



628th FST Lesson of the Day



SUBJECT: Effective Medical Bags and Load Plan for the Field Medic on Today's Battlefield

Theater: Afghanistan

Date: 16 March 2012

1. (U//FOUO) Observation: A Combat Medic (68W) is arguably one of the most valuable assets to a combat arms unit, both during combat operations and training exercises. The Combat Medic's aid bag is the tool of his trade and his best friend in a time of dire need, so a dependable aid bag is necessary. The Combat Medic should be familiar with the contents of their medical aid bag and the precise location of that content when injury or illness strikes. Thus, a load plan is necessary for rapid application for life saving interventions.

2. (U//FOUO) Discussion: The following Load Plan is developed by the 628th Forward Surgical Team (FST) Advanced Trauma and Life Support (ATLS) section in collaboration with Combat Medics assigned to C/125th BSB/ 3rd IBCT/ 1st AD (Charlie Med) operating at Forward Operating Base Shank, Logar Province, Afghanistan. The following are aid bags and material packing considerations to assist leaders in developing a solid load plan and packing list for Combat Medics operating in combat situations with unit organic medical aid bags to preserve the fighting strength of the unit. This packing list and load plan comes from the experience of three previous deployments in combat zones as a Combat Medic assigned to Infantry line companies. While this discussion is not all encompassing for an aid bag; limitation on size, weight, carrying capacity, availability, the most frequently utilized life saving supplies; these recommendations will eliminate unnecessary medical supplies and stock life saving material needed to treat battlefield injuries at the Point Of Injury METT-TC dependant. In past combat missions I have found certain medical aid bags/backpacks to be more suitable for treating patients under fire or during evacuation than other aid bags. This Combat Medic prefers the London Bridge and Blackhawk STOMP II bags for ease of access to supplies, ease of identifying the location of supplies, and the quantity of supplies that can be stored in the bags.



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London Bridge and Blackhawk STOMP II aid bag used in MASCAL after suicide bombing in Northern Afghanistan 2009.



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Medical Equipment Recommendations

A Combat Medic will typically carry a backpack styled bag known as an aid bag. Aid bags are available from many different manufacturers, in many different styles. Depending on the unit and their standard operating procedures, the medic may have to follow a strict packing list, or may have the liberty of choosing their kit depending on the mission at hand. A typical aid bag should include:

Fluid Resuscitation

The amount will depend on the length of mission. Hetastarch/Hextend, and Lactated Ringers (LR) are usually carried, if LR is not available then Normal Saline will suffice.

1 inch tape

14, 16, and 18 gauge IV catheters. BOA constricting band NSN: 6515-01-537-2611

FAST 1 intra-osseous fluid administration kit. The FAST 1 is a quick way to administer fluids when peripheral and external jugular venous access is unavailable due to massive blood loss, burns, or loss of limbs.

IV tubing with luer lock ports

Latex free IV constricting bands

Saline Lock kit NSN: 6515-01-537-4094 (replace locking saline plug with needleless luer lock saline lock)

Sharps container NSN: 6530-01-561-0359

Hemorrhage (blood loss) Control

Combat Application Tourniquet (C-A-T) - Tactical Black NSN: 6515-01-521-7976

Emergency Trauma Bandages, a newer version of the first aid pressure dressing.

Emergency Trauma Dressing (ETD) - Abdominal/Stump NSN: 6510-01-541-8121

Emergency Trauma Dressing (ETD) - 4 in. NSN: 6510-01-558-4108

Kerlix gauze



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Hemorrhage Control Bandages

QuikClot Combat Gauze

Single roll Celox Gauze NSN: 6510-99-998-6355

Single roll Celox Rapid Gauze NSN: 6510-99-184-6335

Some hemostatic agents are controversial due to their thermodynamic nature, which causes collateral damage if the user is not properly trained.

Hemostatic Agents

Celox:

Box of 100 35g Packages NSN: 6510-01-549-6058

Single 15g package NSN: 6505-99-670-7244

Single 35g Package NSN: 650-01-549-5980

Airway Management

14 gauge catheter, at least 3.25 inches long, for needle chest decompression.

Asherman chest seal, or Hyphin chest seal, as an occlusive dressing for sucking chest wounds.

Cyclone pocket BVM NSN: 6515-01-568-0193

King LTD, a simple tube airway with an inflatable cuff to create a sealed airway.

Nasopharyngeal Airway (NPA) w/surgilube or "nasal trumpet." These are contraindicated by signs of skull fracture.

Oropharyngeal Airway, a hard "J" shaped plastic device that secures an oral airway, that can be used to keep the mouth open and the tongue from obstructing the airway .

Surgical Cricothyrotomy kit. (zip-lock bag with scalpel, 5.0 or 6.0 cuffed ET tube, betadine or alcohol wipes x2, petroleum gauze, and 4x4 sponges x 4)

Tactical Crickit NSN: 6515-01-540-7568

Tactical suction device NSN: 6515-01-540-7206



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Assorted Equipment:

550 cord

Ace Bandages

ACE Cervical Collar NSN: 6515-01-541-8147

Alcohol or Providine/Iodine swabs

Assorted gauze bandages

Assorted hypodermic needles and syringes

Assorted sizes of tape (1, 2, 4 inch nylon tape)

Band-Aids

Carabiner (aids in hanging IV fluids)

Carabiner "Life Line" (A heavy duty carabiner combined with 550 cord or thin braided rope used to attach to patient to extract from dangerous situation.)

Coban

Combat Casualty Card

Cravats (muslin bandages)

Nitrile gloves

Rehydration salts NSN: 6505-01-420-9262

Safety pins

SAM Splint

Tactical Traction Splint (TTS) – Black NSN: 6515-01-346-9186

Trauma Shears

Battlefield Medicine

Antibiotics

Epi-pen: Epinephrine in an auto injecting "pen" to counter anaphylactic (severe allergic) reactions.

Morphine

Narcan: A narcotics antagonist, to counter morphine's respiratory-depressing effects.

Phenergan: An anti-nausea treatment, which also increases the pain-reducing effects of morphine.



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A Combat Medic is expected to care for the needs of the Soldiers in his team, including their everyday ailments. A medic will usually carry a small amount of what are referred to as "snivel" or "sick call meds." These common medications do not require a prescription, usually found at your local TMC.

Colace (Ducosate Sodium): A medium strength stool softener.

Diphenhydramine (Benadryl): an antihistamine with a sedative side effect.

Guaifenesin: An expectorant.

Loperamide (Imodium AD): An anti-diarrheal agent.

Naproxen, Ibuprofen, Mobic : NSAIDs which reduce pain and inflammation.

Pepto Bismol tablets: Settles upset stomachs, treat diarrhea, and heartburn.

Pseudoephedrine: A nasal decongestant.

Tylenol: An anti-pyretic and pain reducer.



Sick Call meds/thermometers/alcohol wipes can be carried in a fishing tackle box or a separate container for easier storage as seen above.

Combat Medics also carry other supplies as the mission dictates

Blood pressure cuff

Ophthalmoscope Thermometer (Oral or Rectal)

Otoscope

Pulse Oximeter

Stethoscope



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Aid Bag/ Medic Bag

Ranging from most reliable to least favored by medics down range, these are the top three bags I have seen in Afghanistan being utilized by Combat Medics.

(A) London Bridge Co. Multiple Casualty Med backpack NSN 6515-01-518-8536





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It has been my experience that the London Bridge Co. Multiple Casualty Medical backpack is the best bag to utilize for a combat mission/maneuver for a squad size element while on foot due to its durability, light weight, pole-less liter and storage space. Combat maneuvers in Northern Afghanistan were less difficult with this bag while on foot and wearing 60lbs of body armor (IOTV) and negotiating irrigation ditches.

General Features

Adjustable waist strap

Litter pouch on bottom of backpack, holds LBT-2365 Hasty litter (4 grab handles, 20L x 48H) for quick field extraction

Pack padded with 3/8 closed cell foam

Padded shoulder straps with adjustable sternum and load levelers at top

Port for hydration tubes at top

Two drag handles

Weight 7.3lbs. Including litter

Main Compartment Features

1 zippered medical pouch

3 removable pouches for IV start kits

5 zippered mesh pockets

Clear vinyl label covers on all pockets for quick content identification

Main compartment dimensions: 13L x 5W x 16H (1040cu.in.)

Overall Size: 20L x 13.5W x 5H

Materials / Construction

1000 denier DuPont Cordura

Padding: shoulder and back 3/8 closed cell foam

Pockets have grommet reinforced drain holes

Talon or YKK #9 coiled zippers

Type E thread (VT295, nylon bonded), double stitched and bar-tacked at stress points



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Load Plan Recommendation

The outside compartments of the London Bridge Co. Multiple Casualty Medical backpack should contain airway management and hemorrhage control supplies:

ACE wraps (4 4in and 3 6in)

Chest seals (6)

Cryothyroidotomy set (1)

Duct tape (1 small roll)

ETDs (2 abd and 4 4in.)

Gloves with baby powder in them (5 pair)

Headlamp (with blue and or red lens)

Kerlix gauze (4)

Nasal “trumpets” and oral airways (to exclude IFAK airways)(3 ea)

Needle decompression kits (6)

Permanent ink marker (1)

Quikclot or Celox dressings (6)

Tourniquets (2) can be fastened to the top handles of the medical backpack for Quick application on patient.





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The inside of this bag consists of numerous pouches for trauma interventions, excess supplies, sickcall meds, and IV pouches for easy access. Remember, this bag is best if used for a squad sized element and would benefit you if not overstocked with supplies. The compartment has a large amount of space for all trauma supplies to include:

- 2x2s and 4x4s (2 per IV set)
- 550 cord (ten feet)
- ACE Cervical Collar (1)
- Alcohol wipes (three wipes per IV kit)
- BOA tourniquets for difficult IV “sticks” (2)
- Box of sickcall meds (there should be enough sickcall meds to last one week)
- Carbiners (optional) (4 medium heavy duty)
- Chemlights red, green, blue, and IR (2 ea)
- Cravats (6)
- ETD abdominal and stump (4 abd and 6 4 in)
- F.A.S.T. 1 IO set (2)
- Hand and foot warmers (seasonal dependent 4 each)
- Hemostatic gauzes and agents (8 Quikclot or celox dressings)
- IV catheters 14ga,16ga, or 18ga (one of each per IV kit)
- IV fluids (3 bags of LR and 3 bags of Hextend)
- IV kits (6)
- IV tubing (1 set per IV kit)
- Kerlix (6)
- Non-latex constricting bands (1 per IV kit)
- Nylon tape 2-4 inch (1 ea)
- Opsite dressings (1 per IV kit)
- Patient thermal blanket (3)
- Pocket BVM (1)
- Portable pulse oximeter (1)
- Rehydration salts (4 packs)
- SAM Splints unrolled and folded flat (4)



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Syringes 5 and 10 cc (3 ea)
Tactical Traction Splint (1)
VS17 panel/marker (1)

Pack this bag with your mind set on squad sized MASCAL.





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(B) Blackhawk STOMP II Medical Backpack NSN 6545-01-533-5370



Internal Compartment Features

- Elastic stays and keepers
- Multiple small and medium pockets
- Numerous flat, netted zipper pockets
- Two color-coded mini packs for quick access to meds, etc.

External Features

- Drop pouches with rigging for jumps
- Hook & loop strip
- Two grab handles
- Webbing on underside for accessory packs and medic/sleeping rolls

Specifications

- Dimensions: 20”L x 13”W x 6”D
- Cubes: 2470 cu. in.



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Accessory Pouch



This multifunction replacement pouch for the STOMP II pack features pockets and elastic stays to hold medical supplies securely (airway interventions or minor procedure kits and equipment).

Specifications

- Dim: 12”L x 7”W x 3.25”D
- Cubes: 275 cu. in.

The Blackhawk STOMP II medical backpack is great for storing numerous medical supplies. The advantages are countless and the space is great plus it's easy to stock and label the compartments. However, there are disadvantages to the bag. The biggest is being the comfort level when wearing body armor (IOTV), a camelback hydration system (full with water), and having to jump over obstacles. An empty STOMP II weighs approximately 5 to 6 lbs, but fully stocked it mimics the weight of a three day ruck sack with extra supplies. I used this bag as an excess supply bag when I had to utilize equipment from my London Bridge bag. The STOMP II remained in my vehicle on mounted combat patrols and utilized with MASCAL situations. The accessory pouches were great because one was strictly for airway management and the other for minor surgical procedures. All in all, this is a must have for mounted combat missions.



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Load Plan Recommendation

Blackhawk STOMP II Medical Backpack is very flexible due to its size. The smaller first compartment can store traumatic airway and hemorrhage control interventions:

- ACE wraps (5 4in and 4 6in)
- Chest seals (6)
- Cryothyroidotomy set (1)
- Duct tape (1 small roll)
- ETDs (3 abd and 4 4in.)
- Gloves with baby powder in them (5 pair)
- Headlamp (with blue and or red lens)



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Kerlix gauze (5)

Nasal “trumpets” and oral airways (to exclude IFAK airways) (6 ea)

Needle decompression kits (6)

Permanent ink marker (1)

Quikclot or Celox dressings (6)

Tourniquets (6) Two tourniquets can be fastened to the top handles of the medical backpack for quick application on patient.

The top carry handles of this bag is a perfect place to attach tourniquets for quick use.





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The second compartment has a large amount of space for all of your trauma supplies to include:

2x2s and 4x4s (2 per IV set and 4 extra)

550 cord (ten feet)

ACE Cervical Collar (2)

Alcohol wipes (three wipes per IV kit)

BOA tourniquets for difficult IV “sticks” (2)

Box of sickcall meds (there should be enough sickcall meds to last one week)

Carbiners(optional) (6 medium heavy duty)

Chemlights red, green, blue, and IR (2 ea)

Cravats (8)

ETD abdominal and stump (6 abd and 6 4 in)

F.A.S.T. 1 IO set (3)

Hand and foot warmers (seasonal dependent 6 each)

Hemostatic gauzes and agents (10 Quikclot or celox dressings)

IV catheters 14ga, 16ga, or 18ga (one of each per IV kit and 4 each as excess)

IV fluids (6 1L bags of LR and 4 500ml bags of Hextend)

IV kits (10)

IV tubing (1 set per IV kit)

Kerlix (8)

Non-latex constricting bands (1 per IV kit)

Nylon tape 2-4 inch (2 ea)

Opsite dressings (1 per IV kit and 4 extra)

Patient thermal blanket (5)

Pocket BVM (1)

Portable pulse oximeter (1)

Rehydration salts (6 packs)

SAM Splints unrolled and folded flat (8)

Syringes 5 and 10 cc (6 ea)

Tactical Traction Splint (1)

VS17 panel/marker (1)

Pack this bag with your mind set on platoon sized MASCAL.



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(C) MOLLE II Medic Bag NSN 8465-01-496-1080





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Characteristics

Desert camouflage fabric pack 13-1/4 IN. X 14 IN. X 7-1/2 IN., with 4 internal side mesh pockets W/ velcro closures, full internal bottom pouch, 13-1/4 IN. X14 IN. zippered top flap around sides and bottom W/full interior clear vinyl pocket having Velcro closure 2 external compression straps W/fastex buckles, nylon carrying strap handle, patented attachment system for modular medical pockets. Medical pockets (4) attach with MOLLE to side of bag.

Load Plan Recommendations

Issued to Combat Medics before deployments, the outer pockets seem to fit ETDs, combat gauzes, kerlix, and ACE wraps very snugly. The space in the outer medical pockets is limited and pulling out medical equipment will become a challenge in itself, so less is more. The internal compartments are smaller than a BLACKHAWK STOMP II, and slightly larger than a London Bridge medical backpack. This bag is my least favorite and other experienced combat medics in theatre agree.

Load plan for this bag is the same, but using this bag on dismounted missions can be a aggravating. The bag rides high on the back plate of your IBA or IOTV when stocked due to its bulging shape and removal is slow and difficult. The idea of adapting and overcoming are best with this bag. The most ideal place for this bag is on mounted combat patrols located on the floor of the vehicle and not on dismounted patrols.



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3. (U/FOUO) Lesson Learned: The most productive aid bags for non Special Operation Soldiers in a combat situation are the London Bridge Medical and the Blackhawk STOMP II bag, hands down. One bag for use in the event of a dismounted patrol and one as a resupply bag that can also serve as the primary. My combat deployments to Afghanistan and Iraq were much smoother because I knew my aid bag would not fail me or my patient.
4. (U/FOUO) Recommendation: Currently the London Bridge Medical Bag and the Blackhawk STOMP II is the Combat Medics aid bag of choice. After asking numerous experienced Combat Medics on which medical bag should be sent back to the “drawing board” or kept stored away, the RFI MOLLE II Medic Bag needs to be redesigned or removed from issue facilities.
5. (U/FOUO) 628th FST Combat Medic: SGT Daniel Puentes, Regional Command East, Task Force Bulldog, 3rd IBCT, 1st AD, FOB Shank:
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