

Video 1:

# Introduction to Aquatic Remote Sensing

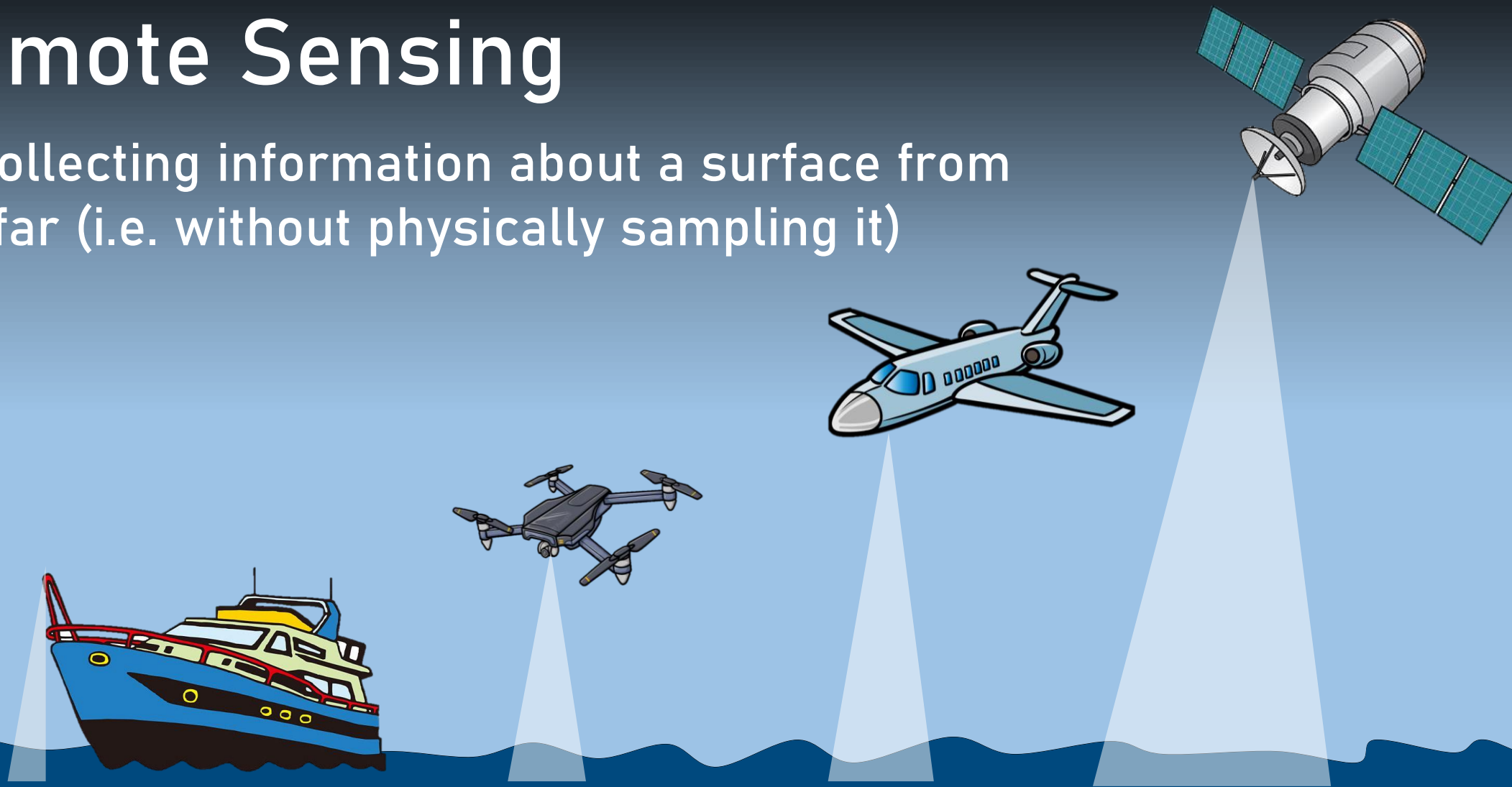
# Video Objective:

- Introduce aquatic remote sensing
- Give an overview of topics

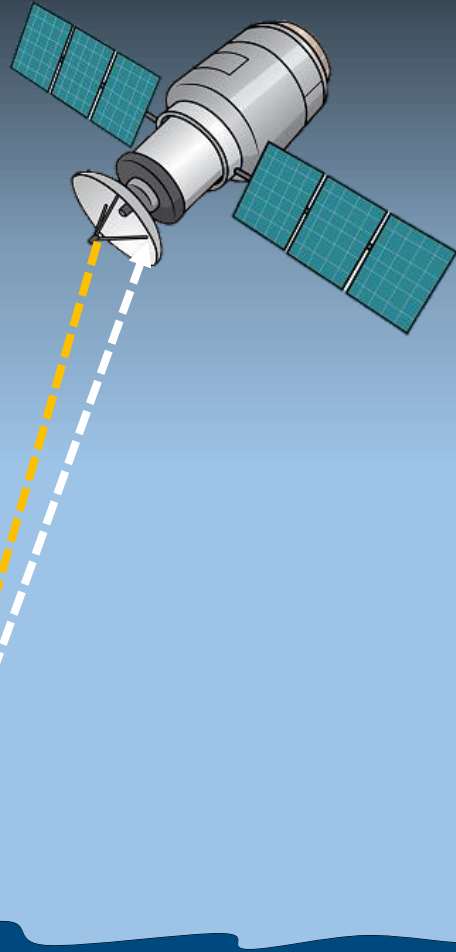


# Remote Sensing

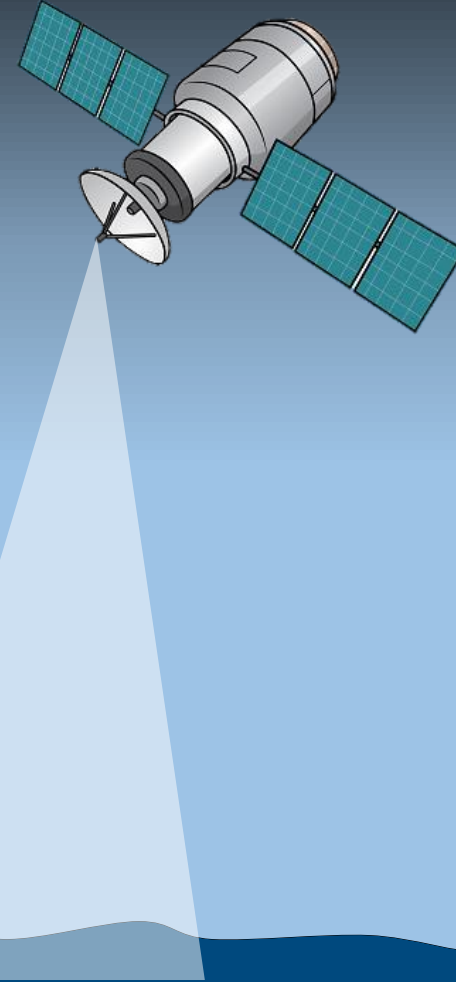
Collecting information about a surface from afar (i.e. without physically sampling it)



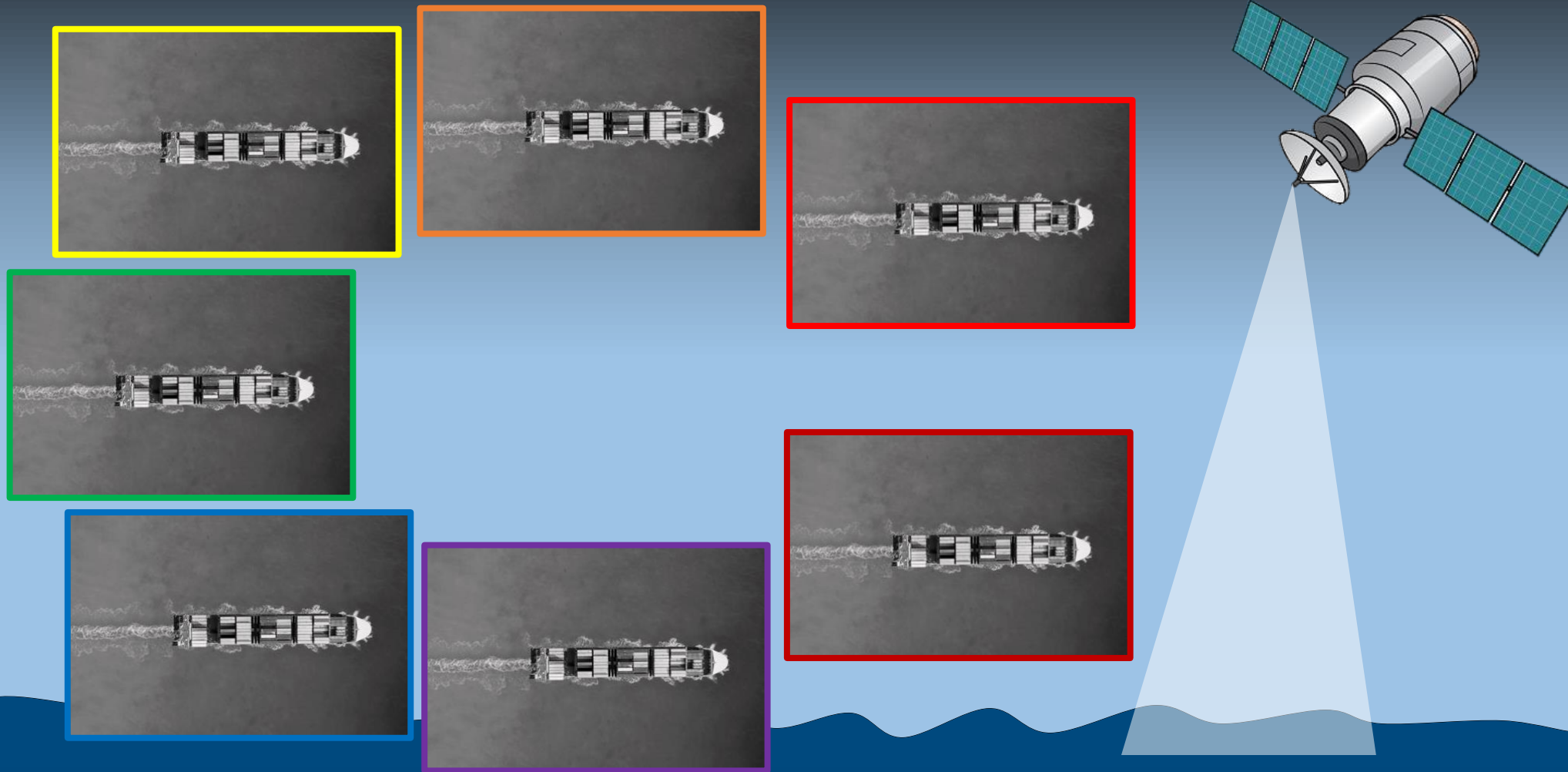
# Active Remote Sensing



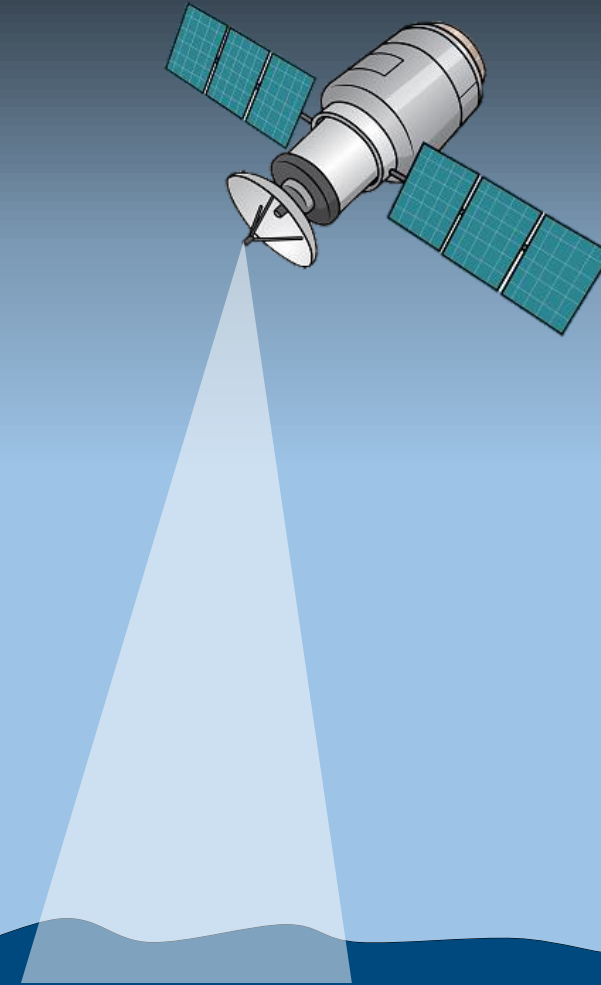
# Passive Remote Sensing



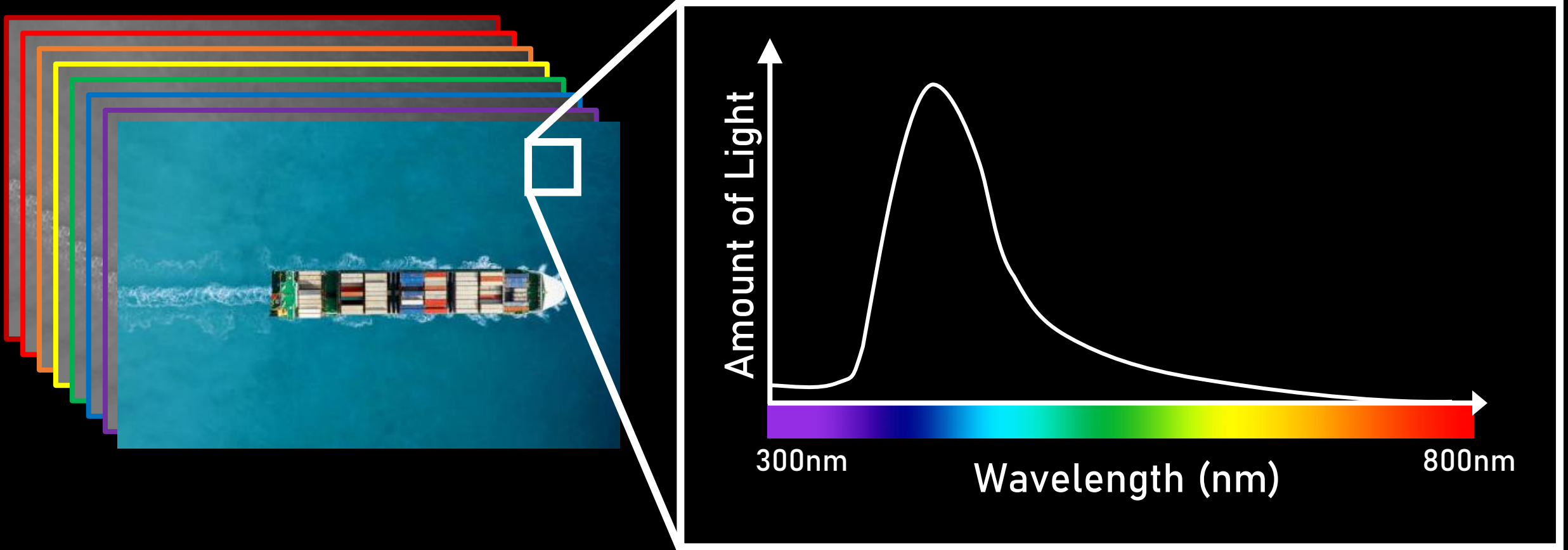
# Passive Remote Sensing



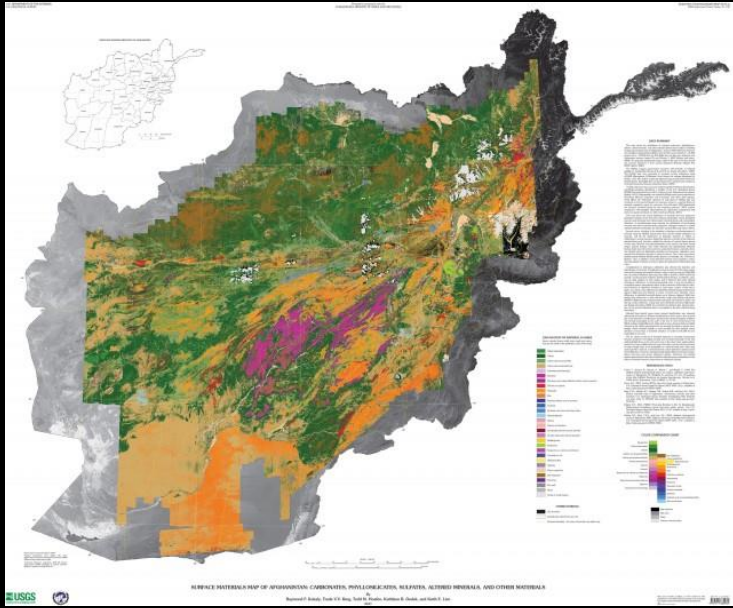
# Passive Remote Sensing



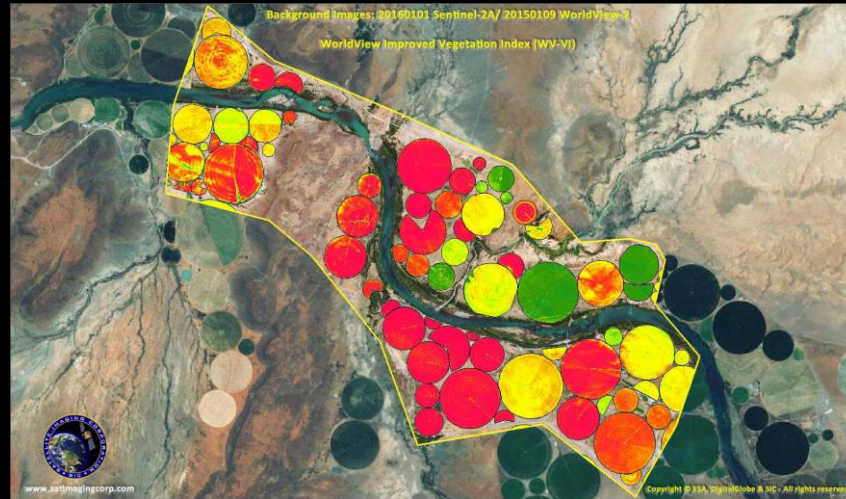
## Pure Water Spectra



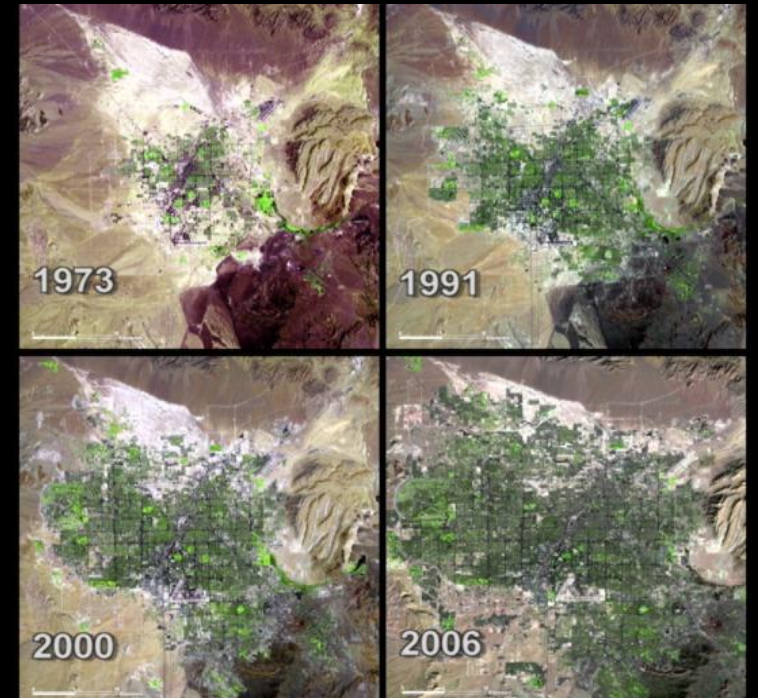




Geologic Mapping



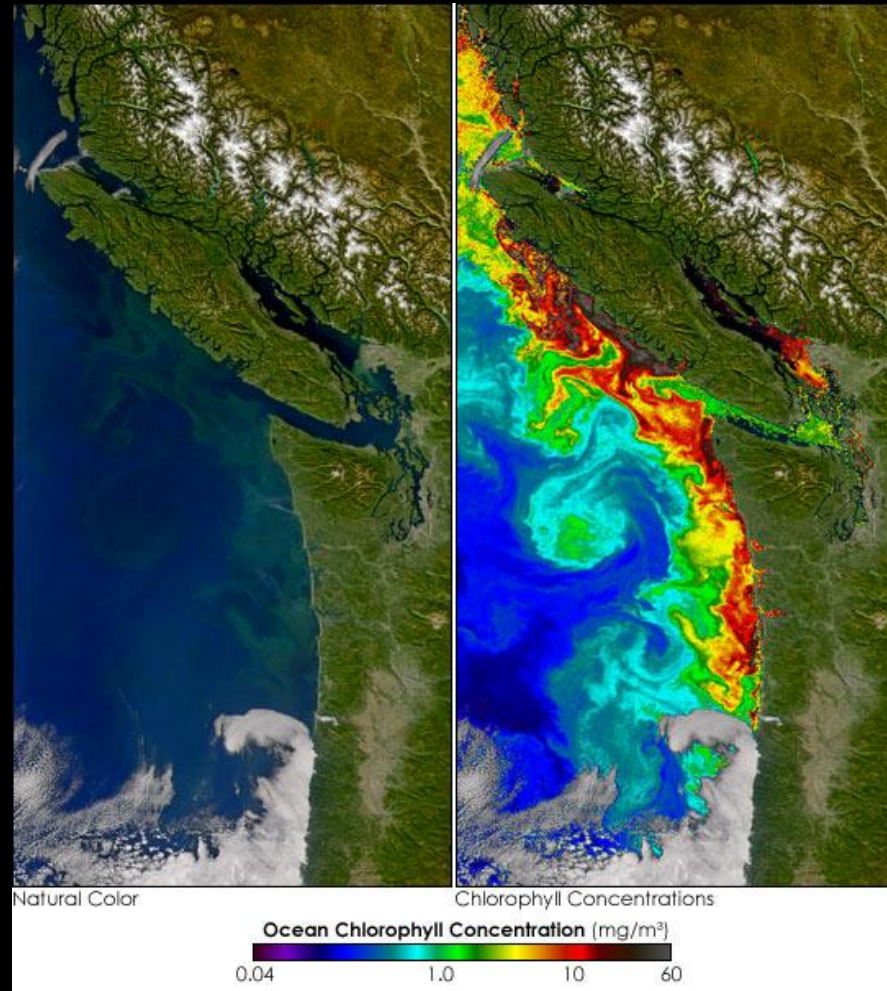
Crop Monitoring



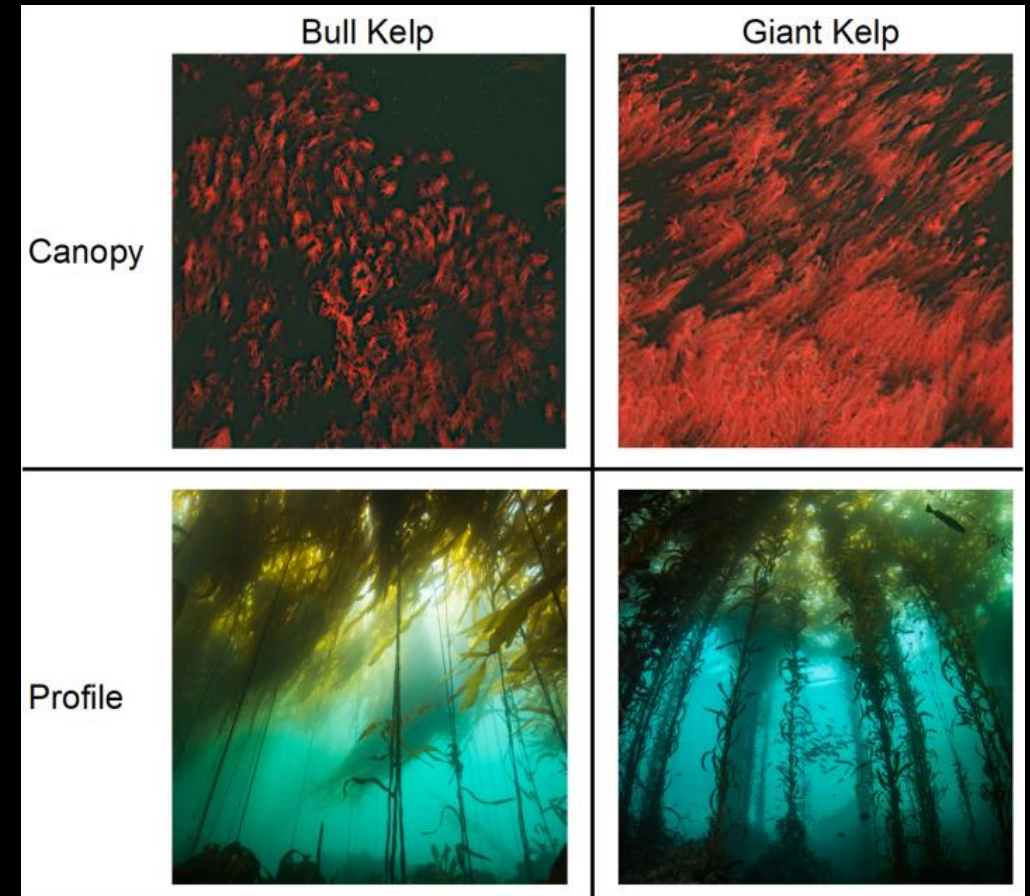
Landscape Change



# Biological Monitoring

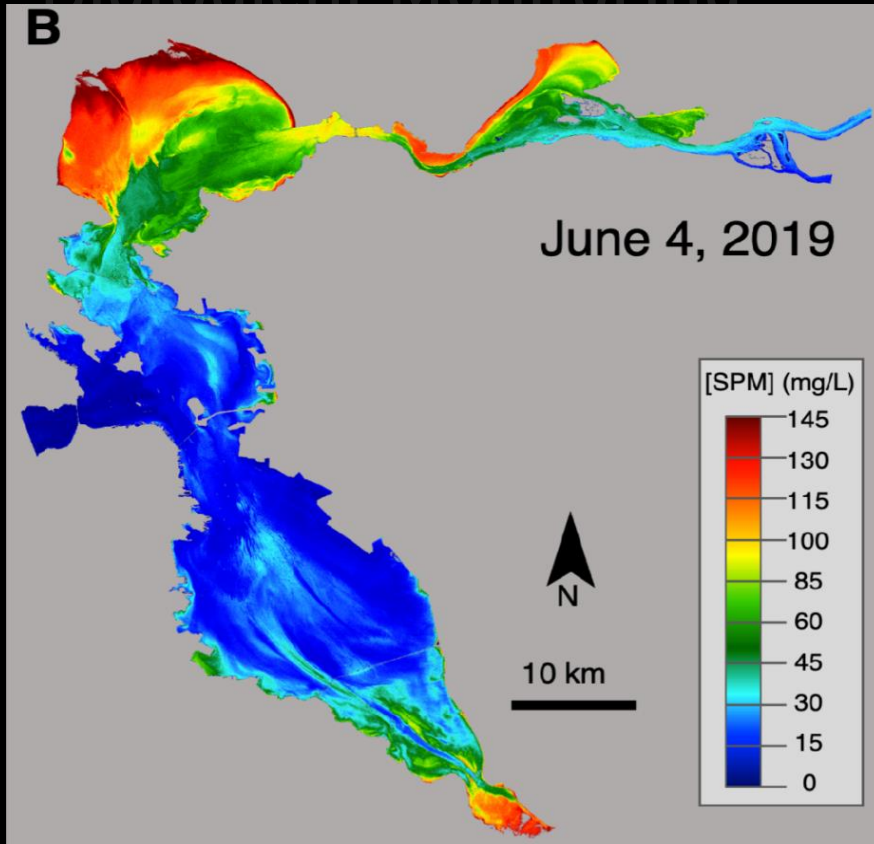


Algal Blooms

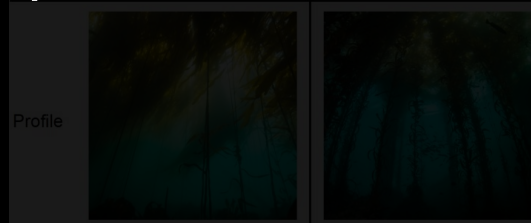


Macroalgae

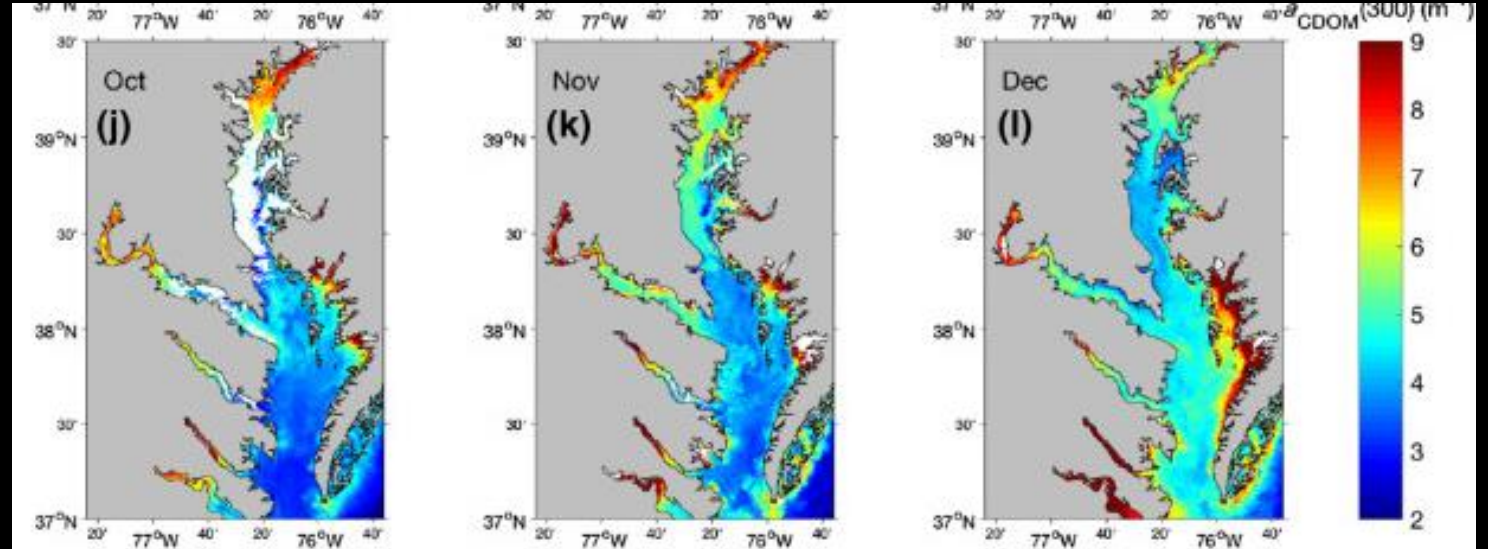
# Water Quality



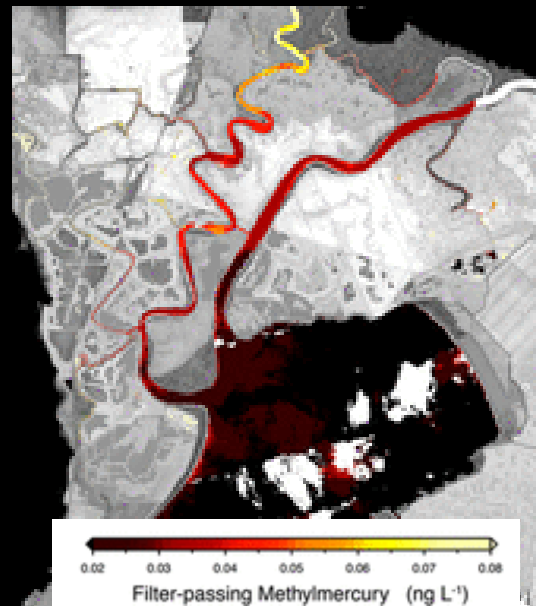
Suspended Sediments



Macroalgae



Dissolved Organics



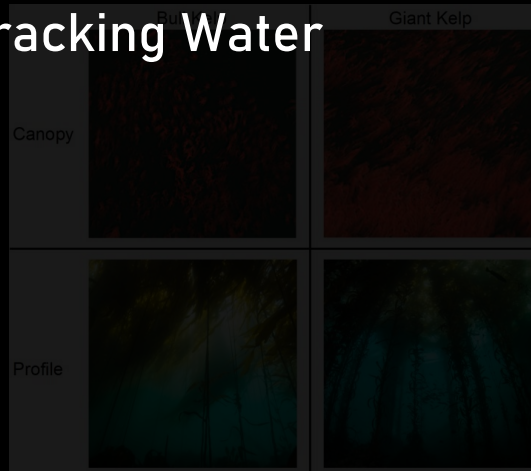
Pollutants



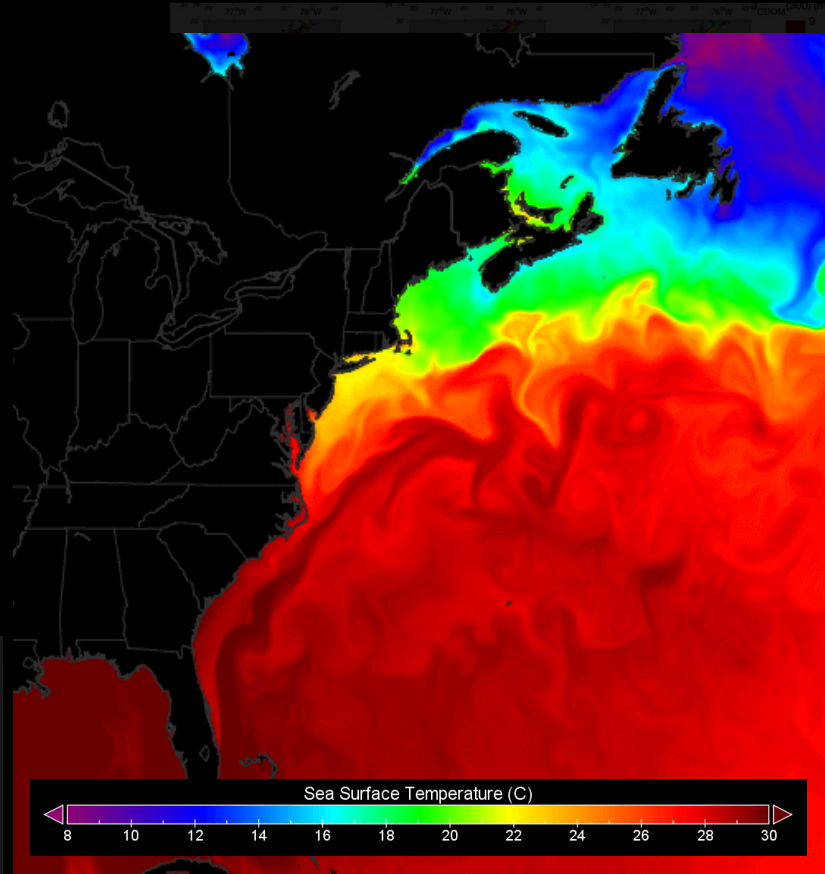
# Physical Environment



Tracking Water



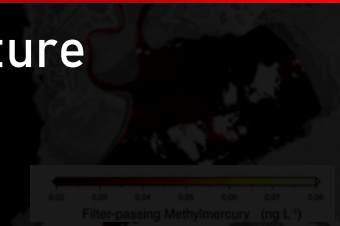
Macroalgae



Temperature



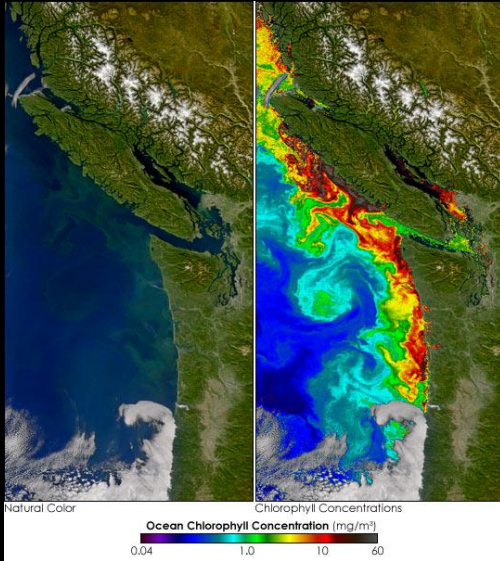
Water Levels



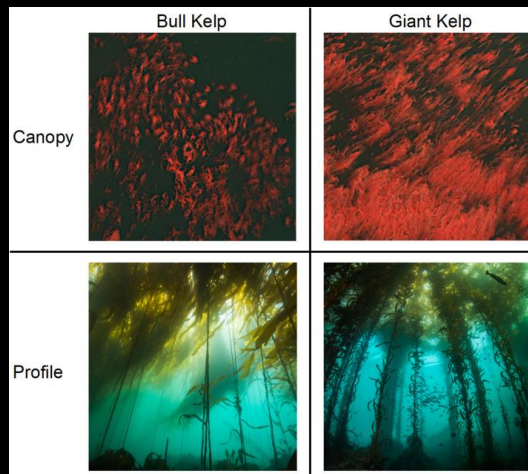
Pollutants



# Biological Monitoring

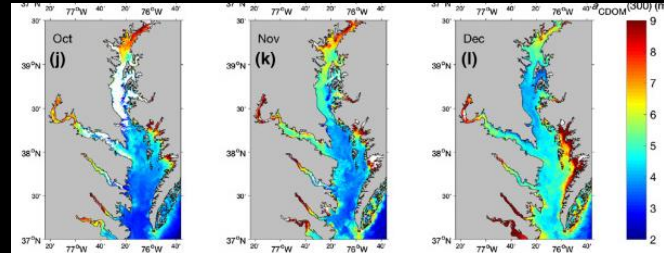


Algal Blooms

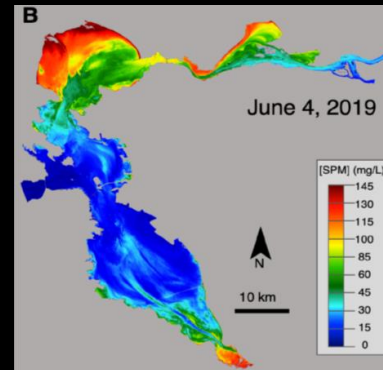


Macroalgae

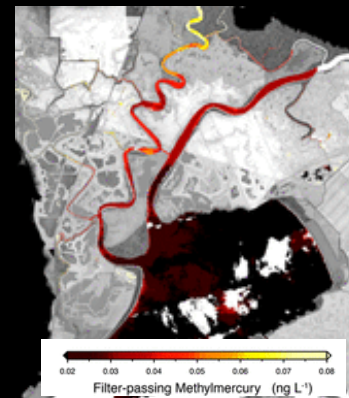
# Water Quality



Dissolved Organics



Suspended Particles

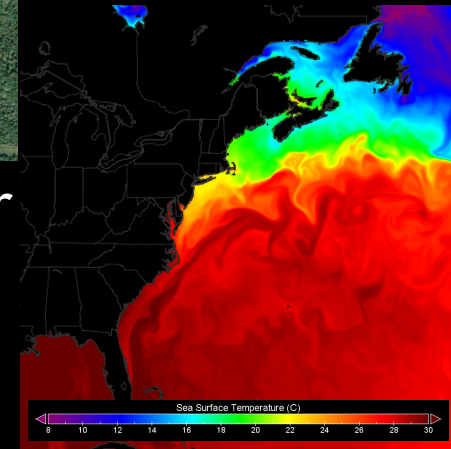


Pollutants

# Physical Environment



Tracking Water



Temperature

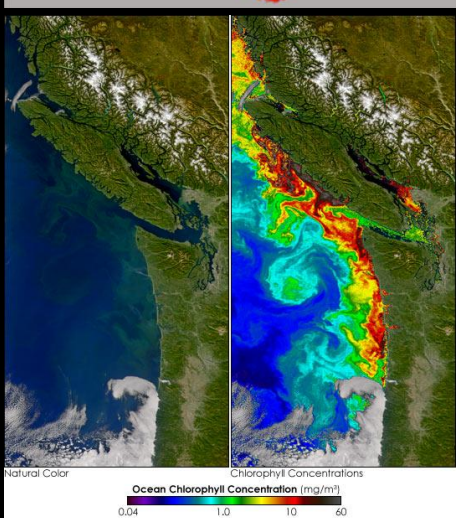
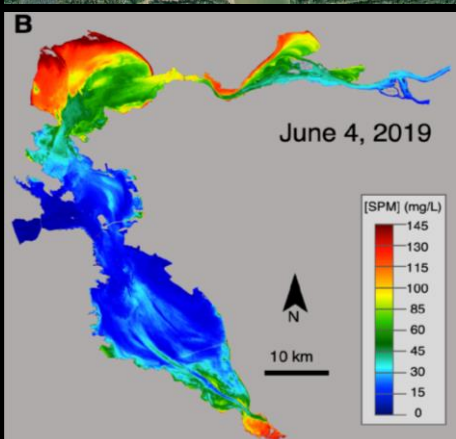


Water Levels



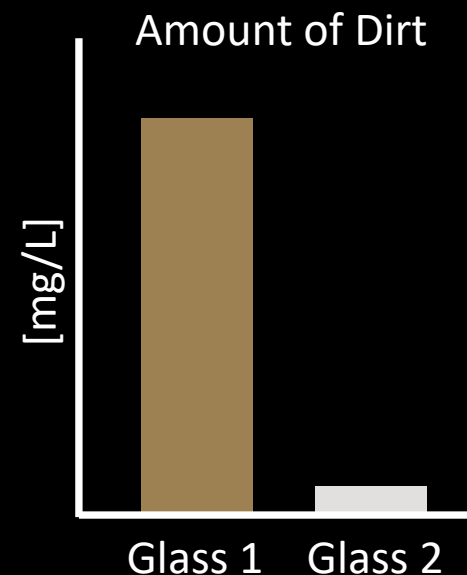
# Aquatic Remote Sensing

Translating optical properties of water to information about what is in the water.



Glass 1

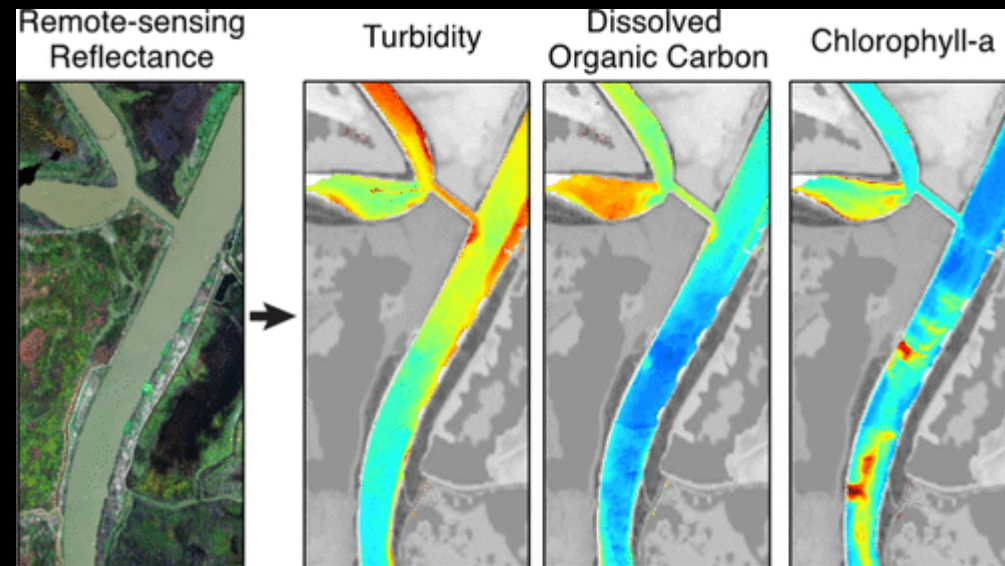
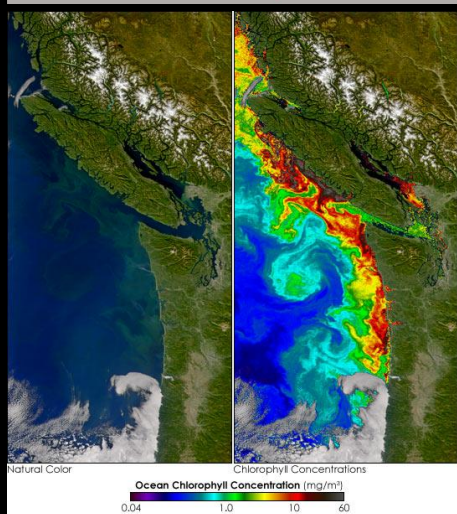
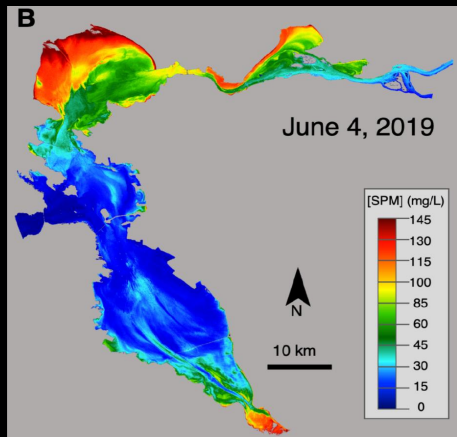
Glass 2





# Aquatic Remote Sensing

Translating optical properties of water to information about what is in the water.



Fichot et al. 2016

# Conclusions

- Remote Sensing refers to collecting information about a surface without physically sampling it
- Water color is related to biological, chemical, and physical variables
- Aquatic remote sensing uses water color to understand what is in the water

