

# HUMMINBIRD SONAR TECHNICIAN



Black Laser  
Learning



SHAWNEE, KANSAS  
WITH THE SHAWNEE FIRE DEPARTMENT

JULY 27 - 28, 2021

## WHAT YOU NEED TO KNOW

**OBJECTIVE** • This course trains teams to utilize Humminbird Side Scan Sonar maximizing department financial and personnel resources for underwater search missions.

**JUSTIFICATION** • This training readies agency personnel for underwater searches using side scan sonar. Humminbird sonar units are cost effective and extremely versatile. Any response team expected to perform underwater searches benefits from this training.

**CERTIFICATION** • Humminbird Sonar Technician

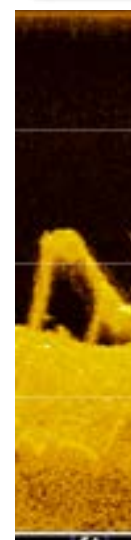
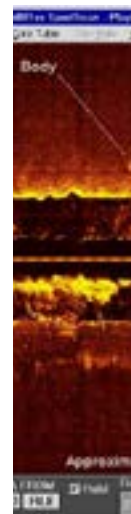
**RECOMMENDED FOR** • Anyone who responds to public safety underwater search events including divers and shore support.

**DURATION** • 2 Days / 16 training hours

**TUITION** • \$365.00 (US Funds) per student.

**BE SURE TO BRING** • US Coast Guard approved PFD with knife and whistle, adequate clothing and protection from the environment and pen and paper for note-taking and sketching.

**COURSE DEVELOPMENT** • Black Laser Learning, Inc. is a side scan and synthetic aperture sonar (SAS) technology company specializing in distilling complex technological subject matter into easy-to-understand, practical knowledge. Black Laser Learning training programs are designed for the military, Search and Rescue, and scientific communities.



## TOPICS

Sonar Technology  
Sonar Frequencies  
Range vs. Resolution  
GPS and Sonar  
Sonar Shadows and Reflectivity  
Sonar Imagery  
Searching for Evidence and Weapons  
Where to Search  
Marking Targets  
Saving Data  
Post Mission Analysis  
Mastery of the Humminbird Unit  
Field Operations

## SCHEDULE

### DAY 1 of 2

8:00-8:30 Registration  
8:30-12:00 Classroom  
12:00-1:00 Lunch  
1:00-5:00 Classroom

### DAY 2 of 2

8:00-5:00 Field Exercises



## LOCATION OF CLASS

SFD Station #72  
5840 Renner Rd  
Shawnee, KS 66217

CLASS BEGINS AT 8:00 AM

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## MAKING IT HAPPEN

- STUDENT PREREQUISITES**
- At least 18 years of age
  - Member of a public safety agency
- TRAVEL**
- Check with Dive Rescue International and confirm class before making airline reservations.
- CANCELLATION**
- Prior to 3 weeks: Full Refund
  - 8-21 days prior: 50% Refund
  - 0-7 days prior: No refund



## SUGGESTED ACCOMMODATIONS

Courtyard by Marriott  
17250 Midland Dr  
Shawnee, KS 66217

### AIRPORT

Kansas City International  
(MCI)  
35 minutes

### TO REGISTER

ONLINE  
[www.DiveRescueIntl.com](http://www.DiveRescueIntl.com)

IN PERSON OR BY POSTAL SERVICE  
201 N Link Ln  
Fort Collins, CO 80524

BY PHONE  
(800) 248 - 3483 X. 18

FAX THIS FORM  
(970) 482 - 0893



## PLEASE REGISTER ME

First Name \_\_\_\_\_ Last Name \_\_\_\_\_  
Mailing Address \_\_\_\_\_  
Best Phone \_\_\_\_\_ E-mail \_\_\_\_\_  
Department \_\_\_\_\_ Department Phone \_\_\_\_\_

Payment Information (Credit Cards will be charged or Invoices will be sent 2 weeks before class)

☐ Personal Card ☐ Department Card

Credit Card Number \_\_\_\_\_ Exp \_\_\_\_\_ CVC \_\_\_\_\_  
Billing Address \_\_\_\_\_  
Name on Card \_\_\_\_\_ Phone Number \_\_\_\_\_

☐ Invoice my Department by Postal Service ☐ Invoice by E-mail

Purchase Order Number \_\_\_\_\_ **Please provide Dive Rescue International a copy of the PO**  
Finance Department Phone Number \_\_\_\_\_  
Finance Department Billing Address \_\_\_\_\_  
Finance Department E-mail Address \_\_\_\_\_