

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 and adjacent provinces in Canada.

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 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	X			
MN ARNG Helicopters	X	X			X	X			
DNR Helicopters	X					X			X
DNR Enforcement	X					X	X		
USFS Helicopters	X					X			
USFS Beavers	X	X					X		
ON MNR CL-	X	X					X		
ON MNR Helicopters	X					X		X	

EMS HELICOPTERS



EMS HELICOPTER COMMUNICATION PLAN

VHF-AM	ARMER (800MHz)	VHF-FM
123.100	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.
 - Statewide standard in MN is normally on ARMER
 - 911 Dispatcher can coordinate and confirm A/G frequency

To Request Assistance:

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

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

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

Landing Areas:

- Refer to the attached Helicopter Landing Zone (LZ) Requirement Guide
- Relay GPS Coordinates in Degrees and Decimal Minutes (DM)
- 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

Call - 1-800-328-1377 to request the closest EMS Helicopter

(This number is for the LifeLink III Dispatch, but they will find you the closest or next closest aircraft. If you are in NW MN, you can go direct to North or Sanford)

Company	LifeLink III
Home Office	Minneapolis, MN
Phone Number	612-638-4900
<u>Dispatch Number</u>	800-328-1377
Helicopters	AW 119KX
Avionics	AM, FM, 800MHz
Locations	MN: Hibbing, Willmar, Brainerd, Anoka/Blaine, Cloquet/Duluth, Alexandria, Detroit Lakes, Rush City WI: Rice Lake, Rhinelander, Marshfield

Company	Mayo Clinic Ambulance Service
Home Office	Rochester
Phone Number	507-255-2808
<u>Dispatch Number</u>	800-237-6822
Helicopters	EC-145's and BK-117's
Avionics	AM, FM, 800MHz
Locations	Mankato, Rochester; Eau Claire, WI

Company	North Memorial Health Air Care
Home Office	Brooklyn Center
Phone Number	763-581-9900
<u>Dispatch Number</u>	800-247-0229
Helicopters	Augusta 109's, H-145's
Avionics	AM/FM/800
Locations	Brainerd, Bemidji, Eveleth, Princeton, Redwood Falls, Faribault; Siren, WI

EMS HELICOPTERS THAT PROVIDE SERVICE IN MINNESOTA

(Con't)

Call - 1-800-328-1377 to request the closest EMS Helicopter

(This number is for the LifeLink III Dispatch, but they will find you the closest or next closest aircraft. If you are in NW MN, you can go direct to North, Sanford, or Valley Med)

Company	Sanford AirMed
Home Office	Fargo, ND
<u>Dispatch Number</u>	844-424-7633
Helicopters	EC-145
Avionics	AM/FM/800
Locations	MN: Bemidji ND: Fargo, Bismarck, Dickinson SD: Sioux Falls

Company	Guardian Flight
Home Office	Lewisville, TX
<u>Dispatch Number</u>	800-828-0168
Helicopters	AS 350 B3
Avionics	AM/FM/800
Locations	Grand Rapids, MN; Escanaba, MI

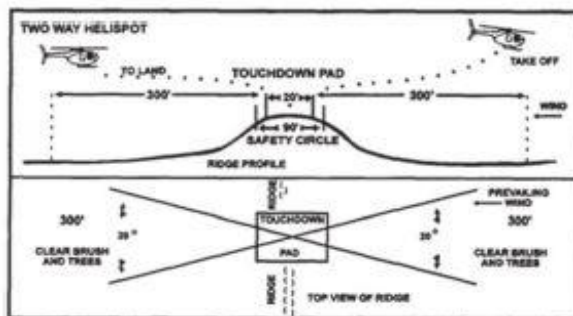
HOW TO WORK SAFELY AND EFFECTIVELY WITH EMS HELICOPTERS IN MINNESOTA

EMS Helicopter Request Procedures:

- Requests for EMS Helicopters should be routed through the county dispatch system either direct or through your local IA Dispatch. If ordering direct ensure your dispatch has been notified.
- Critical dispatch information:
 - **Latitude / Longitude** of Landing Zone (LZ) – DM.MM degrees and decimal minutes (decimal to hundredths)
 - **Air Contact or Ground Contact**
 - **Nature of injury & patient weight**
 - **Frequency** - County dispatch will provide you with an assigned frequency or talk group
 - **EMS Helicopter Configuration**
 - ✓ Wheels or skids - road, firm ground
 - ✓ Skids only - marginal soil conditions

Preparing for a Safe and Effective EMS Helicopter Operation begins before the helicopter arrives. Consider:

- **Scene Assessment** – Does the LZ meet requirements or does the patient need to be moved to suitable LZ
- **Site Security** – Identify a Landing Zone Officer (LZO) to coordinate landing zone activities and communicate information on hazards, LZ conditions and current patient status to the pilot
- **Hazards** – Power lines, towers, trees, other aircraft
- **All UAS aircraft must be grounded**



Communication between Landing Zone and EMS Helicopter will be with radio.

The type of radio (FM or 800MHz) and frequency or talkgroup should be established and confirmed with the county dispatcher.

- **Air-Ground**
 - 800MHz – As assigned by dispatch
 - Example S-TAC4
 - FM – VMED28 – 155.3400 TX156.7
 - **Air-Air**
 - VHF-AM – 123.100
 - Frequency assigned to the Incident
- Positive communication with all resources is required for safe and effective operations.

Landing Zone (LZ) Information:

Minimum dimensions for landing zone area is 100' x 100'.

- Large opening that is flat, clear of people, vehicles, rubbish, stumps, brush, fences and large rocks.
- Actual landing pad should be a minimum of 20' x 20' with a flat, level surface.

Approach & Departure Paths

- Helicopter will land into the wind.
- Optimum:
 - ✓ 300' long x 100' wide approach and departure lanes
- Use 8:1 slope ratio from landing pad to determine allowable obstacle height
 - ✓ 12' obstacle at 100'
 - ✓ 20' obstacle at 160'
 - ✓ 30' obstacle at 240', etc.

MN DEPT. OF PUBLIC SAFETY - STATE PATROL

Helicopters -

- Trooper 7 – Bell 429
- Trooper 8 – Bell 407
- Trooper 9 – Bell 407
 - Location - St. Paul
 - Capabilities - Rappel / Short Haul



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 Minnesota Air Rescue Team (MART). 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. Note: Daytime only.
- **Hoist**: Night capable.

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

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

Contact Information – MN State Patrol Aviation – Flight Operations-
651-539-1300.

DNR Forestry Liaison – Shawn Olsen – 218-242-0171.

MINNESOTA ARMY NATIONAL GUARD (MN ARNG)

Helicopters – Blackhawks (UH-60)

Avionics - AM/FM/800MHz

Location – St. Cloud, MN – AASF #2



Capabilities - 2 units have Goodrich Hoists with a capacity of 600 lbs. and 250'-300' 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 MNCC 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.

DNR Forestry Liaison – Shawn Olsen – 218-242-0171.

MN DNR Forestry - Contract Helicopters

Helicopters -Type III- Light & Intermediate

Bell 206 B-III, 206 L-1,
206 L-3, 206 L-4, 407, AS350



Avionics - AM/FM/800 MHz

Capabilities – Limited to delivering Helitack crews to helispots near the scene to improve helispots for EMS helicopter. They could also transport ambulatory victims to a staging area or hospital.

Portable Landing Pad - MN DNR currently has a portable landing pad that can be transported into remote areas via helicopter longline. Once deployed it can serve as a temporary landing pad for use in medical extraction with agency contracted helicopters. Currently the portable landing pad is only approved for use on State lands.

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 MNCC 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

- 3 - Cessna 185s (2 amphibious)
- 2 – American Champion Scouts
- 1 – Cessna 206 (thermal/IR)



Helicopters

- 1 – MD 500E
- 1 – Enstrom 480B (IR Camera)

Avionics - AM/FM/800 MHz

Capabilities - Primarily used for aerial Search and Rescue Operations – Helicopters could be used for delivering DNR personnel to helispots near the scene to improve helispots for EMS helicopter. Helicopters could also transport ambulatory victims to a staging area or hospital. Cessna 206 is equipped with MX-10 camera (thermal/IR) for SAR operations/intel.

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

USFS - Superior National Forest

Fixed Wing Aircraft –

DHC-2 (DeHavilland Beaver)

Beaver 1

Beaver 2

Beaver 3



Location - Seaplane base located on Shagawa Lake in Ely, MN

Avionics - AM/FM

Capabilities - Beavers are configured 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 - Intermediate

Bell 407, AS350B3

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 ambulatory victims to a staging area or hospital.



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

Ontario/Manitoba Natural Resources

Fixed Wing Aircraft – CL-415's

Location – Thunder Bay, Dryden, Winnipeg

Avionics - AM/FM



Capabilities - CL-415'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 CL-415's is approximately one mile of water surface. The plane could transport the patients or rescue victims to a nearby airport.

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

Ontario Ministry of Natural Resources & Forestry

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 MNCC Aviation Desk at 218-327-4582. They should coordinate International Boundary Crossing Process and Procedures.