

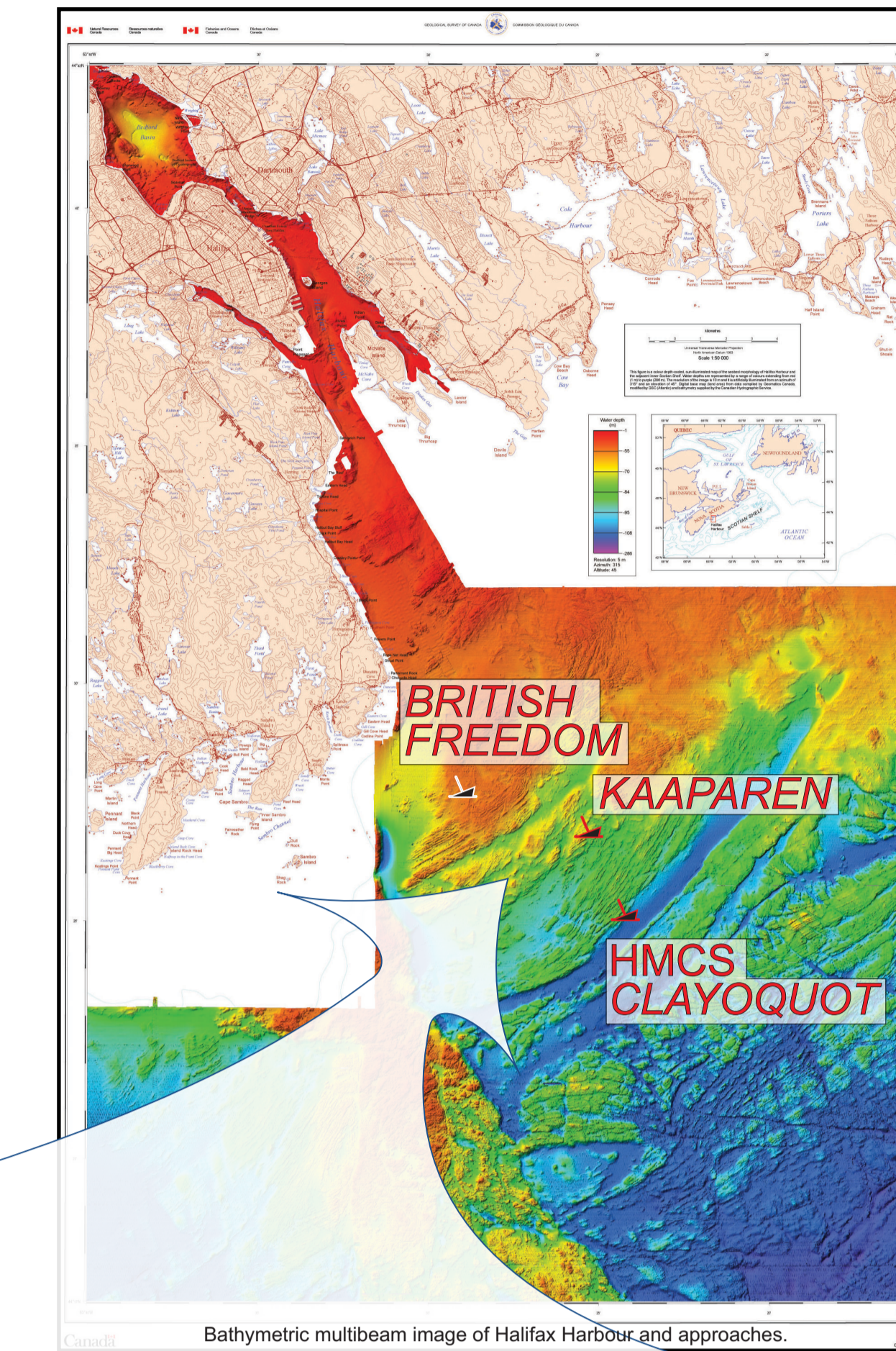
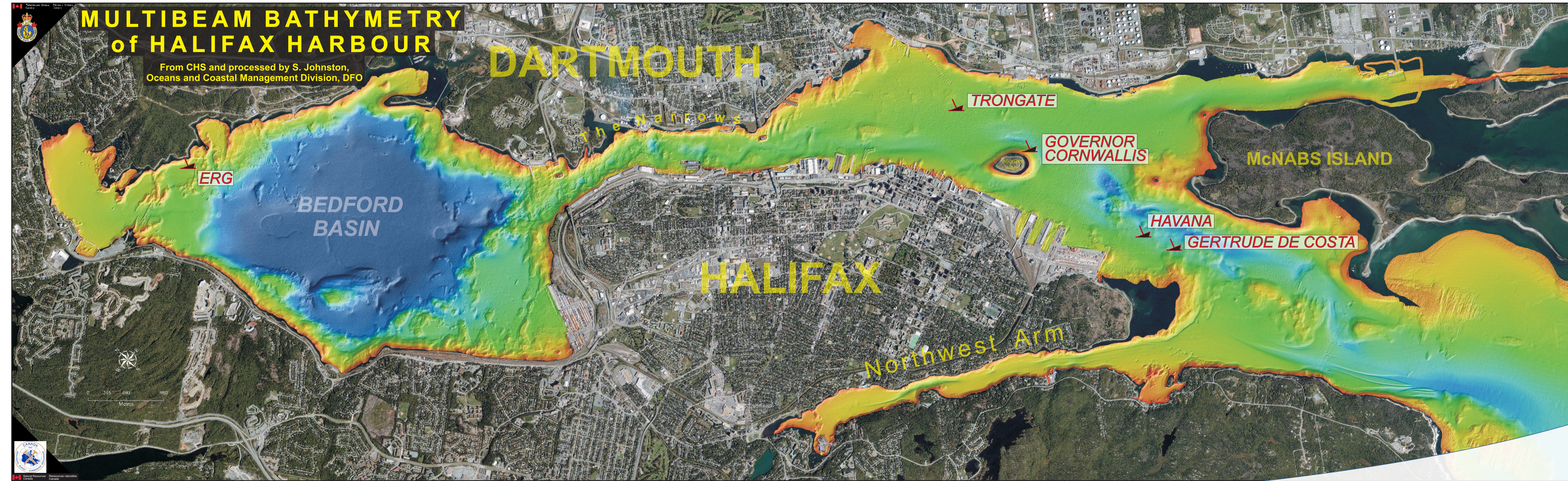
## INTRODUCTION

The mapping of Halifax Harbour has revealed the presence of about 45 shipwrecks in the harbour. Near the mouth of the harbour, over 50 magnetic anomalies have been discovered, most of which represent shipwrecks. There may be many others that are buried beneath the muddy sediments that require other techniques for discovery. Together they represent a rich marine archaeological heritage yet to be fully explored.

Shipwrecks exhibit unique characteristics on sidescan sonograms resulting from their hardness, shape and distinctive features such as railings, masts, smokestacks, funnels, bows, anchors, chains, hatches, and deck openings. They are much different from natural geological features such as boulders and bedrock. Shipwreck characteristics are well portrayed on sidescan sonograms as these sonar systems are towed close to the seabed and have high resolution that reveals structural details.

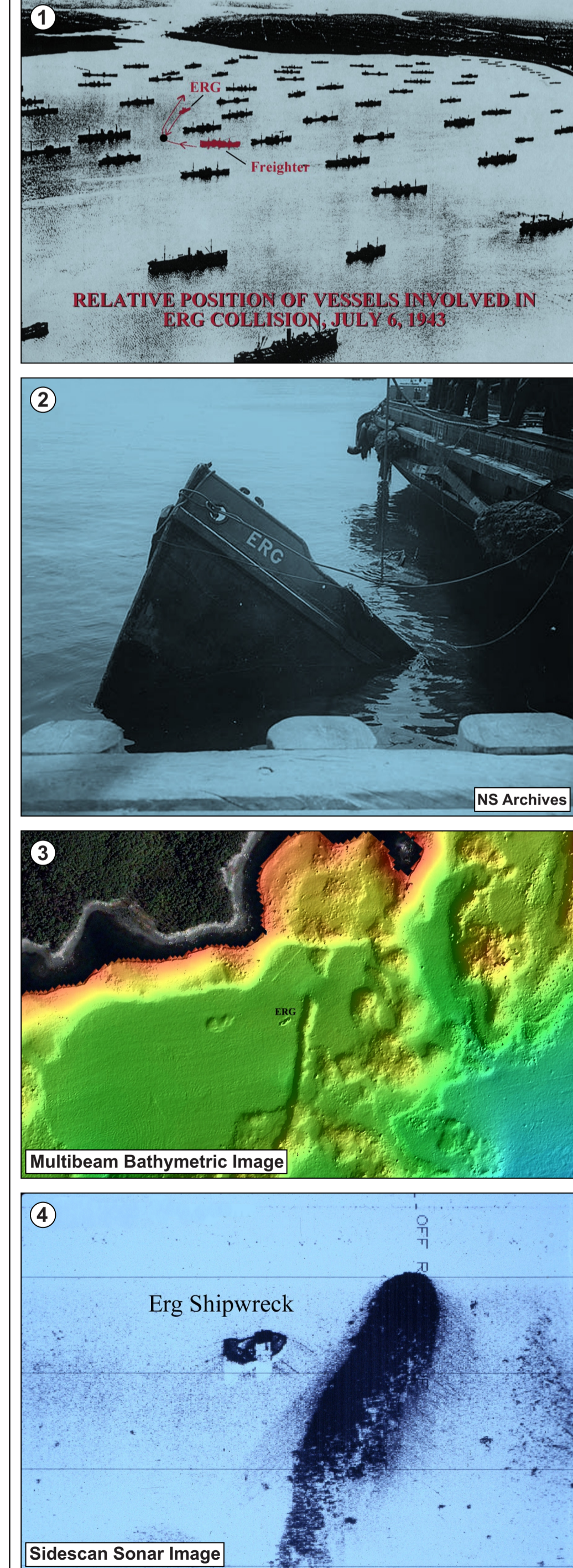
Most of the shipwrecks found in Halifax Harbour were unknown before the study of the harbour's marine geology. Some are known wrecks such as the ferry *Governor Cornwallis* that sank on the southeast flank of Georges Island as a result of an onboard fire, whereas others remain unknown and require further study for identification. They represent many marine tragedies that occurred in the harbour. It is important to map their location, the height of their protrusion above the seabed, and to determine their identity as they can represent hazards to navigation if their upper structures rise high above the seabed. Some also contain unexploded ordnance or other dangerous cargoes and some represent both military and civilian grave sites.

The following is a description of some of the larger and more famous shipwrecks in Halifax Harbour. Many other shipwrecks occur throughout the harbour. These include several barges, old scuttled ships in Bedford Basin, a recently discovered copper-clad schooner in The Narrows that may be related to the Halifax Explosion, old ferries, and several others in the Northwest Arm that have not yet been identified.



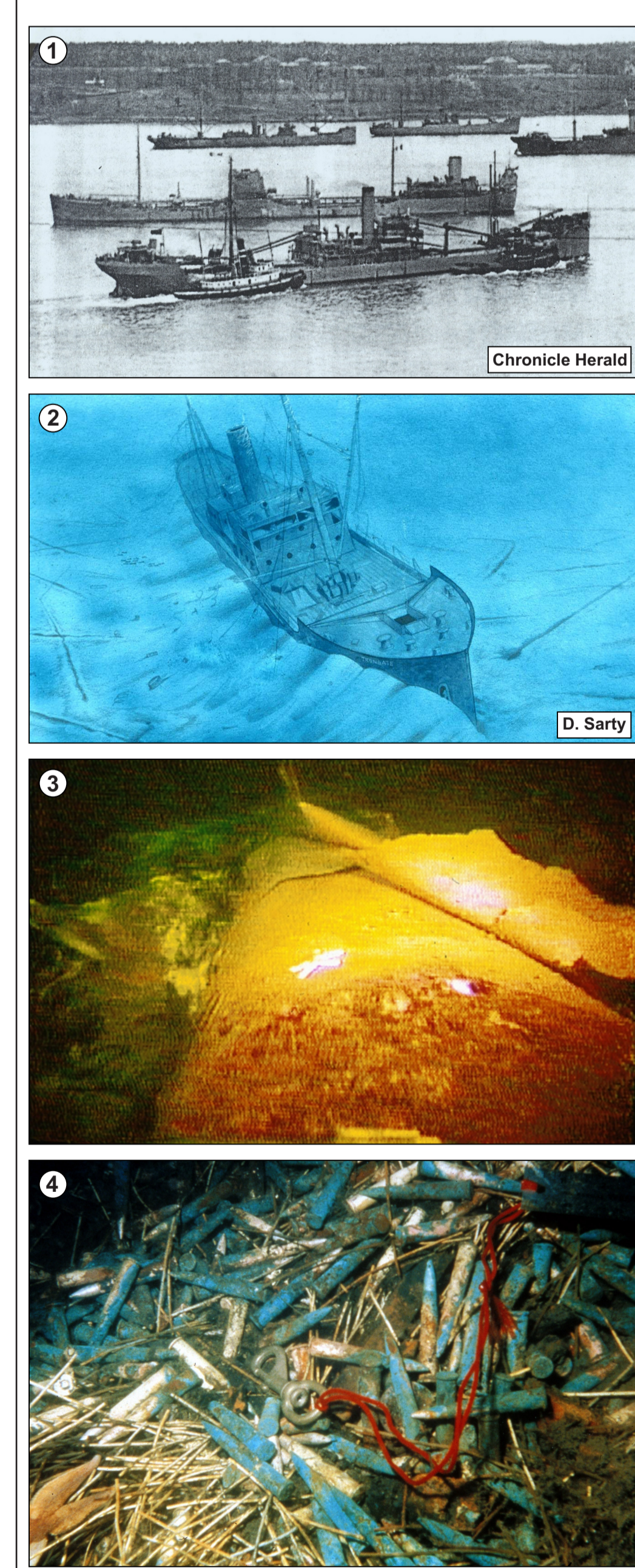
### ERG

The *Erg* was a former dockyard service boat that sank due to a collision in the central area of Bedford Basin in 1943. It was on its way to service a ship in a convoy that was anchored (Figure 1). It resulted in the loss of 19 lives. After the collision the *Erg* was refloated and some of the bodies were recovered (Figure 2). The Navy then finally sank the ship off Roach Cove in the northern part of the Bedford Basin (Figure 3). After the discovery with sidescan sonar (Figure 4), divers visited the wreck and placed a plaque in honour of those who lost their lives.



### TRONGATE

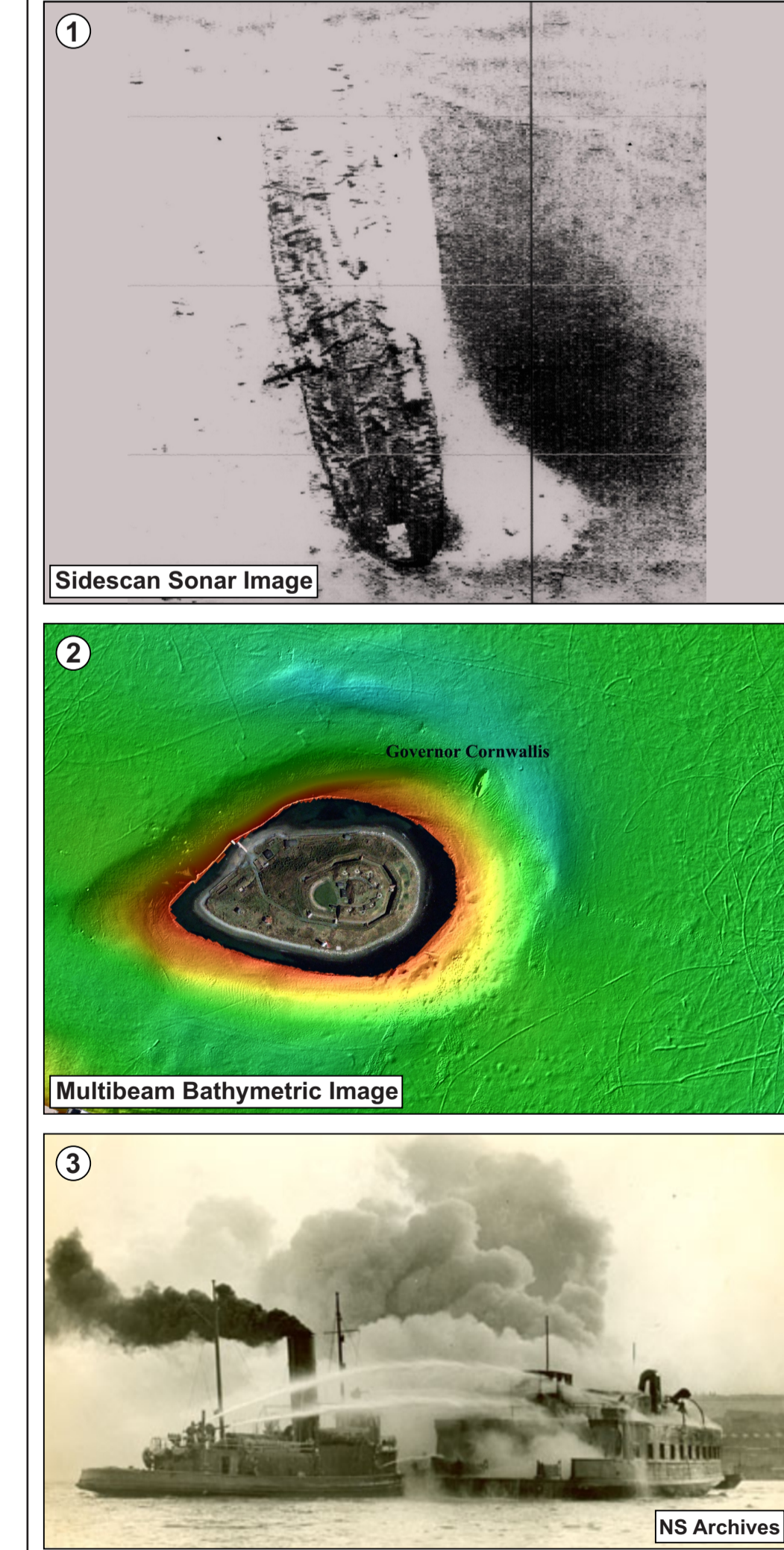
A Norwegian vessel, the S.S. *Trongate*, a 7000 t merchant ship, was purposely sunk in 1942 because of an onboard fire and an explosive cargo (Figure 1). It was later salvaged, but the impression of the hull remains in the mud as the ship squeezed the mud upward at anchorage number 4, north of Georges Island. Figure 2 is an artist's reconstruction. ROV (remotely operated vehicle) observations show the presence of rolls of newsprint (Figure 3), wooden planks, boots, and much debris at the location. In 1993 a large cache of unexploded ordnance, which included primed 4-inch shells, cases of .303 rifle ammunition, and scattered cordite (explosive) (Figure 4), were found at the *Trongate* depression. Because of the presence of this pile of unexploded ordnance, anchoring is no longer permitted at this location.



### GOVERNOR CORNWALLIS

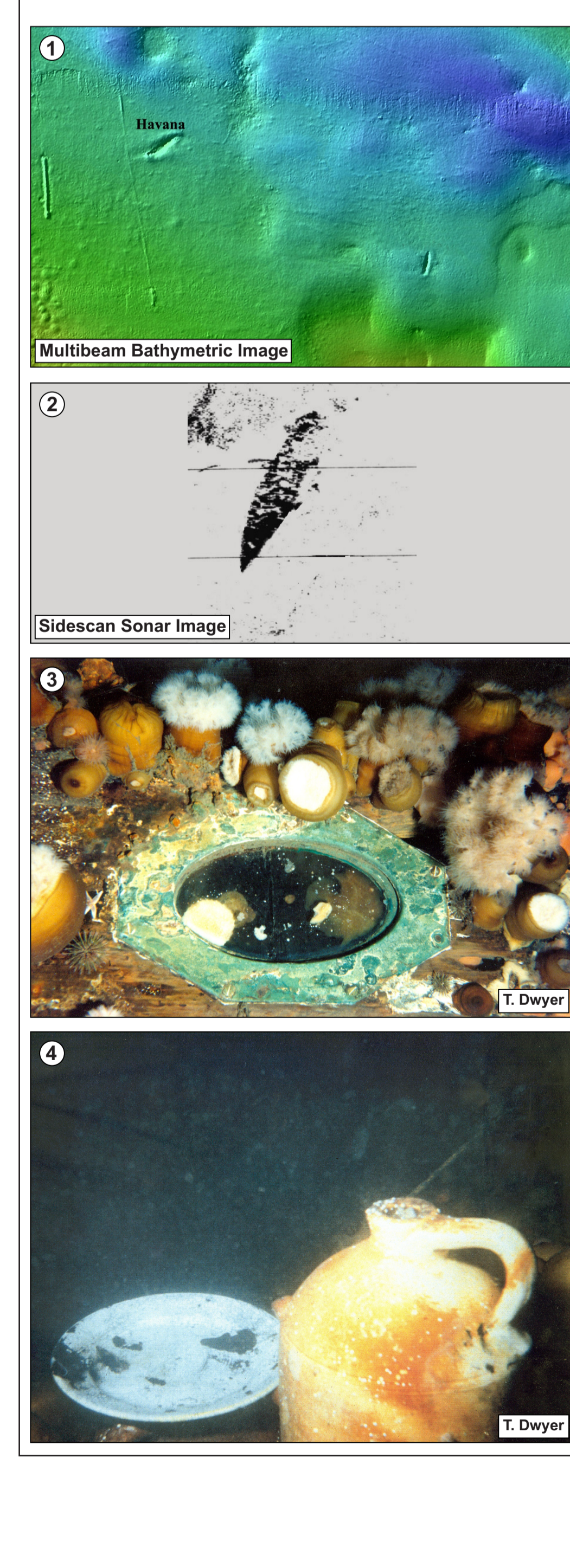
The Canadian Hydrographic Service discovered the wreck of the *Governor Cornwallis* southeast of Georges Island during their charting in the 1980s. It was located with echosounders and mapped on the charts of Halifax Harbour. During the survey of the harbour with sidescan sonar systems, clear images were obtained (Figure 1). The wreck partially rests on its side with the shallow part overlying hard gravel bottom and the deepest part buried in mud. The superstructure appears to have been damaged and short linear features occur on the deck surface. Divers have confirmed that these features are radiators used for heating the passengers for cold morning Halifax Harbour crossings. The multibeam bathymetry map shows the location of the *Governor Cornwallis* southeast of Georges Island (Figure 2).

The *Governor Cornwallis* was a ferry boat designed to carry cars, trucks and passengers between Halifax and Dartmouth. On December 22, 1944, as it left Halifax, bound for Dartmouth, the ferry caught fire. It calmly proceeded to the Dartmouth shore where it discharged all the vehicles and passengers and was towed toward the middle of the harbour. There, the blaze erupted into a major fire with the upper structure completely engulfed (Figure 3). It burned to the water line and sank to the bottom of the harbour where it remains today.



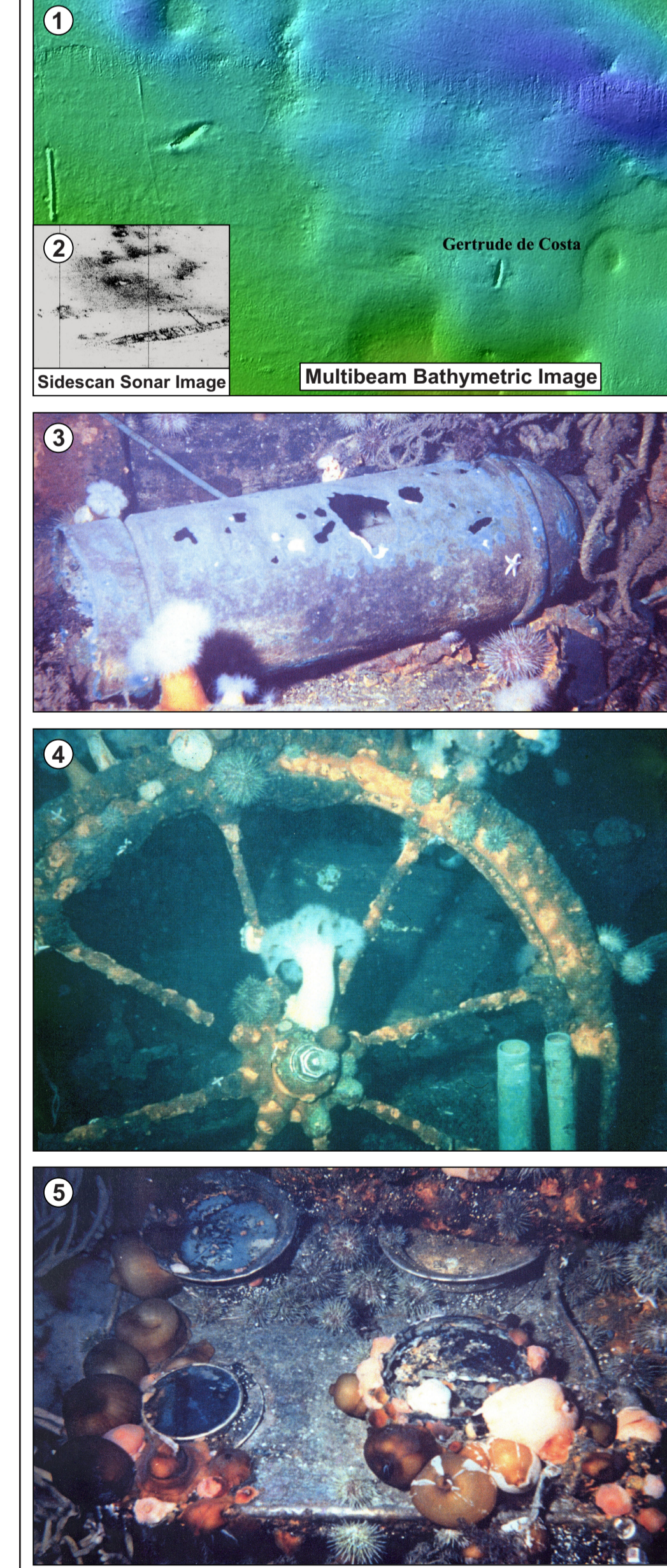
### HAVANA

The *Havana* lies to the southwest of Ives Knoll and was a 55 m salvage schooner owned by Captain J.A. Farquar (Figures 1 and 2). It was in the process of salvaging another ship, the *Alexander R.*, when it was struck amidships by the steamer *Strathcona* on April 26th, 1906. It is rumoured to contain a presentation sextant given by the British Admiralty for salvaging the guns of H.M.S. *Niobe* in 1874. It has been examined by divers (Figures 3 and 4) showing a porthole and galley artifacts.



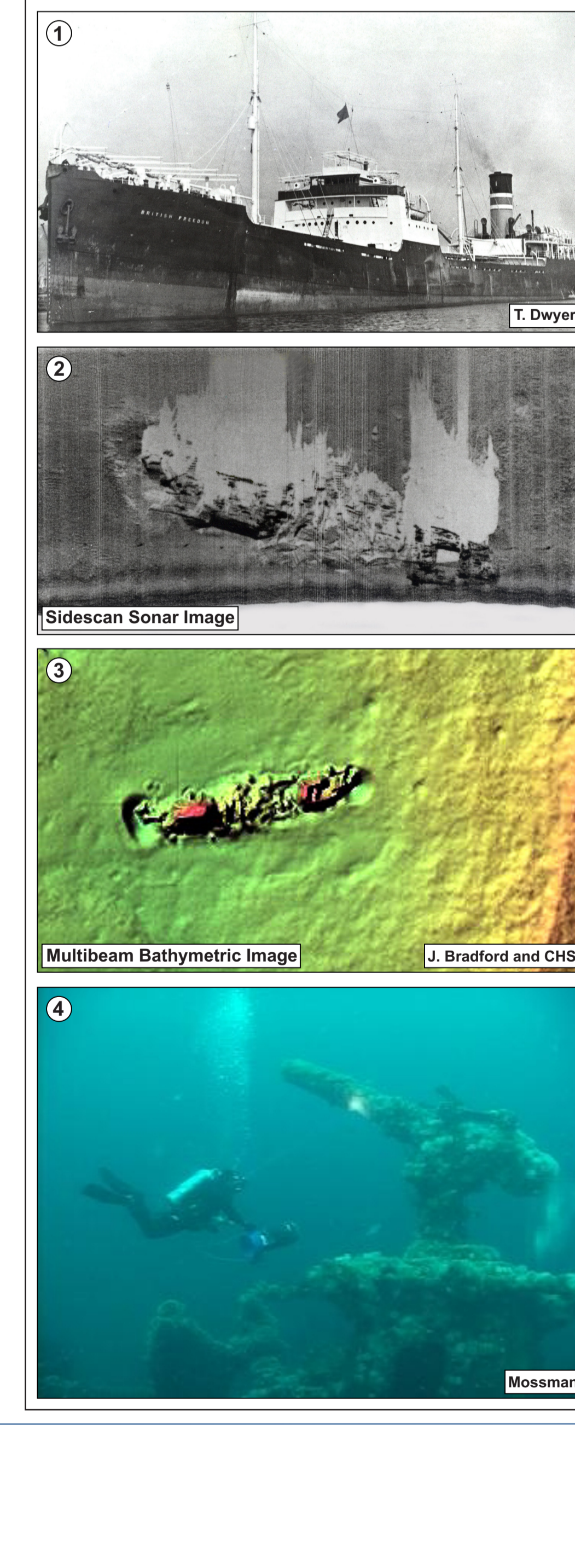
### GERTRUDE DE COSTA

To the south of the *Havana*, off the South End Container Terminal, lies another schooner, which has been determined to be the *Gertrude de Costa* (Figure 1). It was involved in a collision with an oil tanker, the *Island Connector*, in the harbour in 1950. Seven seamen went down with the vessel. It was a wooden schooner over 30 m in length with two masts, both of which lie on the seabed adjacent to the wreck (Figure 2). When explored by divers, several relatively modern batteries, a fire extinguisher (Figure 3), the ship's wheel (Figure 4), and most importantly an engine with a panel of gauges (Figure 5), strongly suggested that the vessel was relatively modern, and indeed, the *Gertrude de Costa*. Unexploded ordnance lies on the deck of the vessel. The origin of the ordnance is not known but in any case it represents a hazard. This illustrates the importance of identification of shipwrecks to assess their hazard potential as well as their historical value.



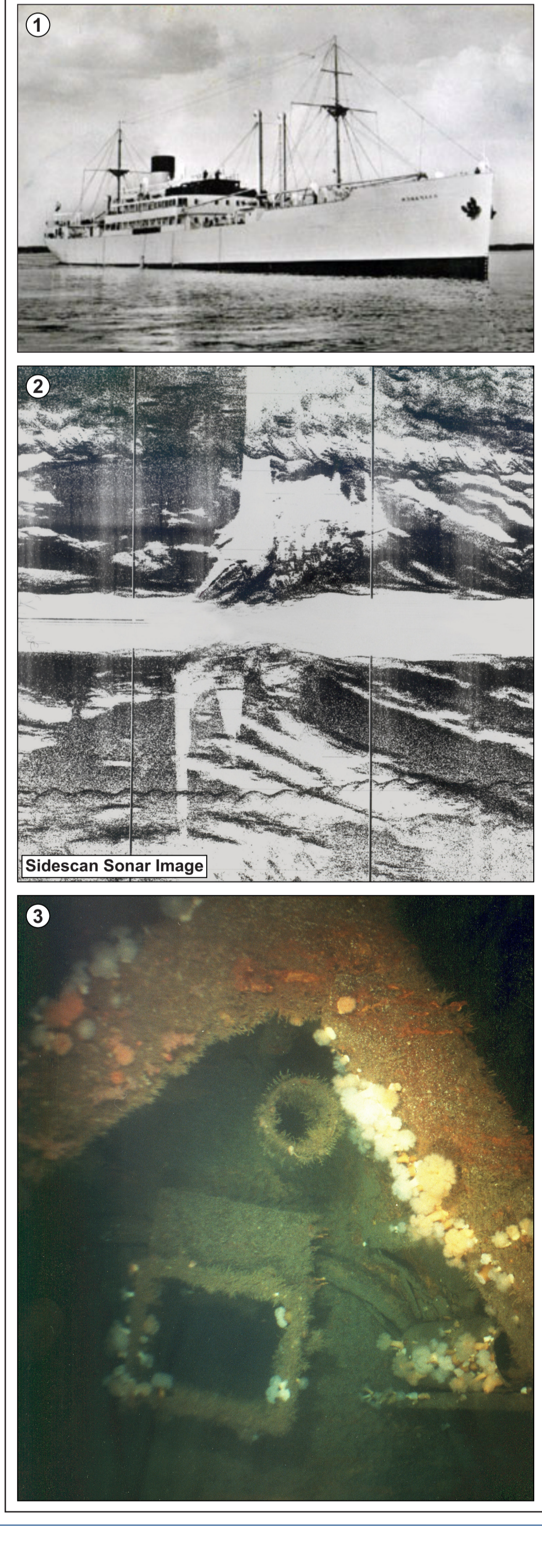
### BRITISH FREEDOM

The *British Freedom* and the *Athelving*, both tankers, were torpedoed by a German submarine U-1232 on the same day in 1944 off the mouth of Halifax Harbour. The *British Freedom* (Figures 1 and 2) sank off Chebucto Head with the loss of one person. It lies on a gravel bottom near the major shipping lanes and was found by the Department of National Defence during seabed mapping exercises (Figure 3). The ship has several deck guns and is a popular diving site (Figure 4). Hurricane Juan (September 2003) shifted the shipwreck and broke some of it apart.



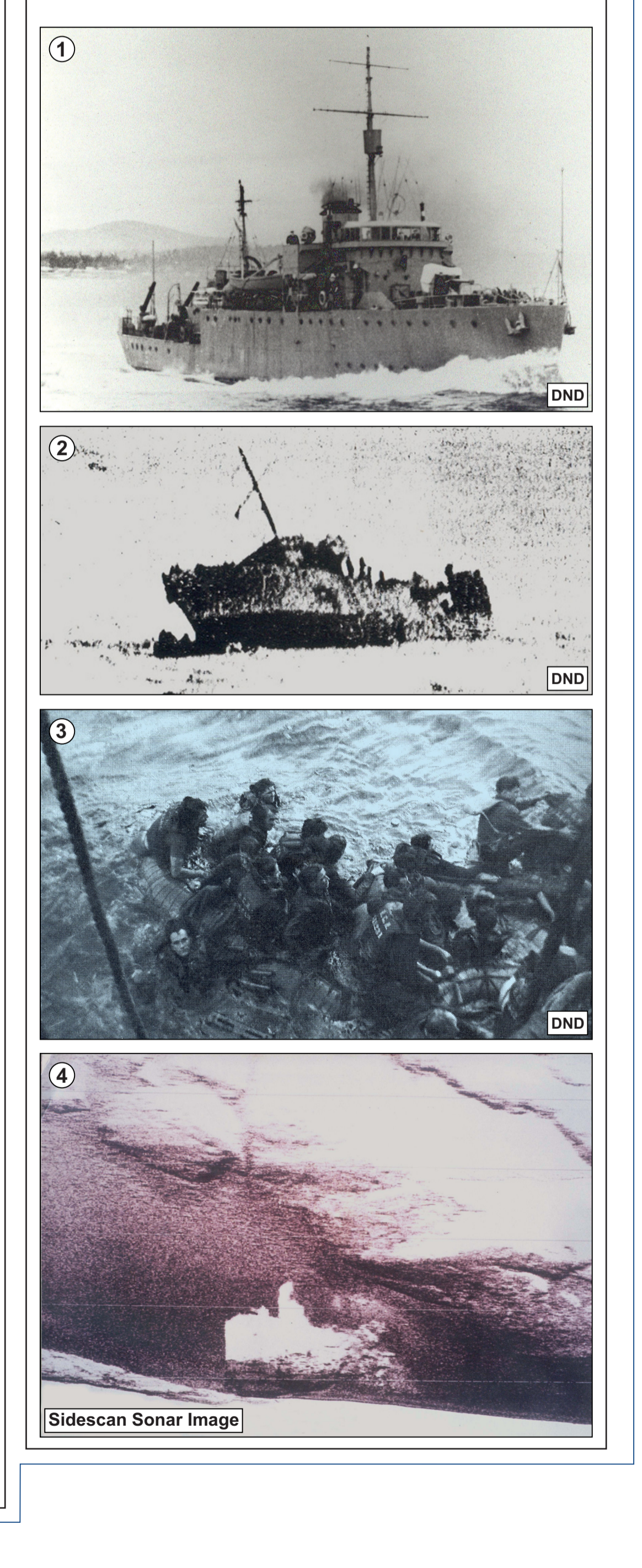
### KAAPAREN

The *Kaaparen*, a Swedish cargo vessel loaded with military materials and nickel and aluminum ingots, sank after a collision with the *Tungsha* at the entrance of the harbour (Figures 1, 2, and 3) on 14 June 1942. Figure 4 is a photo of the ship's hull and rusticles being sampled, similar to bacteriological iron growths found on the wreck of the RMS *Titanic*. The valuable cargo was later salvaged after blasting open the hull and removing metal ingots with a large grab. Much of the shipwreck still remains on the bedrock seabed including tank treads and the ship's propellers and wheel (Figures 5, 6 and 7).



### HMCS CLAYOQUOT

The *HMCS Clayoquot* was a Bangor Class minesweeper (Figure 1) and was torpedoed on Christmas Eve, 1944, with loss of life (Figure 2). Survivors are shown in Figure 3. The torpedo was launched by a German submarine U-806 patrolling the entrance to Halifax Harbour. The ship lies in 91 metres of water on the edge of a large channel at the entrance to the harbour (Figure 4). Recent dives to the shipwreck show that it is in pristine condition with a large foredeck gun and the stern is badly destroyed from the strike by an acoustic homing torpedo.



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Some of the photographs and images are from the private collection of Gordon Fader.