HAMPTON ROADS NAVAL MUSEUM

Local History. World Events.

Earth Science and World War I

During WWI, the allies and Germany tried to blockade each other in order to prevent the opposing side from receiving vital food and supplies via ship. Germany developed and used submarines effectively during the war, sinking many allied military and civilian ships. One of the major reasons why the United States eventually joined in the fighting was this unrestricted submarine warfare, which most famously sank the ship *Lusitania,* a passenger ship, killing approximately 150 Americans in the process. In 1917-1918, the US helped its allies place sea mines over a large section of the North Sea. These mines were designed to prevent enemy ships, including submarines, from getting too close to allied vessels. During the North Sea Mine Barrage, approximately 70,000 mines were put in the North Atlantic.

Maps showing aerial and profile views of the minefields

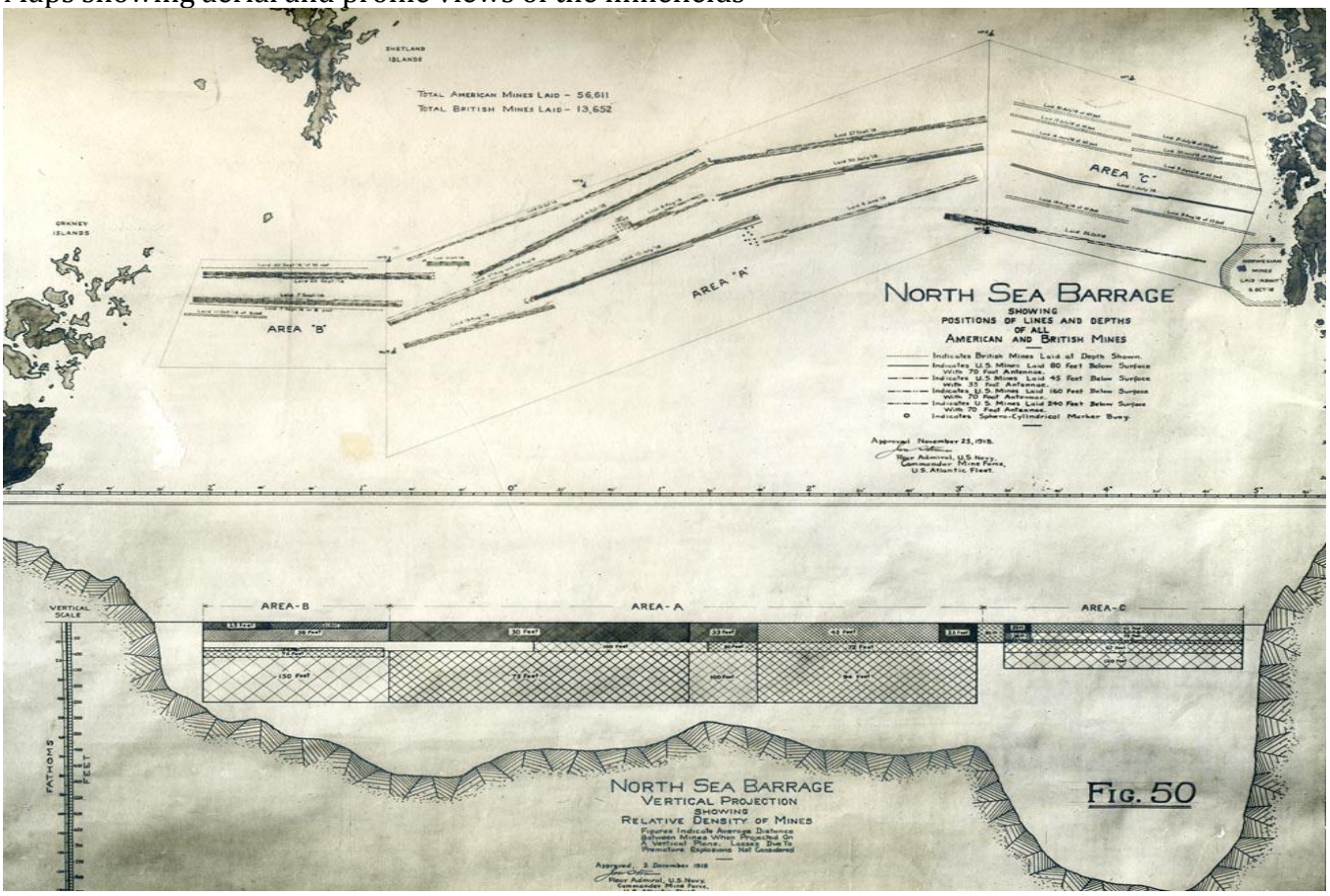
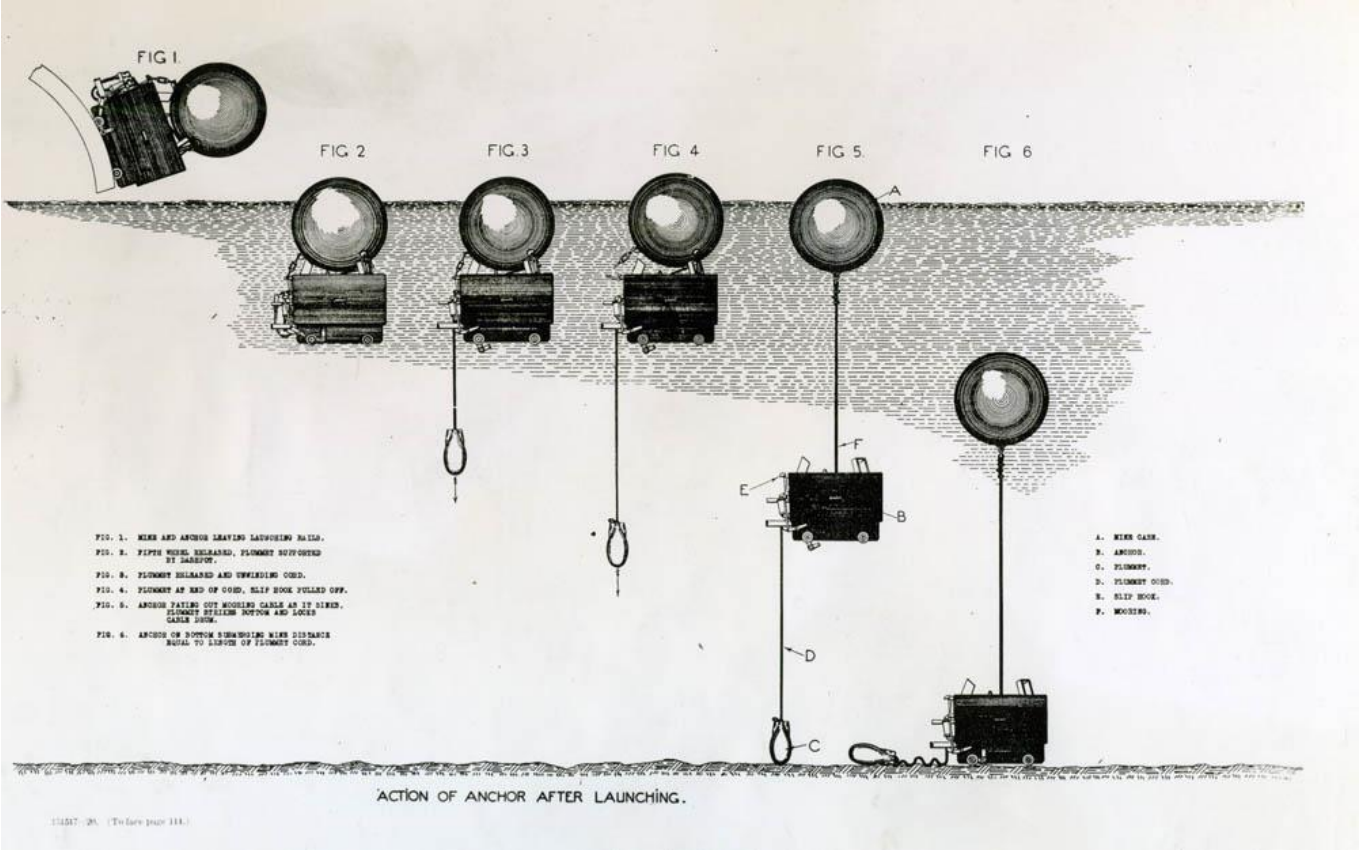


Diagram showing the process of laying a mine



Imagine that your country is in danger of attack from enemy submarines and warships. You have a number of mines that you can place to help protect yourself, but you need to figure out the best location in which to put them. Use the information from the previous page and the map below to decide the best location for your own “Mine Barrage.”

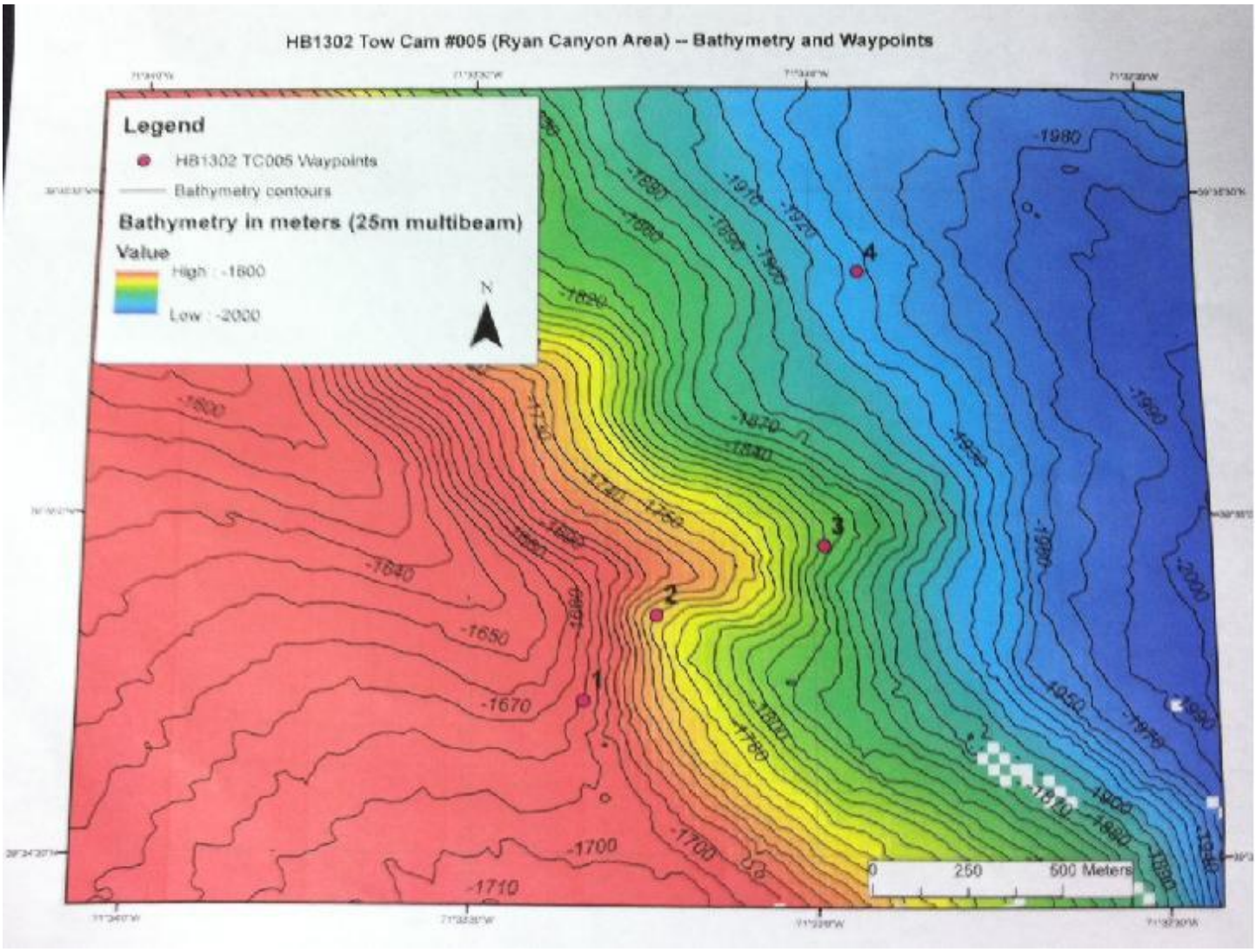


Image source: https://teacheratsea.wordpress.com/category/beverly-owens/

Draw contour profiles from points 1 to 2, 2 to 3, and 3 to 4. Keep in mind that, since these are below sea level, each contour line is negative. However, contour/ topographic map rules still apply! Feel free to draw your profiles on a separate sheet of paper/ graph paper if you want.

Look back at the WWI mine profile. Compare it to yours. Are any areas similar? Based on this information, where do you think the best place(s) to put mines would be? Draw your proposed minefields on your map. Be prepared to explain and defend your choices!

The seafloor elevation map above is not in the North Sea. Using the latitudes and longitudes given on this map, where is it, really?

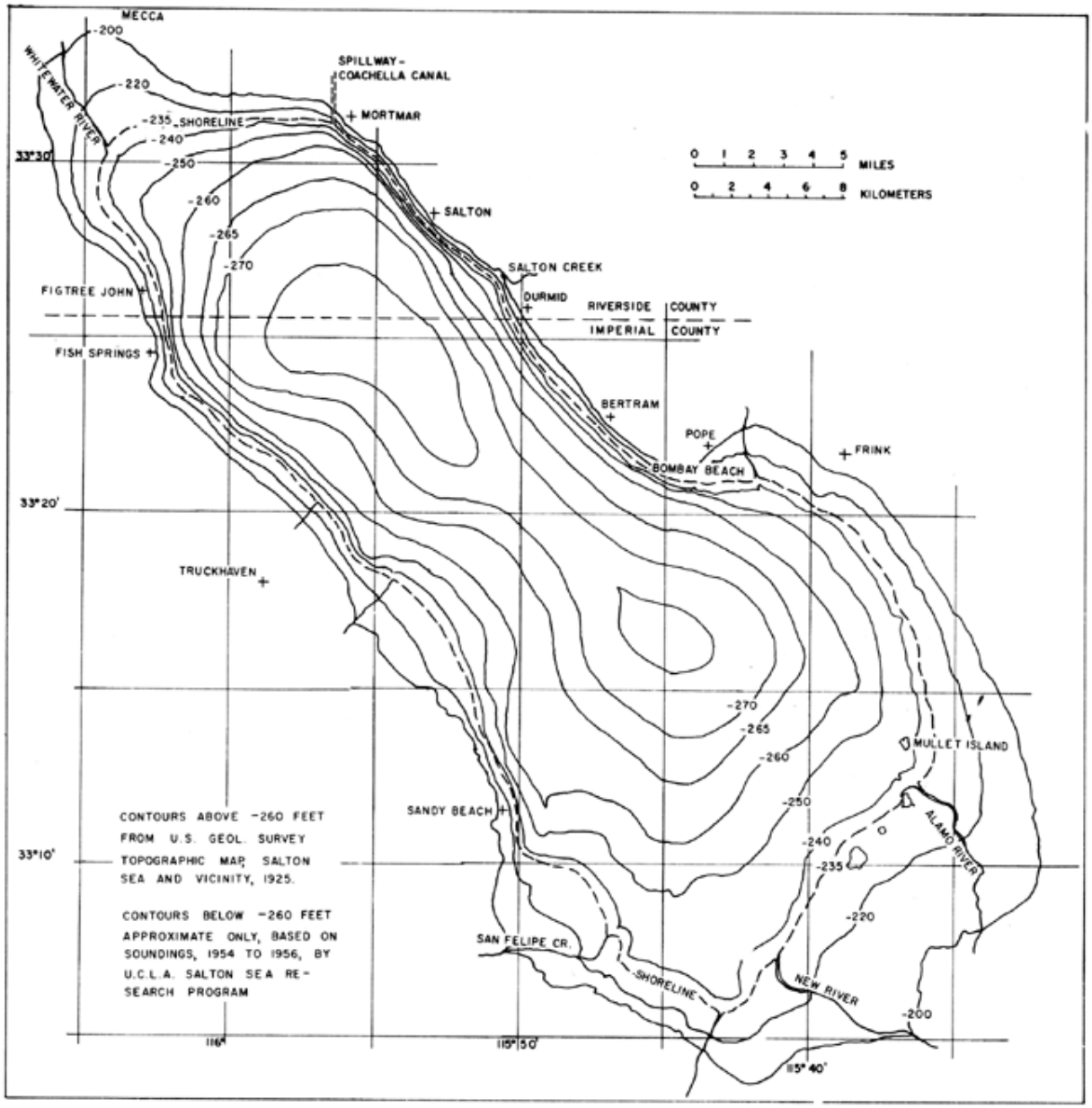
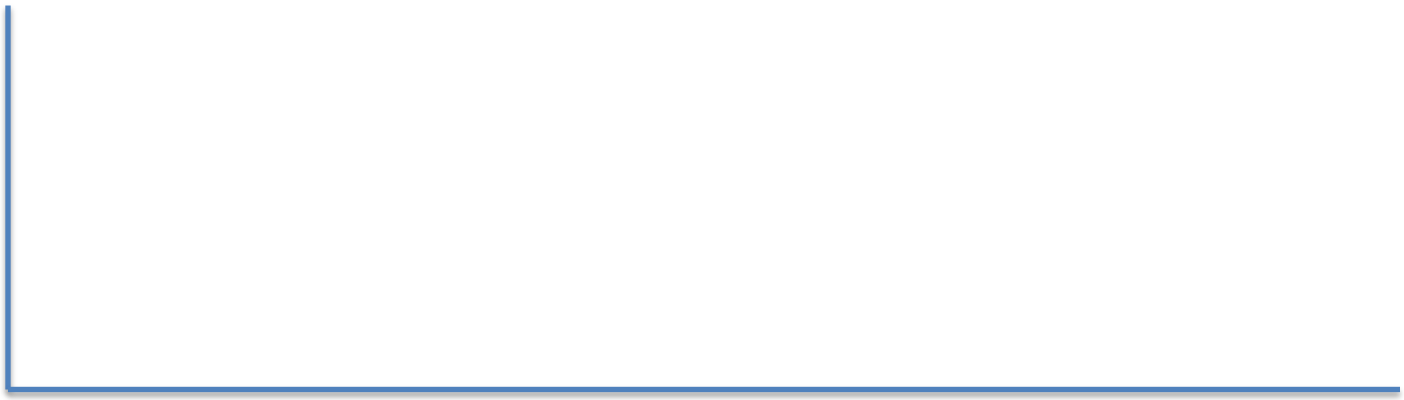


FIGURE 2. Depth contours of Salton Sea. Contours above —260 feet from U. S. Geological Survey, 1925. Contours below —260 feet are approximate only, based on soundings by U.C.L.A. Salton Sea Laboratory, 1954-1956.

Now do the same with this contour map of Salton Sea. Begin your profile at the northwest corner of the sea, and end at the southeast corner. Again, remember that since these are below sea level, they will be negative numbers! Feel free to use a separate sheet of paper or graph paper for your profile.



After drawing your profile, decide what area(s) you believe would be best for laying sea mines. Draw in your choices, and prepare to explain/ defend them!