



Course Instructions

NOTE: The following pages contain a preview of the final exam. This final exam is identical to the final exam that you will take online after you purchase the course.

After you purchase the course online, you will be taken to a receipt page online which will have the following link: [Click Here to Take Online Exam](#). You will then click on this link to take the final exam.

3 Easy Steps to Complete the Course:

- 1.) Read the Course PDF – download from our website**
- 2.) Purchase the Course Online & Take the Final Exam – see note above**
- 3.) Print Out Your Certificate**

Single Beam Acoustic Depth Measurement Techniques – Final Exam

- 1. Single beam acoustic depth sounding is by far the most widely used depth measurement technique in USACE for surveying river and harbor navigation projects.**
 - a. True
 - b. False

- 2. A transducer (9-3) converts _____ energy to acoustical pulses and vice versa:**
 - a. magnetic.
 - b. microwave.
 - c. neutrino.
 - d. electronic.

- 3. Figure 9-4 depicts a:**
 - a. Hermes 1442.
 - b. Hewlett Packard GH410.
 - c. Raytheon DE 719.
 - d. McDonnell B-17.

- 4. With regards to Depth Collection Density and Bottom Coverage, single beam echo sounders typically collect depth data at a rate of _____ soundings per second:**
 - a. 10 to 12.
 - b. 5 to 20.
 - c. 1 to 5.
 - d. 50 to 75

- 5. Correcting observed depths for the superimposed effects of vessel roll, pitch, yaw, and heave (9-6) was once perhaps the most difficult aspect of hydrographic surveying.**
 - a. True
 - b. False

- 6. From 9-7, calibration of acoustic sounding instruments is absolutely critical (and mandatory) in maintaining quality control of depth measurements.**
 - a. True
 - b. False

- 7. Considering Depth Corrections Based on Bar Check Data, there are _____ methods of performing bar checks and arriving at corrections to apply to observed depths:**
- a. only two.
 - b. no known.
 - c. no accepted.
 - d. several.
- 8. Figure 9-13 depicts the Range-Range Intersection method.**
- a. True
 - b. False
- 9. With regards to a Squat and Settlement Calibration Test (9-11), a squat test should be performed at least _____:**
- a. annually.
 - b. monthly.
 - c. weekly.
 - d. daily.
- 10. From 9-13, depth sounders are capable of recording depths at rates of 10 or more per second.**
- a. True
 - b. False