in designated vulnerable areas.
Vessels operating on these waters during periods when river stages exceed the level of “ordinary high water”, as designated on Corps of Engineers' navigation charts, shall exercise reasonable care to minimize the effects of their bow waves and propeller washes on river banks: submerged or partially submerged structures or habitations; terrestrial growth such as trees and bushes; and man-made amenities that may be present. Vessels shall operate carefully when passing close to levees and other flood protection works, and shall observe minimum distances from banks which may be prescribed from time to time in Notices to Navigation Interests. Pilots should exercise particular care not to direct propeller wash at river banks, levees, revetments, structures or other appurtenances subject to damage from wave action.

(v)

Navigation lights for use at all locks.

(1)

At locks at all fixed dams and at locks at all movable dams when the dams are up so that there is no navigable pass through the dam, the following navigation lights will be displayed during hours of darkness:

(i)

Three green lights visible through an arc of 360 deg. arranged in a vertical line on the upstream end of the river (guard) wall unless the intermediate wall extends farther upstream. In the latter case, the lights will be placed on the upstream end of the intermediate wall.

(ii)

Two green lights visible through an arc of 360 deg. arranged in a vertical line on the downstream end of the river (guard) wall unless the intermediate wall extends farther downstream. In the latter case, the lights will be placed on the downstream end of the intermediate wall.

(iii)

A single red light, visible through an arc of 360 deg. on each end (upstream and downstream) of the land (guide) wall.

(2)

At movable dams when the dam has been lowered or partly lowered so that there is an unobstructed navigable pass through the dam, the navigation lights indicated in the following paragraphs will be displayed during hours of darkness until lock walls and weir piers are awash.

(i)

Three red lights visible through an arc of 360 deg. arranged in a vertical line on the upstream end of the river (guard) wall.

(ii)

Two red lights visible through an arc of 360 deg. arranged in a vertical line on the downstream end of the river (guard) wall.

(iii)

A single red light visible through an arc of 360 deg. on each end (upstream and downstream) of the land (guide) wall.

(3)

After lock walls and weir piers are awash they will be marked as prescribed in paragraph (x) of this section.

(4)

If one or more bear traps or weirs are open or partially open, and may cause a set in current conditions at the upper approach to the locks, this fact will be indicated by displaying a white circular disk 5 feet in diameter, on or near the light support on the upstream end of the land (guide) wall during the hours of daylight, and will be indicated during hours of darkness by displaying a white (amber) light vertically under and 5 feet below the red light on the upstream end of the land (guide) wall.

(5)

At Locks No. 1 and 2, Green River, when the locks are not in operation because of high river stages, a single red light visible through an arc of 360 deg. will be displayed on each end (upstream and downstream) of the lock river (guard) will at which time the lights referred to above will not be visible.

(w)

[No longer applicable]

(x)

Buoys at movable dams.

(1)

Whenever the river (guard) wall of the lock and any portion of the dam are awash, and until covered by a depth of water equal to the project depth, the limits of the navigable pass through the dam will be marked by buoys located at the upstream and downstream ends of the river (guard) wall, and by a single buoy over the end or ends of the portion or portions of the dam adjacent to the navigable pass over which project depth is not available. A red nun-type buoy will be used for such structures located on the left-hand side (facing downstream) of the river and a black can-type buoy for such structures located on the right-hand side. Buoys will be lighted, if practicable.

(2)

Where powerhouses or other substantial structures projecting considerably above the level of the lock wall are located on the river (guard) wall, a single red light located on top of one of these structures may be used instead of river wall buoys prescribed above until these structures are awash, after which they will be marked by a buoy of appropriate type and color (red nun or black can buoy) until covered by a depth of water equal to the project depth. Buoys will be lighted, if practicable.

(y)

Vessels to carry regulations.
A copy of these regulations shall be kept at all times on board each vessel regularly engaged in navigating the rivers to which these regulations apply. Copies may be obtained from any lock office or District Engineer's office on request. Masters of such vessels are encouraged to have on board copies of the current edition of appropriate navigation charts.

NOTE: These regulations are those in effect 31 July 1975.

2020

REGULATIONS: RIVERS AND HARBORS ACT - 1917

SHEET B

ACT OF MARCH 3, 1899

[As Amended Through P.L. 106–580, Dec. 29, 2000]

(Commonly Known as THE “RIVERS AND HARBORS APPROPRIATION ACT OF 1899”)

(Sections 15, 16, 19 & 20)

CHAP. 425.—An Act Making appropriations for the construction, repair, and preservation of certain public works on rivers and harbors, and for other purposes.

* * * * *

SECTION 15

That it shall not be lawful to tie up or anchor vessels or other craft in navigable channels in such a manner as to prevent or obstruct the passage of other vessels or craft; or to sink, or permit or cause to be sunk, vessels or other craft in navigable channels; or to float loose timber and logs, or to float what is known as sack rafts of timber and logs in streams or channels actually navigated by steamboats in such manners as to obstruct, impede, or endanger navigation. And whenever a vessel, raft, or other craft is wrecked and sunk in a navigable channel, it shall be the duty of the owner, lessee, or operator of such sunken craft to immediately mark it with a buoy or beacon during the day and a lighted lantern at night, and to maintain such marks until the sunken craft is removed or abandoned, and the neglect or failure of the said owner, lessee, or operator so to do shall be unlawful; and it shall be the duty of the owner, lessee, or operator of such sunken craft to commence the immediate removal of the same, and prosecute such removal diligently, and failure to do so shall be considered as an abandonment of such craft and subject the same to removal by the United States as hereinafter provided for. (33 U.S.C. 409)

SECTION 16

That every person and every corporation that shall violate, or that shall knowingly aid, abet, authorize, or instigate a violation of the provisions of sections 13, 14, 15, 19, and 20 of this Act shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of up to \$25,000 per day, or by imprisonment (in the case of a natural person) for not less than thirty days nor more than one year, or by both such fine and imprisonment, in the discretion of the court; one-half of said fine to be paid to the person or persons giving information which shall lead to conviction. And any and every master, pilot, and engineer, or person or persons acting in such capacity, respectively, on board of any boat or vessel who shall knowingly ngate in towing any scow, boat, or vessel loaded with any material specified in section thirteen of this Act to any point or place of deposit or discharge in any harbor or navigable water, elsewhere than within the limits defined and permitted by the Secretary of War, or who shall willfully injure or destroy any work of the United States contemplated in section fourteen of this Act, or who shall willfully obstruct the channel of any waterway in the manner contemplated in section fifteen of this Act, shall be deemed guilty of a violation of this Act, and shall upon conviction be punished as hereinbefore provided in this section, and shall also have his license revoked or suspended for a term to be fixed by the judge before whom tried and convicted. And any boat, vessel, scow, raft, or other craft used or employed in violating any of the provisions of sections 13, 14, 15, 19, and 20 of this Act shall be liable for the pecuniary penalties specified in this section, and in addition thereto for the amount of the damages done by said boat, vessel, scow, raft, or other craft, which latter sum shall be placed to the credit of the appropriation for the improvement of the harbor or waterway in which the damage occurred, and said boat, vessel, scow, raft, or other craft may be proceeded against summarily by way of libel in any district court of the United States having jurisdiction thereof. (33 U.S.C. 411, 412)

SECTION 19

(a) That whenever the navigation of any river, lake, harbor, sound, bay, canal, or other navigable waters of the United States shall be obstructed or endangered by any sunken vessel, boat, water craft, raft, or other similar obstruction, and such obstruction has existed for a longer period than thirty days, or whenever the abandonment of such obstruction can be legally established in a less space of time, the sunken vessel, boat, water craft, raft, or other obstruction shall be subject to be broken up, removed, sold, or otherwise disposed of by the Secretary of War at his discretion, without liability for any damage to the owners of the same: *Provided*, That in his discretion, the Secretary of War may cause reasonable notice of such obstruction of not less than thirty days, unless the legal abandonment of the obstruction can be established in a less time, to be given by publication, addressed “To whom it may concern,” in a newspaper published nearest to the locality of the obstruction, requiring the removal thereof: *And provided also*, That the Secretary of War may, in his discretion, at or after the time of giving such notice, cause sealed proposals to be solicited by public advertisement, giving reasonable notice of not less than ten days, for the removal of such obstruction as soon as possible after the expiration of the above specified thirty days’ notice, in case it has not in the meantime been so removed, these proposals and contracts, at his discretion, to be conditioned that such vessel, boat, water craft, raft, or other obstruction, and all cargo and property contained therein, shall become the property of the contractor, and the contract shall be awarded to the bidder making the proposition most advantageous to the United States: *Provided*, That such bidder shall give satisfactory security to execute the work: *Provided further*, That any money received from the sale of any such wreck, or from any contractor for the removal of wrecks, under this paragraph shall be covered into the Treasury of the United States.

(b) The owner, lessee, or operator of such vessel, boat, watercraft, raft, or other obstruction as described in this section shall be liable to the United States for the cost of removal or destruction and disposal as described which exceeds the costs recovered under subsection (a). Any amount recovered from the owner, lessee, or operator of such vessel pursuant to this subsection to recover costs in excess of the proceeds from the sale or disposition of such vessel shall be deposited in the general fund of the Treasury of the United States. (33 U.S.C. 414)

SECTION 20

(a) That under emergency, in the case of any vessel, boat, water craft, or raft, or other similar obstruction, sinking or grounding, or being unnecessarily delayed in any Government canal or lock, or in any navigable waters mentioned in section nineteen, in such manner as to stop, seriously interfere with, or specially endanger navigation, in the opinion of the Secretary of War, or any agent of the United States to whom the Secretary may delegate proper authority, the Secretary of War or any such agent shall have the right to take immediate possession of such boat, vessel, or other water craft, or raft, so far as to remove or to destroy it and to clear immediately the canal, lock, or navigable waters aforesaid of the obstruction thereby caused, using his best judgment to prevent any unnecessary injury; and no one shall interfere with or prevent such removal or destruction: *Provided*, That the officer or agent charged with the removal or destruction of an obstruction under this section may in his discretion give notice in writing to the owners of any such obstruction requiring them to remove it: *And provided further*, That the actual expense, including administrative expenses, of removing any such obstruction as aforesaid shall be a charge against such craft and cargo; and if the owners thereof fail or refuse to reimburse the United States for such expense within thirty days after notification, then the officer or agent aforesaid may sell the craft or cargo, or any part thereof that may not have been destroyed in removal, and the proceeds of such sale shall be covered into the Treasury of the United States.

(c) The owner, lessee, or operator of such vessel, boat, watercraft, raft, or other obstruction as described in this section shall be liable to the United States for the actual cost, including administrative costs, of removal or destruction and disposal as described which exceeds the costs recovered under subsection (a). Any amount recovered from the owner, lessee, or operator of such vessel pursuant to this subsection to recover costs in excess of the proceeds from the sale or disposition of such vessel shall be deposited in the general fund of the Treasury of the United States. (33 U.S.C. 415)

GENERAL

These navigation charts were generated from field surveys conducted by the U.S. Army Corps of Engineers offices and aerial photography taken at various times from 2015 to 2020. Information presented on these charts can change and, therefore, anyone navigating on the Upper Mississippi River must exercise caution and acknowledge the ever-present hazards of this natural resource. Mariners are urged to report any condition found to differ from those shown on the charts to:

CEMVR-Charts-WEB@usace.army.mil

PROCUREMENT OF NAVIGATION CHARTS

Navigation charts for the Federal navigation projects on the Western Rivers of the United States are available for purchase from the US Army Corps of Engineers. Navigation charts for the Upper Mississippi River can be procured from the following sources:

Mississippi River Visitor Center
Post Office Box 2004
Rock Island, IL 61204-2004
(309) 794-5338
<http://www.mvr.usace.army.mil/Missions/Navigation>

Government Printing Office (GPO) Bookstore:
<https://bookstore.gpo.gov/agency/usace-navigational-charts>

A list of location for the purchase of navigation charts for other Corps' projects and all inland electronic navigation charts can be obtained from the following internet address:
<http://ienccloud.us/>

AUTHORIZED PROJECT

The Upper Mississippi River begins at the confluence of the Mississippi and Ohio Rivers at Cairo, IL. It continues upstream between Missouri and Illinois, Iowa and Illinois, Iowa and Wisconsin, Minnesota and Wisconsin, and continues through Minnesota to its source at Lake Itasca. The federally authorized navigation channel starts at Cairo, IL and ends at mile marker 866 in Minneapolis, MN. The Upper Mississippi River has a minimum 9' depth, with varying widths by reach. For more detailed information about the Upper Mississippi River, see Navigation Bulletins 1 and 2 at this website:
<http://www.mvr.usace.army.mil/Missions/Navigation>

PERMITS

In the administration of laws, enacted by Congress for the protection and preservation of navigation and the navigable waters of the United States, the U.S. Army Corps of Engineers exercises jurisdiction over the Illinois Waterway and several of its tributary streams and wetlands. Anyone wishing to undertake a project in, under, over or adjacent to water (including wetlands) of the United States need to inquire to the appropriate Corps of Engineers District regarding permit requirements. Inquiries for such work or structures should be addressed to:

St Louis District (River Miles 0 - 300)
<http://www.mvr.usace.army.mil/Missions/Regulatory>
314-331-8575

Rock Island District (River Miles 300 - 673)
<http://www.mvr.usace.army.mil/Missions/Regulatory>
309-794-5057

St Paul District (River Miles 673 - 866)
<http://www.mvp.usace.army.mil/Missions/Regulatory>
651-290-5525

NAVIGATION NOTICES

Notices to Navigation Interests (Navigation Notice) containing data on channel conditions, lock closures, location of dredges, etc., are issued by the Corps of Engineers as occasions warrant. Corps' Navigation Notices for the Upper Mississippi River are published on the website:
<http://ntninotices.usace.army.mil/>

MILE POINTS

River mileage, as shown on these charts, was measured from the confluence of the Mississippi and Ohio Rivers at Cairo, IL based on the channel centerline in 1931. In many places the channel and sailing line have since moved, and the mile markers are shown at the closest point along the current sailing line in some places. Generally, the mile points approximate a mile between the points; however, in areas where the alignment of the navigation channel has changed during its existence, the distance between mile points would tend to be greater or less than 1-mile in distance.

GAGES

River gages provide current river stage conditions. See gage table in Appendix D for data specific to individual gages. Gage data are available at these websites:

- <http://www.rivergages.com> real-time & historical
- <https://water.usace.army.mil/> real-time
- <https://water.weather.gov/ahps/> forecasts
- <https://waterdata.usgs.gov/nwis> real-time & historical

WATER SURFACE ELEVATIONS, STAGES, AND LOW OPERATING LEVEL

All water surface elevations (WSE) referenced on these charts are referenced to Mean Sea Level (MSL) 1912 Adjustment or National Geodetic Vertical Datum (NGVD) 1929. Gages upstream from Lock and Dam 22 reference MSL 1912, and those downstream reference NGVD 1929.

Low Operating Level (LOL) is the minimum designed water surface elevation for a navigation pool or reach, and in pooled reaches it's called Lowest Controlled Pool (LCP), Flat Pool, or Minimum Pool. Project depths are shown from LOL. In pooled reaches, LOL is maintained at a predetermined "control point", where enough flow is passed through the downstream navigation dam to ensure minimum WSE at the control point location.

In the lower portion of the river not constrained by dams, LOL is called Low Water Reference Plane (LWRP). LWRP elevations vary with a slope along the length of the river, and are based on a reference low-flow condition. LWRP is periodically updated.

VERTICAL CLEARANCES

Vertical clearances under bridges and aerial crossings are shown on the charts relative to LOL. Bridges show clearance below the lowest part of the bridge (Low Steel Elevation) over the navigation channel. Clearance below power lines is based on the lowest elevation along the lines during conditions (weather and electrical current) that would result in the maximum foreseeable sag over the navigation channel. Current or simulated clearance may be calculated by reducing the published clearance value by the difference between a river stage of interest and LOL.

RECREATIONAL CRAFT FACILITIES AND FEATURES

The navigation charts show the location and identification of many private and public recreational craft facilities but may not depict the full extent of the facilities. Recreational craft and commercial tows are encouraged to operate in a manner considerate to the safety of all vessels using the waterway and to prevent damage and/or destruction to facilities during periods on increased river stages.

TO PRESERVE THE RESOURCE

In each Mississippi River pool, lands acquired by the Corps of Engineers for the navigation project are managed in the public interest in accordance with a Master Plan for Resource Management. These plans are prepared by the respective District Engineers at St. Paul, Minnesota; Rock Island, Illinois, and St. Louis, Missouri. They are guides for the orderly development and management of all project lands for any purpose, including public park and recreational use, fish and wildlife enhancement, agricultural activities, soil and forest conservation, and the protection of the health and safety of the visiting public. The Corps solicits the cooperation and assistance of all interested Federal, State and local agencies in developing the Master Plans and providing the needed facilities.

The Master Plans recognize the unique, wild character of the Upper Mississippi River bottomlands and the desirability of preserving their wildlife resources. Consequently, most of the lands acquired for the navigation project have been made available for concurrent administration by the U.S. Fish and Wildlife Service for waterfowl management. Some of these same lands, in turn, have been made available to the States for fish and wildlife management purposes, including public hunting. Generally, except for areas which are posted at times as waterfowl sanctuaries, these same lands may be used for recreational activities. All other Corps lands not zoned for specific purposes are also open to free public use. Camping activity is normally restricted to designated recreation areas along state shorelines. Primitive camping is allowed on river island areas where dredge material beaches exist, unless the area is otherwise posted. Title 36 of the Code of Federal Regulations apply to such primitive camping activities with special concern for sections involving littering and sanitation, the cutting of the live vegetation, the construction of structures, and camping limitations involving camp for a period longer than 14 days during any 30 consecutive day period.

Attracted by the unique natural beauty and outstanding recreational opportunities of the Upper Mississippi River, ever-increasing numbers of visitors come to this valley each year. To facilitate their enjoyment of the river and, at the same time, to protect the natural resources of the project, the Corps of Engineers have developed a limited number of public access points, at selected sites. In relation to that program, special effort has been made in the preparation of the navigation charts to show roads leading to the river, all federally owned lands under the jurisdiction of the Corps of Engineers and the U.S. Fish and Wildlife Service, and all established river access points, including those on private lands.

FOR GREATER ENJOYMENT

The right to use freely the lands and waters of the Upper Mississippi River Project is a privilege which carries with it some responsibilities. The area is large but the number of users is so great that there is competition for space. There are also certain hazards involved in water recreation. Under these circumstances it is considered necessary to suggest two guidelines for behavior in order that the resources of the project may be conserved and the public welfare protected. These are as follows:

1. Boating Safety – The waters immediately above and below each lock and dam are hazardous for small boats because of dangerous currents and commercial barge traffic. These waters should be entered with extreme caution. Warning signs and signals should be observed and lockmasters’ instructions must be followed when locking through or boating in the vicinity. Most named slough, chutes and cuts, shown on the charts are considered generally safe for small boats. However, outside the Nine-Foot Channel, navigation hazards may occur in any waters. Because all of these submerged features cannot be shown and because depths and hazards change from time to time, boating in unfamiliar waters should be done with care.

2. Waste Disposal – Rusty cans, broken glass, and other by-products of intensive use could become serious hazards to continued enjoyment of the Mississippi River for recreational purposes. Waste disposal facilities cannot be provided for all access points or public areas particularly the River islands. On the basis of long experience, therefore, it is suggested that the only practical method of waste disposal is for each visitor to transport such wastes to established mainland points where adequate disposal facilities are provided. Burying wastes or sinking them in the river are not considered satisfactory methods of disposal.

LOCKS AND DAMS

A plan view and elevation view of each lock are shown on the corresponding supplemental chart preceding each of the structures. The lock plan views show locations of lights, signals, gates and the upper and lower guide walls. The elevation view shows the height of the lock walls, the sills, and water surface elevations, in feet, above the reference datum of the upper gage, except as otherwise noted. Contact information for each lock is below.

Lock	Mile	Bank	VHF	Office Phone	Length x Width
Upper St. Anthony Falls*	854	L	14	651-290-5936	400' x 56'
Lower St. Anthony Falls	853	R	14	651-290-5936	400' x 56'
1	848	R	14	651-290-5919	400' x 56'
2	815	R	14	651-290-5828	600' x 110'
3	796	R	14	651-290-5062	600' x 110'
4	753	L	14	651-290-5951	600' x 110'
5	738	R	14	651-290-5944	600' x 110'
5A	729	R	14	651-290-5071	600' x 110'
6	714	L	14	651-290-5964	600' x 110'
7	703	R	14	651-290-5186	600' x 110'
8	679	L	14	651-290-5035	600' x 110'
9	648	L	14	651-290-5045	600' x 110'
10	615	R	14	651-290-5053	600' x 110'
11	583	R	14	563-582-1204	600' x 110'
12	567	R	14	563-872-3314	600' x 110'
13	523	L	14	815-589-3313	600' x 110'
14	439	R	14	309-794-4357	600' x 110'
15	483	L	14	309-794-5266	600' x 110'
16	457	L	14	309-537-3191	600' x 110'
17	437	L	14	309-587-8125	600' x 110'
18	411	L	14	309-873-2246	600' x 110'
19	364	R	14	319-524-2631	1200' x 110'
20	343	R	14	573-288-3320	600' x 110'
21	325	L	14	217-222-0918	600' x 110'
22	310	R	14	573-221-0294	600' x 110'
24	273	R	14	573-242-3524	600' x 110'
25	241	R	12	636-566-8120	600' x 110'
Melvin Price	201	L	12	636-899-1543	1200' x 110'
27	185.5	L	12	618-452-7107	1200' x 110'

*Closed to navigation

INLAND ELECTRONIC NAVIGATION CHARTS

The U.S. Army Corps of Engineers produces Inland Electronic Navigation Charts (IENC) for the Inland Waterway System, including the Upper Mississippi River up to river mile 866, the Saint Croix River up to river mile 26, and the Minnesota River up to river mile 27. These IENCs are maintained with updates of new or corrected Local Notice to Mariner information as it becomes available.

IENCs offer significant benefits to vessels including accurate and real-time display of vessel position relative to waterway features, voyage planning and monitoring tools, Automatic Identification Systems (AIS) integration, and training tools for new personnel and integrated display of river charts, radar, and AIS.

These IENCs are created for use in Electronic Chart Systems (ECS) to position a vessel upon the navigational chart display. Use of ECS in conjunction with IENCs fulfills the chart carriage requirement in Title 33 CFR, Part 164, as do the 2020 Navigation Charts. IENC chart products, map services, and information are available for download at:

<http://ienccloud.us>

INSTITUTE FOR WATER RESOURCES PRODUCTS

The U. S. Army Corps of Engineers, Institute for Water Resources (IWR) National and Civil Works Decision Support Center (NDC), maintains a database that describe the physical and inter-modal (infrastructure) characteristics of the coastal, Great Lakes, and inland ports of the United States.

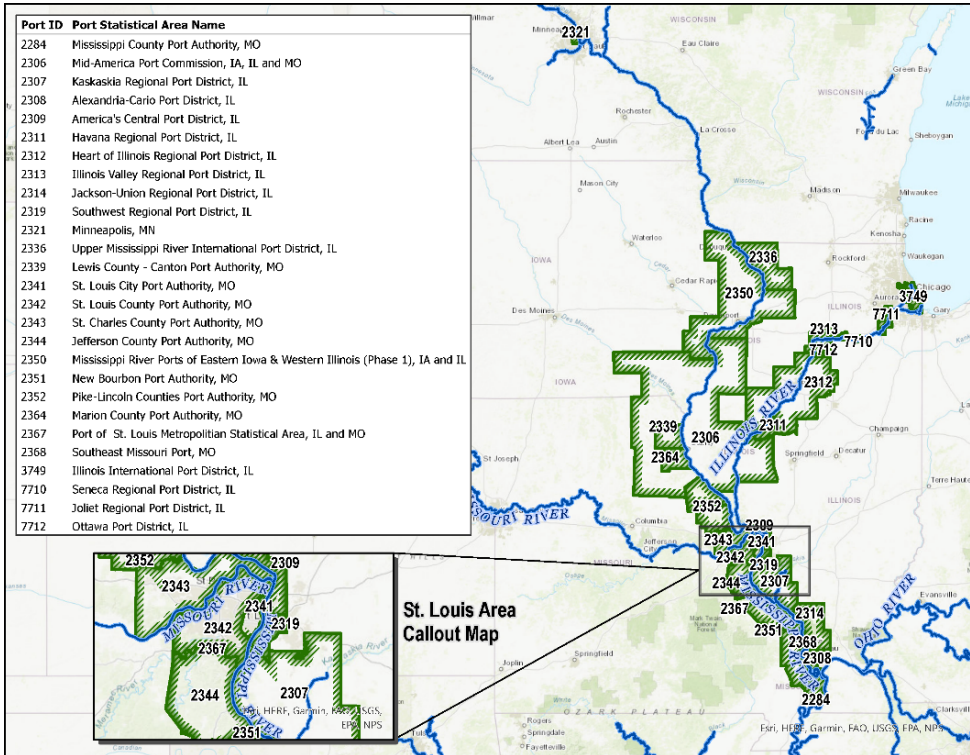
Also within IWR the Waterborne Commerce Statistics Center, under the authority of the Rivers and Harbors Act of 1922, collects, processes, distributes, and archives vessel trip and cargo data. Under Federal law, vessel operating companies must report domestic waterborne commercial movements to the Corps. Port Statistical Areas relevant to the Upper Mississippi River are shown on the map below.

Data summaries include origin to destination information of foreign and domestic waterborne cargo movements by region and state, and also waterborne tonnage for principal ports and state and territories. This acquired vessel movement data is primarily for Corps and other government agencies’ use. However, summary statistics, which do not disclose movements of individual companies, are also released to private companies and to the general public.

These databases and related reports and other products may be obtained from the following website:

<https://www.iwr.usace.army.mil>

Port Statistical Areas of the Upper Mississippi River



U.S. COAST GUARD RESOURCES

Eighth Coast Guard District is continuously alert for circumstances which affect safe and efficient passage of river traffic. The Aids to Navigation Office in New Orleans receives reports from mariners and government agencies and distributes information to mariners through various marine information channels.

The four primary means of passing marine information in the Eighth Coast Guard District:

1. Broadcast Notice to Mariners
2. Local Notice to Mariners
3. Channel Reports
4. Directly from Lockmasters

There are four basic marine information publications printed by either the Coast Guard or U.S. Army Corps of Engineers which should be on all vessels:

1. Corps of Engineers Navigation Charts
2. Navigation Rules, International – Inland
3. Light List, Volume V (Western Rivers) and Volume VII
4. Corps of Engineers Regulations (Bluebook) 33 CFR 207

Local Notice to Mariners may be obtained by either a one-way email service, via subscription, or downloaded directly from the U.S. Coast Guard Navigation Center website:

<https://www.navcen.uscg.gov/>

AIDS TO NAVIGATION

The term Aid to Navigation (ATON) means any device external to a vessel intended to assist a navigator to determine position or safe course, or to warn of dangers or obstructions to navigation.

WESTERN RIVERS SYSTEM OF BUOYAGE

The Western Rivers System--a variation of the standard U.S. Aids to Navigation system is employed on the Mississippi River and its tributaries above Baton Rouge, LA, and on certain rivers which flow toward the Gulf of Mexico. For more information on ATONs, access the U.S. Coast Guard Navigation Center website.

NOTES REGARDING AIDS TO NAVIGATION

The U.S. Coast Guard is responsible for placing and maintaining all ATONs. Buoys are set to mark project depths taking into consideration the prevailing river stages and obstructions. Buoy positions as shown on the charts are approximate and subject to change, depending on prevailing river stages and obstructions.

Buoys should always be given as wide a berth in passing as possible, consistent with the length and width of vessel or tow and the width of the bend or crossing. Buoys should always be used with caution. They may be carried off position by high water, accumulation of drift, ice, or sunk by collision or other causes. When carried off position, destroyed, or removed to prevent loss, buoys are replaced at the earliest opportunity.

U.S. Coast Guard lateral beacons (lit and unlit daymarks) are also shown in their approximate position, and their characteristics are listed as they appear in the Light List. Private ATONs are also shown in their approximate position, but characteristics are generally not listed.



U.S. AIDS TO NAVIGATION SYSTEM

on the Western River System

AS SEEN ENTERING FROM SEAWARD

PORT SIDE
OR RIGHT DESCENDING BANK

GREEN OR WHITE LIGHTS

FLASHING ISO

LIGHT LIGHTED BUOY CAN

SG CNG

PASSING DAYBEACON CROSSING DAYBEACON

176.9
MILE BOARD

PREFERRED CHANNEL
MARK JUNCTIONS AND OBSTRUCTIONS
COMPOSITE GROUP FLASHING (2+1)

PREFERRED CHANNEL TO STARBOARD
TOPMOST BAND GREEN
FI (2+1) G

JG

PREFERRED CHANNEL TO PORT
TOPMOST BAND RED
FI (2+1) R

JR

STARBOARD SIDE
OR LEFT DESCENDING BANK

RED OR WHITE LIGHTS

FLASHING (2) ISO

LIGHT LIGHTED BUOY NUN

MAY BE LIGHTED TR CNR

PASSING DAYBEACON CROSSING DAYBEACON

123.5
MILE BOARD

SPECIAL MARKS--MAY BE LETTERED

UNLIGHTED LIGHTED

NY NB

SHAPE: OPTIONAL--BUT SELECTED TO BE APPROPRIATE FOR THE POSITION OF THE MARK IN RELATION TO THE NAVIGABLE WATERWAY AND THE DIRECTION OF BUOYAGE.

YELLOW LIGHT ONLY
FIXED FLASHING

MOORING BUOY
WHITE WITH BLUE BAND
MAY SHOW WHITE REFLECTOR OR LIGHT

TYPICAL INFORMATION AND REGULATORY MARKS

INFORMATION AND REGULATORY MARKERS

WHEN LIGHTED, INFORMATION AND REGULATORY MARKS MAY DISPLAY ANY LIGHT RHYTHM EXCEPT QUICK FLASHING, Mo(a) AND FLASHING (2)

SWIM AREA BOAT EXCLUSION AREA DANGER DANGER

EXPLANATION MAY BE PLACED OUTSIDE THE CROSSED DIAMOND SHAPE, SUCH AS DAM, RAPIDS, SWIM AREA, ETC.

THE NATURE OF DANGER MAY BE INDICATED INSIDE THE DIAMOND SHAPE, SUCH AS ROCK, WRECK, SHOAL, DAM, ETC.

TYPE OF CONTROL IS INDICATED IN THE CIRCLE, SUCH AS SLOW, NO WAKE, ANCHORING, ETC.

INFORMATION

FOR DISPLAYING INFORMATION SUCH AS DIRECTIONS, DISTANCES, LOCATIONS, ETC.

BUOY USED TO DISPLAY REGULATORY MARKERS










































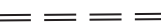

















MAY SHOW WHITE LIGHT
MAY BE LETTERED

STATE WATERS

INLAND (STATE) WATERS OBSTRUCTION MARK
MAY SHOW WHITE REFLECTOR OR QUICK FLASHING WHITE LIGHT

Used to indicate an obstruction to navigation, extends from the nearest shore to the buoy. This means "do not pass between the buoy and the nearest shore." This aid is replacing the red and white striped buoy within the USWMS, but cannot be used until all red and white striped buoys on a waterway have been replaced.

PLATE 4

Aids To Navigation		Land / Water	
USCG Lateral Beacons, Unlit Daybeacons		Stream, Line	
USCG Lateral Beacons, Lit Daybeacons		Land	
Private (Facility) Lights		Water, < 9' Depth or Unknown	
USCG Lateral Buoys, Unlit ¹		Water, > 9' Depth	
USCG Lateral Buoys, Lit		Urban Area	
USACE Lock Lights		Public Land	
USACE Lock Outdraft Condition Lights		River Areas	
USACE Lock Chamber Signals		Restricted Area	
Water Level Gage		Caution Area	
Sailing Line, Flow Arrow, and River Mile		Barge Fleeting Area ³	
Facilities		Crossings	
Boat Ramp		Overhead Cable and Towers	
Marina		Submerged Cable	
Permanently Moored Vessel or Hulk		Submerged Pipeline	
Dolphin or Mooring Cell		Ferry Route	
Conveyor		Bridge Deck Area	
Dock or Wharf		Bridge Pier	
Barge Facility Label		Bridge Profile Label	
Corps of Engineers Office		Land Transportation	
Dam or Lock Wall		Interstate or Freeway	
Non-submersible Dike at Dam		Primary Route	
Building		Street	
Airport		Unpaved Road	
Runway		Railroad and Mile Marker ⁴	
Landmark		Administrative Boundaries	
Dredged Material Placement Site		County	
Hazards		State	
Obstruction		Corps of Engineers District	
Submerged Hazard Area ²			
Wreck			
Water Intake			
Pump Station Outfall			
Wing Dam or Dike			
Weir (below project depth)			
Submerged Revetment			
Levee Centerline			
Floodwall			
¹ Buoys positions are not permanent and reflect the conditions at the time of placement. Buoy positions shown on charts reflect those at the end of 2020.		³ Indicates fleeting activity observed as of 2020. Does not indicate an officially designated use, permit status, or ownership of an area.	
² Stump fields as indicated on historic charts and tree removal activity maps. Neither the hazard extents nor danger level is verified.		⁴ Railroad mile post locations are not verified but shown as depicted in Federal Railroad Administration (FRA) data, in turn provided by railroad companies.	
2020		LEGEND	
		SHEET H	

