

## **California Smokejumpers Medical Gear**

The California Smokejumpers have five different medical kit configurations for various purposes, these kits are: the individual “life threats kit” (1), the first aid kit (2), the ground vehicle trauma kit (3), the aircraft trauma kit bundle (4), and the wilderness litter & wheel (5). Normally Jump 51 also has an AED available to drop.

In the spring of 2015 the Smokejumper EMS Group, made up of representatives from every Smokejumper base in the nation, recommended a standardized list of medical items to be available on all jump aircraft and all fires staffed by Smokejumpers. Our kits are designed to meet these recommendations.

Unless noted otherwise, all gear is available through Life-Assist based in Rancho Cordova California. Additional notes are in *red*.

### **The Individual “Life Threats Kit”**

Carried by all California Smokejumpers, this kit fulfills the requirement for every jumper to carry basic body substance isolation per our blood borne pathogen policy and contains four of the six “life threat items” identified as needed on every fire. The kit includes:

- 1 – Pair of nitrile gloves
- 1 – CPR barrier
- 1 – C.A.T. Tourniquet
- 1 – Pack of hemostatic gauze (Quick-Clot),
- 1 – Epinephrine kit (for trained responder use)

For reference the six items the Smokejumper EMS Group has identified to be on every fire (also referred to as the life threats or six item kit) is:

- 1 – Pair of nitrile gloves
- 1 – CPR barrier
- 1 – C.A.T. tourniquet
- 1 – Israeli Bandage
- 1 – #28 fr. nasopharyngeal airway
- 1 – Epinephrine kit (for trained responder use)

We throw a first aid kit on every fire. This kit fulfills OSHA requirements for falling/saw operations and contains four of the six items identified as needed on every fire. *(We plan to add Israeli Bandages in the future to bring this to five of six items. The sixth, the epinephrine kit, is issued to trained jumpers)*



**BSI**

- |                   |  |
|-------------------|--|
| 1-Pocket CPR Mask | 3- Pairs of Gloves (In small Ziploc Bag) |
| 1-Face Shield     |  |

- 10 – Band-Aids
- 5-Antibiotic Ointment Packs
- 5-Alcohol Preps
- 5-Benzalkonium (BZK) Antiseptic Preps
- 5-Iodine Preps (PVP)
- 3-Burn Gels
- 4-Eye Drops
- 2-Benzoin Tincture Swabs (*helps bandages stick to skin*)
- 5-Butterfly Band-Aids
- 1-Pack of Steri-Strips
- 1-Moleskin Pack
- 5-2x2 Gauze Pads
- 1-Second Skin Burn dressings (*2x3 for blisters*)

### **Medium Dressings** – In Vacuum Seal Pack

5-4x4 Gauze Pads  
2-5x9 Abdominal Pads  
2-8x10 Abdominal Pads  
1-Triangular Bandage  
2-Large Tegaderm Dressings

### **Wraps & Tape**

2- Rolls Kerlix or 2-Packs H&H Compressed Gauze (*H&H – see notes below for availability*)  
1- 3” Roll Medi-Rip Self-adherent wrap or 1-Ace Bandage of similar size (*Medi-Rip – see notes below for availability*)  
2-Rolls of Athletic Tape

### **Accessories/Equipment**

1 - NWCG Medical Evaluation and Treatment Form	1 – Medical Incident Report (9-Line)
1- Tweezers	1-Small Pencil
5-Safety Pins (Pinned to Main Bag)	1-10ml Irrigation Syringe
1-C.A.T. Tourniquet	1-EMT Shears
1-#28 Nasal Pharyngeal Airway with Lube Pack	1-90mm Oral Pharyngeal Airway
1-100mm Oral Pharyngeal Airway	1-110mm Oral Pharyngeal Airway
1-Small Roll 100mph tape/duct tape (about 3 feet worth)	

### **The Trauma Kits**

We have two configurations of our trauma kit, one that is carried in the aircraft and one that is carried in our ground vehicles. The aircraft kit includes a trauma bag and a TRS/oxygen bag that are bundled together and dropped via paracargo. The trauma bag is the core of our system and can also be attached to a Smokejumper’s harness in lieu of their personal/line gear bag. The TRS/oxygen bag is set up as a patient packaging, transport, and support bag. Most Smokejumper bases run this configuration as well. To increase standardization of equipment at the California base we use the trauma bag with a small oxygen kit and C-spine kit added as our ground trauma kit. Our “6-pack” trucks carry backboards with spider straps for patient packaging and transport.

- Our trauma bags are 5.11 Responder 84 ALS backpack bags purchased directly through 5.11 Tactical.
- TRS = Traverse Rescue Stretcher, we ordered directly through Traverse Rescue, but multiple vendors have this available.
- Jump Covers and TRS bags are manufactured in house

## Aircraft Trauma Bag Pictures



## **Trauma Kit - Inventory**

### **BSI –Top Inside Pouch Main Compartment**

- 2 – Combo Face Shield & Surgical Mask
- 1 – Splash Gown
- 2 – Pair Nitrile Gloves (Medium)
- 2 – Pair Nitrile Gloves (Large)
- 2 – Pair Nitrile Gloves (X-Large)
- 1 – Red Biohazard Bag

### **Splinting – Middle Inside Pouch Main Compartment**

- 3 – Athletic Tape Rolls *(We use 1 inch cloth type tape)*
- 3 – 3" x 5 Yard Self Adherent Wrap *(we use Medi-Rip, see notes below for availability)*
- 2 –Triangular Bandages
- 1 – SAM Splint (Bottom of Main Compartment)
- 1 – Slishman Traction Splint (Bottom of Main Compartment)

### **Bleeding Control – Bottom Inside Pouch Main Compartment**

- 1 – 10"x30" Multi Trauma Pad
- 2 – 8"x10" Abd/Trauma Pad *(OSHA Required Size)*
- 3 – 5"x9" Abd/Trauma Pad
- 8 – 4"x4"Gauze Pads *(OSHA Required Size)*
- 4 – 4.5" x 4.1 yard Fluff Gauze (H&H Compressed Gauze packs or Kerlix Rolls) *(H&H is vacuum sealed and is highly recommended, it is available through Bound Tree Medical)*
- 2 – Hemostatic Gauze (Quick Clot)
- 1 – Tourniquet (C.A.T.)
- 2 – Pair Nitrile Gloves (Large)
- 2 – Pair Nitrile Gloves (X-Large)

- 1 – Pocket BVM
- 1 – Chest Seal
- 1 – Oropharyngeal Airway Kit (Sizes 1 - 6)
- 1 – Suction Easy (This works best of any suction we have tried)
- 1 – Nasopharyngeal Airway Kit (Sizes 22 fr. - 32 fr.)
- 6 – Surgical Lube Packs
- 1 – Pair Nitrile Gloves (Large)
- 1 – Pair Nitrile Gloves (X-Large)
- 1 – King Airway Kit (Anticipated in spring 2017)
  - 1 – Size 4 (Red) King LTS-D Airway
  - 1 – Size 5 (Purple) King LTS-D Airway
  - 1 – 60 ml Syringe

### IV Kit – Red Bag Main Compartment

- 6

6 – Band-Aids  
1 – Sharps drop  
2 – 10ml syringes  
2 – Small Tegaderms  
1 – IV warming Kit  
2 – MRE Heaters  
4 – Rubber Bands  
1 – IV Tips Sheet  
2 – Ziploc Bags  
1 – Instructions

**First Aid – Top Outside Back Pocket**

2 – Pair Nitrile Gloves (Large)  
1 – Pair Nitrile Gloves (X-Large)  
2 – Large Tegaderm Dressings  
5 – 2”x2” Gauze Pads  
2 – Steri-Strip Packs  
5 – Butterfly Band-Aids  
10 – Band Aids  
5 – Antibiotic Ointment Packs  
5 – Alcohol Preps  
5 – Benzalkonium (BZK) Antiseptic Preps  
5 – Iodine Preps  
3 – Burns Gels  
4 – Eye Drops  
4 –Benzoin Tincture Swabs  
5 – Ibuprofen - DO NOT GIVE FOR TRAUMA  
5 – Acetaminophen (Non-Aspirin/Tylenol) MAX 4000mg/DAY  
5 – Diphenhydramine (Diphen)

#### **Vitals/Admin – Bottom Outside Back Pocket**

- |                                 |   |
|---------------------------------|---|
| 2 – Pair Nitrile Gloves (Large) | 1 – Pair Nitrile Gloves (X-Large)             |
| 2 – Medical Incident Report     | 2 – Patient Care Form                         |
| 5 – Tie-on-Tags                 | 5 – Safety Pins                               |
| 2 – Ballpoint Pens              | 1 – Permanent Marker                          |
| 1 – Trauma Shears               | 4 – Hand Wipes                                |
| 1 – Blood Pressure Cuff         | 1 – Pen Light                                 |
| 1 – Stethoscope                 | 1 – Pulse Oximeter W/ 2 Extra AAA Batteries   |
| 4 – Chem Lights                 | 1 – Small Roll 100mph tape/duct tape (3 feet) |

#### **Burns – Left Side Outside Pocket**

- 2 – Gel Burn Dressing 4"x16" or 8"x8"
- 2 – Burn Towel Dressing 12"x12"
- 2 – 5"x9" Abd/Trauma Pad
- 1 – Roll of Saran Wrap (This is a cheap and effective burn dressing recommended by our medical director)
- 1 – Emergency Blanket

#### **Vehicle & Practice Jump Kit Only Items - Main Compartment (ground based)**

- 1 – C-Collar and Head Wedge
- 1 – “D” Size O2 Tank
- 1 – O2 Delivery Kit
  - 1 – O2 Regulator w/Wrench & O-Ring
  - 1 – Non-Rebreather Mask
  - 1 – Nasal Cannula



Ground Trauma Bag Variation Picture



### TRS/Oxygen Bag Pictures



## **TRS/Oxygen Bag - Inventory**

- 1 – Traverse Rescue Stretcher (TRS)
- 1 – Hoist Bridle with 4 Steel Carabineers
- 1 – KED with Back Pad
- 4 – Padded Carrying Straps
- 1 – "E" Size O2 Tank
- 1 – C-Collar
- 1 – Heat Pad
- 1 – SAM Splint
- 2 – Head Blocks
- 1 – 10"x30" Multi Trauma Pad *in Lid Pocket*
- 1 – Trauma Shears *in Lid Pocket*
- 1 – Pair Nitrile Gloves (Large) *in Lid Pocket*
- 1 – Pair Nitrile Gloves (X-Large) *in Lid Pocket*
- 1 – O2 Delivery/Accessories Bag with:
  - 2 – Pair Nitrile Gloves (Large)
  - 1 – Pair Nitrile Gloves (X-Large)
  - 2 – Athletic Tape Rolls
  - 2 – Ace Wrap
  - 2 – Self Adherent Wrap
  - 4 – 4.5" x 4.1 yard Fluff Gauze (H&H Compressed Gauze)
  - 2 – 5"x9" Abd/Trauma Pad
  - 1 – CPR Pocket Mask
  - 1 – Oropharyngeal Airway Kit (Sizes 1 - 6)
  - 1 – Nasopharyngeal Airway Kit (Sizes 22 fr. - 32 fr.)
  - 1 – O2 Regulator w/Wrench & O-Ring
  - 1 – Nasal Cannula
  - 2 – Non-Rebreather Mask

## Individual Item Totals for Trauma Kits

Item	Aircraft Med Bundle			Ground Based Trauma Kit
	Trauma Bag	TRS Bag	Total	
Combo Face Shield & Surgical Mask	2		2	2
Splash Gown	1		1	1
Pair Nitrile Gloves (Medium)	2		2	2
Pair Nitrile Gloves (Large)	11	3	14	11
Pair Nitrile Gloves (X-Large)	8	2	10	8
Red Biohazard Bag	1		1	1
Athletic Tape Rolls	3	2	5	3
Self Adherent Wrap	3	2	5	3
Ace Wrap		2	2	
Triangular Bandages	2		2	3
SAM Splint	1	1	2	1
Sliselman Traction Splint	1		1	1
10"x30" Multi Trauma Pad	1	1	2	1
8"x10" Abd/Trauma Pad	2		2	2
5"x9" Abd/Trauma Pad	5	2	7	5
4"x4"Gauze Pads	8		8	8
2x2 gauze pads	11		11	11
4.5" x 4.1 yard Fluff Gauze (H&H Compressed Gauze packs or Kerlix Rolls)	4	4	8	4
Hemostatic Gauze (Quick Clot)	2		2	2
Tourniquet (C.A.T.)	1		1	1
CPR Pocket Mask		1	1	
Suction Easy	1		1	1
Pocket BVM	1		1	1
Chest Seal	1		1	1
Oropharyngeal Airway Size 1	1	1	2	1
Oropharyngeal Airway Size 2	1	1	2	1
Oropharyngeal Airway Size 3	1	1	2	1
Oropharyngeal Airway Size 4	1	1	2	1
Oropharyngeal Airway Size 5	1	1	2	1
Oropharyngeal Airway Size 6	1	1	2	1
Nasopharyngeal Airway Size fr. 22	1	1	2	1
Nasopharyngeal Airway Size fr. 24	1	1	2	1
Nasopharyngeal Airway Size fr. 26	1	1	2	1
Nasopharyngeal Airway Size fr. 28	1	1	2	1

Nasopharyngeal Airway Size fr. 30	1	1	2	1
Nasopharyngeal Airway Size fr. 32	1	1	2	1
Surgical Lube Packs	6	6	12	6
<i>Size 4 (Red) King LTS-D Airway (Anticipated 2017)</i>	1		1	1
<i>Size 5 (Purple) King LTS-D Airway(Anticipated 2017)</i>	1		1	1
<i>60 ml Syringe (Anticipated 2017)</i>	1		1	1
"E" Size O2 Tank		1	1	
"D" Size O2 Tank				1
O2 Regulator w/Wrench & O-Ring		1	1	1
Non-Rebreather Mask		2	2	1
Nasal Cannula		1	1	1
Saline locks/Extension Sets	2		2	2
IV drip sets	2		2	2
18 gauge IV	4		4	4
IV Start kits	2		2	2
500ml Normal Saline Bag	3		3	3
10ml Normal Saline flush	2		2	2
Role of IV Tape	1		1	1
Sharps Drop	2		2	2
10ml syringes	2		2	2
IV warming Kit (2 MRE Heaters, 4 Rubber Bands, & 1 Large Ziploc Bag)	1		1	1
Small Tegaderm Dressings	2		2	2
Large Tegaderm Dressings	2		2	2
Steri-Strip Packs	2		2	2
Band-Aids	16		16	16
Butterfly Band-Aids	5		5	5
Antibiotic Ointment Packs	5		5	5
Alcohol preps	11		11	11
Benzalkonium (BZK) Antiseptic Preps	5		5	5
Iodine Preps	5		5	5
Burns Gels	3		3	3
Eye Drops	4		4	4
Benzoin Tincture Swabs	4		4	4
Ibuprofen - DO NOT GIVE FOR TRAUMA	5		5	5
Acetaminophen (Non-Aspirin/Tylenol) MAX 4000mg/DAY	5		5	5
Diphenhydramine (Diphen)	5		5	5
Medical Incident Report	2		2	2
Patient Care Form	2		2	2
Tie-on-Tags	5		5	5

Permanent Marker	1		1	1
Ballpoint Pens	2		2	2
Trauma Shears	1	1	2	1
Blood Pressure Cuff	1		1	1
Stethoscope	1		1	1
Pen Light	1		1	1
Pulse Oximeter W/ 2 Extra AAA Batteries	1		1	1
Chem Lights	4		4	4
Safety Pins	5		5	5
Small Roll 100mph tape/duct tape (3 feet)	1		1	1
Hand Wipes	4		4	4
Gel Burn Dressing 4"x16" or 8"x8"	2		2	2
Burn Towel Dressing 12"x12"	2		2	2
Roll of Saran Wrap	1		1	1
Emergency Blanket	1		1	1
C-Collar		1	1	1
Traverse Rescue Stretcher (TRS)		1	1	
Hoist Bridle with 4 Steel Carabineers		1	1	
KED with Back Pad		1	1	
Padded Carrying Straps		4	4	
Heat Pad		1	1	
Head Blocks		2	2	
Head Bed				1

### **Standardized Smokejumper Med Kit - Minimum Contents List**

- In spring of 2015 every Smokejumper base (BLM and FS) in the nation agreed to carry the items listed below in their aircraft trauma kits.
- Items listed in bold have been identified as important to be standardized by brand and type.
- Most bases are near compliance with only minor variations. A barrier to implementation has been funding the switch to the new standardized gear.
- We hope to have all bases to full standardization by 2017.

NPAs w/ SURGICAL LUBRICANT	1 28 Fr.
NON-REBREATHING Mask	1
POCKET MASK w/ CASE	1
BVM w/ its own POCKET MASK	1
<b>Suction Easy SUCTION DEVICE</b>	1
<b>KING AIRWAY #4 RED (IF ALLOWED BY MED DIRECTION)</b>	1

O2 TANK (D SIZE)	1
O2 TANK REGULATOR 0-15LPM WITH EXTRA O-RING	1
O2 TANK WRENCH (IF APPLICABLE)	1
BLOOD PRESSURE CUFF	1
STETHASCOPE	1
PULSE OX w/ EXTRA BATTERIES (RECCOMENDED LITHIUM BATTERIES)	1
L.Z. ILLUMINATION LIGHTS (CHEMLIGHTS, STROBE, ETC.)	2 Forms
IRRIGATION SYRINGE (MIN OF 10-12CC)	1
TRAUMA SHEARS	1
4" GAUZE ROLLS	6
<b>TOURNIQUET (CAT-STYLE)</b>	1
COBAN ROLL (RECCOMENDED MED-RIP BRAND)	1
<b>ISRILI BANDAGE OR EMERGENCY HEMORAGE CONTROL BANDAGE</b>	1
<b>COMMERCIAL CHEST SEAL (HY-FIN, HALO, ASHERMANS, SAM SPLINT, BOLIN, ETC.)</b>	1
ATHLETIC/MEDICAL WHITE TAPE (WIDTH IS OPTIONAL)	2
SAM SPLINT 36"	1
TWEEZERS	1
TRIANGLE BANDAGES	2
ACE BANDAGE 3"	1
MEDICAL INCIDENT REPORT FORM	2
NWCG PATIENT EVAL AND TREATMENT FORM	2
LATEX-FREE SURGICAL GLOVES	8 PAIR
COMMON SENSE LABELS WITH NAME OF PACKER, DATE PACKED, DRUG EXPIRATION DATES, ETC.	1
UTILITY TAPE (100MI/HR TAPE, FIBER TAPE, ETC.)	1
COLOR CODED INVENTORY LIST WITH PICTURES	1
<b>DEDICATED PELVIC SPLINT</b>	1
<b>SLISHMAN TRACTION SPLINT</b>	1
ADJUSTABLE C-COLLAR	1
HEAD ROLLS OR HEADBEDS (HOMEMADE OR COMMERCIAL)	2
SHOULDER STRAPS (TRS OR SKED COMPATABLE)	4
<b>TRAVERSE RESCUE STRETCHER</b>	1
SPINE IMMOBILIZATION ADJUNCT (KED)	1
IV FLUIDS (WHATEVER IS AVAILABLE) 1000ML	1
18ga. CATHETER	2
ADMIN/DRIP SET (10 DROP)	1
IV START KIT	1
SHARPS CONTAINER	1
SMALL ROLL IV TAPE	1

### Wilderness Litter/Wheel



- The wilderness litter and wheel are available for order from the Redding Smokejumper Base.
- Litter rated for hoist, high angle, and low angle rescue.
- It is not normally carried on the aircraft.
- Comes with blankets and warming pad for patient packaging.

### Example Items

#### Medi-Rip



We specifically use Medi-Rip available through Masune First Aid Supply or Bound Tree Medical. We have found it to stand up best to the fireline/back of an aircraft environment, other brands tend to turn into an unusable brick in the heat.



### H&H Compressed Gauze



H&H is vacuum sealed fluff gauze and is highly recommended, it is available through Bound Tree Medical and others

### Slighman Traction Splint



### Head Wedge

