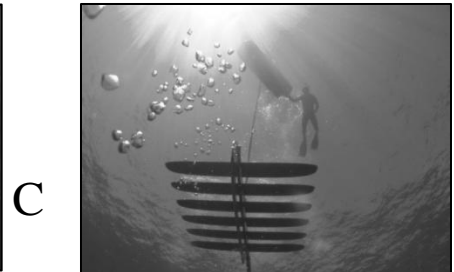
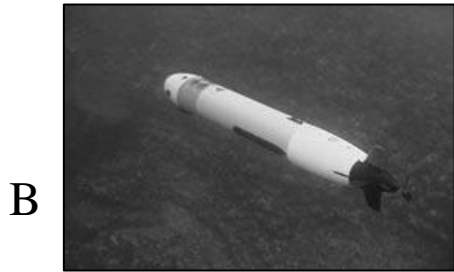
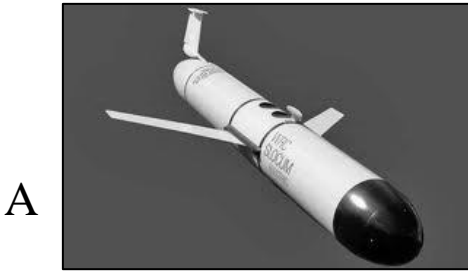


## Round: 8A

1. Identify each type of autonomous vehicle pictured below. (3 pts)



2. Describe the principles that each vehicle shown in Question 1 uses for horizontal propulsion. (6 pts)

3. From the photos in Question 1, identify which vehicle would be most appropriate for each of the following scientific missions, and state why. (9 pts)

a. Measuring near surface salinity across the Atlantic Ocean for validation of the new NASA Aquarius satellite.

b. Using sidescan sonar to map potential mine fields in a bay.

c. Mapping full depth profiles of temperature and density fields across a continental margin.

4. What type of glider has both long range (40,000 km) and endurance (5 years) using environmental energy? (2 pts)