



**WE HAVE A  
DEEP  
CONNECTION**

To \_\_\_\_\_  
From \_\_\_\_\_




**YOU LIGHT  
UP MY LIFE**

To \_\_\_\_\_  
From \_\_\_\_\_




**I'M SENSING  
SOMETHING  
SPECIAL**


To \_\_\_\_\_  
From \_\_\_\_\_



**FORECAST**



**LOVE IS  
IN THE AIR**



To \_\_\_\_\_  
From \_\_\_\_\_





**YOU'RE THE  
ONLY FISH  
IN THE SEA  
FOR ME**

To \_\_\_\_\_  
From \_\_\_\_\_



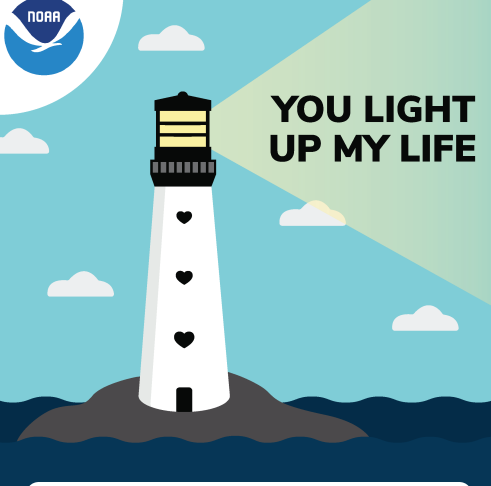

**YOU FLOAT  
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To \_\_\_\_\_  
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## What is remote sensing?

Remote sensing is the science of obtaining information about objects or areas from a distance, like by satellite. Remote sensors can be passive or active. Passive sensors record natural energy that is reflected or emitted from the Earth's surface, while active sensors emit signals toward what they're observing and then measure how much of the energy is reflected back.

[noaa.gov/education](https://noaa.gov/education)

## Why do we have lighthouses?

Lighthouses were originally used to guide ships to safety and warn them of dangerous areas. Though many lighthouses still serve seafarers, modern electronic aids to navigation, like nautical charts and beacons, play a larger role in maritime safety. Now, lighthouses can hold advanced scientific instruments and offer historic information about the area.

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## What is an ROV?

Remotely operated vehicles, or ROVs, are submersible robots that can be used to explore ocean depths. They are connected to a ship through a series of long cables. This connection allows someone on the ship to send commands while the ROV sends back data and live video of its surroundings.

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## What is a CTD?

CTD stands for conductivity, temperature, and depth, and refers to a package of electronic instruments that measure these properties of the ocean. CTDs are often attached to a large metal frame called a rosette, which holds water-sampling bottles and other sensors that can measure additional physical or chemical properties.

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## What are gliders used for?

The ocean is vast, and traditional surveys can't cover it all. That's where autonomous vehicles like gliders come in! Gliders can be deployed for months at a time, moving slowly through the ocean. They collect data on ocean conditions, and some can even "listen" for vocalizations to locate populations of spawning fish!

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## What instruments help us to observe the weather?

Basic weather observation instruments include thermometers, rain gauges, barometers, and anemometers. Examples of more sophisticated equipment are wind profilers, radiosondes carried by weather balloons, Doppler radar, and satellites. Human observations provide important information as well!

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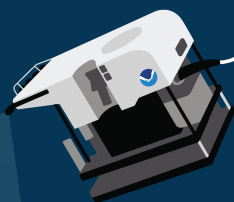
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