

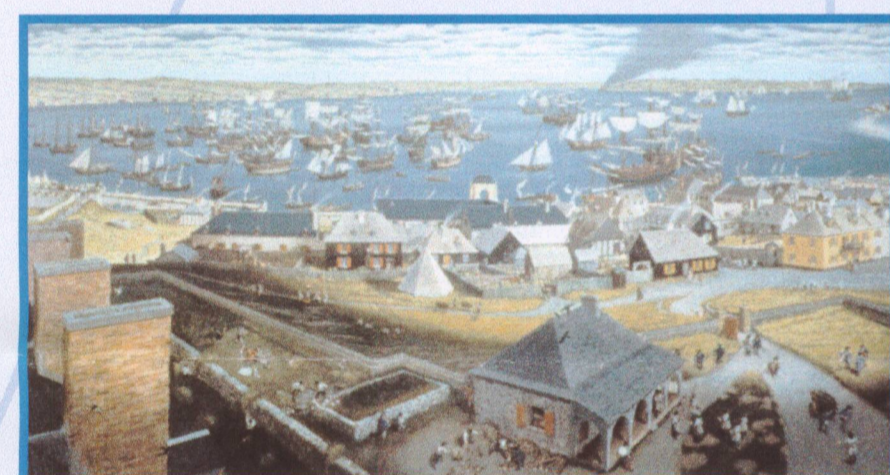
# LOUISBOURG HARBOUR Through Time

The physical character and cultural uses of Louisbourg Harbour have changed substantially through time. Some of the links between the changing physical environment and the cultural activities within the harbour are illustrated.



## THE CHANGING HARBOUR

Five thousand years ago, Louisbourg Harbour was a small lake connected to the ocean by a stream. Sea level has risen 21 m since then, flooding and forming Louisbourg Harbour as we know it today.



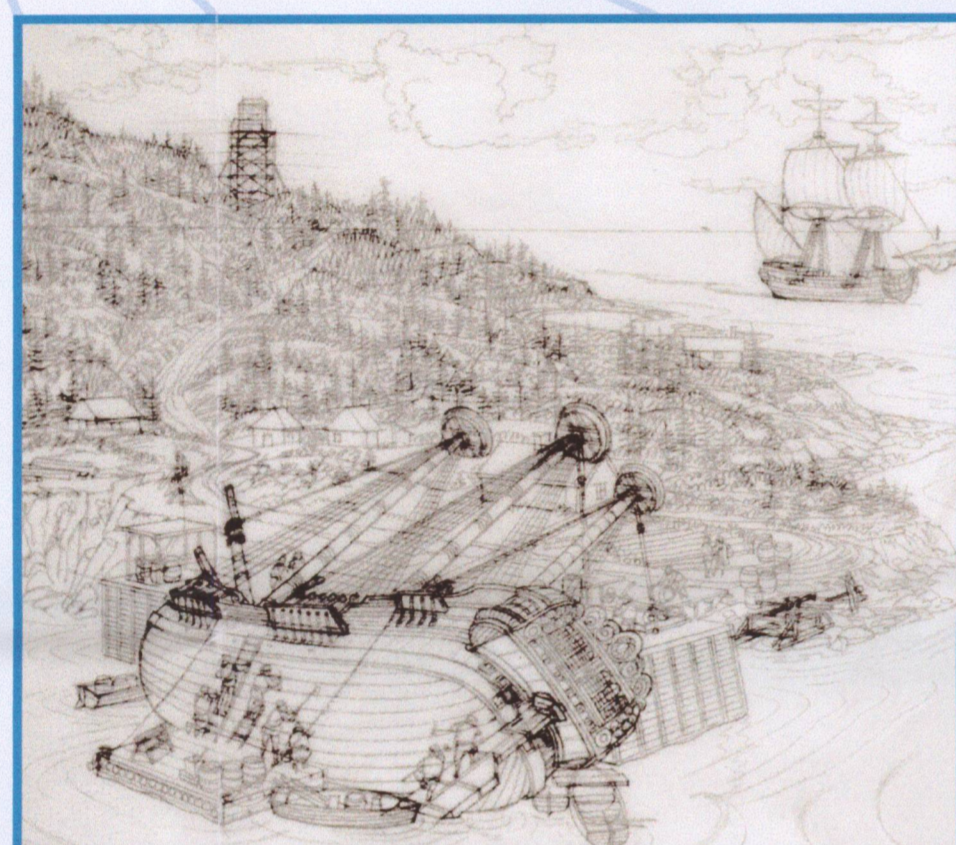
## 1 COLONIAL LOUISBOURG

The first written record of European ships in Louisbourg Harbour dates from 1597, when it was called English Harbour. Founded by the French in 1713, Louisbourg was one of the busiest ports in North America for the next half century. More than 100 warships, merchant vessels and fishing boats sailed in and out the harbour each year.



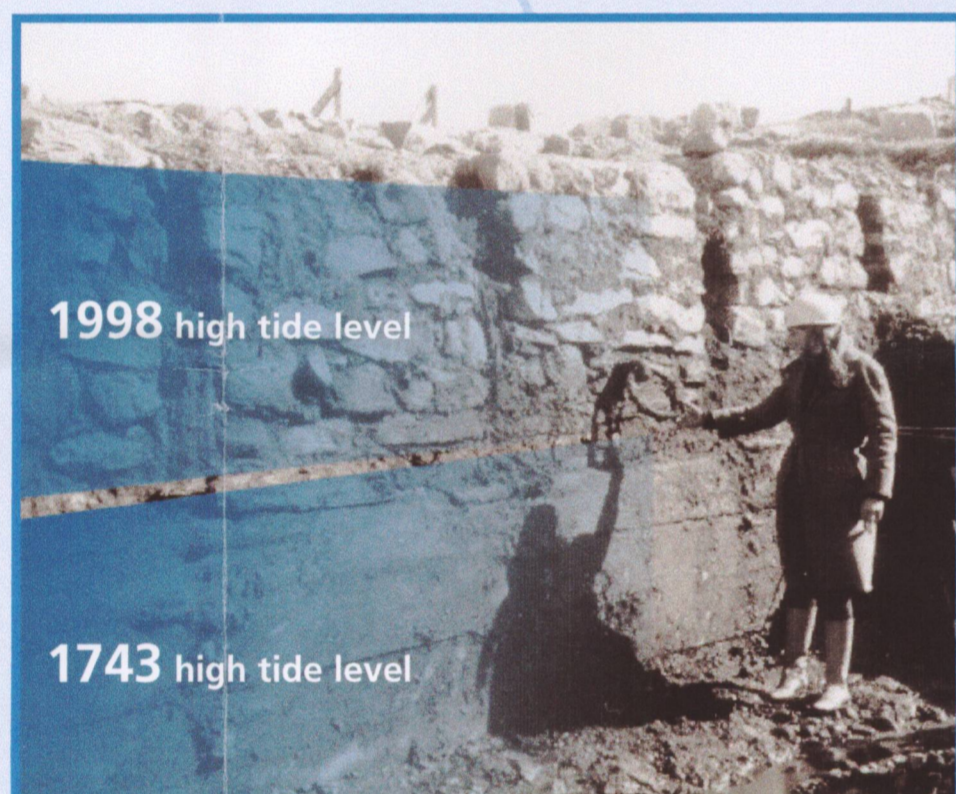
## 2 NAVIGATION

The harbour entrance looks broad, yet shoals force vessels to steer towards the fortress before turning northeast toward the modern town. Mariners aligned landmarks – steeples, flagpoles and hills – to navigate the harbour. Lights and buoys perform the same function today. Canada's first lighthouse was erected in 1734 at the harbour entrance.



## 3 CAREENING WHARF

During the French regime, naval ships were hauled over on their side at the careening wharf to be cleaned and caulked. The facility took advantage of a naturally sloping beach. Louisbourg was one of the few North American ports with such a facility.

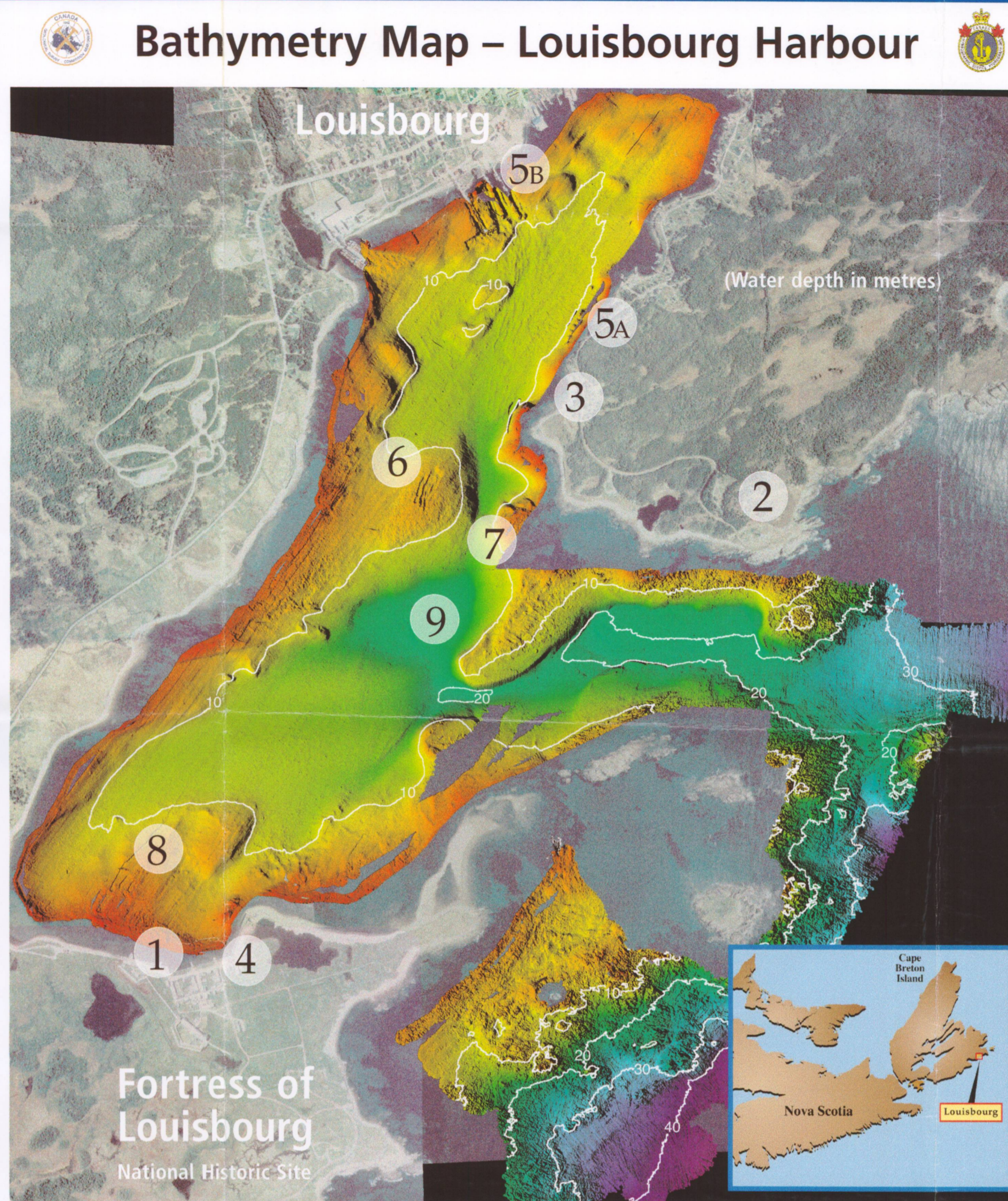


## 4 SEAWALL & RISING SEA-LEVEL

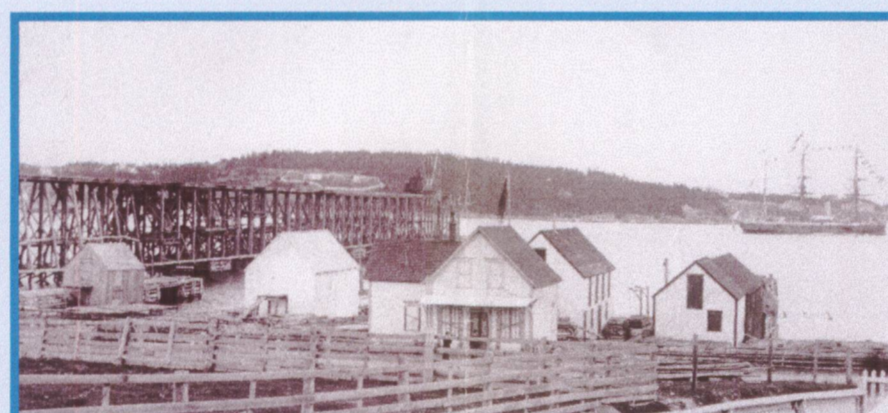
During the 1960s, archaeologists excavated the fortress quay, revealing its wood-revetted fieldstone seawall. Mooring rings originally installed above the water line were found well below modern high tide. The position of the rings confirms that sea level has risen nearly 1.0 metre since 1743.

### Contributors

Geological:	H. Josenhans, R.B. Taylor; <i>Geological Survey of Canada (Atlantic)</i> .
Historical and Archeological:	B.A. Balcom, A.J.B. Johnston, W. O'Shea, C. Burke, A. Crépeau, W. Stevens; <i>Parks Canada</i> .
Hydrographic Surveys:	B. MacGowan; <i>Canadian Hydrographic Services</i> .
Processing Bathymetry Data:	R. Covill; <i>Tekmap Consulting</i> .
Poster Design and Layout:	J. Canan; <i>Atlantex Creative Works</i> . G. Grant; <i>Geological Survey of Canada (Atlantic)</i> .

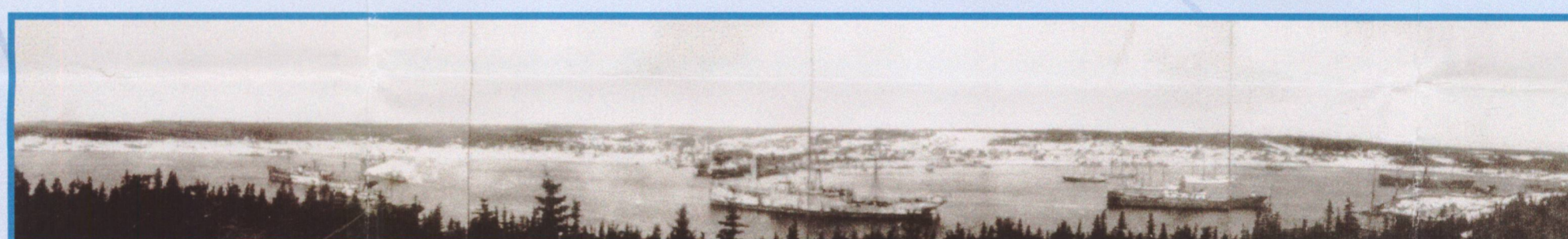


In 1996 detailed soundings of the harbour seafloor using a multibeam sonar system were completed. The soundings are combined with 1992 aerial photographs of the surrounding landscape to provide a new perspective of the Louisbourg area. The numbers in the white circles indicate the location of the adjacent images.



## 5 COAL PIERS

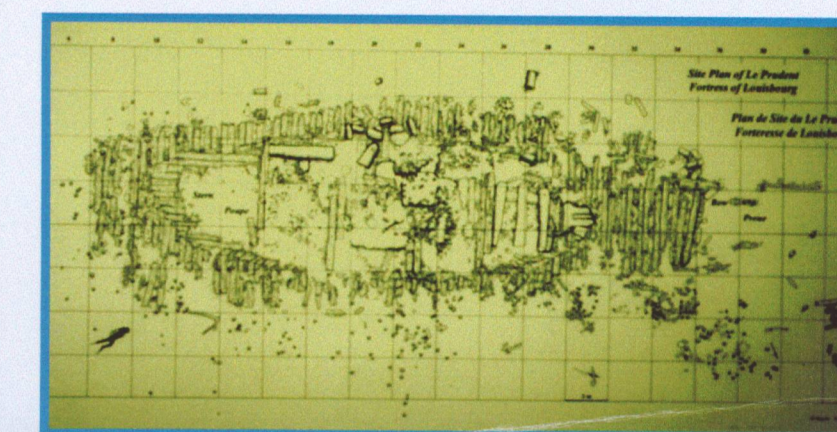
Long piers for the export of coal dominated the port from the 1870s until the 1960s. A photo taken in 1895 shows the new pier in town and the wooden piles (5A) of the earlier pier left of the ship, near the far shore. Heavily laden ships departing from the townside wharf (5B) scraped the bottom leaving marks along the seafloor.



## 6 DREDGING – EARLY 20TH CENTURY

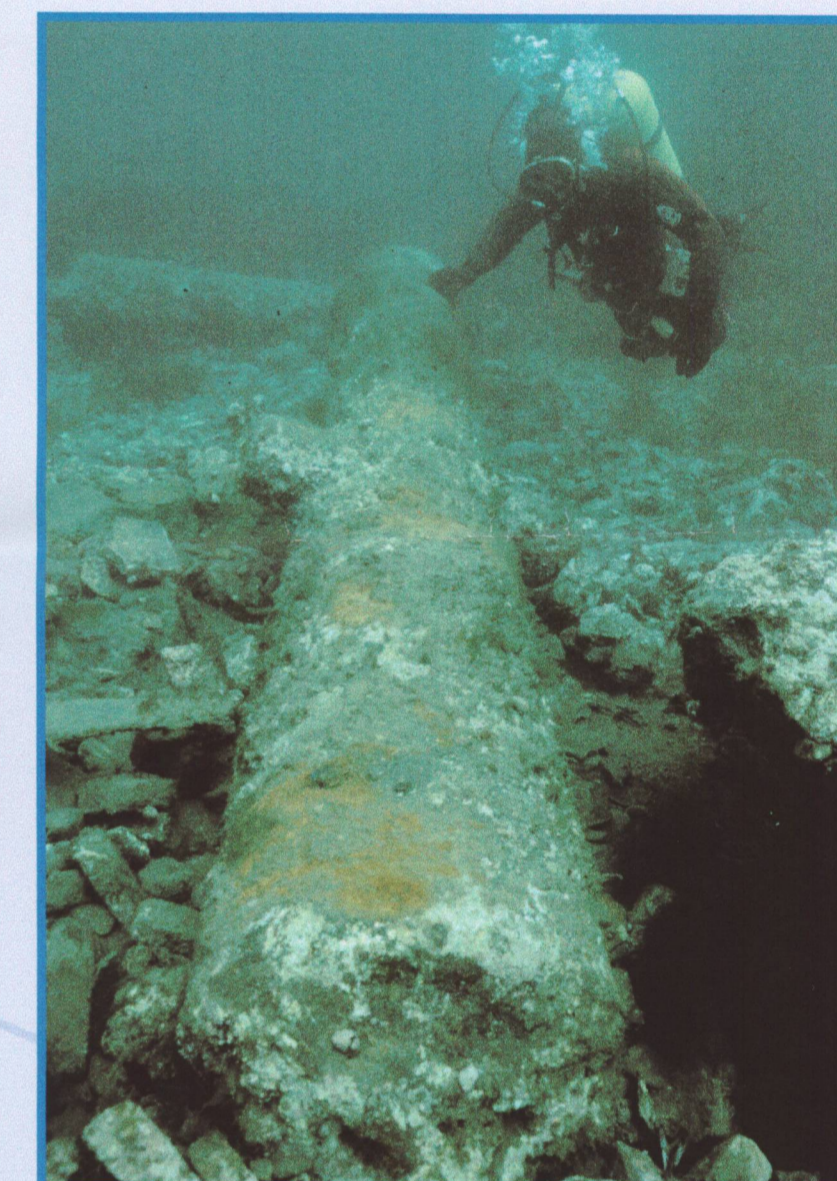
A commanding view of ships gathering in the northeast harbour during World War 1. Shoals were a major hazard to these larger ships. Large

linear scars (6) on the shoal off the Royal Battery were cut by dredging in 1908. These shoals, composed of glacial deposits, are very difficult to remove.



## 7 WRECK OF LE PRUDENT

The siege of 1758 left a legacy of nine major shipwrecks. The largest, the *Prudent*, a 74-gun warship, lies in six metres of water off Careening Point. There is a large cache of cannonballs in the shot locker, five cannons, and several large timbers and ceiling planking.



## 8 WRECK OF LE CÉLÈBRE

*Le Célèbre*, a 64-gun warship, sank during the 1758 siege. It is the most complete of the historic wrecks with 33 large cannons, the remains of the main mast, shot lockers, bilge housings, framing and floor timbers, and many iron structural artifacts. The historic wrecks are open to licensed guided tours.



## 9 SHALLOW WATER, DEEP WATER

In colonial time, shallow water forced ships to moor off the fortress and ferry goods ashore in small boats. Long wharves reduced the problem in the 20th century. Yet, in 1993, the largest vessel ever to enter the harbour, the *Sea Princess* (26,677 gross tons and over 200 metres long), anchored in the channel and ferried its passengers ashore.

Suggested Reference:

R.B. Taylor, H. Josenhans, B.A. Balcom, and A.J.B. Johnston, 2000. Louisbourg Harbour Through Time; Geological Survey of Canada Open File 3896; Poster.

