EMERGENCY RESPONSE AIRCRAFT SOURCE LIST – MINNESOTA



PURPOSE:

This document provides a source list of emergency response aviation assets in Minnesota. These emergency response aircraft are operated by various agencies and are based throughout the state.

Information includes emergency response aircraft capabilities, limitations, contact information, mobilization process and procedures. This information is provided to assist Incident Management Teams, Dispatchers, and State and Federal land management agencies to plan for and respond to requests for medical emergencies in remote locations.

Some of the aircraft are capable of conducting human extractions (hoist, short haul) for emergency evacuations. Both insertion/extraction techniques are used to precisely place emergency response personnel and also remove critically injured victims from normally inaccessible terrain.

MISSION GOALS:

1. **Provide on-scene emergency medical treatment.**
    a. **Establish and manage landing areas for EMS Helicopters**
    b. **Deliver medical equipment and/or personnel**
2. **Provide emergency aerial transportation from remote site to:**
    a. **Staging area to meet ambulance / medical personnel.**
    b. **Staging area to transfer patient to EMS Helicopter.**
    c. **Hospital via direct flight.**

EMERGENCY RESPONSE AIRCRAFT SOURCE LIST – MINNESOTA

Aircraft	Ambulatory	Non-Ambulatory	Rappel	Short Haul	Hoist	Remote Landing Areas	Water Landings	Hover Exit	Cargo Drop
EMS Helicopters	X	X				X			
State Patrol Helicopters	X		X	X		X			
MN ARNG Helicopters	X	X			X	X			
DNR Helicopters	X					X		X	X
DNR Enforcement	X					X			
USFS Helicopters	X					X			
USFS Beavers	X	X					X		
DNR CL-215's	X	X					X		
ON MNR Helicopters	X					X		X	

EMS HELICOPTERS



EMS HELICOPTER COMMUNICATION PLAN

VHF-AM	ARMER (800MHz)	VHF-FM
123.025	Talkgroup As Assigned	**"National EMS" (VMED28) 155.3400 (N) tone Tx 156.7**
		"MINSEF" (VLAW31) 155.4750 (N) tone Tx 156.7

- **Air-Air**
  - **Airspace coordination on VHF-AM**
- **Air-Ground**
  - **Helicopters are capable of both, ARMER (800MHz) and VHF-FM**
  - **Personnel involved in EMS helicopter operations – use the assigned 800MHz Talkgroup or VHF-FM (VMED28) as available and directed.**
  - **2014 - Statewide standard in MN is normally on ARMER**
  - **911 Dispatcher can coordinate and confirm A-G frequency**

<u>To Request Assistance</u>:

- **Call 911 or First Responders / Ambulance Medical personnel should order through their county dispatcher.**

<u>Uses</u> - EMS helicopter's primary function is to land at the incident scene to pick up patient and transfer them to a hospital.

- **EMS helicopters may be available for prepositioning at a large incident for quick response.**

<u>Landing Areas:</u>

- **Refer to the attached Helicopter Landing Zone (LZ) Requirement Guide**
- **Relay GPS Coordinates in Degrees, Minutes & Seconds (dd^{o}-mm'-ss")**
- **If LZ requirements cannot be created on scene, the patient may need to be relocated to a suitable site.**
  - **Relocation can be by ground using crews or vehicles**
  - **Relocation can be with a short haul/hoist operations aircraft**

EMS HELICOPTERS THAT PROVIDE SERVICE IN MINNESOTA

Company	LifeLink III
Home Office	Minneapolis, MN
Phone Number	612-638-4900
Dispatch Number	800-328-1377
Helicopters	Bell 407's / AW 119
Avionics	AM, FM, 800MHz
Locations	Hibbing, Willmar, Anoka, Alexandria; Rice Lake, WI

Company	Mayo Medical Transport
Home Office	Rochester
Phone Number	507-255-5459
Dispatch Number	800-237-6822
Helicopters	EC-145's and BK-117's
Avionics	AM, FM, 800MHz
Locations	Mankato, Rochester; Eau Claire, WI

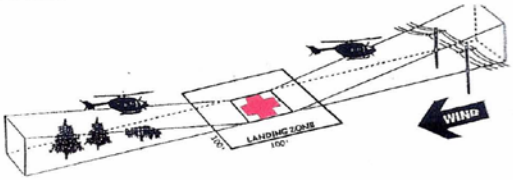
Company	North Memorial
Home Office	Brooklyn Center
Phone Number	763-520-5357
Dispatch Number	800-247-0229
Helicopters	Augusta 109's
Avionics	AM/FM/800
Locations	Brainerd, Bemidji, Princeton, Redwood Falls, Lakeville

Company	Sanford Hospital
Home Office	Fargo, ND
Phone Number	701-234-6054
Dispatch Number	800-952-2229 (Fargo-800-437-6886)
Helicopters	EC-145
Avionics	AM/FM/800
Locations	Bemidji; Fargo, ND; Sioux Falls, SD

Helicopter Landing Zone (LZ) Requirements Guide

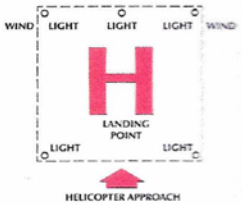
General

- Parking lots, ball fields, multi-lane highways, road intersections and open fields.
- Minimum dimensions 100′ x 100′ day and night.
- Landing surface flat, clear of people, vehicles, rubbish, stumps, brush, fences, and large rocks.
- The immediate area surrounding the landing zone should be clear of trees, poles, wires and other hazards.
- Landing direction should be generally into the wind.



Marking the LZ - Use of Lights

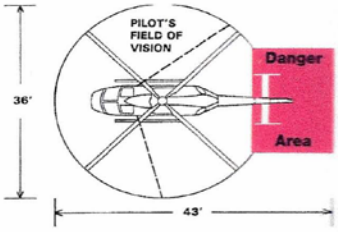
Illuminating the LZ is a requirement for night operations. The following illumination guidelines must be followed:



- Mark the four corners of LZ with lights. Place a fifth light on the side of the LZ that the wind is blowing from.
- Searchlights can be used to illuminate hazards such as power poles, high trees or wires.
- Keep high beam lights off. Do not point searchlights or flashlights at the helicopter. Bright lights directed at the aircraft can temporarily blind the pilot. Strobe lights, if used, should be turned off after the pilot has identified the LZ.

Protection of Personnel

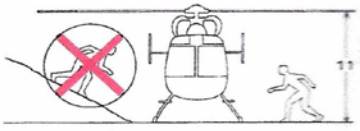
- Keep spectators at least 200′ from the LZ.
- Emergency services personnel should remain 100′ from the LZ.
- Have fire equipment standing by if available.
- Secure all loose equipment and shield patients from blowing debris.
- Have everyone working near the LZ wear eye protection.



General Helicopter Safety Rules

- Never approach a helicopter unless requested to do so by the pilot.
- When approaching the aircraft, approach from the sides of the aircraft within view of the pilot. Unless told to do otherwise by the pilot, depart along the same path followed to approach the helicopter.
- Never approach or depart the rear of the helicopter.
- Crouch low as you walk under the main rotor blades when approaching and departing the aircraft.
- Keep any carried equipment at shoulder height or below.
- Never approach the aircraft from an upslope position, i.e. never travel down hill to the helicopter.
- Never run near the helicopter.
- Smoking is not authorized in any LZ.





The most important safety consideration is to THINK before you ACT!

Landing Zone Officer (LZO) Responsibilities Guide

The Landing Zone Officer, (LZO) is designated by the incident commander. The LZO is responsible for establishing a safe Landing Zone, (LZ) and for providing security around the LZ while the helicopter is operating in its vicinity. Specifically, the LZO must:

Prior to the Helicopter's Arrival

- Determine the overall suitability of the LZ using the Helicopter Landing Zone, (LZ) Requirements Guide.
- If possible, select a location for the LZ, which will not block access to the scene by other emergency vehicles. If the only suitable area available will block access, the helicopter may have to take off and orbit or reposition to another area while the medical crew prepares the patient for transport.
- Ensure that the location of the LZ has been accurately forwarded to air medical dispatch.
- Forward to air medical dispatch the LZO's radio frequency and callsign.
- Position available personnel around the LZ, so that 360 degrees of security is present for the entire period the helicopter is at the LZ.
- At night, position lights around the LZ. Inspect lights at the scene so that none will interfere with the pilot's vision.
- Inspect the LZ area for hazards.

As the Helicopter Approaches

Once the pilot has contacted the LZO, (normally when the helicopter is 10 minutes from landing), the LZO should:

- Give the pilot an accurate description of the LZ's location using readily identifiable manmade landmarks and terrain features.
- Describe for the pilot the LZ environment. Advise the pilot if obstacles such as power poles, tall trees, wires or other natural or manmade hazards are present.
  NOTE - POWERLINES ARE VIRTUALLY IMPOSSIBLE TO SEE AT NIGHT
- Inform the pilot what direction the wind is blowing from. Ideally, a helicopter should land and depart into the wind.
- Describe the surface of the landing area, i.e. loose dirt or sand, hard pavement, high grass, packed snow. The pilot will use a particular landing method based on the surface condition of the LZ.
- Only after security has been established and the LZ is clear, advise the pilot: **"THE LANDING ZONE IS SECURE"**

While the Helicopter is Landing and On the LZ

- The LZO should inform the pilot to abort the landing if an unsafe situation develops in the vicinity of the LZ during the helicopter's approach. Remember that the pilot has the ultimate authority to determine whether to abort or continue a landing.
- Once the helicopter is on the ground, security must be maintained around the LZ, and radio communication must be maintained with the pilot. No one should approach the helicopter unless requested to do so by the pilot.
- If a delay is anticipated in departing with the patient, the pilot may elect to shut the aircraft down. Under normal circumstances, the pilot will only shut the aircraft down if the LZ is in an area that does not block traffic or does not place the aircraft, its crew or personnel on the ground at risk.
- If the aircraft is shut down, security must still be provided to keep bystanders away from the LZ.

Loading and Departure

- Confirm to the pilot that the LZ is still secure.
- Advise the pilot of any known hazards in the departure path of the helicopter.
- The LZ should be kept secure until the aircraft is airborne and enroute to the medical facility. If the helicopter should develop any difficulty, which would necessitate an urgent landing, the LZ would likely be the safest area immediately available.

MN DEPT. OF PUBLIC SAFETY - STATE PATROL

Helicopters -



- **Trooper 8 – Bell 407**
  - **Location - St. Paul**
  - **Capabilities - Rappel / Short Haul**
- **Trooper 9 – Bell 206L 4**
  - **Location - St. Paul / Brainerd**
  - **Capabilities - Rappel / Short Haul**
- **Trooper 7 – Bell 206L 1**
  - **Location - St. Paul / Brainerd**
  - **Capabilities - Rappel**

Avionics - AM/FM/800 MHz

Capabilities - The State Patrol utilizes members of the St. Paul Fire Dept. for rappel and short-haul. They have one paramedic on each crew. The other crewmembers are EMT's. These firefighters are their Technical Rescue Team. They are trained to do high-risk procedures such as bluff rescues.

- **Rappel - Remote site operation that delivers trained medical staff to the scene from a hovering helicopter.**
- **Short Haul – Remote site operation where patient litter is attached to a long-line that is attached to a helicopter and is lifted a short distance to a more suitable scene for treatment or transfer.**

To Request Immediate Assistance – Contact State Patrol Dispatch Center- 651-582-1509

For Wildfire Response Planning – Contact the MIFC Aviation Desk - 218-327-4582.

Contact Information – MN State Patrol Aviation - St. Paul Holman Field, 651-296-3170. Dispatcher is Jaime (hi-mee) Santiago.

MINNESOTA ARMY NATIONAL GUARD (MN ARNG)



Helicopters – Blackhawks (UH-60)

Avionics - AM/FM/800MHz

Location - Holman Field, St. Paul

Capabilities - 2 units have Goodrich Hoists with a capacity of 600 lbs. and 250' of cable. Typical response time may be 4 or more hours. Flight Medics are part of the personnel complement in hoist operations. Upon ordering the MN ARNG you must specify that needs are for a hoist operation and which type of Flight Medic you require.

Requests should be made for a defined window of time. Long durations of stand-by are normally not acceptable.

Hoist Operations – Remote site operation where patient litter is attached to a cable that is lowered from a winch inside the helicopter. The helicopter hovers overhead while crewmembers are lowered to the scene, secure the patient in the litter, then the litter is lifted back to the helicopter for transport to a more suitable scene for treatment or transfer.

To Request Assistance - Contact the MIFC Aviation Desk at 218-327-4582. They should coordinate the dispatch of all MN ARNG assets. A Governor's Executive Order is required to activate the MN ARNG.

Contact Information – MN ARNG - St. Paul Holman Field, 651-281-2404

MN DNR Forestry - Contract Helicopters

Helicopters **-Type III- Light & Intermediate**

Bell 206 B-III, Hughes 500 D,

206 L-1, 206 L-3, 206 L-4,

EC-130 B2



Avionics **- AM/FM/800 MHz**

Capabilities **- Most are limited to delivering Helitack crews to helispots near the scene to improve helispots for EMS helicopter. They could also transport non-ambulatory victims to a staging area or hospital. Some pilots and crews are certified for hover- exit operations.**

Hover-Exit **- Helitack crew can depart the aircraft when the skids are 1'to 3'from the ground, or when the skids are touching a surface (example: a bog) that does not have adequate weight bearing capacity to allow normal landing. During this time the helicopter must remain under power (power-on landing).**

Cargo Drop **- Helicopters can hover close to the ground while trained Helitack personnel drop equipment such as chainsaws, medical supplies, trauma kits, etc. to ground personnel at the scene so they can improve the helispot or use medical equipment for patient treatment.**

To Request Assistance **- Contact the MIFC Aviation Desk at 218-327-4582. They should coordinate the dispatch for the closest, most qualified and available helicopter.**

MN DNR - Division of Enforcement





Fixed Wing Aircraft	Helicopters
4- Cessna 185's	2- OH-58
2- American Champion Scouts	1- Enstrom 480B

Avionics - AM/FM/800 MHz

Capabilities - Primarily used for aerial Search and Rescue Operations – Helicopters could be used for delivering Helitack crews to helispots near the scene to improve helispots for EMS helicopter. Helicopters could also transport non-ambulatory victims to a staging area or hospital.

To Request Assistance - Contact the MIFC Aviation Desk at 218-327-4582. They should coordinate the dispatch for the closest, most qualified and available helicopter.

U S F S - Superior National Forest

Fixed Wing Aircraft –

DHC-2 (DeHavilland Beaver)



Beaver 1

Beaver 2

Beaver 3

Location - Seaplane base on Shagawa Lake in Ely, MN

Avionics - AM/FM

Capabilities - Beavers are configures with floats in the summer and wheels/skis in the winter. Aircraft doors and seats can be removed to accommodate stretchers for a medevac flight. Beavers can carry 5 passengers and up to 2,000 lbs. They can also carry external loads, such as canoes. The plane could transport the patient or rescue victims to a nearby seaplane base or airport.

Helicopters -Type III- Light & Intermediate



Bell 206 B-III, 206 L-4

Avionics - AM/FM

Capabilities - Most are limited to delivering Helitack crews to helispots near the scene to improve helispots for EMS helicopter. They could also transport non-ambulatory victims to a staging area or hospital.

To Request Assistance- Contact Superior Dispatch at 218-327-4175. They should coordinate the request, briefings and dispatch of aircraft.

MN DNR - Division of Forestry

Fixed Wing Aircraft – **CL-215's**

T-263

T-266



Avionics - **AM/FM/800 MHz**

Capabilities - **CL-215's are amphibious aircraft that could land on water and make an emergency retrieval of personnel if no other means is available. This type of retrieval would only be used in life-threatening situations, and would require detailed briefings. A portion of the briefing should include a thorough risk assessment and analysis of the operation. The landing/take-off requirement for 215's is approximately one mile of water surface. The plane could transport the patient or rescue victims to a nearby airport.**

To Request Assistance - **Contact the MIFC Aviation Desk at 218-327-4582. They should coordinate the request, briefings and dispatch of aircraft.**

Ontario Ministry of Natural Resources - ONMNR

Helicopters - Euro copter EC-130 B4



Location – Thunder Bay or Fort Frances, ON

Avionics - AM/FM

Capabilities - Pilots and Helitack crews are certified for Hover-Exit operations.

Hover- Exit - Helitack crew can depart the aircraft when skids are 1'– 3' from the ground, or when the skids are touching a surface, like a bog, that does not have adequate weight bearing capacity. The helicopter must remain under power (power-on landing).

Helitack crews can exit the aircraft near potential helispots with tools such as chainsaws to improve the helispot so an EMS helicopter can safely land on-site, or a suitable helicopter can land to either transfer the patient to a staging area to meet up with an EMS helicopter, or take the victim to a hospital.

To Request Assistance - Contact the MIFC Aviation Desk at 218-327-4582. They should coordinate International Boundary Crossing Process and Procedures.