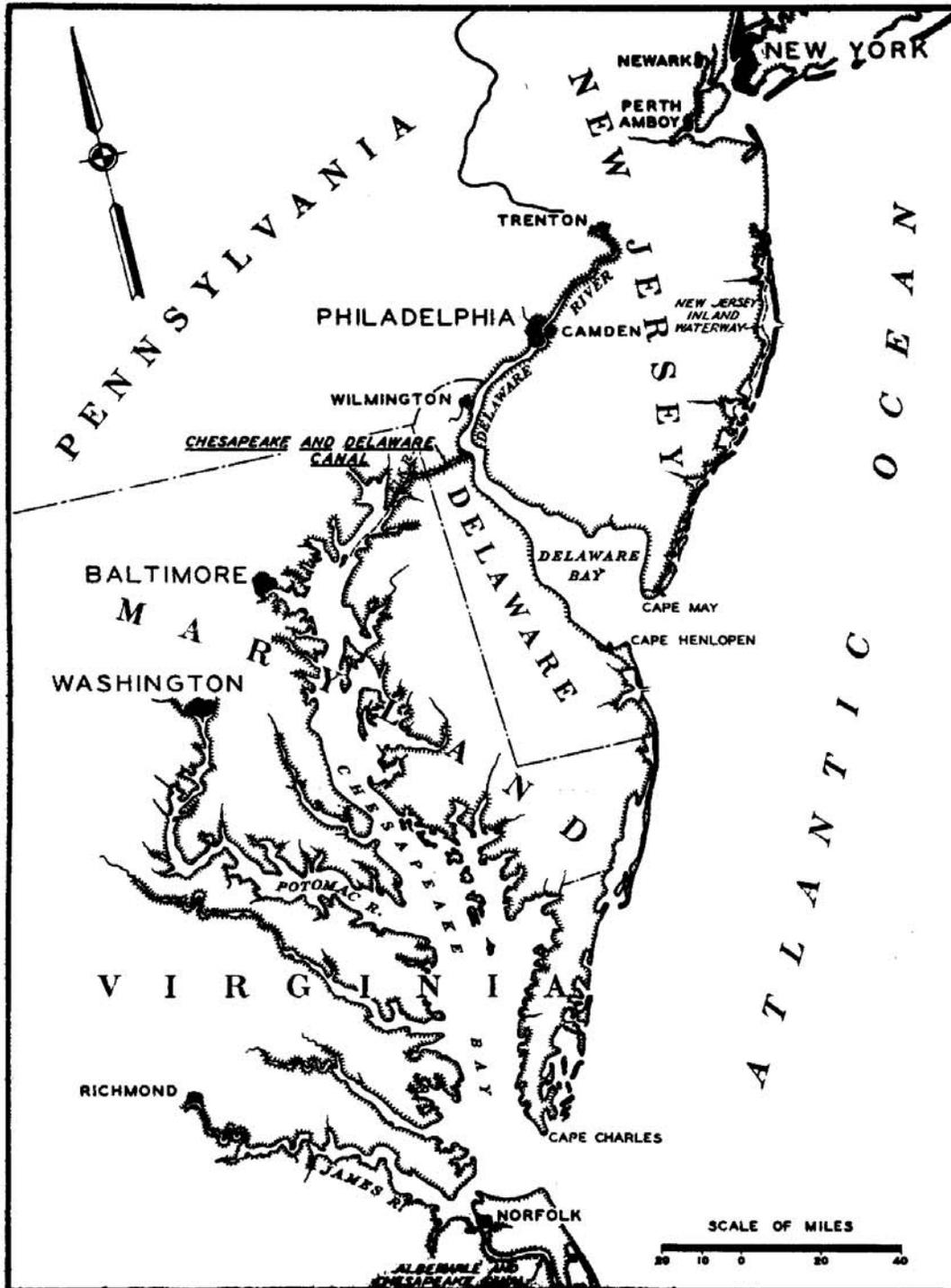


INLAND WATERWAY CHESAPEAKE & DELAWARE CANAL

RULES AND REGULATIONS



U. S. Army Engineer District, Philadelphia
Corps of Engineers

DEPARTMENT OF THE ARMY
PHILADELPHIA DISTRICT, CORPS OF ENGINEERS
CUSTOM HOUSE
PHILADELPHIA, PENNSYLVANIA 19106

RULES AND REGULATIONS TO GOVERN THE USE, ADMINISTRATION
AND NAVIGATION OF THE INLAND WATERWAY FROM DELAWARE
RIVER TO CHESAPEAKE BAY, DELAWARE AND MARYLAND,
(CHESAPEAKE AND DELAWARE CANAL)

APPROVED BY THE SECRETARY OF THE ARMY 2 MAY 1972

AND

GENERAL INFORMATION CONCERNING THE CANAL

JUNE 1972

TABLE OF CONTENTS

Rules and Regulations	<u>Page</u>
Anchorage and Wharfage Facilities.....	2
Applicability.....	1
Commercial Statistics.....	3
Damage to Waterway Property.....	3
Drawbridges.....	3
Fish and Game.....	3
Grounded, Wrecked or Damaged Vessels.....	3
Pilotage.....	4
Projections from Vessels.....	2
Radio Equipment.....	1
Refuse and Oil.....	3
Right-of-Way.....	2
Safe Navigation Required.....	1
Sail Boats.....	3
Speed.....	2
Stopping in Waterway.....	3
Supervision.....	1
Tows.....	2
Traffic Lights.....	3
Vessels Difficult to Handle.....	4
Water Skiing.....	3

Map of Canal

General Information	<u>Page</u>
Aerial and Submarine Crossings.....	9
Aids to Navigation.....	8
Anchorage and Wharfage Facilities.....	8
Bridges.....	7
Communications.....	9
Currents.....	6
Dimensions.....	5
Distances.....	9
Explosives and Hazardous Cargo.....	9
Information.....	10
Location.....	5
Publications.....	8
Tides.....	5

TITLE 33 NAVIGATION AND NAVIGABLE WATERS

CHAPTER II - CORPS OF ENGINEERS, DEPARTMENT OF THE ARMY

PART 207 - NAVIGATION REGULATIONS

CHESAPEAKE AND DELAWARE CANAL (I.W.W.), DEL. AND MD.

Pursuant to the provisions of Section 7 of the River and Harbor Act of August 8, 1917 (40 Stat. 266; 33 U.S.C. 1), Section 207.100 governing the use, administration, and navigation of an Inland Waterway (Chesapeake and Delaware Canal) from Delaware River to Chesapeake Bay, Delaware and Maryland is hereby revised in its entirety, effective 30 days after publication in the FEDERAL REGISTER, as follows:

207.100 Inland Waterway from Delaware River to Chesapeake Bay, Del. and Md. (Chesapeake and Delaware Canal); use, administration, and navigation.

(a) Applicability. The regulations in this section are applicable to that part of the Inland Waterway from Delaware River to Chesapeake Bay, Delaware and Maryland, between Reedy Point, Delaware River and Old Town Point Wharf, Elk River.

(b) Supervision. The District Engineer, Corps of Engineers, Philadelphia, Pennsylvania, has administrative supervision over the waterway and is charged with the enforcement of these regulations. The District Engineer from time to time will prescribe rules governing the dimensions of vessels which may transit the waterway, and other special conditions and requirements which will govern the movement of vessels using the waterway. The District Engineer's representative is the Chesapeake City Resident Engineer. The Chesapeake City Resident Engineer through the dispatcher on duty will enforce these regulations and monitor traffic through the canal.

(c) Safe navigation required. Clearance for any vessel to enter or pass through any part of the waterway will be contingent on the vessel's having adequate personnel, machinery, and operative devices for safe navigation. In the event of question as to the ability of any vessel to navigate the waterway safely, a ruling will be made by the dispatcher. The owner, agent, master, pilot or other person in charge of the vessel concerned may appeal the dispatcher's ruling to the District Engineer whose decision shall be final. A clearance by the dispatcher for a vessel's passage through the waterway shall not relieve the owners, agents, and operators of the vessel of full responsibility for its safe passage.

(d) Radio Equipment. Requirements for radio equipment on vessels transiting the waterway are as described in rules governing traffic through the waterway issued by the District Engineer. Vessels not having the mandatory radio equipment will not be permitted to transit the canal.

(e) Anchorage and wharfage facilities. The anchorage basin at Chesapeake City and free wharfage facilities on the west side of the anchorage basin are available for small vessels only. These facilities are of limited capacity, and permission to occupy them for periods exceeding 24 hours must be obtained in advance from the dispatcher at Chesapeake City.

(f) Projections from vessels. No vessel carrying a deck load which overhangs or projects beyond the sides of the vessel will be permitted to enter or pass through the waterway. Vessels carrying rods, poles, or other gear extending above the top of the vessel's mast will be required to lower such equipment to a level with the top of the mast before entering the waterway.

(g) Speed. No vessel in the waterway shall be raced or crowded alongside another vessel. Vessels of all types, including pleasure craft, are required to travel at all times at a safe speed throughout the canal and its approaches so as to avoid damage by suction or wave wash to wharves, landings, riprap protection, or other boats, or injury to persons. Pilots and vessel operators transiting the canal and its approaches are warned that violation of this rule may result in having their privilege to transit the canal suspended. Repeated offenses will be followed by citation to the Coast Guard for reckless navigation. Passages of vessels through the canal will be monitored and specific cases will be investigated where damage by suction or wave wash does occur. Owners and operators of yachts, motorboats, rowboats and other craft are cautioned that large deep draft ocean-going vessels and other large commercial vessels ply the canal, and such owners and operators should be particularly careful to moor or anchor well away from the main ship channels, with moorings and lines which are sufficient and proper.

(h) Tows. (1) Integrated pusher-type tows. The maximum overall length and extreme breadth of this type of tow which may transit the canal are as described in rules governing traffic through the waterway issued by the District Engineer.

(2) All other types of tows. All ships or tugs engaged in towing vessels not equipped with a rudder, whether light or loaded, shall use two towlines or a bridle on one towline. If the vessel in tow is equipped with a rudder, one towline without a bridle may be used. All towlines must be hauled as short as practicable for safe handling of the tows. No towboat will be permitted to enter the waterway with more than two loaded, or three light barges. Two or more barges or other vessels, not self-propelled, shall be towed abreast and not in tandem, using two towlines unless the towboat is made fast alongside the tow.

(i) Right-of-way. All vessels proceeding with the current shall have the right-of-way over those proceeding against the current. Large vessels or tows must not overtake and attempt to pass other large vessels or tows in the waterway. All small pleasure craft shall relinquish the right-of-way to deeper draft vessels, which have a limited maneuvering ability due to their draft and size.

(j) Traffic lights. Traffic lights are located at Reedy Point and Old Town Point Wharf. These traffic lights are described in the rules governing traffic through the waterway issued by the District Engineer.

(k) Drawbridges. Operation of the Penn Central vertical lift bridge across the canal will be in accordance with regulations promulgated by the U. S. Coast Guard, Title 33, Part 117.235a, Chesapeake and Delaware Canal, Delaware.

(l) Stopping in waterway. Vessels will not be permitted to stop or anchor in the ship channel.

(m) Refuse and oil. The depositing of trash, refuse, debris, oil, or other material in the waterway or upon the banks or right-of-way is prohibited. Violators are subject to penalties as prescribed by Federal law.

(n) Damage to waterway property. Damage to the waterway, lands, banks, bridges, jetties, piers, fences, buildings, trees, telephone lines, lighting structures, or any other property of the United States pertaining to the waterway is prohibited.

(o) Fish and Game. The fish and game laws of the United States and of the States of Delaware and Maryland, within their respective bounds, will be enforced upon the waters and lands pertaining to the waterway owned by the United States.

(p) Grounded, wrecked, or damaged vessels. In the event a vessel is grounded or wrecked in the waterway or is damaged by accident or successive mechanical breakdown, the owner, agent or operator shall take prompt action to prevent the vessel from becoming or remaining an obstruction to navigation, and such persons shall also respond to such instructions as may be issued by the District Engineer to prevent the vessel from becoming or remaining a menace to navigation. The lack of reasonable response from the owner, agent, or operator may be deemed sufficient cause for the District Engineer to undertake repair or removal of the vessel as he may determine to be in the best interest to the Government.

(q) Commercial statistics. Owners, designated agents or pilots of vessels transiting the waterway will furnish the District Engineer statistics on passengers, freight, and vessel data as described in the rules governing traffic through the waterway issued by the District Engineer. Failure of owners, agents or pilots to submit these reports may result in suspension of the privilege to use the canal.

(r) Water skiing. Water skiing in the waterway is prohibited between Reedy Point and Welch Point.

(s) Sailboats. Transiting the canal by vessels under sail will not be permitted between Reedy Point and Welch Point.

(t) Pilotage. Any pilot who pilots in the canal shall comply with State laws or Coast Guard regulations and must be licensed for this waterway by the U. S. Coast Guard.

(u) Vessels difficult to handle. Vessels which are observed by the pilot or master in charge, to be difficult to handle, or which are known to have handled badly on previous trips, must transit the canal during daylight hours and must have tug assistance. Such vessels must obtain permission from the dispatcher to enter the canal and must be provided with the number of tugs sufficient to afford safe passage. Agents must make their own arrangements for tug assistance. Such eastbound vessels must clear Reedy Point Bridge, and such westbound vessels the Chesapeake City Bridge, before dark.

These rules and regulations will be in full force and effect and have the force of law thirty days after their publication in the Federal Register. They were published in the Federal Register on 16 May 1972. Public notices of their approval were sent to all known interested parties on 26 May 1972 and they have been posted at post offices near the locality concerned.

GENERAL INFORMATION

1. LOCATION

The Inland Waterway from Delaware River to Chesapeake Bay, Delaware and Maryland, (Chesapeake and Delaware Canal) extends from Reedy Point on the Delaware River to deep water in upper Chesapeake Bay near Pooler Island, a total distance of about 46 miles.

2. DIMENSIONS

The existing project, adopted in 1935 and modified in 1954, provides for a channel 35 feet deep and 450 feet wide from the Delaware River to deep water in Chesapeake Bay. The project also provides for a branch channel 8 feet deep and 50 feet wide to Delaware City.

3. TIDES

The normal range of tide is 5.4 feet at the Delaware River end of the Canal, and about 2.6 feet at Chesapeake City. "Local mean low water" at Courthouse Point is +2.5 feet on the Canal datum, and thence decreases gradually eastward, being +0.6 foot at Delaware River. High water at the Delaware River end generally occurs two hours later than in the Elk River. At times the heights of high and low tides are greatly changed by winds. During a violent northeast storm the high tide may rise to 9 or 10 feet above zero throughout the Canal, and during a westerly storm, the low tide may fall to zero or lower at Chesapeake City, and to as low as 4.0 feet below zero at Reedy Point, all references being to Canal datum. Staff gauges set at Canal datum have been installed at both ends of the Canal.

Tide predictions for the Canal at Reedy Point, Delaware, Biddle Point, Delaware, Summit Bridge, Delaware and Chesapeake City, Maryland, are published annually in the U. S. Department of Commerce, National Ocean Survey publication "TIDE TABLES, EAST COAST, NORTH AND SOUTH AMERICA". The following is a table of Differences and Constants for finding tide data for additional locations in the Canal, based on observations by this Department.

TIDAL DIFFERENCES AND CONSTANTS

STATIONS	TIDAL DIFFERENCE		RATIO OF RANGES	HIGH WATER IN- TERVAL h - m	MEAN RANGE OF TIDE ft.	HEIGHT OF MEAN LOW WATER ABOVE C. E. DATUM* ft.
	Time of Tide h - m	Height of H W ft.				

REFERENCE STATION - REEDY POINT JETTIES

Reedy Pt. Jetties	0:00	0.0	1.0	11:27	5.4	0.6
Biddles Pt.	-0:06	-0.1	0.9	11:21	4.9	1.0
Lorewood Grove	-0:02	-0.8	0.7	11:24	3.9	1.3
Summit Bridge	-0:30	-0.9	0.6	10:57	3.5	1.6
Chesapeake City	-1:08	-1.2	0.5	10:18	2.6	2.2
Courthouse Point	-1:53	-1.3	0.4	9:34	2.2	2.5

*The canal project is dredged to Canal datum, which is 2.99 feet below mean sea level, and 0.09 foot below the Corps of Engineers datum in Delaware River. The Canal datum is everywhere lower than local mean low water, the datum of the predictions.

4. CURRENTS

Current predictions for the Canal at Chesapeake City Bridge, Maryland, and Reedy Point Bridge, Delaware, are published annually in the U. S. Department of Commerce, National Ocean Survey publication "TIDAL CURRENT TABLES, ATLANTIC COAST OF NORTH AMERICA".

Slack Water

The current throughout the Canal changes its direction approximately at the times of low and high tide at Chesapeake City. The flow is eastward during the interval from low to high tide at Chesapeake City, and westward from high to low tide.

Maximum Currents

Maximum eastward and westward current velocities at Chesapeake City, Summit Bridge and Railroad Bridge occur about 2-1/2 hours after the times of low and high tides, respectively, at Chesapeake City.

Maximum eastward velocity at Reedy Point occurs about 1/4 hour after low tide there, while maximum westward velocity occurs about 1/2 hour after high tide.

Relation of Canal Currents to Delaware River Currents

During the first half of an ebbing current in the Delaware River, the current in the Canal is flowing in a westward direction.

During the last half of an ebbing current in the Delaware River, the current in the Canal is flowing eastward.

During the first half of a flooding current in the Delaware River, the current in the Canal is flowing eastward.

During the last half of a flooding current in the Delaware River, the current in the Canal is flowing westward.

5. BRIDGES

There are four high level fixed highway bridges and one vertical lift railroad bridge crossing the main channel. The bridges have the following clearances:

BRIDGE	MILES FROM DELAWARE RIVER	HORIZONTAL	CLEARANCES IN FEET		
			LMLW	LMHW	
Reedy Point, Del.	1.0	584	140	135	FIXED
St. Georges, Del.	4.5	523	139	135	FIXED
Penn Central Trans. Co. (Vertical Lift)	7.7	522	49 137	45 133	CLOSED OPEN
Summit Bridge, Del.	9.7	586	138	135	FIXED
Chesapeake City, Md.	13.9	523	137	135	FIXED

The vertical lift railroad bridge across the Canal is operated in accordance with the regulations promulgated by the U. S. Coast Guard in the Code of Federal Regulations, Title 33, Part 117.235a.

6. ANCHORAGE AND WHARFAGE FACILITIES

An anchorage basin at Chesapeake City in Back Creek is provided for small vessels only. Free wharfage is available at the wharf on the west side of the Chesapeake City basin.

7. AIDS TO NAVIGATION

The navigation aids in the Canal are under the jurisdiction of the U. S. Coast Guard, Fifth District, Portsmouth, Va.

8. PUBLICATIONS

The Canal is shown on National Ocean Survey Chart No. 12104 (U.S. Coast and Geodetic Survey Chart No. 570). The eastern entrance is shown on National Ocean Survey Chart No. 12123 (U.S. Coast and Geodetic Survey Chart No. 294) and the western entrance on National Ocean Survey Chart No. 12103 (U.S. Coast and Geodetic Survey Chart No. 572).

Data concerning the Canal are included in the following publications:

United States Coast Pilot 3, Atlantic Coast, Sandy Hook to Cape Henry

Light List, Volume I, Atlantic Coast, St. Croix River, Maine to Little River, South Carolina, CG-158.

Rules and Regulations relating to the Navigable Waters of the United States.

The charts and the United States Coast Pilot 3 may be obtained from the U. S. Department of Commerce, National Ocean Survey, Washington, D. C., or their authorized local agencies. The Light List and Rules and Regulations may be obtained from the Superintendent of Documents, Washington, D. C.

Notices are issued by the District Engineer periodically showing available depths in the channel and navigation conditions. Copies of these notices will be mailed to interested parties upon request.

A pamphlet describing the Canal is available from the Philadelphia District Office upon request.

9. COMMUNICATIONS

Telephone, telegraph and mail facilities are available at Delaware City, St. Georges and Chesapeake City. Information on radio frequencies utilized by the dispatcher at Chesapeake City is contained in the rules governing traffic through the waterway issued by the District Engineer.

10. DISTANCES

Distances in statute miles, measured along canal centerline, are as follows:

	<u>Miles</u>
Delaware River Ship Channel to Reedy Point Bridge.....	1.9
Reedy Point Bridge to St. Georges Bridge.....	3.7
St. Georges Bridge to Penn Central Railroad Bridge.....	3.0
Penn Central Railroad Bridge to Summit Bridge.....	1.9
Summit Bridge to Goose Point.....	2.3
Goose Point to Chesapeake City Bridge.....	1.9
Chesapeake City Bridge to Elk River.....	4.4
TOTAL.....	19.1

Distance between Philadelphia, Pa., and Baltimore, Md., via the Canal is about 121 statute miles.

11. AERIAL AND SUBMARINE CROSSINGS

Information on aerial and submarine cable and pipeline crossings is available upon request from the District Engineer.

12. EXPLOSIVES AND HAZARDOUS CARGO

Transportation of explosives and hazardous cargo through the Canal shall be in accordance with the regulations prescribed by the U. S. Coast Guard.

13. INFORMATION

Information concerning the conditions existing in the Canal at any particular time may be obtained from the Resident Engineer, Corps of Engineers, Chesapeake City, Maryland, 21915, telephone - Area Code 301-885-5621 or 5622.

DISTRICT ENGINEER
PHILADELPHIA DISTRICT, CORPS OF ENGINEERS
PHILADELPHIA, PENNSYLVANIA