INCIDENT COMMAND SYSTEM

Rapid Extraction Module Support (REMS)
ICS-162-4

October 2024

This document contains information about the Incident Command System (ICS) component of the National Incident Management System (NIMS). This is the same Incident Command System developed by FIRESCOPE.

Additional information and documentation can be obtained from the following sources:

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NWCG Standards for Rapid Extraction Module Support produced by NWCG & FIRESCOPE subcommittees.

The *NWCG Standards for Rapid Extraction Module Support*, PMS 552 outlines the roles, duties, qualifications, and equipment pertinent to Rapid Extraction Module Support (REMS). A REMS team, strategically stationed at wildland fires, plays a pivotal role in prioritizing swift access to injured or ill firefighters for safe and efficient egress off the fireline. This ensures their rapid transport to definitive medical care in cases of emergency during firefighting operations, highlighting the invaluable contribution of the REMS team to firefighter safety and well-being.

Given the inherent risks in wildland firefighting, safety is paramount during all operations. However, unforeseen incidents may lead to injury or illness among firefighters. The REMS team aims to swiftly transport incapacitated firefighters off the fireline, ensuring they receive timely and appropriate medical care.

While REMS does not aim to supplant ground or air transport options, adverse conditions such as heavy smoke inversion, inaccessible roads, or equipment malfunctions may limit these methods. However, the REMS team, equipped with resources to package and transport injured or ill personnel off the fireline to definitive medical care facilities, offers incident managers an alternative means to access and transport incapacitated firefighters promptly. This underscores the effectiveness of REMS in facilitating expedited and effective rescue operations, instilling confidence in its capabilities.

The *NWCG Standards for Rapid Extraction Module Support*, PMS 552, stipulates minimum staffing levels for REMS teams. It underscores the necessity for flexibility to augment staffing based on the complexity of the rescue, ensuring that the primary focus remains on swiftly transporting individuals to definitive medical care, prioritizing their health and well-being.

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INTRODUCTION

This national document was developed to provide a clear description of the roles, duties, qualifications, and equipment pertinent to the position of the Rapid Extraction Module Support (REMS). The REMS team is a pre-staged rescue team assigned to a wildland fire to provide firefighters a safe, effective, and efficient method of egress off the fireline in the event of injury or illness incurred during firefighting operations.

Wildland firefighting is an inherently dangerous profession. While safety is the primary concern during all operations, unintended incidents do occur which result in injury or illness to wildland firefighters. It is the intent of the REMS team to provide firefighters, who are unable to egress under their own power, a safe, and secure transport off the fireline while simultaneously receiving the appropriate medical care.

While REMS does not intend to replace ground or air transport, ideal conditions may not exist due to a number of circumstances such as heavy smoke inversion, no roads, or equipment malfunctions. The REMS team provides incident managers another option to reach incapacitated firefighters, with fully equipped resources, prepared to package, and transport injured, or ill personnel off the fireline to the appropriate medical care unit. While this national document recommends minimum staffing levels of the REMS team, it is not intended to exclude the potential need to augment staffing levels based on the complexity of the rescue.

This national document contains information relative to the Incident Command System (ICS) component of the National Incident Management System (NIMS). When ordered, the REMS team will arrive with all the required certifications, authorizations, and equipment identified in the Minimum Equipment List (MEL).

CHECKLIST

- Obtain briefing from Medical Unit Leader (MEDL)

- Expectations and Assignments

- Incident known hazards

- Communications plans

- Travel routes (local knowledge)

- Obtain proper communications equipment

- Portable radios and incident frequencies

- Cell phone or satellite phone numbers

- REMS Leader attend daily briefings (MEDL, OPS, DIVS)

- Obtain daily Incident Action Plan (IAP) including communications plan

- Ensure radios are cloned to current communications plan

- Air resources availability for the operational period

- Obtain large operational maps including transportation system

- Conduct a REMS crew briefing

- Establish crew manifest

- List all crew members assigned to REMS team for record keeping

- Maintain crew time reports

- Establish equipment manifest

- REMS cache (vehicle based & hike in)

- Full wildland Personal Protective Equipment (PPE)
  (including line-pack/fire shelter)

- Provide crew and equipment information to complete flight manifest

- Ensure weight of crew/equipment meet flight manifest requirements

- Crew may require separate flights depending on type of aircraft,
  available seats, and maximum load capacities

- Establish priority order of crew members for flights

- Establish equipment priority list for flights

- Establish crew expectations and performance objectives

- Line out crew member responsibilities and positions
  - REMS Leader

- o Riggers

- o Rescuers

- Perform rope rescue pre-incident planning

- Notify MEDL on all incident within incidents involving REMS team

- Obtain field briefing from fireline Branch/DIVS

- Recon Branch/Division assignment area

- Determine access routes to drop points in the operational area

- Develop rescue plans in conjunction with fireline supervisor and brief operational resources/personnel on REMS team rescue plans, capabilities, required logistical support, staging location, and safety protocols

- Maintain awareness of where crews are working and if possible, crew assignments

- Maintain a Unit/Activity Log (ICS 214)

ORGANIZATION

Upon arrival on an incident, REMS team initially reports to the Medical Unit Leader (MEDL). Once assigned to a Division, Group, or Branch the REMS team will work under the direction of an assigned Fireline Supervisor. REMS personnel may remain mobile or have to hike into the intended location with litter basket and equipment. Once with the patient, REMS personnel should get a report on the patient's condition, the environment, available resources, and implement an effective plan of egress to definitive medical care. Once the patient has been properly packaged, the extrication plan will be placed into effect. Based on environmental factors, the patient as a package can be extracted by walking over various terrain features or trails or a rope system can be assembled to raise or lower the litter basket to an identified location.

The REMS team is assigned as illustrated below:

Operations Section Chief	Logistics Section Chief
↓	↓
Operations Branch Director	Medical Unit Leader
↓	↓
Division/Group Supervisor	**REMS**
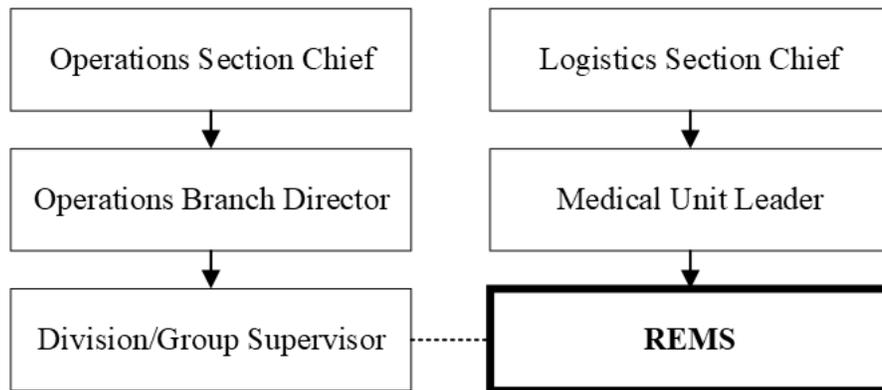
NWCG REMS TYPING MODEL

All REMS team members shall be qualified technical specialists.

TYPE I	TYPE II	TYPE III
4 Personnel	4 Personnel	2 Personnel
1-2, 4x4 Vehicle(s)	1-2, 4x4 Vehicle(s)	1, 4x4 Vehicle
REMS Cache	REMS Cache	REMS Cache
Advanced Life Support (ALS) Cache	Advanced Life Support (ALS) or Basic Life Support (BLS) Cache	Advanced Life Support (ALS) or Basic Life Support (BLS) Cache
1 Paramedic and 1 Emergency Medical Technician (not to be used as EMPF/EMTF)	2 Emergency Medical Technicians (BLS not to be used as EMTF). ALS provider acceptable but not required	1 Paramedic or 1 Emergency Medical Technician Reach and Treat only, no patient extraction expectation
UTV Required: Utility Task Vehicle (UTV) with trailer and patient transport capable (operators must have ROHVA basic certification)	UTV Recommended: Utility Task Vehicle (UTV) with trailer and patient transport capable (operators must have ROHVA basic certification)	UTV Recommended: Utility Task Vehicle (UTV) with trailer. (Operators must have ROHVA basic certification)

NWCG REMS TRAINING AND QUALIFICATIONS REQUIREMENTS

The REMS team personnel shall meet the training and qualification requirements as outlined in the section below.

TYPE I	TYPE II	TYPE III
Recommended: 4 Rope Rescue Technicians or Required: 2 Rope Rescue Technicians and 2 Rope Rescue Operations Equivalent (all team members shall meet or exceed NFPA 1006)	Required: 2 Rope Rescue Technicians and 2 Rope Rescue Operations Equivalent (all team members shall meet or exceed NFPA 1006)	Required: 1 Rope Rescue Technician and 1 Rope Rescue Operations Equivalent (all team members shall meet or exceed NFPA 1006)
REMS Leader – Single Resource Boss Qualified (Required)	REMS Leader – Single Resource Boss Qualified (Required)	N/A
Vehicle Extrication or Equivalent (Required)	Vehicle Extrication or Equivalent (Recommended)	N/A
Firefighter 1 & 2 Wildland Qualified (all team members)	Firefighter 1 & 2 Wildland Qualified (all team members)	Firefighter 1 & 2 Wildland Qualified (all team members)
Physical Fitness Level - Arduous	Physical Fitness Level - Arduous	Physical Fitness Level - Arduous

REMS TEAM RESPONSIBILITIES AND PROCEDURES

The major responsibilities of the REMS team are stated below:

- Check in and obtain briefing from the Logistics Section Chief or the MEDL, if established. The briefing should provide the following:

- Current incident situation

- Review the Medical Plan (ICS Form 206) and "Incident within an Incident" Plan

- Incident communications channels

- Anticipate needs and ensure equipment needs as necessary:
  o Incident base assignments
  o Fireline assignments
  o Spike camp assignments
  o Resupply expended materials when necessary

- Secure operations and demobilize as outlined in the Demobilization Checkout (ICS 221)

- Maintain a Unit/Activity Log (ICS Form 214)

REMS TEAM CONSIDERATIONS

a) Using a UTV requires off road certification training; ensure incident compliance before deployment whether agency owned or incident loaned.

b) Terrain will be very steep and unstable in areas where REMS use is applicable.

c) In many cases walking a patient out of an area with the litter basket and wheel combination may not be possible due to terrain features.

d) Rope systems may be deployed to ensure that a victim and the REMS team can safely transition from the incident location to the medical evacuation site.

e) Long lowering and hauling distances may be encountered in REMS operations. This may require the patient to be moved in multiple pitches, or rope lengths. As a result, anchors may also be required to secure the patient while the system is moved and reset.

f) Rope systems should be kept as simple as possible due to the multiple, and progressive anchor systems required and the urgent need to reach definitive medical care.

g) Crews may deploy in front of the litter basket to clear the trail and identify hazards.

h) A Rigger in front of the system pre-setting anchors saves valuable time.

i) A REMS hike in cache should be assembled and stored prior to an incident so it is readily available at the time an Incident Management Team decides to implement REMS at an incident.

j) Utilization of the raising/lowering system may be beneficial during the hike into a patient as well as during an extraction.

k) The REMS team should maintain unity and not be split to accomplish separate missions.

l) If extrication is required, the REMS team shall stabilize the vehicle.

m) Care providers shall have proper state licensing and medical direction. REMS team shall provide medical treatment until relieved by fireline paramedics.

n) Utilization of REMS UTV Risk GAR Assessment for all patient transports in rear of UTV (see page 16-17).

UTV CONSIDERATIONS

- Fire extinguisher
- Spare tire (UTV and Trailer)
- Spare drive belt
- Fuses
- UTV Tool Kit
- Ratchet straps

MINIMUM EQUIPMENT LIST (MEL)

The national REMS team shall be trained to a minimum of rope rescue technician level in accordance with their authority having jurisdiction (AHJ) and use certified equipment (e.g., ANSI, EN, CE, UIAA, UL, and NFPA). All personnel shall be specifically trained, and equipment shall be tested for interoperability and inspected after use during training, incidents, and documented for record keeping.

TYPE I MINIMUM EQUIPMENT LIST (MEL)

Quantity	Item
1 – 2	4-person 4x4 pickup truck or equivalent
1	UTV with patient transportation capabilities
1	1,500' Rope [9.5mm (3/8") to 12.5 mm (1/2")]
5	Descent control devices (e.g., eight plates, ATC, ATS, totem rack, break bar rack)
2	High efficiency multi-purpose rope rescue devices
22	Carabineers
8	Small or mini prusik minding pulley
4	Small or mini prusik minding double pulley
1	Gathering plate or "O" ring
16	Prusik (e.g., traditional, sewn, eye to eye)
12	20' Long webbing/sling/cord
8	15' Medium webbing/sling/cord
8	6' Short webbing/sling/cord
1	Edge protection kit
1	Roll up rescue stretcher or equivalent
1	Collapsible (two piece) multi-piece basket stretcher/litter with hoist pre-rig litter (low/high angle)
1	Backboard (ability to break away)
1	Sleeping bag (patient padding)
5	Pickets or picket system

TYPE I MINIMUM EQUIPMENT LIST (MEL) continued…

Quantity	Item
1	Sledgehammer
	Rope rescue gear packs for the above listed gear
4	Line gear with fire shelter
4	Hand tools
1	Litter wheel with tire repair kit
1	GPS Device
	Flagging
5	Class II or III harnesses (agency specific requirement)
1	Class II victim harness
1	Set of fours mechanical advantage system
1	Combination extrication tool (Battery powered recommended with cutting and spreading capability, if battery powered, additional batteries with charger)
1	Cribbing for stabilization (4x4 and 2x4 wedges)
1	Reciprocating saw (metal/wood cutting blades)
1	High lift jack
1	Portable Generator or inverter
1	Basic toolbox including jumper cables (maintenance, tire changes etc.)

TYPE I NON-VEHICLE RESCUE CACHE (HIKE IN)

Item
Technical Rope (9.5mm (3/8") to 12.5mm (1/2"))
Technical Carabineers
Technical Small or mini prusik minding pulley
Technical Small or mini prusik minding double pulley
Prusiks
Technical Descent control device (e.g., eight plates, ATC, ATS, totem rack, break bar rack)
Various webbing
Gathering plate or ring
Gear packs capable for transporting equipment
Multi-piece basket stretcher with hoist pre-rig or roll up rescue stretcher (low/high angle)
Litter wheel with tire repair kit
Flagging
GPS
Class II or III harnesses (agency specific requirement)
Class II victim harness
ALS medical gear for patient care (see pages 15 – 17)

TYPE I OPTIONAL EQUIPMENT LIST (OEL)

Quantity	Item
1	Mechanical winch
1	Artificial high directional device
1	Blower (battery powered) for dirt decontamination
1	High pressure air bag kit (air cylinder, hose, and control module)
1	Chainsaw (with chaps)
1	Patient bag hoist capable
1	Patient cover tarp or emergency bivy shelter

TYPE II MINIMUM EQUIPMENT LIST (MEL)

Quantity	Item
1 – 2	4-person 4x4 pickup truck or equivalent
1	1500' Rope [9.5mm (3/8") to 12.5 mm (1/2")]
5	Descent control devices (e.g., Eight plates, ATC, ATS, totem rack, break bar rack)
2	High efficiency multi-purpose rope rescue devices
22	Carabineers
8	Small or mini prusik minding pulley
4	Small or mini prusik minding double pulley
1	Gathering plate or "O" ring
16	Prusik (e.g., traditional, sewn, eye to eye)
12	20' Long webbing/sling/cord
8	15' Medium webbing/sling/cord
8	6' Short webbing/sling/cord
1	Edge protection kit
1	Roll up rescue stretcher or equivalent
1	Collapsible (two piece) multi-piece basket stretcher/litter with hoist pre-rig
1	Backboard (ability to break away)
1	Sleeping bag (patient padding)
5	Pickets or picket system
1	Sledgehammer
	Rope rescue gear packs for the above listed gear
4	Wildland Web gear with fire shelter
4	Hand tools
1	Litter wheel with tire repair kit
1	GPS Device
	Flagging
4	Class II or III harnesses (agency specific requirement)
1	Class II victim harness

TYPE II MINIMUM EQUIPMENT LIST (MEL) continued…

Quantity	Item
1	Set of fours mechanical advantage system
1	Reciprocating saw (metal/wood cutting blades)
1	High lift jack
	Tow straps/chains set
1	Basic toolbox (maintenance, tire changes etc.)
1	Jumper cables

TYPE II NON-VEHICLE RESCUE CACHE (HIKE IN)

Item
Technical Rope [9.5mm (3/8") to 12.5mm (1/2")]
Technical Carabineers
Technical Small or mini prusik minding pulley
Technical Small or mini prusik minding double pulley
Prusiks
Technical Descent control device (e.g. Eight plates, ATC, ATS, totem rack, break bar rack)
Various webbing
Gathering plate or ring
Gear packs capable for transporting equipment
Multi-piece basket stretcher with hoist pre-rig or roll up rescue stretcher
Litter wheel with tire repair kit
Flagging
GPS
Class II or III harnesses (agency specific requirement)
Class II victim harness
ALS or BLS gear for patient care (see pages 15 – 17)

TYPE II OPTIONAL EQUIPMENT LIST (OEL)

Quantity	Item
1	UTV with patient transportation capabilities
1	Combination extrication tool (Battery powered recommended with cutting and spreading capability, if battery powered, additional batteries with charger)
1	1 Mechanical winch
1	1 Portable Generator or inverter
1	1 Artificial high directional device
1	1 Chainsaw (with chaps)
1	1 Blower (battery powered) for dirt decontamination
1	Patient bag hoist capable
1	Patient cover tarp or emergency bivy shelter

TYPE III MINIMUM EQUIPMENT LIST (MEL)

Quantity	Item
1	2-person 4x4 pickup truck or equivalent
1	1,200' rope (9.5mm (3/8") to 12.5 mm (1/2")
3	Descent control device (e.g., Eight plates, ATC, ATS, totem rack, break bar rack)
2	High efficiency multi-purpose rope rescue devices
22	Carabineers
8	Small or mini prusik minding pulley
4	Small or mini prusik minding double pulley
1	Gathering plate or "O" ring
16	Prusik (e.g., traditional, sewn, eye to eye)
12	20' Long webbing/sling/cord
8	15' Medium webbing/sling/cord
8	6' Short webbing/sling/cord
1	Edge protection kit

TYPE III MINIMUM EQUIPMENT LIST (MEL) continued…

Quantity	Item
1	Roll up rescue stretcher or equivalent
1	Collapsible (two piece) multi-piece basket stretcher/litter with hoist pre-rig
1	Backboard (ability to break away)
1	Sleeping bag (patient padding)
5	Pickets or picket system
1	Sledgehammer
	Rope rescue gear packs for the above listed gear
2	Wildland Web gear with fire shelter
2	Hand tools
1	Litter wheel with tire repair kit
1	GPS Device
	Flagging
3	Class II or III harnesses (agency specific requirement)
1	Class II victim harness
1	Set of fours mechanical advantage system
1	Reciprocating saw (metal/wood cutting blades)
1	High lift jack
	Tow straps/chains set
1	Basic toolbox (maintenance, tire changes etc.)
1	Jumper cables

TYPE III NON-VEHICLE RESCUE CACHE (HIKE IN)

Technical Rope (9.5mm (3/8") to 12.5mm (1/2"))
Technical Carabineers
Technical Small or mini prusik minding pulley
Technical Small or mini prusik minding double pulley
Prusiks
Technical Descent control device (e.g., eight plates, ATC, ATS, totem rack, break bar rack)
Various webbing
Gathering plate or ring
Gear packs capable for transporting equipment
Multi-piece basket stretcher/litter with hoist pre-rig or roll up rescue stretcher
Litter wheel with tire repair kit
Flagging
GPS
Class II or III harnesses (agency specific requirement)
Class II victim harness
*ALS/BLS pack for patient care (see pages 15 – 17)

TYPE III OPTIONAL EQUIPMENT LIST (OEL)

Quantity	Item
1	UTV with patient transportation capabilities
1	Mechanical winch
1	Portable Generator or inverter
1	Artificial high directional device
1	Chainsaw (with chaps)
1	Blower (battery powered) for dirt decontamination
1	Patient bag hoist capable
1	Patient cover tarp or emergency bivy shelter

Note: The non-vehicle rescue cache (hike in) gives the REMS team the equipment inventory to perform a remote rescue in steep terrain with no vehicle access to transport REMS personnel to a rescue site. This equipment cache shall be multifunctional and lightweight for potential traversing long distances in steep terrain to access and complete a REMS mission. Rope length(s) and equipment quantities may be mission specific based on hiking in, inserted by air operations, and/or UTV off road transportation.

TYPE I & II MINIMUM MEDICAL EQUIPMENT LIST (HIKE IN)

ALS	BLS	QTY	TRAUMA CARE
X	X	4	Tourniquet
X	X	2	Hemostatic wound packing
X	X	2	Trauma dressing (10x30"; 8x10; 6")
X	X	1	Compact pelvic binder
X	X	4	Trauma combine pads
X	X	2	Rolled gauze – 4" and 6"
X	X	1	Burn sheet – sterile
X	X	1	Eye irrigation solution – 4oz
X	X	2	Trauma dressing
			AIRWAY
X	X	2 –3	OPA 50-110 mm – 2-3 sizes
X	X	1	NPA 30-36 1 each size
X		1	ETT 6.0-8.0

ALS	BLS	QTY	TRAUMA CARE
X		1	DL/VL handle and blades (various sizes, extra bulb/battery for DL)
X		1	Tube holder (elastic or manufactured; no rigid tape)
X		1	Stylet, adult
X		1	Bougie
X		1	Cricothyrotomy kit
X		1	McGill forceps
X	X	1	Handheld suction device
X	X	1	Pocket BVM
X		1	PEEP Valve
X	X	1	SPO2 monitor (finger, portable)
X		2	Chest decompression needle
X		4	Chest seals
			IV ACCESS
X		4	Angiocaths
X		4	IV pigtail tubing
X		2	IV tourniquet
X		8	Alcohol pads
X		8	4x4 gauze
X		2	IV Tape (2")
X		4	5cc Saline flushes
X		4	Occlusive dressings
X		4	3 and 5cc syringes X 2 each
X		2	Filter needle
X		1	Assorted nonfilter needles
X		2	Elastic tape
X		1	10 or 15 drop IV set
X		1	60 drop IV set
X		1	IV Fluids (able to be taken in 500cc bags as needed)

ALS	BLS	QTY	TRAUMA CARE
X	X	2	Semi-rigid splints (Long)
X	X	1	Compact traction splint
X	X	2	Triangle bandage
X	X	2	Athletic elastic like wrap
X	X	2	Athletic tape
X	X	1	Pliable patient carrying device
X	X	1	Mylar sheet
X	X	1	Gloves (sized for individual)
X	X	1	Trauma shears
X	X	1	Marker Panel
X	X	1	Pen light or head lamp
X	X	1	Thermometer
X	X	1	Extra batteries for all electronics
X	X	1	Emesis bag
X	X	1	Stethoscope
X	X	1	BP cuff
X	X	1	BG testing kit w spare battery
X	X	4	Mask – N95
X	X	4	Eye protection
X	X	4	Ear protection
X	X	1	AED with 3 leads (compact, battery operated)

MINIMUM MEDICAL EQUIPMENT LIST FOR UTV/VEHICLE

Quantity	Item
1	O2 cylinder (able to be deployed)
1	O2 regulator 0-15 LPM w spare gasket
1	O2 therapy – NC, simple mask, or non-rebreather mask
1	Flexible suction catheter (14F)
1	ALS Cardiac monitor/pacing/defibrillator with leads (complete kit with
4	IV Fluids 1 liter
1	Ring cutter
1	Trauma blanket or Vacuum Mattress
1	Sharps container (small)
1	Biohazard bag

ALS/BLS DRUG BOX

➤ Each Drug box inventory shall comply with licensure state and medical direction

➤ Drug Box must be secured in lockable compartment

➤ Individual agency policy for drug box tracking and medical direction is recommended

Type 3 REMS shall carry all items identified in the EMS VIPR contract for EMS providers. Medical MEL is based on provider scope of practice. Items not authorized for provider use can be omitted.

REMS UTV Utilization Risk Calculation Worksheet GAR Model (GREEN-AMBER-RED)

Utilization of a UTV for patient transport incurs certain risks to the patient and attendant. No standard exists for ROPS in regard to protection of humans riding in the rear of the UTV. Regardless, UTV's can be the safest, most efficient tool to move injured or sick firefighters in austere environments. UTV based extractions must undergo a risk vs. benefit analysis to minimize exposure to harm.

To compute the total level of risk for each hazard identified below, assign a risk code of 0 (For No Risk) through 10 (For Maximum Risk) to each of the six elements. This is the team estimate of the risk associated with utilizing a UTV as transport tool with a care provider and patient properly secured in UTV. Add the risk scores to come up with a Total Risk Score for each hazard.

SUPERVISION

Supervisory Control considers how qualified the Medical Incident Commander (IC) is and whether effective supervision is taking place. Even if a person is qualified to perform a task, supervision acts as a control to minimize risk. This may simply be someone checking what is being done to ensure it is being done correctly. The higher the risk, the more the supervisor needs to be focused on observing and checking. A supervisor who is actively involved in a task (doing something) is easily distracted and should not be considered an effective safety observer in moderate to high-risk conditions.

PLANNING

Planning and preparation should consider how much information you have, how clear it is, and how much time you have to plan the extraction or evaluate the situation.

TRANSPORT TIME

Team should consider the time required to deliver the patient to definitive care. Considerations for alternative transport methodology should be considered. Location of definitive care site for patient condition or injury should be evaluated.

TEAM FITNESS

Team fitness should consider the physical and mental state of the crew. This is a function of the amount and quality of rest a crew member has had. Fatigue normally becomes a factor after 18 hours without rest; however, lack of quality sleep builds a deficit that worsens the effects of fatigue.

ENVIRONMENT/TERRAIN

Environment should consider factors affecting personnel performance as well as the performance of the resource. This includes, but is not limited to, time of day, temperature, humidity, precipitation, proximity of aerial/navigational hazards and other exposures (e.g. Smoke, steep terrain, snags, current and expected fire behavior, and/or injury from falls and sharp objects).

PATIENT CONDITION

Patient condition should consider both the required time and expected treatments/ interventions required. Impact on patient treatment in UTV should be balanced against negative and austere environment. This would depend upon the experience level of the team.

REMS UTV UTILIZATION

GAR Model Risk Calculation Worksheet

(GREEN-AMBER-RED)

SUPERVISION: off-site management / field leader(s) / qualifications / experience / communication tools
PLANNING: details / clarity / emergency action plan / first aid / transportation / shelter / food and water
TEAM SELECTION: training / qualifications / experience / aptitude / abilities / functionality / liabilities
TEAM FITNESS: physical fitness / mental and emotional state / health concerns / rest & fatigue cycles
ENVIRONMENT: Weather- temperature, wind, visibility, precipitation / terrain / water / remoteness / heights
EVENT & EVOLUTION COMPLEXITY: details / step-procedures / task load / number of people-agencies
TOTAL RISK SCORE: Combine the risk score for each element and apply score to GAR evaluation scale

The mission risk can be visualized using the colors of a traffic light. If the total risk value falls in the GREEN ZONE (1-23), risk is rated as low. If the total risk value falls in the AMBER ZONE (24-43), risk is moderate, and you should consider adopting procedures to minimize the risk. If the total value falls in the RED ZONE (44-60), risk is high, and you should implement measures to reduce the risk prior to starting the extraction.

GAR EVALUATION SCALE COLOR
CODING THE LEVEL OF RISK

0	15	23	24	30	43	44	50	60
GREEN **(Low Risk)**			**AMBER** **(Caution)**			**RED** **HIGH RISK**		

The ability to assign numerical values or "color codes" to hazards using the GAR Model is not the most important part of risk assessment. What is critical to this step is team discussions leading to an understanding of the risks and how they will be managed.