

Supersonic Ships? Questions

Directions: after reading waves answer the following questions:

Questions:

1. As the temperature of seawater increases from 15o C to 20o C, sound velocity through the seawater–
2. The first supersonic flight was in 1947. It was just above the speed of sound. Which altitude would you expect Captain Yeager to have used for his flight?
 - a. Sea level
 - b. altitude used by commercial planes today
 - c. where meteor showers originate)
3. Which plane's velocity was greatest?
4. A torpedo is launched underwater, targeting a naval vessel about 5,000 m away. How can the vessel detect the torpedo before it reaches the vessel?
5. A Navy vessel is traveling due north during wartime. A torpedo has been launched by an enemy directly toward the stern (rear). Can the vessel outrun the torpedo if both continue in a straight line due north?
6. Why is it harder to build a supersonic ship than a supersonic airplane?

