

**ARNG WARRIOR TRAINING CENTER  
PATHFINDER COURSE  
FORT BENNING, GEORGIA 31905**

ATZB-RCG

1 October 2009

**AEROMEDEVAC SUMMARY SHEET:**

**INSTRUCTIONAL INTENT:** The Pathfinder student will learn the aircraft configurations, capabilities, equipment needed and the Nine-Line Aeromedevac Request used for aeromedevac operations.

1. **DEFINITIONS:**

**MEDEVAC-** The movement and en route care by **medical personnel** of wounded, injured or ill persons from the battlefield and/or other locations to a Medical treatment facility.

**CASEVAC-** Is the movement of casualties aboard non-medical vehicles or aircraft. Casualties transported in this manner do not receive en route medical care.

**LITTER-** A casualty who is either unable to move under their own power or has been immobilized to facilitate medical treatment.

**AMBULATORY-** A casualty who is able to move on their own, the walking wounded.

2. **ARMY AIRCRAFT DESIGNED FOR MEDEVAC:**

- A. **UH-1V:** Red Cross Markings: 4 one on the nose, belly, and each cargo door. Crew of 2 pilots, 1 crew chief and 1 medic. Standard configuration is 3 litters and 4 ambulatory. The maximum configuration is 6 litters or 9 ambulatory.
- B. **UH-60Q:** Red Cross Markings: 5 one on the nose, belly, one on each cargo door and one on top. Same crew as the UH-1V. Standard configuration is 4 litters and 1 ambulatory. The maximum configuration is 6 litters and 1 ambulatory or 7 ambulatory or some configuration thereof.
- C. **CH-47:** This aircraft has no Red Cross markings. The primary mission of this aircraft is "Mass Casevac". Crew of 2 pilots, 1 crew chief, 1 flight engineer, and 1 medic for every 6 litter patients. The standard configuration is 16 ambulatory and 12 litters. The maximum configuration is 31 ambulatory or 1 ambulatory and 24 litters.

**CONFIGURATION**

**AMBULATORY**

31  
25  
19  
16  
10  
4  
1

**LITTER**

0  
4  
8  
12  
16  
20  
24

**\*NOTE:** The capacity of all aircraft may be reduced because of temperature, humidity or age of the aircraft. Any aircraft may be used for casevac.

2. **THE MISSION OF AEROMEDEVAC, ADVANTAGES AND DISADVANTAGES:**

A. **MISSION:**

- 1) The primary mission of aeromedevac is to move casualties to an area where they can receive proper medical care.
- 2) Medevac aircraft may be used to move personnel and equipment (to include whole blood and biologicals).
- 3) Because of the specialized equipment on board a medevac aircraft, it may be used for crash rescue.

B. **ADVANTAGES OF AEROMEDEVAC:**

- 1) Flexibility
- 2) En route treatment
- 3) Speed

C. **DISADVANTAGES OF AEROMEDEVAC:**

- 1) Weather and limited visibility
- 2) Enemy situation
- 3) Limited / priority aircraft

D. **RESPONSIBILITIES OF THE REQUESTING UNIT:**

- 1) Lighting and marking the pick-up site
- 2) Tactical support and security
- 3) Patient preparation and consolidation
- 4) Assignment of litter teams to load the aircraft
- 5) Brief the pilot of the enemy situation and any other units in your area of operations if asked
- 6) Mark friendly positions when an armed escort is required
- 7) Have an English speaking representative present for non U.S. personnel
- 8) Guide in aircraft (GTA / Signalman)

3. **THE STANDARDIZED NINE-LINE MEDEVAC REQUEST:**

A. **Line #1:** 6 digit grid coordinate of the pick-up site to include the grid zone identifier.

B. **Line #2:** Radio frequency, call sign and suffix of the requesting unit.

C. **Line #3:** Number of patients by precedence.

- 1) The purpose of classifying patients by precedence is so that the medevac element can establish a priority as to which patients are to be evacuated first. Normally, time is a factor, which determines the categories of precedence.

- 2) There are four priorities of precedence:
  - a) **Urgent:** Is assigned to emergency cases that should be evacuated as soon as possible and within a maximum of 2 hours to save life, limb or eyesight, to prevent complication of serious illness, or to avoid permanent disability.
  - b) **Urgent-Surgical:** Is assigned to patients who must receive far forward surgical intervention to SAVE LIFE and stabilize for permanent evacuation. These patients need to be evacuated within a maximum of 2 hours.
  - c) **Priority:** Is assigned to sick and wounded personnel requiring prompt medical care. This precedence is used when the individual should be evacuated within 4 hours or his/her condition could deteriorate to such a degree that he will become an Urgent precedence, or whose requirements for special treatment are not readily available locally, or who will suffer unnecessary pain or disability.
  - d) **Routine:** Is assigned to sick and wounded personnel requiring evacuation but whose condition is not expected to deteriorate significantly. The sick and wounded in this category should be evacuated within 24 hours.
  - e) **Convenience:** Is assigned to patients for whom evacuation by medical vehicle is a matter of medical convenience rather than necessity.

D. **Line #4:** Special equipment needed:

- 1) **Aircraft Rescue Hoist:** Utilized on the UH-1, UH-60 and the CH-47. The cable is 256 feet long with 250 feet of usable cable, with a tensile strength of 600 pounds. The hoist has two settings. A fast and a slow setting; the fast setting can lift 300 pounds at 250 feet per minute, the slow setting can lift 600 pounds at 125 feet per minute.
- 2) **Jungle / Forest Penetrator:** When a landing zone is not available or vegetation is too dense, a Jungle/Forest penetrator can be attached to the rescue hoist. The Penetrator is limited to three (3) casualties during wartime (2 in training environment) or 600 pounds. The Jungle/Forest Penetrator weighs 21 1/2 lb., is 34 in. long and 8 in. in diameter. The three legs are 11 1/2 in. long and 4 3/4 in. wide.
  - Allow the penetrator to touch the ground to discharge any built up static electricity.
  - Fold down only wing seats necessary and snap into place.
  - Unzip one of the protective covers containing a safety strap, remove the strap, placing it around the patient's back and under their armpits.
  - Signal the aircrew when the patient is ready to be lifted.
- 3) **Semi-Rigid Litter:** Used for evacuating casualties with other than back injuries. Limited to one 1 casualty or 400 pounds.
- 4) **Stokes Basic Litter:** Used in conjunction with the aircraft rescue hoist over land and water for casualties with injuries to include neck and back injuries requiring immobilization. Is constructed of aluminum or steel framed basket and is 84 in. long, 23 in. wide, and weighs 31.5 lbs. It is limited to 1 casualty or 400 lbs.
  - a. To prepare a patient for rescue via the Stokes Basic Litter, the ground personnel must:

- Allow the SBL to touch the ground to discharge any built up static electricity.
- Unhook the litter(s) from the helicopter.
- Move the suspension cables to the sides of the litter and unfasten the restraining straps.
- Place the patient in the litter and fasten the restraining straps.

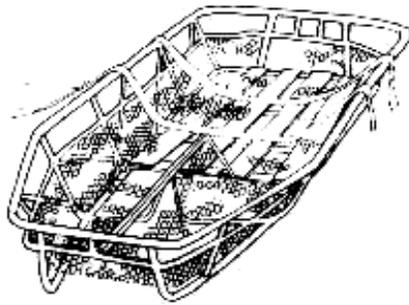
**CAUTION: PATIENT MUST BE REMOVED FROM THE STANDARD OR IMPROVISED LITTER PRIOR TO BEING PLACED IN THE STOKES BASIC LITTER.**

- Bring the lift rings to the center position and fasten them to the helicopter rescue hoist hook. Signal the hoist operator when ready to lift. Be prepared to steady the litter to prevent oscillation until it is out of reach.
- 5) **Kendrick Extrication Device (KED):** Semi-rigid support used to immobilize casualties with minor neck and back injuries, same limitations as the Stokes Basic Litter.
  - 6) **Skedco Rescue System:** Compact mobile support used for ground evacuation, set down missions, water rescue, and hoist extractions. Same limitations as the Stokes Basic Litter.
- E. **Line #5:** Number of patients by type:
- 1) Litter patients
  - 2) Ambulatory patients
- F. **Line #6:** Line #6 is broken into two (2) situations; wartime and peacetime.
- 1) **Wartime Situation: Security of the Pickup Zone**
    - a. (N) No enemy troops in the area
    - b. (P) Possible enemy troops in the area
    - c. (E) Enemy in the area, approach with caution
    - d. (X) Enemy troops in the area, armed escort required
  - 2) **Peacetime Situation: Type of injury**
    - a. Gunshot, shrapnel
    - b. Broken bones
    - c. Illness
- G. **Line #7:** Method of marking the site.
- H. **Line #8:** Patient nationality and status
- 1) U.S. Military
  - 2) U.S. Civilian
  - 3) Non U.S. Military
  - 4) Non U.S. Civilian
  - 5) Prisoner of War
- I. **Line #9:** Like line #6, line #9 has two (2) situations; wartime and peacetime.
- 1) **Wartime Situation:** NBC contamination - Report RADS/Hour or type agent used, if known, in the area of the pick-up site.

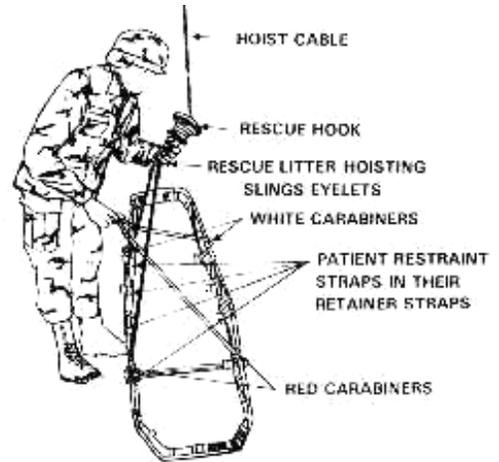
- 2) **Peacetime Situation:** Description of the terrain in and around the pick-up site to aide the pilot in locating your site.
- A. **Guidelines for loading patients:** Patients are normally loaded from the top tier to the bottom tier with the most seriously injured loaded last.
- 1) Litter patients should be positioned in the helicopter according to the nature of their injuries or conditions. Personnel aboard the helicopter supervise the loading and positioning of the patients.
  - 2) The most seriously injured patients must be on the bottom tiers to permit the onboard medical personnel to provide the necessary in-flight care.
  - 3) Litter patients requiring IV fluids should be positioned as low as possible on the litter rack.
- B. **Loading and securing patients:**
- 1) In loading six litter patients with a 4-man litter squad, the litters are loaded from both sides of the aircraft and from top to bottom.
  - 2) When the helicopter is equipped for mixed loading, 3 litters are loaded crosswise and 4 ambulatory patients are loaded in the side seats.
    - a. When loading from the left, the litter squad moves to the left side of the helicopter with the litter perpendicular to the cargo compartment, then the squad moves onto the post litter carry. Numbers 1 and 3 give their litter handles to the aircrew whom place the handles in the litter support brackets on the far left side of the aircraft. Numbers 2 and 4 secure the foot of the litter.
    - b. After the first litter is loaded, the squad leaves the helicopter as a team to obtain another litter patient. The second and third litters are loaded in the same way as the first one. After the three litter patients are loaded, the ambulatory patients are loaded. The ambulatory patients are taken to the aircraft and placed in their seats.
- C. **Unloading patients:** The aircraft is unloaded in the reverse order of the loading process. The tiers are unloaded from the bottom to the top on one side and then the other. At the unloading command, the litter squad moves to the helicopter and the bearers take their proper place at the litter. Then each member of the squad then performs his duties in reverse order of the loading sequence.

**REFERENCES:**

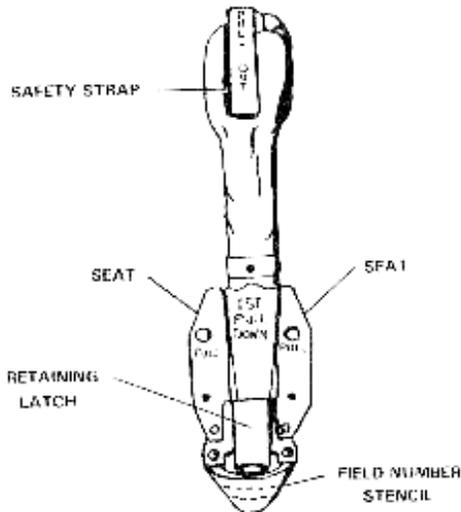
**FM 3-21. 38**  
**FM 8-10-6**  
**FM 4-02.2**



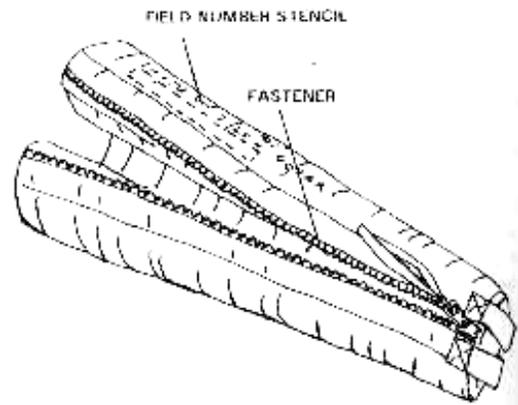
**STOKES BASIC LITTER**



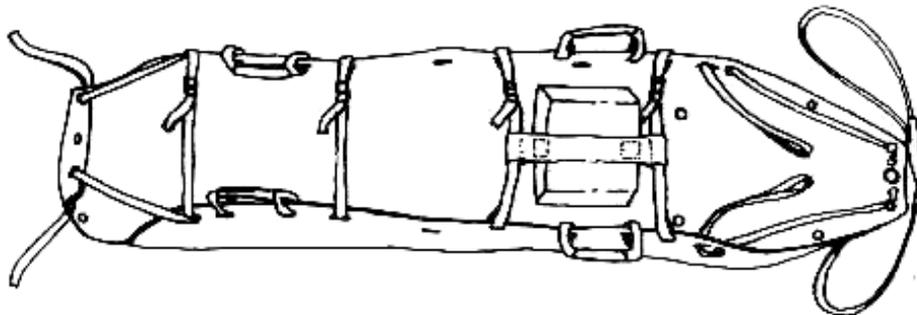
**HOOKING THE STOKES LITTER TO THE RESCUE HOIST**



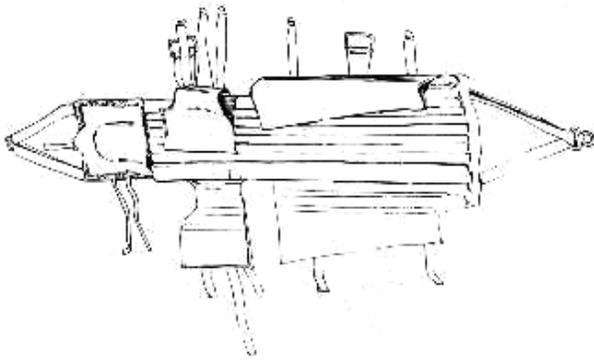
**FOREST/JUNGLE PENETRATOR**



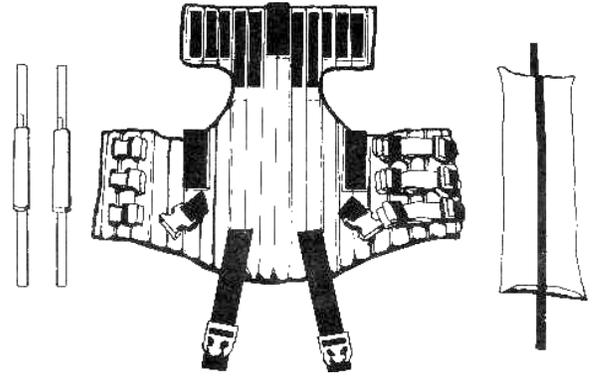
**FLOTATION COLLAR FOR THE FOREST/JUNGLE PENETRATOR**



**SKED LITTER**



**SEMI-RIGID LITTER**



**KENDRICK EXTRICATION DEVICE**