

## SWIFTWATER/FLOOD SEARCH AND RESCUE TECHNICIAN - BOAT BOWMAN

<b>RESOURCE CATEGORY</b>	Search and Rescue
<b>RESOURCE KIND</b>	Not Specified
<b>OVERALL FUNCTION</b>	
<b>COMPOSITION AND ORDERING SPECIFICATIONS</b>	<ol style="list-style-type: none"> <li>1. This position can be ordered as a single resource or in conjunction with a NIMS typed team (Swiftwater/Flood Search and Rescue Team).</li> <li>2. Discuss logistics for deploying this position, such as security, lodging, transportation, and meals, prior to deployment</li> <li>3. This position typically works 12 hours per shift, is self-sustainable for 72 hours, and is deployable for up to 14 days</li> </ol>

Each type of resource builds on the qualifications of the type below it. For example, Type 1 qualifications include the qualifications in Type 2, plus an increase in capability. Type 1 is the highest qualification level.

COMPONENT	SINGLE TYPE	NOTES
<b>DESCRIPTION</b>	<p>The Swiftwater/Flood Search and Rescue (SAR) Technician - Boat Bowman:</p> <ol style="list-style-type: none"> <li>1. Performs in-water, paddle, and powered boat-based operations, under the direction of the Swiftwater/Flood SAR Technician - Boat Operator</li> <li>2. Performs search, rescue, and recovery in: <ol style="list-style-type: none"> <li>a. Water environments including stillwater, stillwater/flood, swiftwater, swiftwater/flood</li> <li>b. Shore, water, and boat-based rescue</li> <li>c. Situations involving human and animal rescue</li> </ol> </li> <li>3. Provides medical care to include Basic Life Support (BLS)</li> <li>4. Reports to a Swiftwater/Flood SAR Technician - Boat Operator</li> <li>5. Operates within the Incident Command System (ICS), in a specialized position within the Swiftwater/Flood SAR Team</li> <li>6. Provides: <ol style="list-style-type: none"> <li>a. Safety of self and team members</li> <li>b. Medical care of self, team members, and survivors</li> </ol> </li> <li>7. Coordinates with ground vehicles, watercraft, and aircraft for support, transportation, and evacuation</li> <li>8. Operates in environments with and without infrastructure, including those affected by disasters and terrorism; with compromised access to roadways, utilities, and transportation; and with limited availability of shelter, food, and water</li> </ol>	Not Specified
<b>EDUCATION</b>	Not Specified	Not Specified

Superseded

COMPONENT	SINGLE TYPE	NOTES
<b>TRAINING</b>	<p>Completion of the following:</p> <ol style="list-style-type: none"> <li>1. NIMS Type 1 Swiftwater/Flood SAR Technician training</li> <li>2. Global Positioning System (GPS) Land Navigation Course</li> <li>3. Operate water craft in Class 1-3 American Whitewater (AW) Section VI Safety Code, or higher, Swiftwater/Flood conditions based on: <ol style="list-style-type: none"> <li>a. Class 3, Type I, II, and III qualified in Inflatable Rescue Boat</li> <li>b. Type IV qualified in Class 1, jon boat, personal water craft, and airboat</li> </ol> </li> <li>4. Power and paddle craft use in aquatic environments</li> <li>5. Boat support, such as maintenance, trailering, and repair</li> </ol> <p>Completion of a National Fire Protection Association (NFPA), ASTM International (ASTM), or equivalent swiftwater SAR training program, Authority Having Jurisdiction (AHJ)-verified, meeting the following position-specific key skills and aptitudes:</p> <ol style="list-style-type: none"> <li>1. Assist the Boat Operator with boat handling in swiftwater/flood:</li> <li>2. Identification of safe launching, escape route and recovery sites</li> <li>3. Launch and recovery to and from swiftwater/flood</li> <li>4. Recognition of moving water characteristics and hazards</li> <li>5. Vessel limitations, hull damage, and watertight integrity</li> <li>6. Anchoring</li> <li>7. Holding station and ferry gliding</li> <li>8. Use of water features, including eddy currents and wave trough</li> <li>9. Identify the hazards and operate in shallow water</li> <li>10. Maneuvering in swiftwater/flood, including running with the flow</li> <li>11. Over ground, power turns</li> <li>12. Closing/bearing away</li> <li>13. Coming alongside moving vessels, and suction effects</li> <li>14. Demobilization/Restoration procedures, including returning equipment, reporting faults and problems</li> <li>15. Use of paddles to maneuver and control the craft, in both still and moving water</li> <li>16. Capsize avoidance and recovery</li> <li>17. Assist the Boat Operator with paddle boat handling:</li> <li>18. Use of paddles to maneuver and control the craft, in both still and moving water</li> <li>19. Capsize avoidance and recovery</li> <li>20. Assist the Boat Operator with SAR operations from powered craft</li> <li>21. Safety equipment, communication with team and other agencies</li> <li>22. Search techniques and incident management</li> <li>23. Methods of recovering personnel from water and techniques for lifting casualties</li> </ol> <p>(Continued)</p>	Identified equivalent trainings should meet or exceed course learning objectives.

Superseded

Position Qualification for Mass Search and Rescue Operations  
Search and Rescue

COMPONENT	SINGLE TYPE	NOTES
<b>TRAINING</b>	(Continued) 24. Extended reach rescue 25. Swimmer operations 26. Use of loaded lines 27. In tandem boat operations - side by side, moving a line, survivor/crew/equipment transfer 28. Towing and being towed, including length of tow lines, position to pass a tow line, using a bridle, towing alongside, and casting off a tow line 29. Approaching, righting, and dealing with entrapments from capsized vessels 30. Awareness of rescue from vehicles 31. Rescues from shore 32. Mass evacuation 33. Helicopter rescue procedures 34. Use of GPS system, map, and compass 35. Use of other specialized equipment and boat and motor support, such as maintenance, trailering, and repair 36. Assist the Boat Operator with boat handling and SAR during darkness and poor lighting conditions: a. Practical application of skills in darkness and poor light b. Demonstrate ability at keeping a proper lookout, and identifying lit and unlit hazards at night c. Conduct night SAR training operations	
<b>EXPERIENCE</b>	Completion of Swiftwater/Flood SAR Technician - Boat Bowman Position Task Book (PTB), or equivalent AHJ documentation	NFPA 1006: Standard for Technical Rescue Professional Qualifications, and NFPA 1670: Standard on Operations and Training for Technical Search and Rescue Incidents address additional Knowledge, Skills, and Abilities.
<b>PHYSICAL/MEDICAL FITNESS</b>	1. Performs duties under arduous circumstances characterized by working consecutive 12-hour days under physical and emotional stress for sustained periods of time 2. Meets minimum physical fitness and swimming standards, in accordance with the AHJ's Job Related Physical Ability Test (JRPAT) 3. Maintains AHJ-determined physical fitness standards suitable for the environment and typing; NFPA 1582 Standard on Comprehensive Occupational Medical Program for Fire Departments meets or exceeds this physical fitness standard 4. Maintains immunizations in accordance with the U.S. Department of Health and Human Services Centers for Disease Control and Prevention recommended adult immunization schedule for the United States of America	Not Specified
<b>CURRENCY</b>	1. Annual refresher of related SAR skills and abilities in water environments 2. Functions in this position during an operational incident, planned event, participation in exercise, drill, or simulation once every three years or at the AHJ's determination 3. Background checks as applicable law permits or requires	Provider must carry out and use any background checks as applicable law specifies. This may include a background check completed within past 12 months; sex-offender registry check; and a local, state, and a local, state, and national criminal history.

Superseded



Position Qualification for Mass Search and Rescue Operations  
Search and Rescue

COMPONENT	SINGLE TYPE	NOTES
PROFESSIONAL AND TECHNICAL LICENSES AND CERTIFICATIONS	AHJ-required BLS-level medical care certification or recertification	The AHJ determines the emergency medical certifications the technician needs to meet the minimum criteria, which can include first aid, cardiopulmonary resuscitation (CPR), and BLS.

Superseded

## NOTES

Nationally typed resources represent the minimum criteria for the associated category.

## REFERENCES

1. FEMA, NIMS 508: Swiftwater/Flood Search and Rescue Team
2. FEMA, NIMS 509: Swiftwater/Flood Search and Rescue Technician
3. FEMA, NIMS 509: Swiftwater/Flood Search and Rescue Team Leader
4. FEMA, NIMS 509: Emergency Medical Technician
5. American Whitewater (AW), Safety Code of American Whitewater, 2005
6. ASTM International (ASTM) F2890: Standard Guide for Hazard Awareness for Search and Rescue Personnel, 2012
7. National Fire Protection Association (NFPA) 1006-2013: Standard for Technical Rescuer Professional Qualifications, 2013
8. NFPA 1582-2013: Standard on Comprehensive Occupational Medical Program for Fire Departments, 2013
9. NFPA 1670-2014: Standard on Operations and Training for Technical Search and Rescue Incidents, 2014
10. NFPA 1983-2012: Standard on Life Safety Rope and Equipment for Emergency Services, 2012
11. National Search and Rescue Committee, Catastrophic Incident Search and Rescue (CISAR) Addendum to the National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue Manual, v. 3, June 2012
12. National Wildfire Coordination Group (NWCG), National Incident Management System Wildland Fire Qualification System Guide, PMS 310-1, Physical Fitness Levels, October 2016
13. Occupational Health and Safety Administration (OSHA) 29 Code of Federal Regulations (CFR) Part 1910.120: Hazardous Waste Operations and Emergency Response, latest edition adopted
14. OSHA 29 CFR Part 1910.134: Respiratory Protection, latest edition adopted
15. OSHA 29 CFR Part 1910.146: Permit-Required Confined Spaces, latest edition adopted

Superseded