

## HELICOPTER/ROTARY WING SEARCH AND RESCUE (SAR) TEAM

<b>DESCRIPTION</b>	The Helicopter/Rotary Wing Search and Rescue (SAR) Team is equipped to conduct helicopter-based search, rescue and recovery operations
<b>RESOURCE CATEGORY</b>	Search and Rescue
<b>RESOURCE KIND</b>	Team
<b>OVERALL FUNCTION</b>	<p>This team:</p> <ol style="list-style-type: none"> <li>Provides air SAR using rotary wing aircraft during day or night under Visual Meteorological Conditions (VMC)</li> <li>Completes SAR personnel insertion or extraction and SAR equipment transport</li> <li>Performs air SAR that includes technical rescues, hoist or short-haul techniques, specialized helicopter operations in all water environments such as swiftwater and evacuation</li> <li>Provides medical care that includes Basic Life Support (BLS) and transport to Advanced Life Support (ALS) providers</li> <li>Operates in environments with or without infrastructure, including those with compromised access to roadways, utilities, transportation or medical facilities and with limited availability to shelter, food and water</li> </ol>
<b>COMPOSITION AND ORDERING SPECIFICATIONS</b>	<ol style="list-style-type: none"> <li>Discuss logistics for deploying this team, such as working conditions, length of deployment, security, lodging, transportation and meals, prior to deployment</li> <li>Discuss additional requirements prior to deployment, including: <ol style="list-style-type: none"> <li>Communications beyond the resource's intra-team communications, such as command, logistics, aircraft and military</li> <li>Additional specialized personnel, such as advanced medical personnel, animal SAR personnel or helicopter support personnel</li> <li>Any contaminated environments and related personal protective equipment (PPE), respiratory protection, clothing and equipment</li> </ol> </li> <li>Deploys with a full complement of personnel, unless requested otherwise and the requestor provides a Flight Observer</li> <li>Hours per shift and duration must comport with Federal Aviation Administration (FAA) regulations</li> <li>Personnel numbers listed reflect those reasonably necessary to conduct operations safely; agreement between the requestor and provider can adapt team positions within the personnel numbers</li> <li>The requestor should base the number of requested aircraft on the nature and magnitude of mission, logistics, intensity of demand and duration of service activity</li> <li>The requestor determines and specifies mission operations under Instrument Flight Rules (IFR) or using night vision goggles (NVG)</li> <li>The requestor should specify special environmental capabilities and load needs during ordering</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	TYPE 1	TYPE 2	TYPE 3	TYPE 4	NOTES
<b>MINIMUM PERSONNEL PER TEAM</b>	5	4	Same as Type 4	3	Not Specified
<b>MANAGEMENT AND OVERSIGHT PERSONNEL PER TEAM</b>	Same as Type 2	Same as Type 3	Same as Type 4	Same as Type 5	Pilot should have training for NVG use and have a rating to operate in IFR conditions

## Resource Typing Definition for Mass Search and Rescue Operations Search and Rescue

COMPONENT	TYPE 1	TYPE 2	TYPE 3	TYPE 4	NOTES
<b>SUPPORT PERSONNEL PER TEAM</b>	Same as Type 2, PLUS: 1 - NIMS Type 1 Emergency Medical Technician (EMT)	Same as Type 3, PLUS: 1 - NIMS Type 1 Helicopter SAR Crew Chief	Same as Type 4	Same as Type 5, PLUS: 1 - NIMS Type 1 Helicopter SAR Technician	1. Crew Chief and Technician should have training for NVG operations 2. Flight Observer is not a NIMS-typed support position and the requestor should acquire locally. The position is not a part of the crew and does not deploy with the aircraft
<b>FUNCTIONS CAPABILITY PER TEAM</b>	Same as Type 2, PLUS: 1. Multi-engine 2. Capability to provide medical attention for at least two persons being transported	Same as Type 3, PLUS: 1. Night operations 2. IFR capable 3. NVG capable	Same as Type 4	Same as Type 5, PLUS: 1. Rescue capability 2. Ability to transport at least two persons, one of which can be in a litter	Only crew members with certification in accordance with Authority Having Jurisdiction (AHJ) requirements may administer medical care, including BLS
<b>OPERATIONS EQUIPMENT PER TEAM</b>	Same as Type 2	Same as Type 3, PLUS: 1. NVG 2. IFR equipment	Same as Type 4, PLUS: Access, rescue and recovery equipment, including: 1. Air rescue litter 2. Straps 3. Baskets 4. Human cargo hoist 5. Dual external hooks or hook and harness/ backup 6. BLS level care and equipment	Same as Type 5, PLUS: 1. Human cargo dual external hooks or hook and harness/ backup 2. One litter or ability to carry one person flat	Recommend for daylight search only unless the aircraft is equipped with a thermal imager, search light or NVG certified/capable aircraft for night searches
<b>COMMUNICATIONS EQUIPMENT PER TEAM</b>	Same as Type 2, PLUS: Dual VHF aviation radios	Same as Type 3	Same as Type 4	Same as Type 5	1. Intra-team and inter-team communications should be consistent with National Interoperability Field Operations Guide (NIFOG) 2. Consider alternate forms of communication, such as satellite phones, based on the mission assignment and team needs
<b>PERSONAL PROTECTIVE EQUIPMENT (PPE) EQUIPMENT PER TEAM MEMBER</b>	Same as Type 2	Same as Type 3	Same as Type 4	Same as Type 5	PPE is mission specific and may vary by working environment; it includes protective footwear, protective clothing for skin exposure, eye and ear protection, respirators, gloves and masks

## Resource Typing Definition for Mass Search and Rescue Operations Search and Rescue

COMPONENT	TYPE 5	NOTES
<b>MINIMUM PERSONNEL PER TEAM</b>	2	Not Specified
<b>MANAGEMENT AND OVERSIGHT PERSONNEL PER TEAM</b>	1 - National Incident Management System (NIMS) Type 1 Helicopter SAR Pilot	Pilot should have training for NVG use and have a rating to operate in IFR conditions
<b>SUPPORT PERSONNEL PER TEAM</b>	1 - Flight Observer	1. Crew Chief and Technician should have training for NVG operations 2. Flight Observer is not a NIMS-typed support position and the requestor should acquire locally. The position is not a part of the crew and does not deploy with the aircraft
<b>FUNCTIONS CAPABILITY PER TEAM</b>	1. Search only 2. Aircraft may be multi- or single-engine 3. Operates under Visual Flight Rules (VFR) 4. Day operations only	Only crew members with certification in accordance with Authority Having Jurisdiction (AHJ) requirements may administer medical care, including BLS
<b>OPERATIONS EQUIPMENT PER TEAM</b>	1. Aviation Global Positioning System (GPS) equipped 2. Equipment suitable for day operations 3. Portable Basic First Aid equipment 4. Gyro-stabilized handheld binoculars 5. Spare batteries	Recommend for daylight search only unless the aircraft is equipped with a thermal imager, search light or NVG certified/capable aircraft for night searches

COMPONENT	TYPE 5	NOTES
<b>COMMUNICATIONS EQUIPMENT PER TEAM</b>	<ol style="list-style-type: none"> <li>Two-way handheld radios</li> <li>Portable radios with ground to air capability</li> <li>Single Very High Frequency (VHF) aviation radio</li> <li>Programmable VHF/Ultra High Frequency (UHF) P25 Radio for air-to-ground communications</li> <li>Marine band radio</li> <li>Electronic direction finder</li> <li>Mobile phones and waterproof bag</li> <li>Handi-mikes or ear/headsets</li> </ol>	<ol style="list-style-type: none"> <li>Intra-team and inter-team communications should be consistent with National Interoperability Field Operations Guide (NIFOG)</li> <li>Consider alternate forms of communication, such as satellite phones, based on the mission assignment and team needs</li> </ol>
<b>PERSONAL PROTECTIVE EQUIPMENT (PPE) EQUIPMENT PER TEAM MEMBER</b>	<p>Minimum PPE, including:</p> <ol style="list-style-type: none"> <li>Aviation Life Support Equipment (ALSE) in accordance with AHJ definitions and commensurate with the operating environment</li> <li>Flight helmet and other helmets</li> <li>Headlamps</li> <li>Eye and hearing protection</li> <li>Respiratory protection</li> <li>Uniforms, gloves and other protective clothing</li> </ol>	<p>PPE is mission specific and may vary by working environment; it includes protective footwear, protective clothing for skin exposure, eye and ear protection, respirators, gloves and masks</p>

## NOTES

Nationally typed resources represent the minimum criteria for the associated component and capability.

## REFERENCES

1. FEMA, NIMS 509: Helicopter Search and Rescue (SAR) Pilot
2. FEMA, NIMS 509: Helicopter Search and Rescue (SAR) Crew Chief
3. FEMA, NIMS 509: Helicopter Search and Rescue (SAR) Technician
4. FEMA, NIMS 509: Emergency Medical Technician
5. FEMA, National Incident Management System (NIMS), October 2017
6. ASTM International (ASTM) F2209: Standard Guide for Training of Level I Land Search Team Member
7. National Fire Protection Association (NFPA) 1006: Standard for Technical Rescuer Professional Qualifications, 2021
8. NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments, 2022
9. NFPA 1670: Standard on Operations and Training for Technical Search and Rescue Incidents, 2017
10. NFPA 1983: Standard on Life Safety Rope and Equipment for Emergency Services, 2017
11. National Wildfire Coordinating Group (NWCG), Standards for Helicopter Operations, 2023
12. FAA 14 CFR Part 139.319: Aircraft rescue and firefighting: Operational requirements
13. U.S. Department of Homeland Security, NIFOG, March 2022
14. U.S. Department of the Interior (DOI), Helicopter Short-Haul Operations Plan February 2023