



**US Army Corps
of Engineers**
Huntington District

Notice to Navigation Interests

Date: 14 DECEMBER 06

Notice Number: 06-88

In Reply Refer to: CELRH-OR-TD 502 Eighth Street, Huntington, WV 25701-2070 Telephone: 304-399-5239

WINTER NAVIGATION ON THE OHIO RIVER AND TRIBUTARIES

In the interest of navigation safety on the waterways, users are reminded that navigation during winter months is a hazardous undertaking. Operators are requested to exercise extreme caution during this season and carefully evaluate the makeup and motive power for each tow.

ICE CONDITIONS

It is common for ice to build up beneath barges navigating the river, causing subsequent grounding in shoal areas. Should this occur, notify the nearest navigation structure as to your location and exercise caution when trying to remove barges so as not to disturb the navigation channel. When locking downbound there is the potential that build-up of ice under a barge could come in contact with the bottom of the lock chamber and puncture the bottom of the barge causing it to sink. Additionally, any build-up of ice between barges in a tow or on the sides of the barges will increase the overall width and possibly hamper the entrance or exit of the locks. Any noticeable build-up, either in or under the tow, should be checked to assure that the lockage can be accomplished without incident. Whenever conditions warrant, vessel owners should consider adjusting their tow size to compensate for ice formation.

When ice builds up on the lock walls to the extent that full usage of the lock chamber is prohibited, width restrictions will be imposed on lockages. In addition, ice at times will prevent the full opening of the lock miter gates. Should this occur, locking will cease until the ice can be removed or the width of the tow is reduced. Navigators should contact the Lockmaster at each facility to verify locking conditions. This practice will continue as long as ice conditions warrant. Each company should access the Ohio River Region's computerized navigation daily reports to keep abreast of the latest conditions. This information can be obtained via the internet from the Great Lakes and Ohio River Division's Water Management website at: <http://www.lrd-wc.usace.army.mil/text/hunrpt.txt>

Another occurrence during heavy icing conditions is the freezing of the floating mooring bits in the recesses in the lock walls. In the event the floating bits become inoperable, it will be necessary for the vessel to utilize the fixed line hook and manually move the mooring lines as the water in the chamber is raised or lowered. Additional lines should be readily available for the deck crew.

In an effort to assist navigators and help alleviate the ice problems at navigation structures, the auxiliary lock chamber may be used for the passage of ice and may not be available for use by traffic at the following locks:

<u>Location</u>	<u>River Mile</u>
Meldahl Locks	436.2R
Greenup Locks	341.0L
Robert C. Byrd Locks	279.2L
Racine Locks	237.5L
Belleville Locks	203.9R
Willow Island Locks	161.7R

All three locks on the Kanawha River - Winfield (mile 31.1R), Marmet (mile 67.7R) and London (mile 82.8R) have the capability for passage of ice. This is accomplished by using the Roller Flap Dam Gate, unlike the Ohio River where the emergency gates or bulkheads are used in the auxiliary chamber.

During heavy ice conditions, historic information in the Huntington District indicates that ice jams can most frequently be expected to form on the Ohio River at the following locations:

- Meldahl Dam to Augusta, Kentucky (mile 436.2 to approximate mile 429.0)
- Manchester Islands Area (mile 395.2 to mile 393.5)
- Brush Creek Island Area (mile 388.0 to mile 387.0)
- Scioto River to New Boston, Ohio Area (mile 356.6 to mile 352.0)
- Racine Dam to Head of Letart Island (mile 237.5 to mile 235.0)
- Ravenswood, West Virginia, Area (mile 223.0 to mile 220.0)
- Long Bottom, Ohio, and Area (mile 210.0 to mile 208.0)

Navigators are advised that ice conditions may become severe enough to warrant the closure of navigation on certain reaches of the river. Should conditions so develop, it is imperative that navigators take refuge in safe harbors. Safe refuge from ice may be found for vessels operating on the Ohio and Kanawha Rivers at the Government owned ice piers at the following locations in the Huntington District:

<u>Ohio River Mile</u>	<u>City</u>	<u>No. of Piers</u>	<u>Bank</u>
251.7	Middleport, Ohio	3	Right
269.5	Gallipolis, Ohio	3	Right
408.5	Maysville, Kentucky	3	Left
<u>Kanawha River Mile</u>			
1.3	Henderson, West Virginia	1*	Left

*Two additional piers at this location are owned by Amherst Industries, Incorporated.

The locations of the ice piers are shown on the Huntington District Ohio and Kanawha River Navigation Charts. Several privately-owned piers are also located along the Ohio and Kanawha Rivers. In addition to the ice piers, safe harborage is afforded in the mouth of the Muskingum, Little Kanawha, Guyandotte, and Big Sandy Rivers. Some of these areas are designated as congested areas on the 2003 Navigation Charts and can only be used for harborage during icing conditions. Navigators using these streams for safe harborage are cautioned about low clearances of the bridges near the mouth of these streams. Tows using the ice piers and the mouths of the tributary streams should be moored in such a manner as to not obstruct the passage of other vessels.

HIGH FLOW CONDITIONS

Seasonal high water, normally encountered during the late winter and early spring months, increases the problem of maintaining a safe course. Vessel operators are reminded that specific regulations govern the operation of vessels on navigable waters at flood stage. When passing habitations or other structures partially or wholly submerged that are subject to damage from wave actions, vessels shall proceed slowly and keep as far away from such structures as circumstances allow. The Navigation Charts have the elevation of ordinary high water indicated on each sheet, except for the R. C. Byrd Pool. When water level in the river equals or is greater than that elevation, navigators should sail near the published channel line to prevent damage attributable to waves created by the vessel.

In the immediate vicinity of navigation structures, the potential exists for treacherous out draft currents to develop across the upper lock approaches whenever there are high flows in the river. These currents, coupled with high winds, exert tremendous forces upon large flotillas, especially when empty barges are in the tow. All operators should carefully evaluate the makeup of each tow and its motive power. Power should be sufficient to counter the adverse conditions that can be expected during a voyage.

The Ohio River current, coupled with excessive headway when exiting a slack water area of any lock, especially R. C. Byrd upper approach, may be a contributing factor for the head barge of tows to “dive” as they exit the canal and enter the main channel. Navigators should carefully evaluate their tow configuration and give special attention to the draft and freeboard of their head barges. Extreme caution and good navigational judgment should be used at all times, particularly when there is more than forty feet of gate openings on the dam

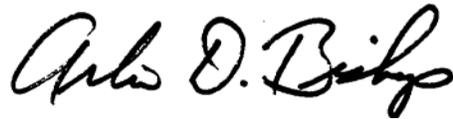
MOORING TOWS

Another facet of this season that is of major concern is the problem of breakaways. Barges left unattended, whether simply tied to natural objects or moored at terminals and fleeting areas, are subject to being dislodged by strong currents aided by wind, wave-wash from passing tows, ice flows and/or drift. Operators are urged to use extreme care in tying off tows or individual barges, to prevent such occurrences. Three or more lines are recommended, with both the upstream and downstream ends of the tow being made fast.

If, under emergency conditions, it becomes necessary to tie off tows along the banks, extreme care should be exercised in selecting trees or other natural objects for mooring. Banks are usually softened by saturation during high water and during spring thaws and rains, and using trees near the water for tie off are poor risks under such conditions. Should

the emergency necessitate temporary mooring within ten miles of any navigation dam, especially upstream of one, the Lockmaster will be promptly advised.

If conditions warrant, the Huntington District Emergency Operations Center will be opened and maintained on a round-the-clock basis serving as an information/control center. Daily or as-required aerial flights over the river, supplemented by on-ground patrols, will be utilized to supplement the data obtained from our established field offices, to maintain current river condition data base for operational uses. Navigators wishing to make reports to the Huntington District should call (304) 399-5239 or relay the information through one of the Huntington District navigation projects.

A handwritten signature in black ink, reading "Arlie D. Bishop". The signature is written in a cursive style with a large, prominent initial "A".

ARLIE D. BISHOP
Chief, Technical Support Branch