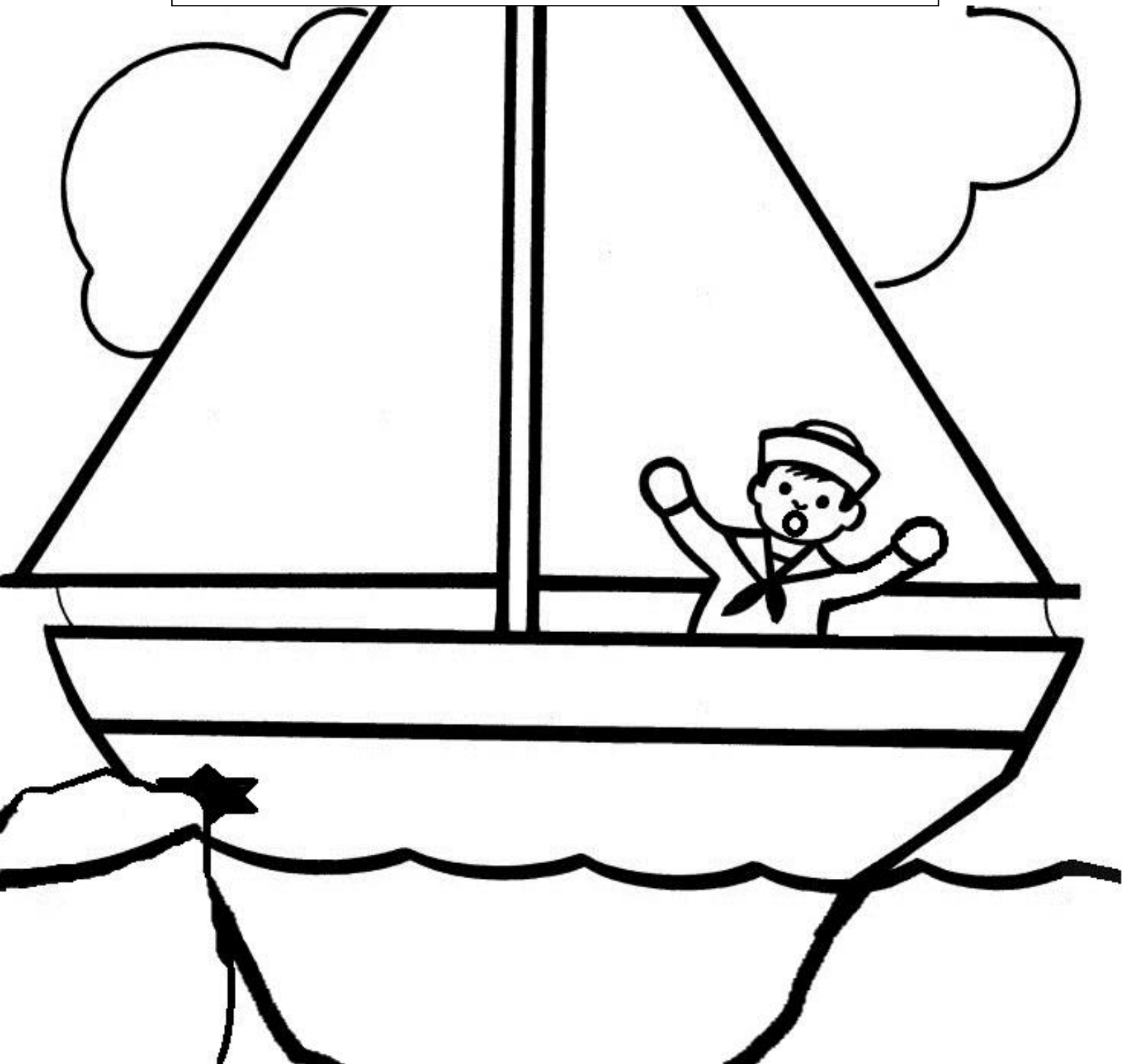


Noah went for a sail, no sign of a storm.  
There were no strong winds; it was sunny and warm.

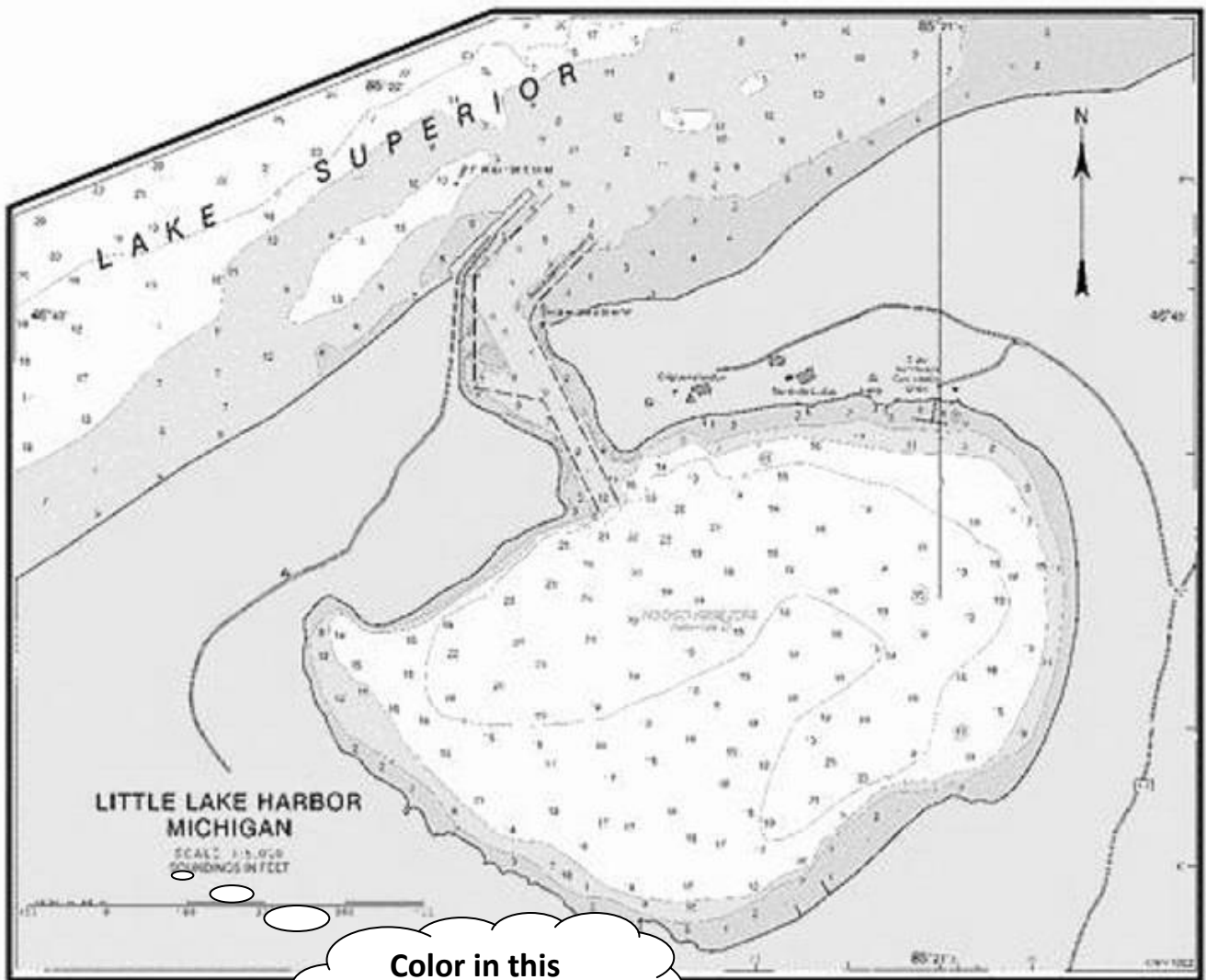
Then, his boat jolted with a “crack!”  
He thought that maybe he was under attack.  
Noah looked around for a nearby dock,  
that’s when he noticed the giant rock.



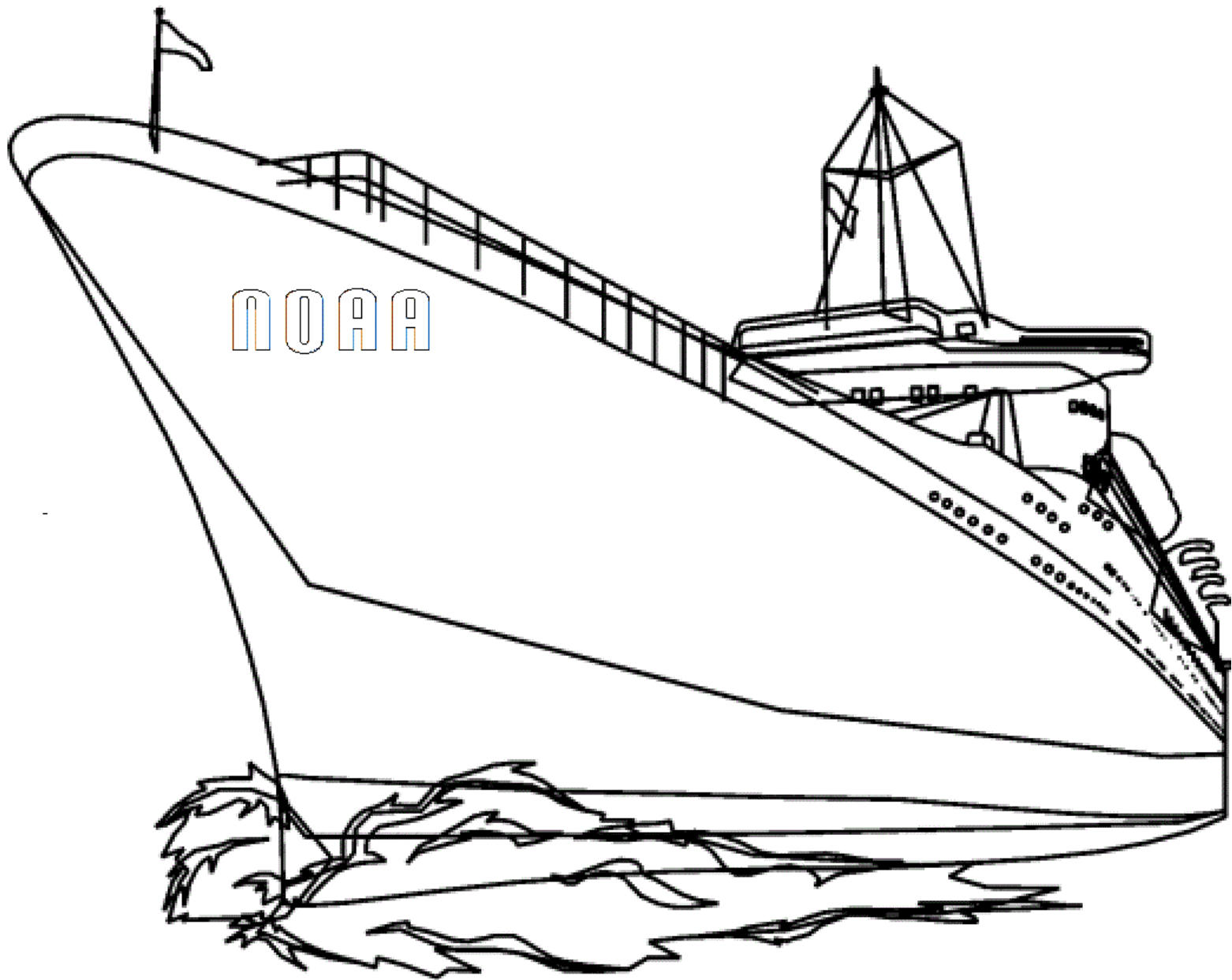
**It was then that Noah knew in his heart  
this could have been avoided with a nautical chart!  
What is a nautical chart, you may ask?  
NOAA can tell us. They're up to the task!**



**Imagine a map of the ocean floor  
with depths, shipwrecks and coastlines, galore!  
That's what you get with a nautical chart,  
but that's not even the coolest part.**



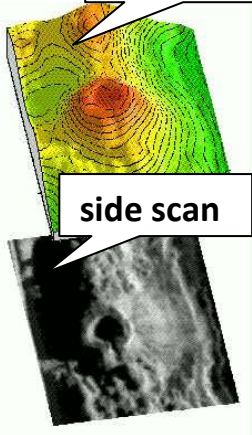
**Color in this  
nautical chart!**



**Mapping the seafloor is no easy deed.  
A hydrographic survey is what we will need!  
A ship goes out to the ocean with care  
to survey the coast, there's no time to spare!**

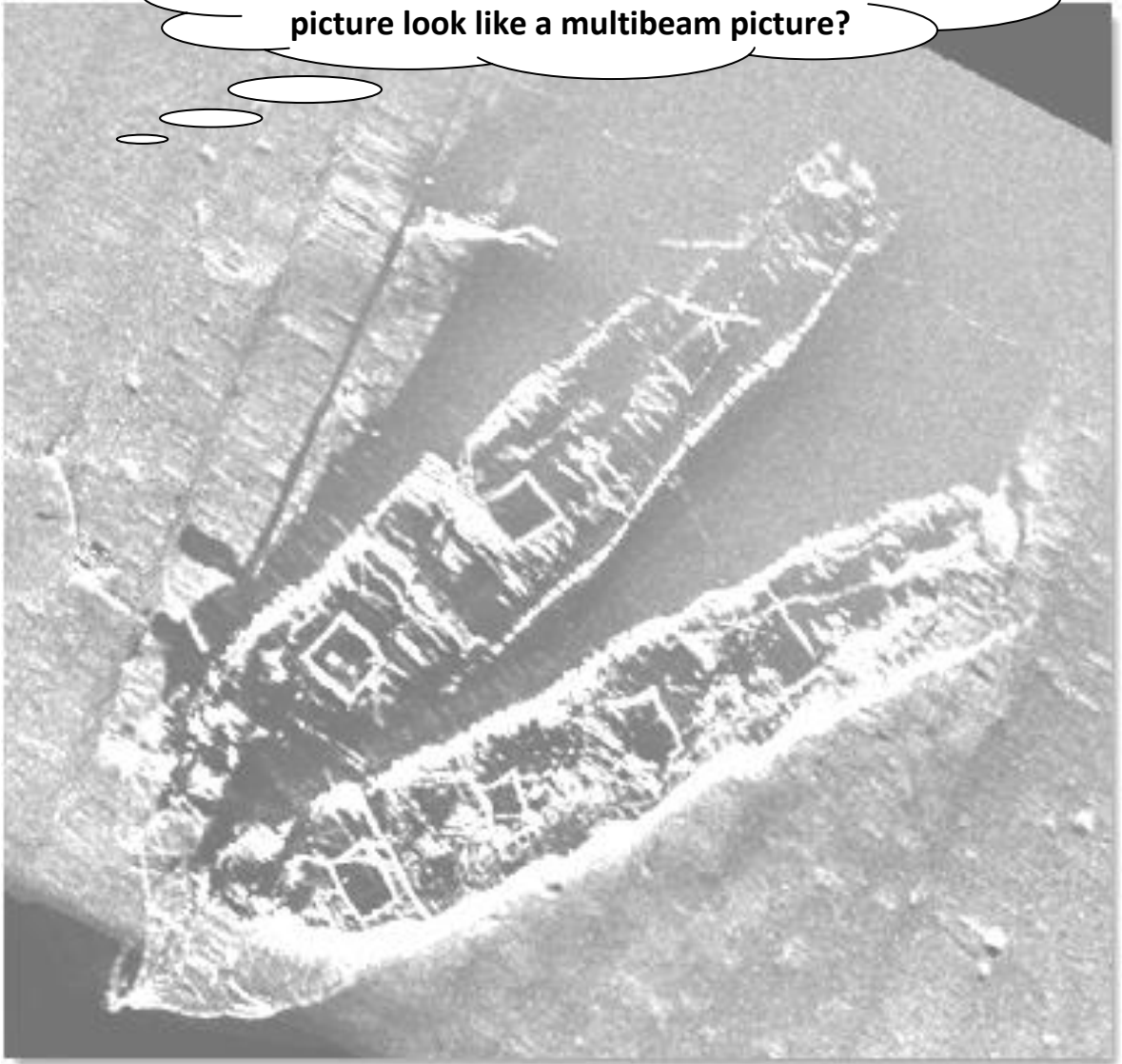
We used to use lead lines and poles to survey the floor,  
But with today's sonar, we can see so much more.  
Sonar sends sound waves to the seafloor and back.  
With side scan and multibeam Sonar it's hard to keep track.

multibeam

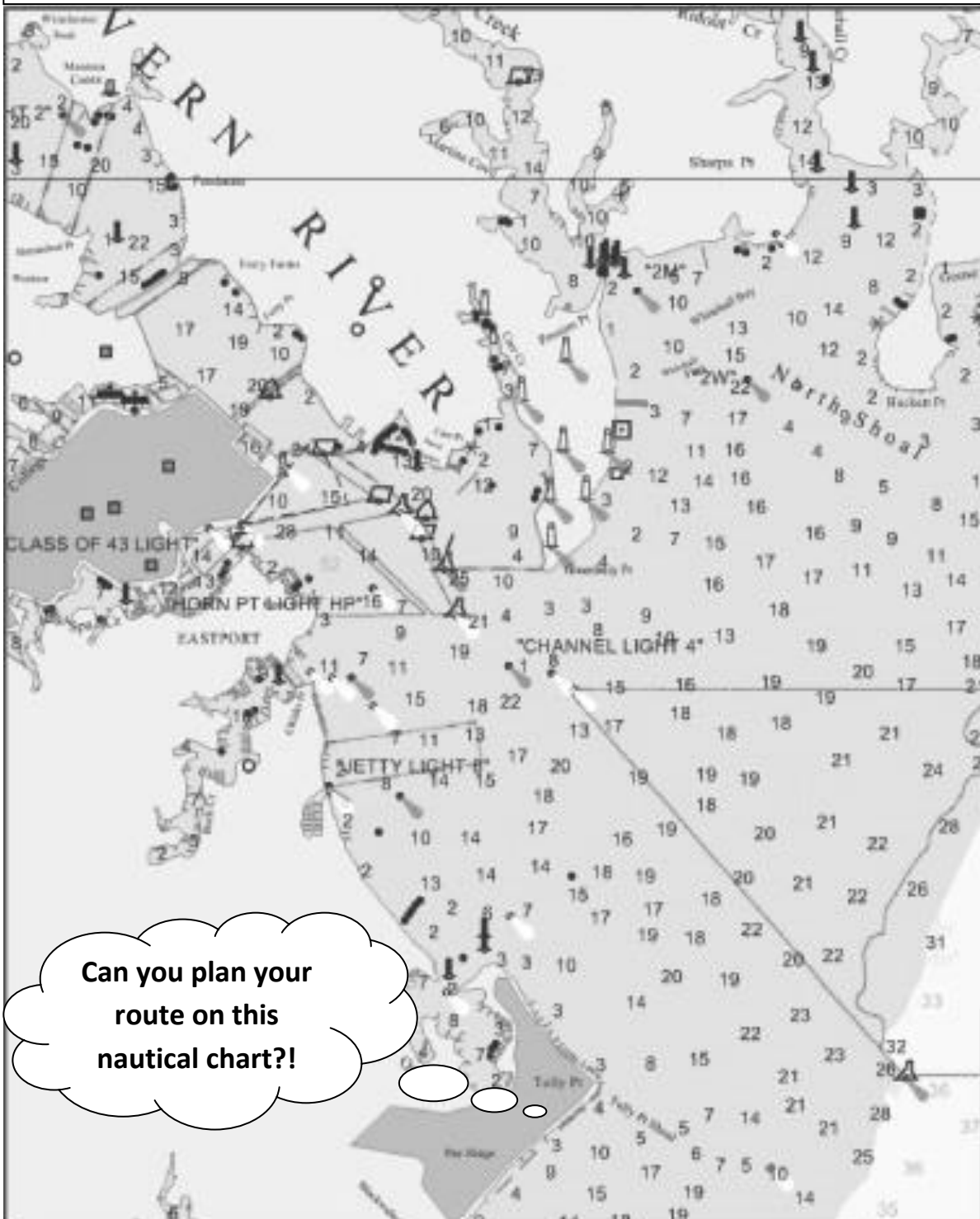


side scan

Can you make this side scan sonar picture look like a multibeam picture?



**NOAA's Coast Survey uses the echoes so greatly to measure seafloor depths for maritime safety. Every depth is recorded on this nautical chart. It's more than a map, but a real work of art!**



**Can you plan your route on this nautical chart?!**

**Now heed this warning and never go for a sail without a nautical chart to map out your trail.**