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Report and Medical Analyses of Personnel Injury from Operation "Just Cause"

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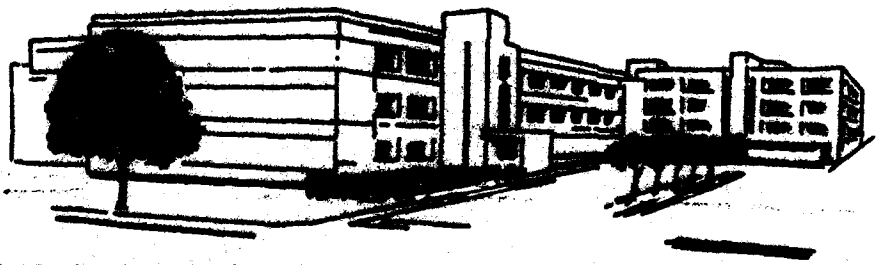

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FOREWORD

This Institute Report is a reproduction of the data and narrative analyses produced by MAJ John McBride, MC following "Operation Just Cause." Although the narrative and correspondence have been edited, the data are presented in the same format as the original report which was submitted to the Chief Surgical Consultant.

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REPLY TO
ATTENTION OF:

SGRD-ULY-MT(340d) 4 May 1990

MEMORANDUM THRU Chief, Division of Military Trauma Research, ATTN: LTC William G. Rodkey, DVM, Presidio of San Francisco, CA 94129-6800

Commander, ATTN: COL Donald G. Corby, Letterman Army Institute of Research, Presidio of San Francisco, CA 94129-6800

FOR Chief Surgical Consultant, ATTN: HQDA (SGPS-CP-S), COL John S. Parker, MC, US Army Health Professional Support Agency, 5109 Leesburg Pike, Falls Church, VA 22041-3258

SUBJECT: Report on Personnel Injury Analyses from Operation "Just Cause"

Enclosed is the report and evaluation of casualties who were air evacuated from Panama during Operation "Just Cause". The information was obtained through patient interviews and a comprehensive record review performed in San Antonio at Brooke Army Medical Center (BAMC) and Wilford Hall Air Force Medical Center (WHAFMC). This report represents an evaluation of the data and information presently available to us for review.

JOHN T. McBRIDE, Jr.
MAJ, MC
Research Fellow
Division of Military Trauma Research

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Report and Medical Analyses of Personnel Injury from Operation "Just Cause" - McBride et al.

PROCEDURE

On 20 December 1989, at approximately 0100 hours, Operation "Just Cause" commenced. Approximately six hours later the first patients (casualties) were evacuated from Panama to San Antonio. On 23 December 1989, researchers at Letterman Army Institute of Research (LAIR) proposed to assemble a team to evaluate the casualty data; however, because of the high volume of patients, it was suggested that we delay. On 3 January 1990, I (MAJ McBride) flew to San Antonio to interview the casualties remaining on the wards. I met with CPT Denise Lew of WHAFMC on 4 January, and was given access to the patients who remained in the hospital at Wilford Hall. I interviewed and evaluated 18 hospitalized patients to ascertain information on the medical treatment provided in Panama, as well as the triage and evacuation system in place. A few of the injured soldiers were medics, and they were able to provide insight into the casualty treatment. On 5 January I went to BAMC. COL Bucknell (Chief, Orthopaedic Department) informed me that all of the Army patients had been personally interviewed by the 5th Army Adjutant General's staff. He told me that MAJ Garcia was in charge and might provide some assistance with the evaluation of the Army individuals. Information obtained from the Adjutant General's office was quite helpful in verifying medical records and identifying these individuals. This information proved extremely useful during the follow-up evaluation as the medical records were not always accurate with respect to the etiology of the injury. After spending the morning with MAJ Garcia, I returned to BAMC and the Burn Unit. Three burn casualties were still being treated. I was granted permission to interview these individuals, and did so. Prior to departure from BAMC, arrangements were made with the Patient Administration Office to return in six weeks for a comprehensive record review.

Over the next three weeks, arrangements were finalized with the Patient Administration Departments at both WHAFMC and BAMC, for a record review commencing on 13 February and concluding on 16 February. Once these arrangements were confirmed, we coordinated with a team from the Uniformed Services University (USUHS) to collect data in San Antonio. I arrived on the morning of 13 February and made arrangements with CPT Lew from WHAFMC to review their records on 15 February. I then spent the afternoon with LTC Amos (Chief, Patient Administration) at BAMC, and he provided us with a conference room for

our review. At 0730 hours on 14 February, we began our review of all pertinent records which were available. Each chart was reviewed individually and data were recorded using an assembly line method. We finished at BAMC at approximately 1700 hours the same day. We met the following day, 15 February, at WHAFMC. We reviewed the casualty records at WHAFMC and completed our evaluation at approximately 2000 hours.

After reviewing records at both medical centers, it became apparent that personal interviews would be required to obtain truly accurate information regarding the injury data in Panama. The medical records were adequate for medical treatment; however, the epidemiologic factors were not stressed in the acute medical record of the injured soldier. For example, some lacerations due to fragmentation wounds could not be distinguished from those caused by gunshot wounds. To a triage officer, an emergency room physician, or a physician's assistant, this injury is a penetrating wound. Details of the cause (e.g., shrapnel or gunshot, high or low velocity, and/or caliber of weapon) usually were not recorded in the medical records. Consequently, data from the Adjutant General's Office were most useful.

It was also difficult to obtain information on the amount and type of fluid therapy received by each casualty. Many of these soldiers were admitted to the hospital on a "short form" (SF539). It is used to provide a brief summary of the soldiers' medical history. The doctor's orders included the type and rate of administration of the fluids; however, details regarding the total volume administered were usually not included. Fortunately, the medical records were very accurate with regard to the anatomic location of the injuries.

EVALUATION

Records for 253 casualties were evaluated. This number represents records at BAMC and WHAFMC that were available for evaluation. It does **not** reflect the total number wounded during Operation "Just Cause".

Cause of Injuries vs. Duty Station

The etiology of injuries was evaluated with respect to the stated duty station of the individuals (Table 1). These data correlate well with data obtained from other reports from "Just Cause" showing approximately 30% fragmentation wounds, 25% gunshot wounds and 30% jump injuries. The similar number of jump injuries sustained by the troops from Fort Bragg and Fort Lewis is noteworthy since other reports have indicated twice as many Fort Bragg soldiers participated compared to soldiers from Fort Lewis (2600 vs. 1300). These data indicate a two-fold higher rate of jump injuries for soldiers from Fort Lewis. Also noteworthy is the number of projectile wounds sustained by soldiers from Fort Bragg. Again, assuming twice as many soldiers participated from Fort Bragg, one would expect twice as many projectile wounds. The numbers from Fort Bragg (58) and Fort Lewis (9) reveal a six-fold increase which represents three times the rate of projectile injuries for those troops from Fort Bragg.

Physical Injury Location vs. Cause of Injury

The anatomic location of the physical injury was compared with the cause of injury (Table 2). Seventy percent of all injuries were in the extremities. These data correlate well with data from previous conflicts such as World War I, World War II, and Vietnam. It reemphasizes that extremity injuries are common in battlefield situations. Fatalities attributed to extremity injuries are rare, yet the treatment of extremity injuries requires extensive medical attention and supplies.

Physical Injury Location vs. Duty Station

The anatomic location of injury (n=378) was also identified with respect to the individual units (Table 3). The Fort Bragg troops sustained a total of 135 injuries and those from Fort Lewis, 63. These numbers correlate well with the total number of troops participating from each installation.

Cause of Injuries vs. Number of Wounded

Figures 1 and 2 graphically display the cause of injury versus the number of wounded soldiers. This illustration assumes one cause per soldier. We assume that 3900 troops participated in the night drop. Only 71 experienced jump injuries, an incidence of less than two percent. This is much lower than the expected jump injury rate of six percent.

Physical Injury Location

The anatomic locations of 378 physical injuries sustained by the 253 casualties are summarized in Figure 3. The majority of these are extremity wounds. The lower number of thoracic and head injuries may represent a lower risk attributable to a smaller body surface area as compared to the extremities. It may also represent the protective effects of clothing such as Kevlar® vests and helmets.

Multiple Physical Injuries

The majority of the casualties in Panama sustained one injury. Thirty-five percent, however, had two or more injuries (Figure 4). These multiple injury casualties were more seriously wounded and required increased medical attention and supplies. The patients with sarcoidosis, seizures, appendicitis, psychological injuries and ten of the heat exhaustion patients were excluded from this evaluation.

Injury Severity Score

The injury severity score (ISS) is a numerical grading system used to evaluate trauma patients. The grading scale has been adapted by the American Medical Association. An ISS score of 16 is predictive of a ten percent mortality. This prediction correlates well with the individuals who were treated from the Operation (Figures 5, 6, 7). One casualty is known to have died of wounds (DOW) in San Antonio. In our review and evaluation, we noted 15 patients with an ISS greater than 15. This represents a six percent mortality rate which is lower than expected; however, the numbers were too small to be statistically significant. Of particular note is that the majority of the individuals had a very low ISS score. Seventy-five percent had an ISS score of five or less.

Musculoskeletal Injuries

Soft tissue injuries, fractures, and sprains were classified as musculoskeletal injuries (Figure 8). Soft tissue injuries were all those that were not fractures or sprains, and included lacerations and contusions. These injuries were subdivided into two categories: penetrating and non-penetrating. The results are graphically displayed in Figure 9. Thirty-five percent of all the musculoskeletal injuries were fractures. Sixty percent of the fractures were open, contaminated injuries. Eighty-six percent of the open injuries were secondary to penetrating wounds (Figure 10). The high incidence of open, contaminated injuries in combat soldiers is in contrast to conventional injuries in the civilian population where blunt trauma and closed fractures are more common. Also noteworthy was a large number of soft tissue injuries resulting from penetrating projectiles.

Joint Injuries

Figures 11 and 12 graphically demonstrate the number and location of injuries to the joints. More than seventy percent of the joint injuries involved a lower extremity. This is one area where impact loading and soldier load play an important role. Although the upper and lower extremities are equal in number, the increased rate of injuries in the lower extremities was probably due to the weight bearing characteristics of the lower extremities. Direct blows to the lower extremities, such as landing from a jump, account for the elevated incidence of joint injuries in the lower limbs. Recommendation: Any steps which can be taken to decrease the impact loading of the lower extremity, or to decrease the weight felt by the lower extremity, should have a direct effect upon the frequency of these injuries.

Estimated Blood Volume Loss

Figures 13 and 14 represent our best estimate of the blood volume loss and fluid treatment. Figure 13 is a graphic display of the estimated blood volume loss. The estimate assumes an average soldier weighs 70 kg and has a normal blood volume of five liters. Casualties who had sustained projectile wounds and possessed hematocrit information were included. Also included were casualties who required fluid resuscitation, but were not injured by projectiles. The heat exhaustion casualties were excluded. This criteria identified 105 records of the 253. The hematocrit used in the calculation was the first hematocrit listed in the individual's record. Some casualties had hematocrits first recorded as early as 20

Dec 89 in Panama. Other casualties had hematocrits recorded for the first time a day or two later, prior to surgery in San Antonio. We feel that the records of the gunshot wound population and the fragmentation wound population are comparable. A fairly accurate estimate can be obtained. The blood volume loss was greater in the gunshot wound population compared to the fragmentation wounded population (Figure 13).

Fluid Treatment Volumes

Fluid treatment volumes were calculated for the casualties who sustained gunshot or fragmentation wounds, and had information in their records regarding the fluids they received (Figure 14). Most records only recorded the type of fluid and the intravenous rate. The total volume is not recorded. This is a source of error. We assume that this error is the same for both gunshot wounds and fragmentation wounds and as such, an estimate is provided. These data suggest that casualties with gunshot wounds were resuscitated more vigorously. These individuals also required more units of blood.

RAW DATA

Tables 4 through 9 in Appendix I contain the raw data which were obtained during the two visits to San Antonio.

Demographic Data

Table 4 records demographic data obtained from the records and interviews. The unit where the troop was assigned was obtained from the inpatient records, personal interview, and/or the 5th Army Adjutant General's report.

Vital Statistics

Vital statistics from the individuals who were injured in Panama are in Table 5. The average height for all individuals was 70 inches (178 cm) and the average weight was 171 pounds (78 kg). Most of the casualties were injured on the first day of hostilities. Again, this information was not accurately recorded in all of the medical records.

Injury Statistics

Available injury statistics for each casualty are recorded in Table 6, including the place, date and time, environment, and state of mind when the injury occurred. Also included is the cause of injury and the projectile involved, if any. It should be noted that the majority of records had little or no information on the time and place, nor the state of mind when the injury occurred. Perusal of these raw data, however, reveals some interesting items. Several injuries, for example, occurred while the individual was not in a hostile environment. One injury was attributed to a "runaway weapon" which led us to examine safety factors associated with the use of the M249 Squad Automatic Weapon (SAW) and the manual (FM 23-14). After a thorough evaluation, it was determined that a runaway weapon could, in fact, occur.

Recommendation: Proposals were made to modify the manual to identify this potential situation. Hopefully, these recommendations will prevent similar incidents from occurring in the future. See Appendix II.

Severity, Clinical Statistics and Anatomic Region of Injury

The data for each patient concerning the cause, severity, clinical statistics, and the anatomic location of the injury was recorded in Table 7. The four most severe injuries were coded as described in a footnote to the table. The first recorded hematocrit and blood pressure was used. The majority of these measurements were obtained just prior to surgery in San Antonio. Specific gravity of the urine was recorded to provide an estimate of body hydration status.

Fluid Treatment

Records of the fluids received by the casualties were compiled as accurately as possible (Table 8). Unfortunately, the fluids that were recorded in the chart were in cc/hr. Total volume was not well recorded in all charts. This is a source of error for the evaluation of the fluids.

Treatment

Table 9 is representative of treatment received in Panama and in San Antonio. We included antibiotics that were recorded in the medical record. This is in addition to the Rocephin® that was administered in Panama.

SUMMARY

One of the goals that we set out to accomplish in January was to assess the medical treatment in Panama. When we returned in February for record review, it became obvious that most of the information we required would not be available from the records. Therefore, interviews with the individual soldiers and the medics involved in the Operation would be required to obtain accurate data.

We have attempted to assemble, as comprehensively as possible, an evaluation of the casualties evacuated to San Antonio. We have critically looked at the information from the medical records and from interviews of these patients. From our data, it appears that personnel from Fort Lewis had twice the incidence of jump injuries as personnel from Fort Bragg. Factors responsible for this difference are unknown, but may be related to the relative number of participating Rangers from each post. There were reportedly half as many Rangers as there were personnel from the 82nd Airborne; however, their number of injuries are approximately equal with regard to jump injuries.

The incidence of projectile wounds sustained by the personnel from Fort Bragg appears high with respect to other units (Table 1). Without the exact numbers of soldiers participating and their duty stations, the rate of injury is difficult to determine and may, in fact, be equal for the two units.

We did note a high incidence of extremity wounds. The severely injured soldier, as demonstrated by the ISS score, was not seen in the

overwhelming frequency anticipated. We interviewed a few of the individuals who, in Panama, underwent major surgical procedures, such a laparotomies. The medical and surgical care in country appeared excellent. The high frequency of open fractures is cause for concern, and warrants a follow-up evaluation to assess any possible complications. This will reveal information needed to help plan for the next conflict. From the brief evaluation of the individuals, there does not appear to be a high incidence of infection. This is probably due to the prompt and appropriate treatment obtained in country.

The initial history and physical did not document the medical care provided in Panama. This is especially true of those with less serious injuries. Those individuals who were more seriously wounded, or who had surgical procedures in Panama, did have records from the time they reached the Forward Surgical Team. This information was obtained from the individuals who were interviewed in January; however, it was extremely difficult to obtain from the record review and, in most cases it was not available. The information regarding the acute medical care in Panama will only be available from individual interviews of soldiers and medics involved in the conflict.

Conspicuously absent is the evaluation of the autopsy reports on the individuals who died of wounds or who were killed in action. Consequently, our data are skewed towards the survivors and the less severely injured. These data have been requested on multiple occasions so that we can gain better insight into the factors responsible for the more severe injuries. Hopefully, at some time in the future we will have these data to supplement our evaluation.

A detailed review and follow-up evaluation is warranted so that efficacy of treatment at the time of injury can be evaluated. Follow-up statistics will be generated to help further define the appropriate care of the military trauma patient.

ACKNOWLEDGEMENTS

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CAUSE OF INJURIES vs. DUTY STATION

Duty Station	Fragmentation Wound	Jump	Gun Shot Wound	Accident	Heat Exhaustion	Burn	Other	Unknown	TOTAL
Ft Bragg	33	27	25	10	10	3	2	1	111
Ft Lewis	8	25	1	3	0	0	0	0	37
Ft Benning	6	7	4	3	0	0	0	0	20
Ft Polk	11	0	4	2	0	0	0	1	18
VA Beach	2	0	9	1	0	0	0	1	13
Ft Ord	7	0	4	2	0	0	2	0	15
Ft Stewart	1	10	0	0	0	0	0	1	12
Ft Campbell	1	1	0	1	0	0	0	0	3
Ft Meade	2	0	0	0	0	0	1	0	3
Ft Hood	0	0	1	1	0	0	0	0	2
BAMC	0	1	0	0	0	0	0	0	1
Tinker AFB	0	0	0	0	0	0	1	0	1
Panama	2	0	6	3	0	0	0	0	11
Other	0	0	3	1	1	0	1	0	6
TOTAL	73	71	57	27	11	3	7	4	253
	29%	28%	23%	11%	4%	1%	3%	2%	

Table 1

PHYSICAL INJURY LOCATION vs. CAUSE OF INJURY

Cause of Injury	Extremities	Thorax	Head & Neck	Pelvis	Abdomen	Eye	Spine	TOTAL
Gun Shot Wound	104	10	8	9	6	3	0	140
Frag	58	12	9	3	8	4	2	96
Jump	74	7	6	1	0	1	3	92
Accident	21	5	9	1	0	0	0	36
Burn	6	0	0	1	0	0	0	7
Unknown	1	1	0	0	1	1	0	4
Other	2	0	0	0	0	0	0	2
Heat Exhaustion	0	0	1	0	0	0	0	1
TOTAL	266	35	33	15	15	9	5	378
	70%	9%	9%	4%	4%	2%	1%	

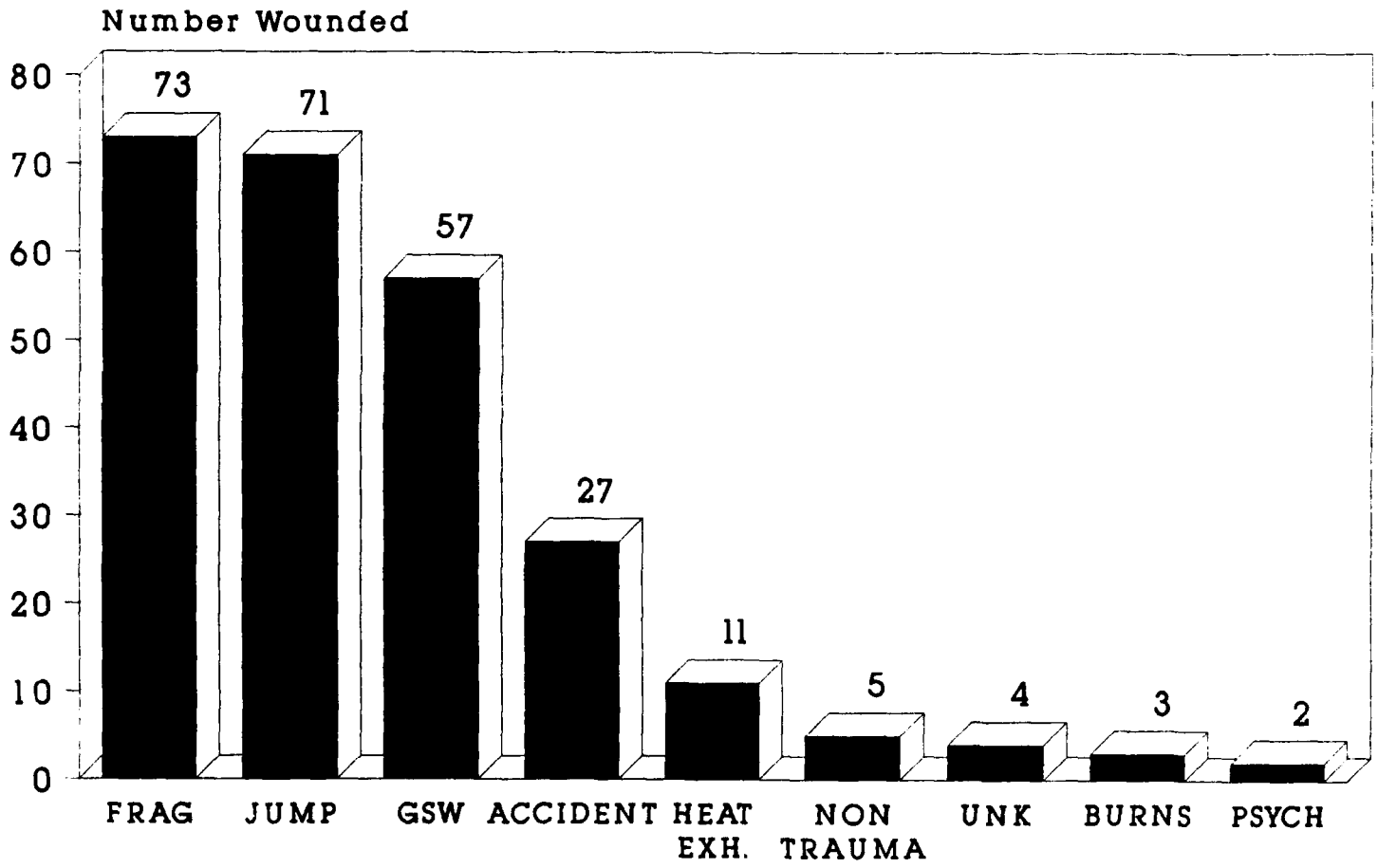
Table 2

PHYSICAL INJURY LOCATION vs. DUTY STATION

Duty Station	Extremities	Thorax	Head & Neck	Pelvis	Abdomen	Eye	Spine	TOTAL
Ft Bragg	97	15	9	6	5	2	1	135
Ft Lewis	42	7	6	3	1	2	2	63
Ft Benning	28	5	0	2	2	2	1	40
Ft Polk	24	2	7	1	1	0	0	35
VA Beach	13	1	2	3	2	1	1	23
Ft Ord	18	2	1	0	1	0	0	22
Ft Stewart	13	0	1	0	0	0	0	14
Ft Campbell	4	0	1	0	1	0	0	6
Ft Hood	3	0	0	0	0	0	0	3
Ft Meade	2	0	0	0	0	0	0	2
BAMC	1	0	0	0	0	0	0	1
Tinker AFB	0	0	0	0	0	0	0	0
Panama	17	2	2	0	1	1	0	23
Other	4	1	4	0	1	1	0	11
TOTAL	266	35	33	15	15	9	5	378
	70%	9%	9%	4%	4%	2%	1%	

Table 3

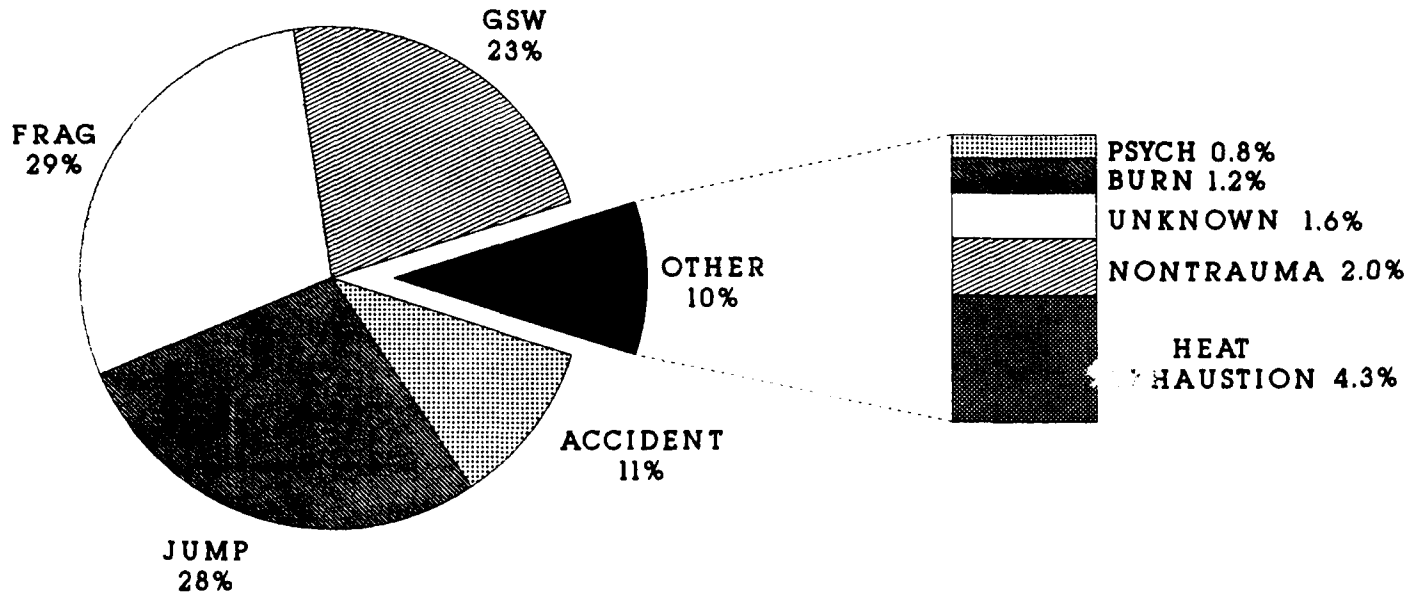
CAUSE OF INJURIES



Casualties evaluated=253

Figure 1

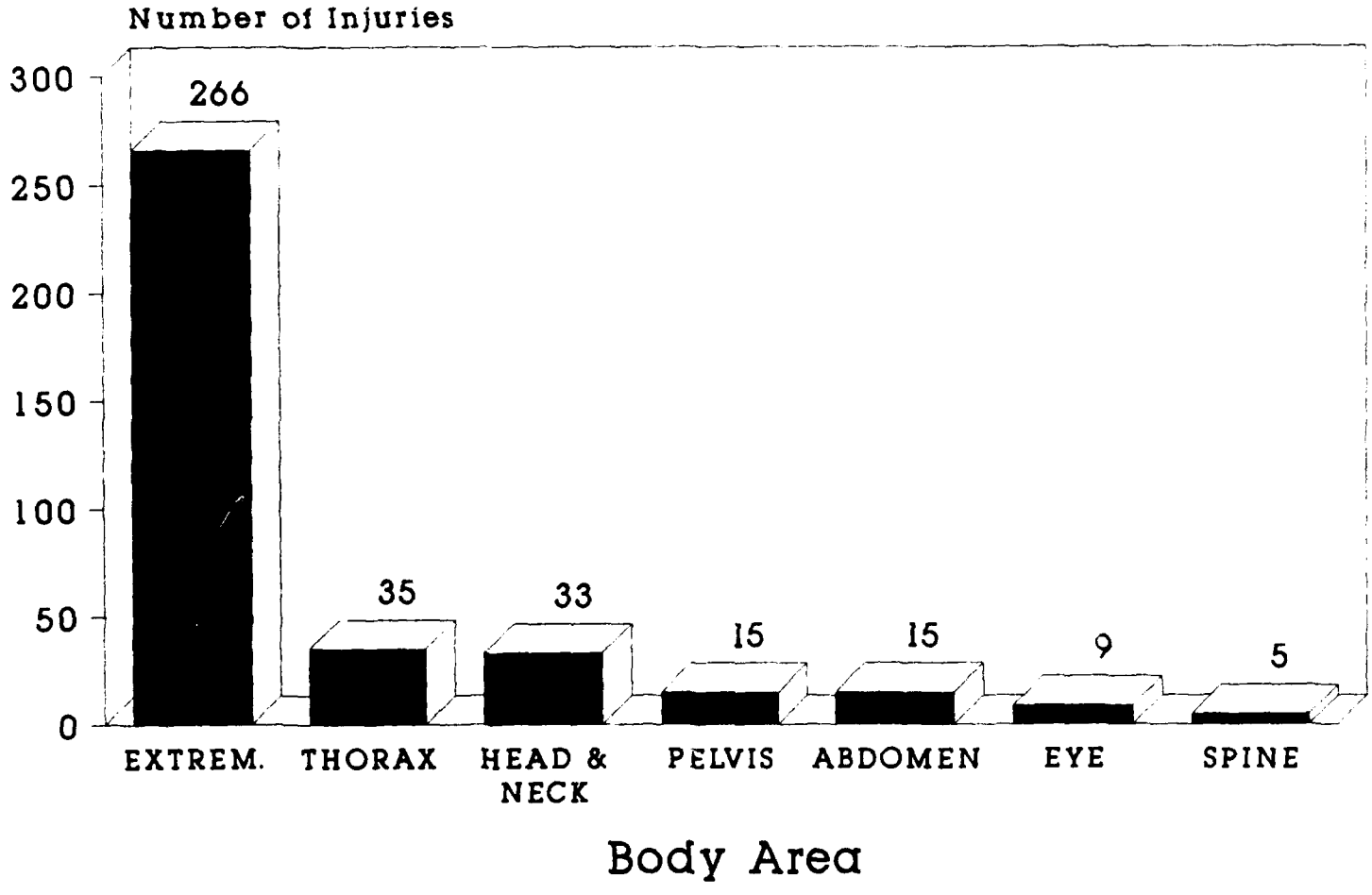
CAUSE OF INJURIES
PERCENT WOUNDED



Casualties evaluated=253

Figure 2

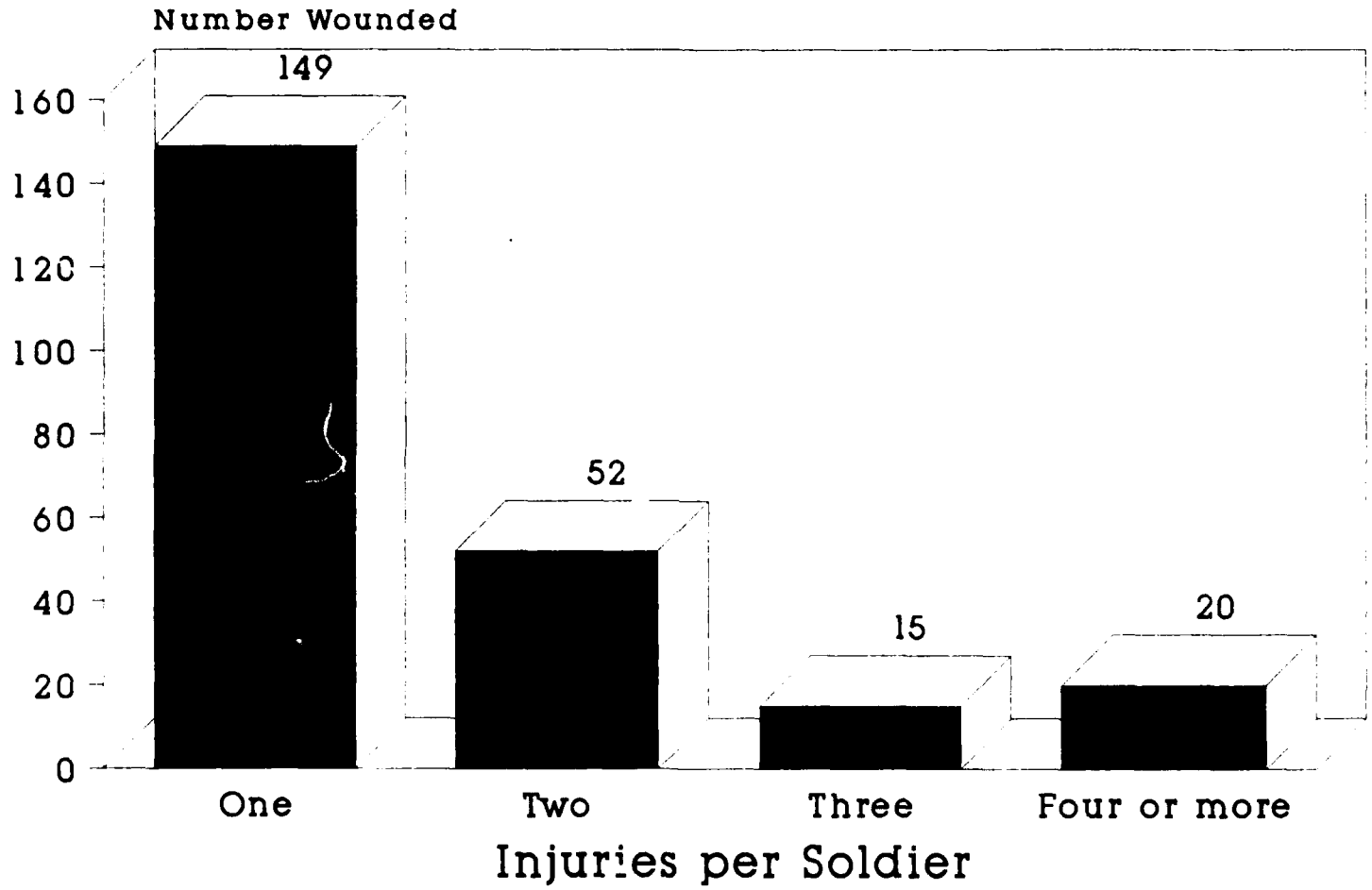
PHYSICAL INJURY LOCATION



378 physical injuries evaluated/253 casualties

Figure 3

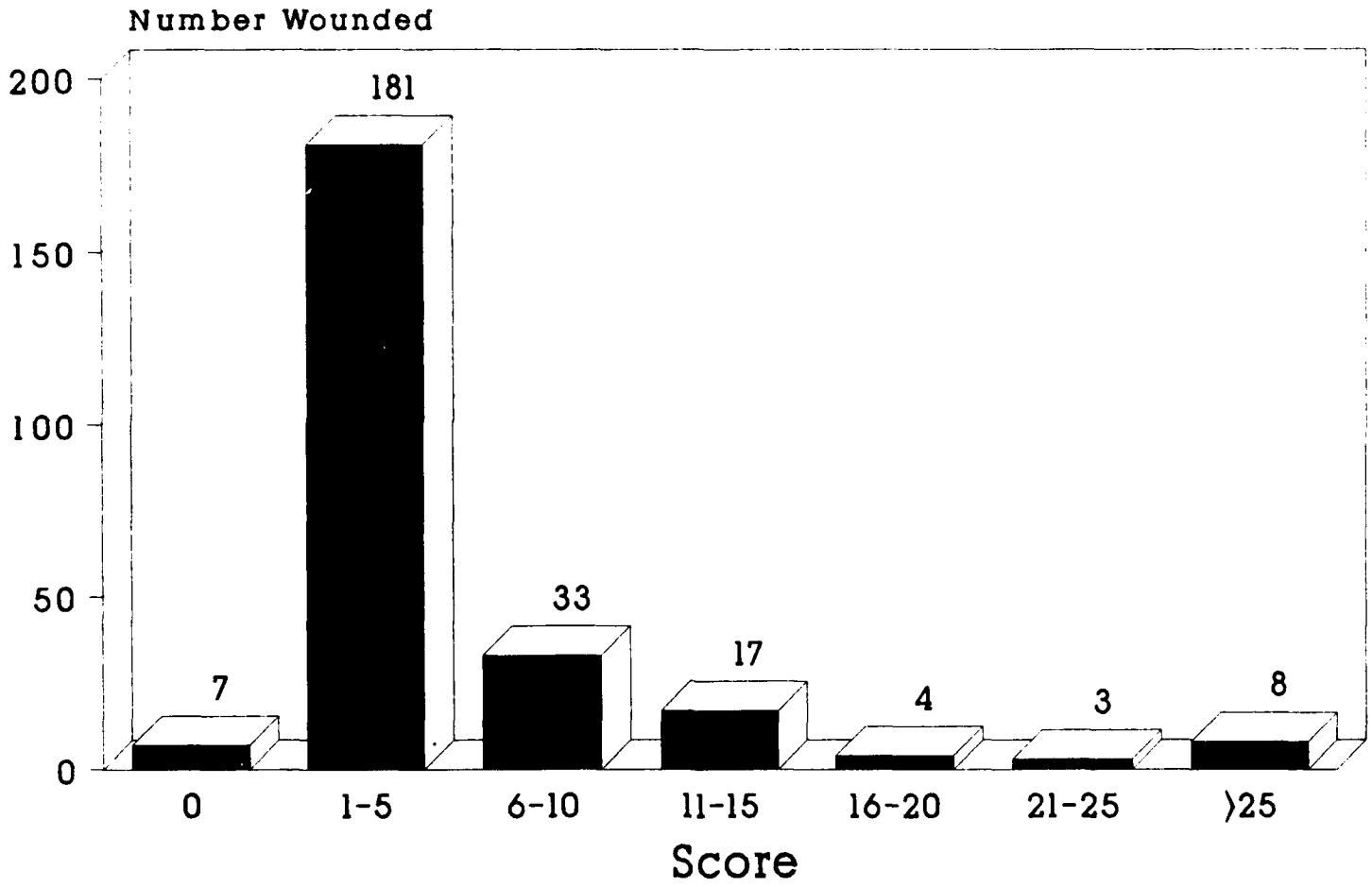
MULTIPLE PHYSICAL INJURIES



378 physical injuries evaluated/253 casualties

Figure 4

INJURY SEVERITY SCORE



Casualties evaluated=253

Figure 5

INJURY SEVERITY SCORE

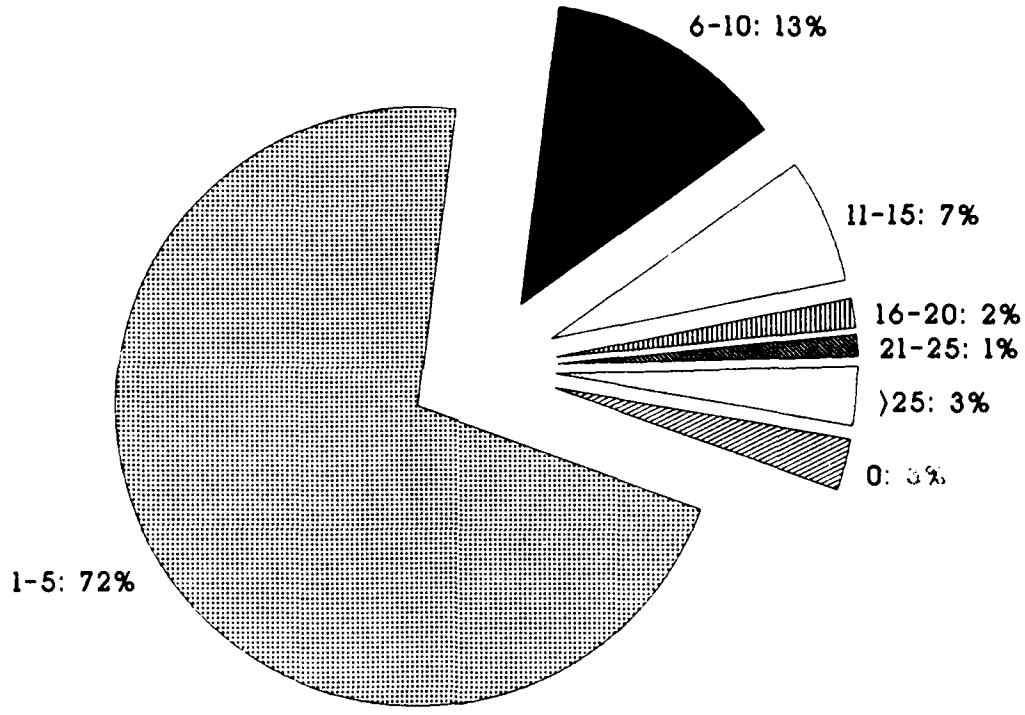
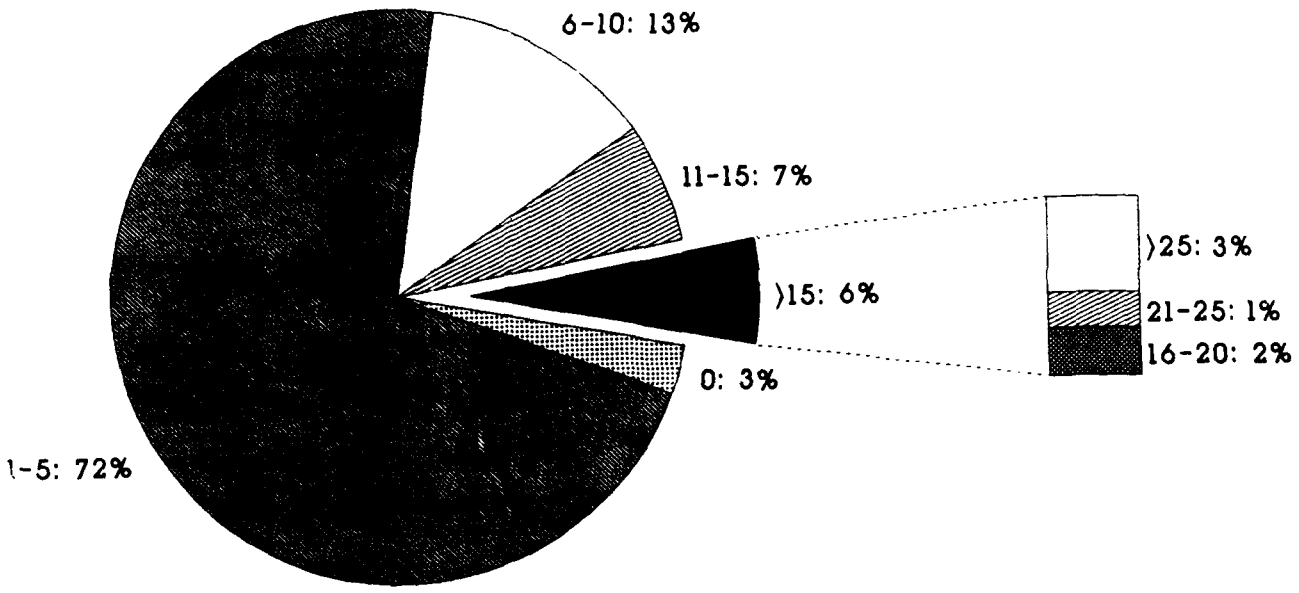


Figure 6

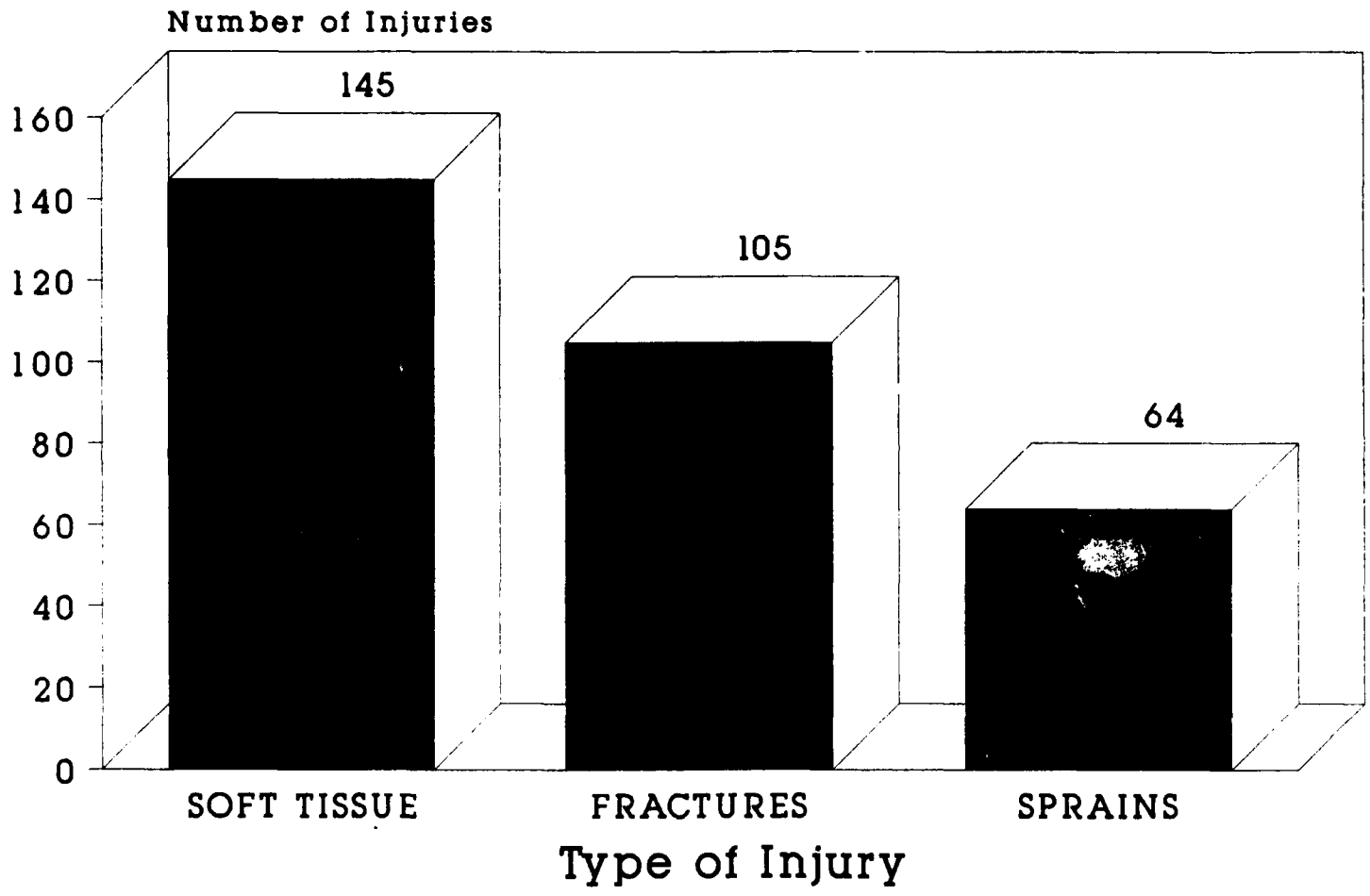
INJURY SEVERITY SCORE



ISS greater than 15=10% mortality rate

Figure 7

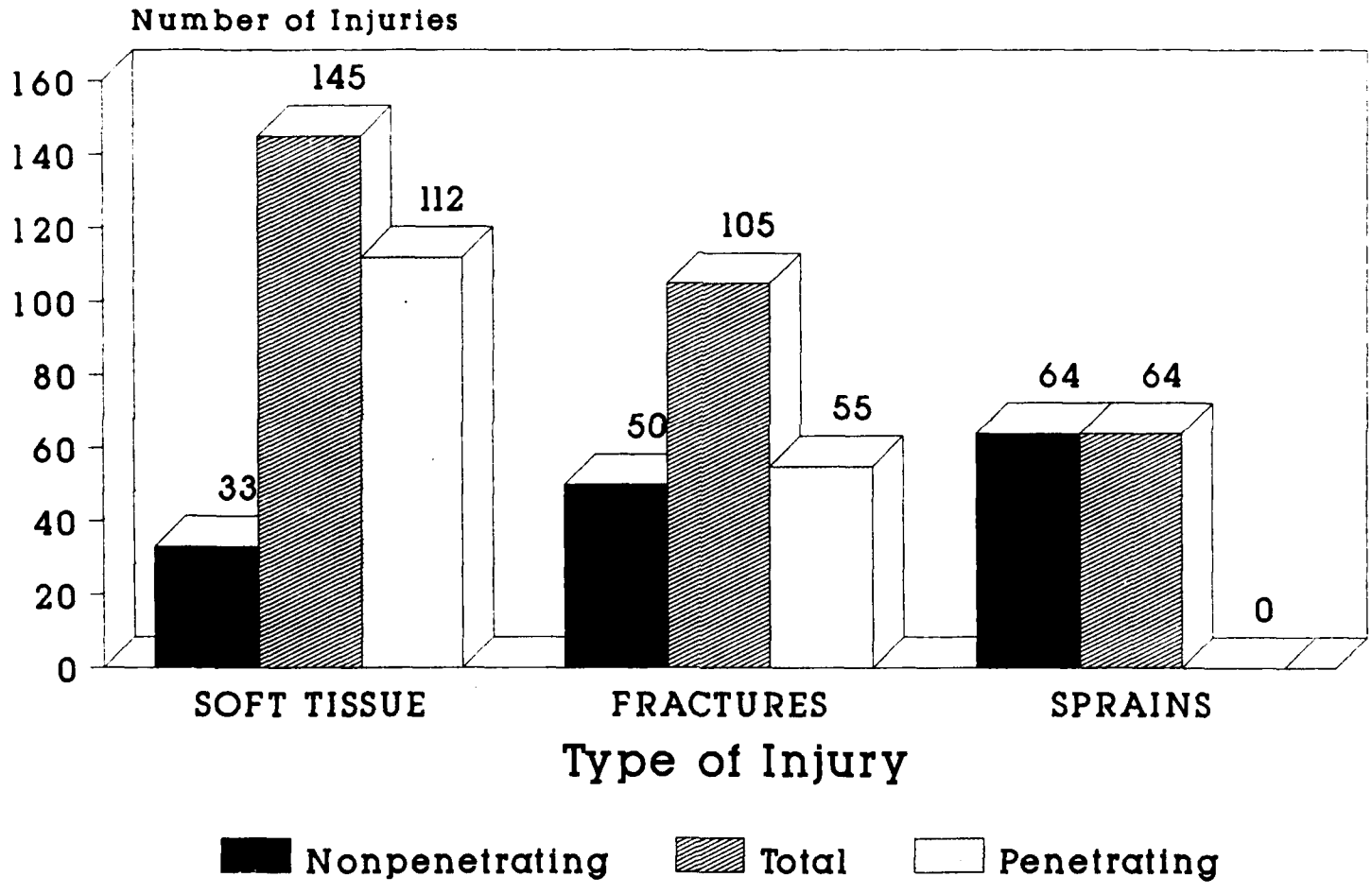
MUSCULOSKELETAL INJURIES



314 musculoskeletal injuries evaluated/253 casualties

Figure 8

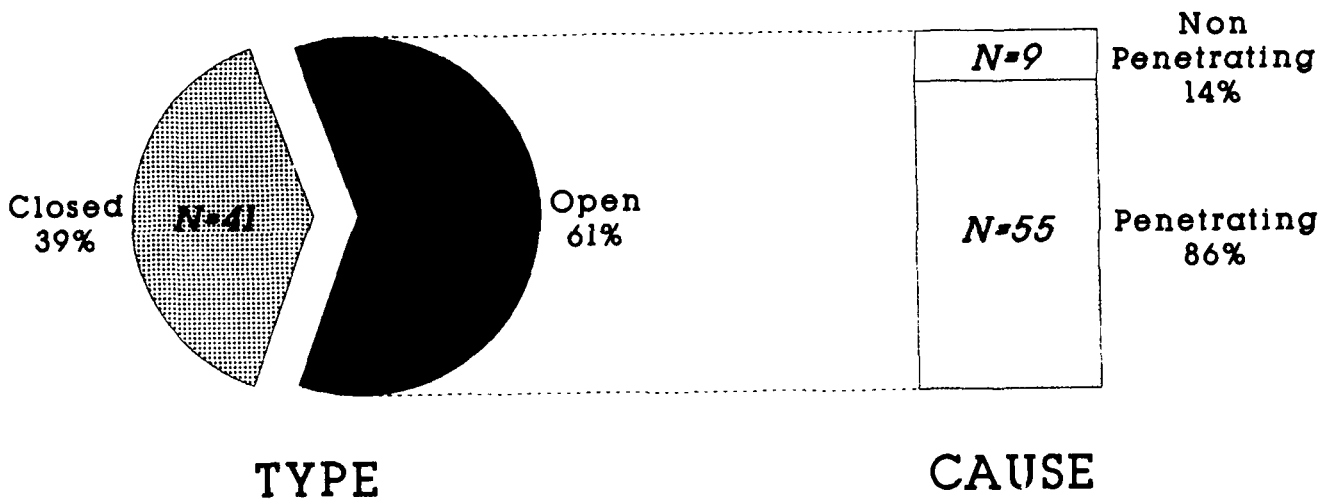
MUSCULOSKELETAL INJURIES



314 musculoskeletal injuries evaluated/253 casualties

Figure 9

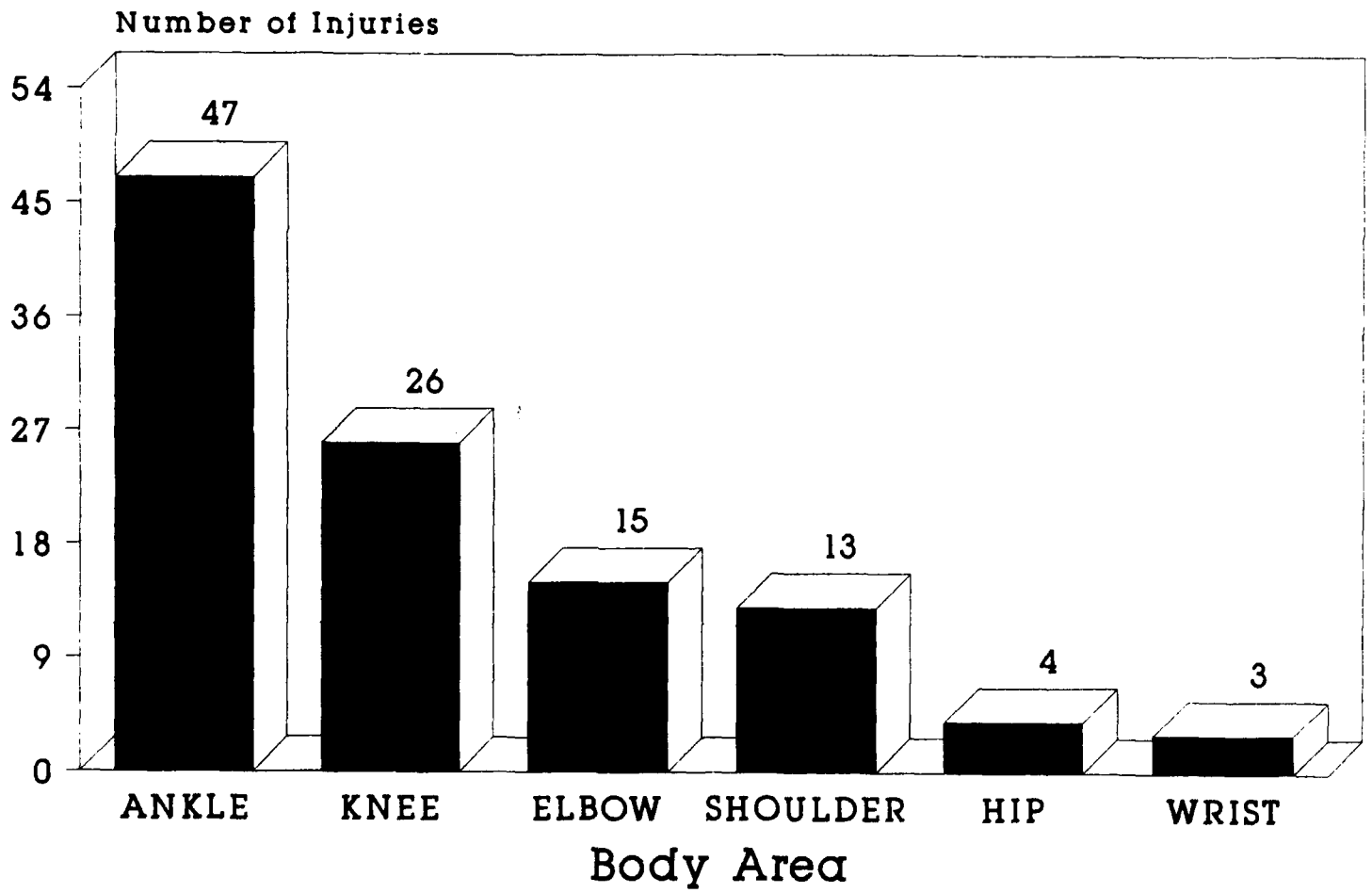
FRACTURES



105 fractures evaluated/253 casualties

Figure 10

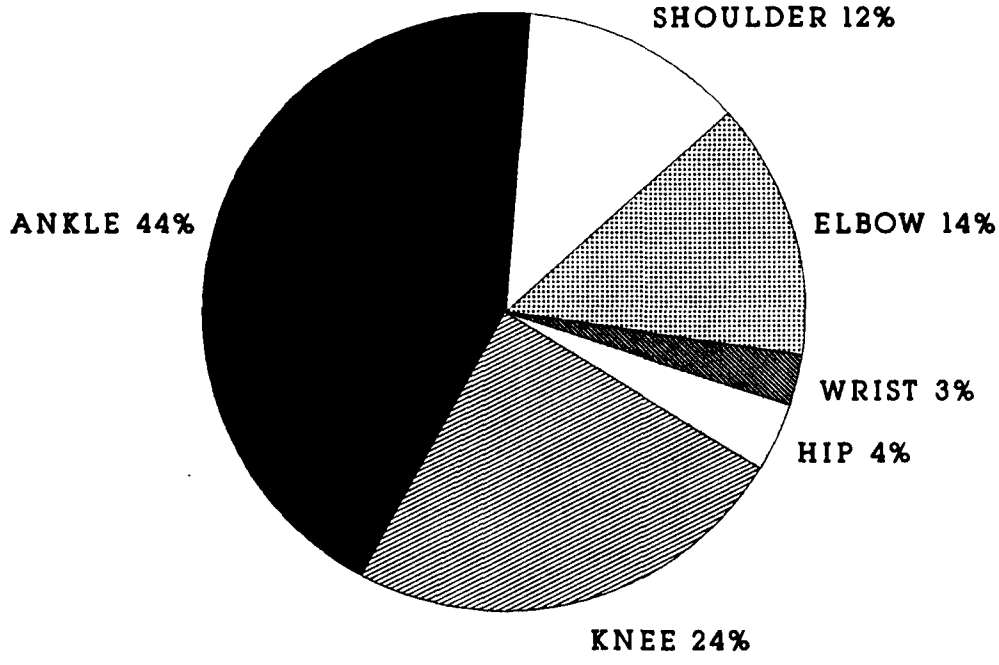
JOINT INJURIES



108 joint injuries evaluated/253 casualties

Figure 11

JOINT INJURIES

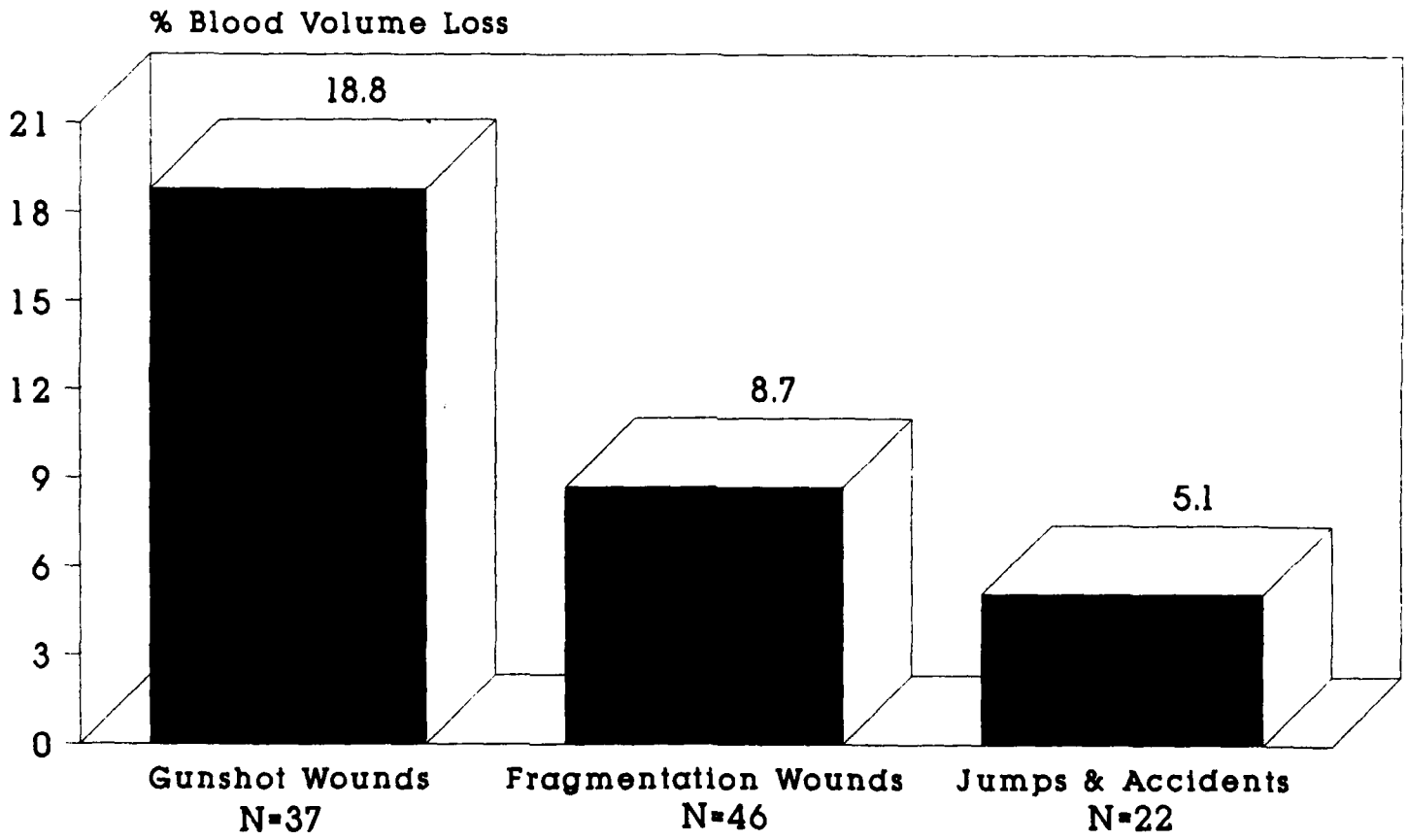


108 joint injuries evaluated/253 casualties

Figure 12

ESTIMATED BLOOD VOLUME LOSS*

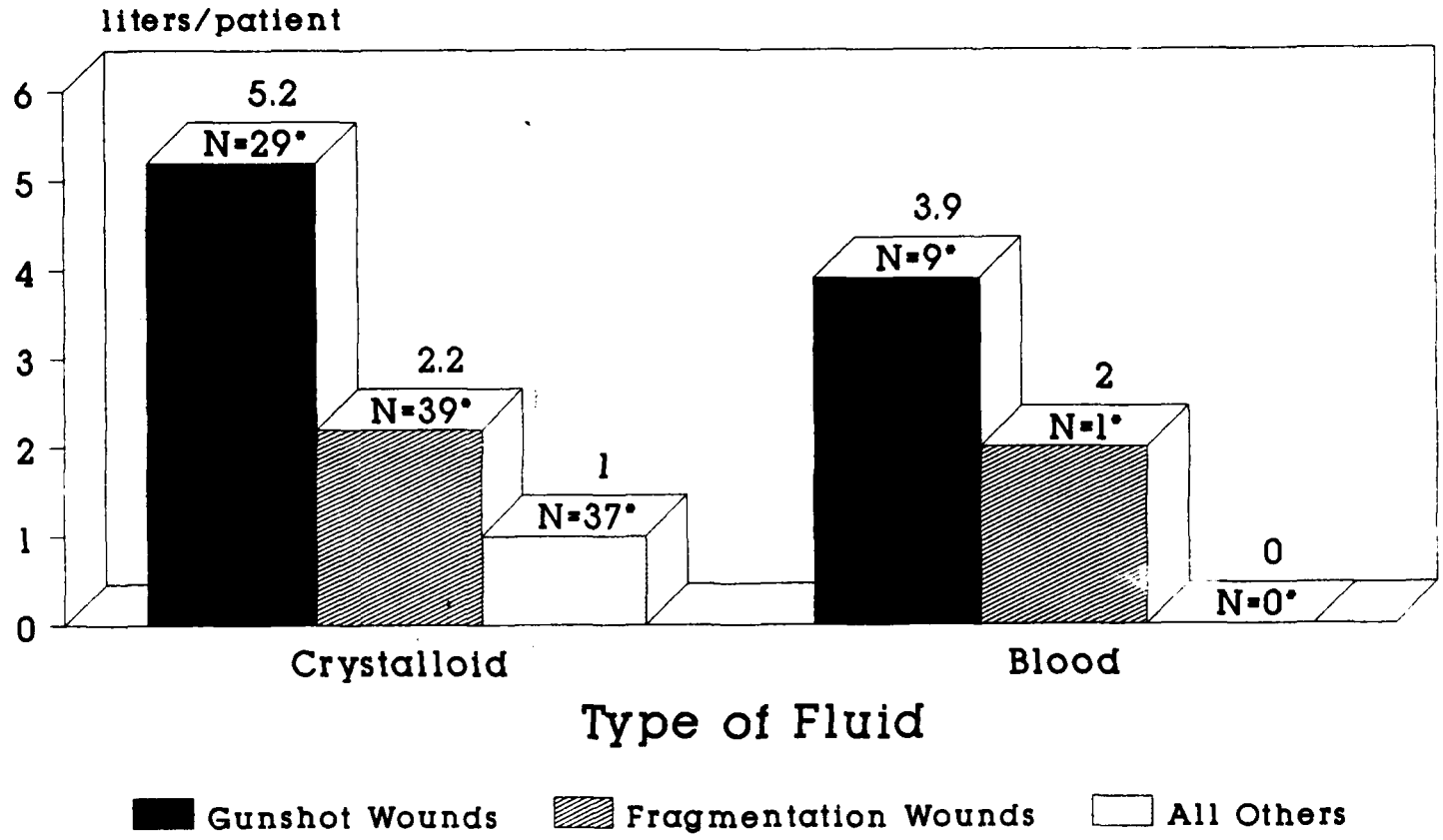
Assume: Average Person = 70 kg and
Normal blood volume = 5 liters.



**Calculated from recorded hematocrits*

Figure 13

FLUID TREATMENT VOLUME*



**Of the 253 casualties evaluated 105 records contained information concerning fluid treatment*

Figure 14

APPENDIX I

DEMOGRAPHICS DATA

Record#	LOCATION 1-WHAFB 2-BAMC	MOS	REVIEW	INTERVIEW	COMPANY	RANK	SERVICE
	2		Yes	No	401 MP,FT HOOD	PFC	ARMY
2	1	11B	Yes	No	B 1/504 PIR	SPC	ARMY
3	1	16P	Yes	No	A 3/4 82 ABN	PFC	ARMY
4	1	11B	Yes	No	HHC 1/504, FT BRAGG	PFC	ARMY
5	2		Yes	No	A CO 1/504 INF,FT BRAGG,NC	PFC	ARMY
6	1	11B	Yes	No	D 3/504 82ND ABN	PFC	ARMY
7	1	03	Yes	No	FAST C MARINE MSFS NORFOLK	PFC	MARINE
8	2		Yes	No	B 82 SIG BN, FT BRAGG	SGT	ARMY
9	1	91A	Yes	No	HHC 1/504	PFC	ARMY
10	2		Yes	No	USN SEAL TEAM 4 B BTRY		NAVY
11	1	11B	Yes	No	1/75 RANGER	PFC	ARMY
12	1	11B	Yes	No	A 4/17 INF, FT ORD	SSG	ARMY
13	2		No	Yes	1ST 508AIR	SFC	ARMY
14	2		Yes	No	31ST CBT COM SQU,TINKER AFB OK	SSG	ARMY
15	2		No	No	C 1/504 FORT BRAGG	SGT	ARMY
16	1	91A	Yes	No	HHC 4/17 INF	SPC	ARMY
17	2		Yes	No	A CO 2/75 RANGER	PFC	ARMY
18	2		Yes	No	C CO 1/504 INF,FT BRAGG,NC	SGT	ARMY
19	1	11B	Yes	No	D 2ND 504TH PIR	CPL	ARMY
20	1	11B	Yes	Yes	82ND ABN, FT BRAGG BCO 2/504	SGT	ARMY
21	2		Yes	No	B CO 3/75 RANGER, FT BENNING, GA	PFC	ARMY
22	1	11B	Yes	No	B 2/504, FT BRAGG	SSG	ARMY
23	1	12B	Yes	No	B 3RD BN 504 INF	SGT	ARMY
24	2		Yes	No	B CO 3/504	PFC	ARMY
25	1	11B	Yes	No	HHC 75TH RANGER,FT BENNING,GA	SSG	ARMY
26	2		Yes	No	D 4/6 INF BN, FT POLK, LA	SPC	ARMY
27	2		Yes	No	546 MP, FT BRAGG	PFC	ARMY

Table 4

Record#	LOCATION 1-WHAFB 2-BAMC	MOS	REVIEW	INTERVIEW	COMPANY	RANK	SERVICE
28	2		Yes	No	B 2/75 RANGER, FT LEWIS, WA	PFC	ARMY
29	2		Yes	No	B 1/504, FT BRAGG	PFC	ARMY
30	2		Yes	No	C CO 3/504 INF,FT BRAGG,NC	SSG	ARMY
31	1	11B	Yes	No	C 2 BN 75 RANGER	SGT	ARMY
32	2		No	No	A CO 4/17 FORT ORD CA	SGT	ARMY
33	1	11B	Yes	No	D 1/504 ABN INF	SFC	ARMY
34	1	11B	Yes	No	PANAMA	PFC	ARMY
35	1	11B	Yes	No	ARMY SPECIAL FORCES, FT BRAGG	SGT	ARMY
36	1	11B	Yes	No	A 2/75 RANGER	PFC	ARMY
37	2		Yes	No	CO C 2/75TH RANGER,FT LEWIS,WA	PFC	ARMY
38	2		Yes	No	SEAL TEAM 2, VIRGINIA BEACH	SEAL	NAVY
39	1	15B	Yes	No	AHB HHC, FT HOOD, TX	MAJ	ARMY
40	2		Yes	No	B CO 2/504 INF ,FT BRAGG,NC	SPC	ARMY
41	1	11B	Yes	No	4 BN 6TH INF,FT POLK	PFC	ARMY
42	2		Yes	No	B CO 2/504,FT BRAGG,NC	SPC	ARMY
43	2		Yes	No	C CO 2/504 INF FT BRAGG,NC	PFC	ARMY
44	2		Yes	No	A CO 417TH INF FT ORD,CA	PFC	ARMY
45	2		Yes	No	94 PSYOP,FT BRAGG,NC	PFC	ARMY
46	1	990	Yes	No	J5 QUARRY HEIGHTS, APO NY	MAJ	ARMY
47	1	11B	Yes	No	B 4325 ABN,FT BRAGG	SPC	ARMY
48	1	11B	Yes	No	FT BRAGG	SSG	ARMY
49	1	11B	Yes	Yes	D 4 BN 6TH INF,FT POLK	SGT	ARMY
50	2		Yes	No	HHC 2 RANGER BN, FT LEWIS, WA	PFC	ARMY
51	2		Yes	No	C 4/17 FT ORD	SSG	ARMY
52	1	11C	Yes	No	2ND RANGER BN	PFC	ARMY
53	1	AN	Yes	No	SEAL TEAM 4	E5	NAVY
54	2		Yes	No	A CO 2 RANGER BN FT LEWIS	1LT	ARMY
55	1	11B	Yes	No	FT BRAGG	SFC	ARMY

Table 4

Record#	LOCATION 1-WHAFB 2-BAMC	MOS	REVIEW	INTERVIEW	COMPANY	RANK	SERVICE
56	1	11B	Yes	No	C CO 1/75TH RANGER	PFC	ARMY
57	2		Yes	No	A BTRY 3BN 319 FA	2LT	ARMY
58	2		No	No	B CO 3/75 RANGER FORT BRAGG	PFC	ARMY
59	1	11B	Yes	No	A 3/504, FT BRAGG	PFC	ARMY
60	2		Yes	No	B CO 2/75 RANGER,FT LEWIS,WA	SGT	ARMY
61	1	11B	Yes	No	C CO 4/17 INF,FT ORD	PV2	ARMY
62	1	11B	Yes	No	C 1/504, FT BRAGG	PFC	ARMY
63	2		Yes	No	A 1/75 RANGER, HUNTER AIRFIELD, GA	SGT	ARMY
64	1	11B	Yes	No	1/75 RANGER ,HUNTER AIRFIELD	PFC	ARMY
65	2		Yes	No	HHC 75 RANGER, FT BENNING, GA	SPC	ARMY
66	2		No	No	B 4/325 FORT BRAGG	SSG	ARMY
67	1	11B	Yes	No	D 4/6 INF, FT POLK, LA	PFC	ARMY
68	1	88M	Yes	No	HHC 1/504, FORT BRAGG	SGT	ARMY
69	1	95B	Yes	Yes	549TH MP	SPC	ARMY
70	1		Yes	No	SEAL,VIRGINIA BEACH	E5	NAVY
71	2		Yes	No	HHC 1/504 INF,FT BRAGG,NC	SSG	ARMY
72	1	11B	Yes	No	C 3/504, FT BRAGG	SGT	ARMY
73	1	11B	Yes	No	75TH RANGER REGT,FT BENNING	SSG	ARMY
74	1	11B	Yes	No	IST RANGER BN	PFC	ARMY
75	2		Yes	No	HHC 2/75 RANGER	CPT	ARMY
76	1	11B	Yes	Yes	C CO 3RD RANGER,FT BENNING	SGT	ARMY
77	2		Yes	No	A CO 3BN 75 RANGER,FT BENNING,GA	SSG	ARMY
78	1	AN	Yes	No	SEAL, TEAM #4	E5	NAVY
79	2		No	No	5/87 INFANTRY FORT CLAYTON PANAMA	PV1	ARMY
80	1	77F	Yes	No	FT CAMPBELL	SGT	ARMY
81	2		Yes	No	CO A 1/75 RANGER,HUNTER AIRFIELD,GA	PFC	ARMY
82	2		Yes	No	HHC 75 RANGER,FT BENNING,GA	SSG	ARMY
83	1	SEAL	Yes	No	SEAL TEAM 4	E5	NAVY

Table 4

Record#	LOCATION 1-WHAFB 2-BAMC	MOS	REVIEW	INTERVIEW	COMPANY	RANK	SERVICE
84	2		No	No	C CO 5/87 FORT CLAYTON PANAMA	PV1	ARMY
85	1	95B	Yes	No	21ST MP CO,FT BRAGG	PFC	ARMY
86	1	18F	Yes	Yes	3/7TH SPECIAL FORCES C Co	SFC	ARMY
87	1	11B	Yes	No	3/75 RANGER, FT BENNING	SSG	ARMY
88	2		Yes	No	B 1/504	PFC	ARMY
89	2		Yes	No	HHC 4/325, FT BRAGG	SGT	ARMY
90	1	11B	Yes	No	FT BRAGG	SSG	ARMY
91	1	11A	Yes	No	154 SIGNAL, FT CLAYTON	PVT	ARMY
92	2		Yes	No	A CO 82ND AB,FT BRAGG,NC	PV1	ARMY
93	1	11A	Yes	No	B 1/75 RANGER	2LT	ARMY
94	1	11B	Yes	No	Ft Bragg	PFC	ARMY
95	1	11B	Yes	No	C 504 INF	PFC	ARMY
96	2		Yes	No	41ST SIOP GRP,FT BRAGG,NC		ARMY
97	1	11B	Yes	No	C 2/504 ABN, FT BRAGG	PFC	ARMY
98	2		Yes	No	209 MP	PFC	ARMY
99	1	11B	Yes	No	C 1/504, FT BRAGG	SPC	ARMY
100	1	11B	Yes	No	4/6 INF, FT BRAGG	PFC	ARMY
101	1	11B	Yes	Yes	B 2/504, FT BRAGG	PFC	ARMY
102	1	60E	Yes	No	BAMC,FT SAM HOUSTON	LTC	ARMY
103	2		Yes	No	B CO 3/75 RANGER FT BENNING,GA	PFC	ARMY
104	2		Yes	No	209 MP FT MEADE,MD	PFC	ARMY
105	2		Yes	No	D CO 1/504,FT BRAGG,NC	SPC	ARMY
106	1	11B	Yes	No	RANGER,FT LEWIS	PFC	ARMY
107	1	11C	Yes	No	B 1/504, FT BRAGG	PFC	ARMY
108	1	11B	Yes	No	C CO 3/504 INF,FT BRAGG	SGT	ARMY
109	1	115	Yes	No	PARARESCUE, 1724 STS Pope AFB	SSG	ARMY
110	2		Yes	No	C 2/504, FT BRAGG	PFC	ARMY
111	1	11B	Yes	Yes	82ND ABN, FT BRAGG BCo 3/504	PFC	ARMY

Table 4

Record#	LOCATION 1-WHAFB 2-BAMC	MOS	REVIEW	INTERVIEW	COMPANY	RANK	SERVICE
112	1	11B	Yes	Yes	BcO 2/75 RANGER	SGT	ARMY
113	1	11C	Yes	No	A 1/504 INF	PFC	ARMY
114	1	11B	Yes	No	A 2ND BN 504 PIR, FT BRAGG	PFC	ARMY
115	2		Yes	No	A CO 1/504,FT BRAGG,NC	PFC	ARMY
116	1	95B	Yes	No	401 MP, FT HOOD, TX	SPC	ARMY
117	1	11B	Yes	No	B 2/75 RANGER	SGT	ARMY
118	2		Yes	No	B CO 2/75 RANGER	SPC	ARMY
119	1	11B	Yes	No	A 3/319 FA, FT BRAGG	1LT	ARMY
120	2		Yes	No	C CO 2/75 RANGER		ARMY
121	1		No	Yes	MARINE FORCE		NAVY
122	1	11B	Yes	No	3RD/75TH RANGER,FT BENNING	SGT	ARMY
123	1	02	Yes	No	2 LET DELTA FORCE	PVT	MARINE
124	2		Yes	No	B CO 2/75 RANGER FT LEWIS		ARMY
125	2		Yes	No	A 2/27 INF FT ORD	SPC	ARMY
126	1	11B	Yes	No	C 504, FT BRAGG	PFC	ARMY
127	1	13F	Yes	No	A 2ND BN 75TH RANGER	SSG	ARMY
128	1	11B	Yes	No	FT BRAGG	PFC	ARMY
129	1	11B	Yes	No	4/325, FT BRAGG	PFC	ARMY
130	2		Yes	No	94 PSY OP,FT BRAGG	SSG	ARMY
131	1	N11	Yes	No	SEAL	SN	NAVY
132	1	11B	Yes	No	A 1/504, FT BRAGG	PFC	ARMY
133	2		Yes	No	CO C 1/504 PIR FT BRAGG,NC	1LT	ARMY
134	2		Yes	No	B CO 1/504 INF,FT BRAGG,NC	SGT	ARMY
135	1	11A	Yes	No	A 4/6 INF, FT POLK	SFC	ARMY
136	1	91A	Yes	No	HHC 4/6 INF	SPC	ARMY
137	1	11B	Yes	No	HHC 4/4325, FT BRAGG	SSG	ARMY
138	2		Yes	No	B CO 1/504 INF,FT BRAGG,NC	PFC	ARMY
139	1	11B	Yes	No	B 4/6 INF, FT POLK, LA	SPC	ARMY

Table 4

Record#	LOCATION 1-WHAFB 2-BAMC	MOS	REVIEW	INTERVIEW	COMPANY	RANK	SERVICE
140	1	11B	Yes	Yes	B CO 3/75 RANGER	SPC	ARMY
141	2		Yes	No	504 PIR 82 AB,FT BRAGG,NC	PFC	ARMY
142	1	11B	Yes	No	A CO 4/6 INF,FT POLK	PFC	ARMY
143	2		Yes	No	B CO 4/6 INF FT POLK, LA	SPC	ARMY
144	1	12B	Yes	No	82ND ABN	PFC	ARMY
145	1	11B	Yes	No	96 CIV AFFAIRS BT,FT BRAGG,NC	MSG	ARMY
146	2		No	No	B CO 4/17 INFANTRY FORT ORD	PFC	ARMY
147	1	11B	Yes	No	A 82ND 3/504 PIR	PFC	ARMY
148	1	11B	Yes	Yes	BCo587 APO MIAMI	SGT	ARMY
149	1	AN	Yes	Yes	SEAL TEAM II	E5	NAVY
150	2		Yes	No	4/6 INF FT POLK LA	PV2	ARMY
151	2		Yes	No	A CO 3/75 RANGER,FT BENNING,GA	SPC	ARMY
152	2		No	No	A CO 2/75 RANGER FORT LEWIS	PFC	ARMY
153	1	11B	Yes	No	FT BRAGG	PFC	ARMY
154	2		Yes	No	82 MP CO	SPC	ARMY
155	2		Yes	No	D CO 4/6 INF	SPC	ARMY
156	2		Yes	No	B 1/504 PIR	PV2	ARMY
157	2		Yes	No	209 MP FT MEADE,MD	PV2	ARMY
158	1	11B	Yes	No	3RD RANGER BN	SPC	ARMY
159	2		Yes	No	C CO 2/75 RANGER	PV2	ARMY
160	2		Yes	No	A CO 407 S & T BATALLION FT BENNING	PFC	ARMY
161	2		Yes	No	B CO 2/504 INF FT BRAGG,NC	PFC	ARMY
162	1	11B	Yes	Yes	C CO 4/17 INF,FT ORD 7THLIGHT	SGT	ARMY
163	1	19D	Yes	No	C 3RD/73 ARMOR,FT BRAGG	PFC	ARMY
164	2		No	Yes	CCo3/319 82D, FT BRAGG	PVT	ARMY
165	1	11B	Yes	Yes	C 1/508 PANAMA	SPC	ARMY
166	1	11B	Yes	No	A 1ST RANGER BN	PFC	ARMY
167	2		Yes	No	A CO 1/504,FT BRAGG,NC	PFC	ARMY

Table 4

Record#	LOCATION 1-WHAFB 2-BAMC	MOS	REVIEW	INTERVIEW	COMPANY	RANK	SERVICE
168	1	16P	Yes	No	A BTRY 3BN,4TH ADA REGT,FT BENNING	PFC	ARMY
169	1	01	Yes	No	SEAL	E5	NAVY
170	2		Yes	No	C 3/504 FT BRAGG, NC	PFC	ARMY
171	2		Yes	No	A 4/17 INF, FT ORD	SGT	ARMY
172	2		Yes	No	A CO 1/504,FT BRAGG,NC	PFC	ARMY
173	1	11A	Yes	No	FT BRAGG	SSG	ARMY
174	2		Yes	No	D 4/6 INF, FT POLK, LA	SPC	ARMY
175	1	11B	Yes	No	D 4/6 INF	SGT	ARMY
176	2		Yes	No	A 3/504 INF	PFC	ARMY
177	1	11B	Yes	No	B 1/75 RANGER, FT LEWIS	SGT	ARMY
178	1	11C	Yes	No	A 2ND BN 75 RANGER, FT LEWIS	PFC	ARMY
179	1	AN	Yes	Yes	USN, SEAL TEAM II, VIRGINIA	E5	NAVY
180	2		Yes	Yes	B CO 2/75 RANGER LEWIS	SPC	ARMY
181	1	11B	Yes	No	A CO 4/17TH INF,FT ORD,CA	SPC	ARMY
182	2		Yes	No	CO C 1/504 INF,FT BRAGG,NC	PFC	ARMY
183	2		Yes	No	C 1/508	PV2	ARMY
184	1	11A	Yes	No	D 4/6 INF	PFC	ARMY
185	2		Yes	No	A CO 1/504 FT BRAGG,NC	SPC	ARMY
186	2		No	No	C CO 2/275 RANGER FORT LEWIS	PFC	ARMY
187	1	31K	Yes	No	HQ 1/504	PFC	ARMY
188	1	11B	Yes	No	Ft Benning	PFC	ARMY
189	1	15B	Yes	No	C 3 BN 7TH INF, FT ORD	CPT	ARMY
190	1	95B	Yes	No	82 MP,FT BRAGG	SPC	ARMY
191	1	63N	Yes	No	C 363 AB, FT BRAGG	SPC	ARMY
192	1	11B	Yes	No	A 3/504 82ND ABN, FT BRAGG	PFC	ARMY
193	2		Yes	No	B CO 1/504 INF FT.BRAGG,NC	PV2	ARMY
194	1	11B	Yes	No	C 3/75 RANGER	PFC	ARMY
195	2		Yes	No	TASK FORCE 160 SO FT CAMPBELL KY	SSG	ARMY

Table 4

Record#	LOCATION 1-WHAFB 2-BAMC	MOS	REVIEW	INTERVIEW	COMPANY	RANK	SERVICE
196	2		Yes	No	A 504 FT BRAGG NC	SPC	ARMY
197	1	11C	Yes	No	2ND BN 75TH RANGER	SPC	ARMY
198	1	11B	Yes	No	D 4/5 MECH INF	PFC	ARMY
199	2		Yes	No	A CO 2/75 RANGER FT. LEWIS,WA		ARMY
200	2		No	No	A CO 1/75 HUNTER AIR FIELD GA	SPC	ARMY
201	2		Yes	Yes	D CO 2/504 INF FT BRAGG,NC	SPC	ARMY
202	2		Yes	No	2/75 RANGER,FT LEWIS,WA	PFC	ARMY
203	1	11B	Yes	No	2/75 RANGER	PV2	ARMY
204	2		Yes	No	2/75 RANGER,FT. LEWIS	PFC	ARMY
205	1	11B	Yes	No	2/75 RANGER	PFC	ARMY
206	2		Yes	No	A CO 82ND,FT BRAGG,NC		ARMY
207	2		Yes	Yes	82 2/504, FT BRAGG, NC	SPC	ARMY
208	1	11B	Yes	No	B 2/504 PIR, FT BRAGG	SPC	ARMY
209	1	11B	Yes	No	D 4/6 INF, FT POLK, LA	PFC	ARMY
210	2		Yes	No	82 MP CO,FT BRAGG,NC	SGT	ARMY
211	1	11C	Yes	No	B 1ST RANGER BN	SGT	ARMY
212	2		Yes	No	D 2/504 82ND ABN FT BRAGG NC	SSG	ARMY
213	2		Yes	No	A CO 4/17 INF,FT ORD,CA	PFC	ARMY
214	1	76Y	Yes	No	HHC 2ND BN 75 RANGER	SFC	ARMY
215	2		Yes	No	94 PSOP C,FT BRAGG,NC	SGT	ARMY
216	2		Yes	No	B 2/504 82ND,FT BRAGG,NC	SPC	ARMY
217	1	13B	Yes	No	A 1/75 RANGER, HUNTER AIRFIELD, GA	PFC	ARMY
218	1	11B	Yes	No	RANGER BN,FT LEWIS,WA	PFC	ARMY
219	2		Yes	No	82 MP, FT BRAGG	SGT	ARMY
220	2		Yes	No	B 3/504, FT BRAGG	PFC	ARMY
221	1	11B	Yes	No	2ND Ranger, Ft Lewis	PFC	ARMY
222	1	11B	Yes	No	B 2ND BN RANGER	SPC	ARMY
223	1	11B	Yes	No	FT BRAGG	PFC	ARMY

Table 4

Record#	LOCATION 1-WHAFB 2-BAMC	MOS	REVIEW	INTERVIEW	COMPANY	RANK	SERVICE
224	1	11B	Yes	No	B 2ND RANGER BN	SPC	ARMY
225	2		Yes	No	B CO 4/6 INF	PFC	ARMY
226	2		No	Yes	ACo4/17 LITE	SGT	ARMY
227	1	11B	Yes	No	A 2/75 RANGER, FT LEWIS	PFC	ARMY
228	1	95B	Yes	Yes	549 MP, FT DAVIS	SSG	ARMY
229	2		Yes	No	2/75 RANGER,FT LEWIS,WA	PV2	ARMY
230	1	11B	Yes	No	RANGER BN	SGT	ARMY
231	2		No	No	HHC 2/504 FORT BRAGG	SPC	ARMY
232	1	11B	Yes	No	D CO 3BN 504 INF	SGT	ARMY
233	2		Yes	No	B CO 1/504,FT BRAGG,NC	PFC	ARMY
234	2		Yes	No	F CO 2/504 INF,FT BRAGG,NC	SFC	ARMY
235	1	11H	Yes	No	D 4 BN 325TH 82ND ABN	SSG	ARMY
236	1	11A	Yes	No	A 1/504 INF	PFC	ARMY
237	2		Yes	No	A 1/75 RANGER, HUNTER AIRFIELD, GA		ARMY
238	1	11B	Yes	No	FT BRAGG	SGT	ARMY
239	1	AN	Yes	Yes	SEAL TEAM II	E4	NAVY
240	1	11B	Yes	No	B 3/75 RANGER, FT BENNING, GA	PFC	ARMY
241	1	11B	Yes	No	2ND AIRBORNE RANGER BN,FT LEWIS,WA	PFC	ARMY
242	2		Yes	No	A CO 4/17 INF,FT ORD,CA	SGT	ARMY
243	1	11C	Yes	No	A CO 96 CA AFFAIRS,FT BRAGG,NC	SSG	ARMY
244	1	11A	Yes	Yes	HHC 1/504 PIR, FT BRAGG	SPC	ARMY
245	2		Yes	No	D CO 4/6 INF	SPC	ARMY
246	1	11B	Yes	No	B 5/87TH INF	MSG	ARMY
247	1	11A	Yes	No	B 2/75	SSG	ARMY
248	1		Yes	No	PANAMA	CW2	ARMY
249	2		Yes	Yes	A 4/17 INF, FT ORD	SFC	ARMY
250	1	11B	Yes	Yes	C 5/87 INF, FT LATHAM	SGT	ARMY
251	1	AN	Yes	Yes	SEAL TEAM II	E5	NAVY

Table 4

Record#	LOCATION 1-WHAFB 2-BAMC	MOS	REVIEW	INTERVIEW	COMPANY	RANK	SERVICE
252	1	11B	Yes	No	B CO 1/504 PIR,FT BRAGG	PFC	ARMY
253	1		Yes	No	PANAMA	CIV	CIV

Table 4

VITAL STATISTICS

Record#	SEX	AGE	RACE	HEIGHT (in)	WEIGHT (lb)	DATE ARRIVED IN PANAMA	DATE INJURED
1	M	19	-	-	-	/ /	/ /
2	M	24	-	-	-	/ /	12/20/89
3	M	20	-	75	185	/ /	12/20/89
4	M	21	-	68	165	/ /	12/20/89
5	M	25	-	67	156	/ /	/ /
6	M	24	-	68	152	/ /	12/23/89
7	M	26	-	68	154	/ /	12/21/89
8	M	36	-	67	155	/ /	12/20/89
9	M	24	-	68	145	/ /	12/20/89
10	M	26	-	68	175	/ /	12/20/89
11	M	21	-	-	-	/ /	12/21/89
12	M	30	-	-	-	/ /	12/20/89
13	M	36	CAUC	69	169	08/15/89	12/20/89
14	M	-	-	71	160	/ /	/ /
15	M	-	-	-	-	/ /	/ /
16	M	21	-	74	170	/ /	12/20/89
17	M	19	-	69	145	/ /	12/20/89
18	M	33	-	-	-	/ /	/ /
19	M	20	-	66	155	/ /	12/22/89
20	M	27	CAUC	72	160	12/20/89	12/20/89
21	M	21	-	-	-	/ /	/ /
22	M	32	-	76	210	/ /	12/20/89
23	M	21	-	-	-	/ /	12/20/89
24	M	21	-	-	-	/ /	12/20/89
25	M	25	-	-	165	/ /	12/20/89
26	M	21	-	72	176	/ /	/ /
27	F	22	-	65	153	/ /	/ /
28	M	21	-	-	-	/ /	/ /
29	M	20	-	-	-	/ /	/ /

Table 5

Record#	SEX	AGE	RACE	HEIGHT (in)	WEIGHT (lb)	DATE ARRIVED IN PANAMA	DATE INJURED
30	M	31	-	-	-	/ /	/ /
31	M	27	[illegible]	72	190	/ /	12/21/89
32	M	-	-	-	-	/ /	/ /
33	M	33	-	71	176	/ /	12/21/89
34	M	-	-	-	-	/ /	12/25/89
35	M	-	-	-	-	/ /	12/20/89
36	M	21	-	68	170	/ /	12/20/89
37	M	21	-	70	185	/ /	/ /
38	M	39	-	70	170	/ /	12/24/89
39	M	36	-	70	175	/ /	12/20/89
40	M	21	-	-	-	/ /	/ /
41	M	-	-	70	180	/ /	12/20/89
42	M	21	-	70	155	/ /	/ /
43	M	22	-	-	-	/ /	/ /
44	M	22	-	68	160	/ /	12/20/89
45	M	24	-	-	-	/ /	/ /
46	M	37	-	72	180	/ /	12/23/89
47	M	21	-	-	165	/ /	12/22/89
48	M	41	-	72	165	/ /	12/20/89
49	M	24	BLACK	72	170	09/20/89	12/21/89
50	M	19	-	-	-	/ /	12/19/89
51	M	27	-	-	-	/ /	/ /
52	M	19	-	-	-	/ /	12/20/89
53	M	-	-	72	175	/ /	12/20/89
54	M	25	-	-	-	/ /	12/20/89
55	M	36	-	74	175	/ /	12/20/89
56	M	-	-	-	-	/ /	12/20/89
57	M	25	-	69	175	/ /	12/20/89
58	M	-	-	-	-	/ /	12/20/89
59	M	19	-	-	-	/ /	12/20/89

Table 5

Record#	SEX	AGE	RACE	HEIGHT (in)	WEIGHT (lb)	DATE ARRIVED IN PANAMA	DATE INJURED
60	M	35	-	-	-	/ /	/ /
61	M	20	-	67	135	/ /	12/20/89
62	M	19	-	-	-	/ /	12/20/89
63	M	26	-	-	-	/ /	/ /
64	M	19	-	68	180	/ /	12/20/89
65	M	29	-	-	-	/ /	/ /
66	M	-	-	-	-	/ /	12/20/89
67	M	24	-	71	198	/ /	12/20/89
68	M	23	-	70	180	/ /	12/20/89
69	M	24	CAUC	73	160	09/10/89	12/20/89
70	M	32	-	72	200	/ /	12/20/89
71	M	-	-	-	-	/ /	/ /
72	M	21	-	68	165	/ /	12/20/89
73	M	31	-	-	-	/ /	12/20/89
74	M	21	-	73	180	/ /	12/20/89
75	M	28	-	-	-	/ /	12/20/89
76	M	25	CAUC	76	195	12/20/89	12/20/89
77	M	28	-	72	198	/ /	/ /
78	M	24	-	-	195	/ /	12/20/89
79	M	-	-	-	-	/ /	/ /
80	M	21	-	71	217	/ /	12/20/89
81	M	24	-	-	-	/ /	12/20/89
82	M	29	-	-	-	/ /	/ /
83	M	27	-	-	-	/ /	12/20/89
84	M	-	-	-	-	/ /	/ /
85	M	20	-	-	184	/ /	12/20/89
86	M	33	HISP	68	178	09/21/89	12/20/89
87	M	26	-	72	202	/ /	12/20/89
88	M	22	-	69	170	/ /	/ /
89	M	34	-	71	160	/ /	/ /

Table 5

Record#	SEX	AGE	RACE	HEIGHT (in)	WEIGHT (lb)	DATE ARRIVED IN PANAMA	DATE INJURED
90	M	-	-	70	180	/ /	12/24/89
91	M	25	-	72	151	/ /	12/23/89
92	M	19	-	-	-	/ /	/ /
93	M	28	-	68	215	/ /	12/20/89
94	M	25	-	68	158	/ /	12/22/89
95	M	20	-	69	145	/ /	12/20/89
96	M	36	-	73	230	/ /	12/23/89
97	M	19	-	66	135	/ /	12/21/89
98	M	20	-	70	176	/ /	/ /
99	M	21	-	-	-	/ /	12/20/89
100	M	21	-	71	195	/ /	12/20/89
101	M	19	CAUC	68	162	12/20/89	12/20/89
102	M	38	-	67	165	/ /	12/20/89
103	M	20	-	-	-	/ /	/ /
104	M	20	-	-	-	/ /	/ /
105	M	23	-	71	160	/ /	/ /
106	M	22	-	-	150	/ /	12/23/89
107	M	23	-	72	165	/ /	12/20/89
108	M	21	-	69	195	/ /	12/20/89
109	M	28	-	69	165	/ /	12/20/89
110	M	20	-	66	160	/ /	12/20/89
111	M	20	CAUC	73	190	12/10/89	12/20/89
112	M	22	CAUC	66	156	12/20/89	12/20/89
113	M	22	-	72	160	/ /	12/20/89
114	M	19	-	-	165	/ /	12/21/89
115	M	21	-	-	-	/ /	/ /
116	M	29	-	70	165	/ /	12/20/89
117	M	22	-	-	-	/ /	12/20/89
118	M	21	-	-	-	/ /	12/20/89
119	M	24	-	-	-	/ /	12/20/89

Table 5

Record#	SEX	AGE	RACE	HEIGHT (in)	WEIGHT (lb)	DATE ARRIVED IN PANAMA	DATE INJURED
120	M	25	-	-	154	/ /	/ /
121	M	24	CAUC	72	180	11/01/89	12/20/89
122	M	-	-	68	160	/ /	12/20/89
123	M	27	-	66	171	/ /	12/20/89
124	M	25	-	-	-	/ /	/ /
125	M	25	-	-	-	/ /	/ /
126	M	19	-	67	152	/ /	12/20/89
127	M	23	-	70	145	/ /	12/20/89
128	M	22	-	-	170	/ /	12/24/89
129	M	21	-	71	200	/ /	12/22/89
130	M	33	-	-	184	/ /	/ /
131	M	-	-	-	-	/ /	12/25/89
132	M	19	-	64	145	/ /	12/20/89
133	M	28	-	70	165	/ /	12/20/89
134	M	23	-	-	-	/ /	12/20/89
135	M	41	-	-	202	/ /	12/21/89
136	M	21	-	74	190	/ /	12/20/89
137	M	30	-	69	190	/ /	12/20/89
138	M	28	-	-	-	/ /	/ /
139	M	20	-	72	200	/ /	12/20/89
140	M	21	CAUC	72	185	12/20/89	12/20/89
141	M	22	-	72	170	/ /	/ /
142	M	19	-	-	180	/ /	12/21/89
143	M	35	-	-	-	/ /	/ /
144	M	20	-	69	185	/ /	12/20/89
145	M	38	-	68	140	/ /	12/20/89
146	M	-	-	-	-	/ /	/ /
147	M	19	-	70	-	/ /	12/20/89
148	M	25	CAUC	71	174	02/09/89	12/24/89
149	M	26	HISP	71	180	/ /	12/20/89

Table 5

Record#	SEX	AGE	RACE	HEIGHT (in)	WEIGHT (lb)	DATE ARRIVED IN PANAMA	DATE INJURED
150	M	24		68	210	/ /	12/20/89
151	M	31	-	72	185	/ /	/ /
152	M	-	-	-	-	/ /	12/20/89
153	M	26	-	-	-	/ /	12/20/89
154	M	-	-	-	-	/ /	12/20/89
155	M	32	-	68	188	/ /	12/20/89
156	M	27	-	-	-	/ /	/ /
157	F	19	-	69	135	/ /	/ /
158	M	25	-	68	160	/ /	12/20/89
159	M	20	-	70	150	/ /	/ /
160	M	21	-	-	-	/ /	12/20/89
161	M	20	-	68	175	/ /	/ /
162	M	28	CAUC	71	167	10/31/89	12/20/89
163	M	18	-	69	169	/ /	12/20/89
164	M	22	CAUC	66	160	12/09/89	12/20/89
165	M	24	CAUC	71	185	08/10/89	12/20/89
166	M	18	-	70	160	/ /	12/20/89
167	M	-	-	-	-	/ /	/ /
168	M	21	-	-	-	/ /	12/20/89
169	M	24	-	-	-	/ /	12/20/89
170	M	18	-	-	-	/ /	/ /
171	M	24	-	-	-	/ /	/ /
172	M	19	-	-	-	/ /	/ /
173	M	29	-	69	145	/ /	12/22/89
174	M	25	-	72	155	/ /	12/20/89
175	M	24	-	73	210	/ /	12/20/89
176	M	25	-	-	-	/ /	/ /
177	M	22	-	-	-	/ /	12/21/89
178	M	20	-	72	183	/ /	12/20/89
179	M	24	CAUC	74	185	/ /	12/20/89

Table 5

Record#	SEX	AGE	RACE	HEIGHT (in)	WEIGHT (lb)	DATE ARRIVED IN PANAMA	DATE INJURED
180	M	21	CAUC	71	185	12/20/89	12/20/89
181	M	20	-	-	-	/ /	12/20/89
182	M	35	-	62	140	/ /	/ /
183	M	19	-	-	-	/ /	/ /
184	M	22	-	72	208	/ /	12/20/89
185	M	22	-	-	-	/ /	/ /
186	M	-	-	-	-	/ /	/ /
187	M	20	-	72	185	/ /	12/20/89
188	M	-	-	71	176	/ /	12/24/89
189	M	30	-	-	-	/ /	12/20/89
190	M	21	-	-	-	/ /	12/20/89
191	M	25	-	66	160	/ /	12/20/89
192	M	20	-	71	175	/ /	12/20/89
193	M	22	-	-	-	/ /	/ /
194	M	28	-	70	160	/ /	12/20/89
195	M	39	-	-	-	/ /	12/20/89
196	M	24	-	72	195	/ /	12/20/89
197	M	23	-	71	165	/ /	12/20/89
198	M	33	-	65	145	/ /	12/20/89
199	M	21	-	-	-	/ /	/ /
200	M	-	-	-	-	/ /	/ /
201	M	20	CAUC	-	-	12/20/89	12/20/89
202	M	19	-	-	-	/ /	/ /
203	M	20	-	-	-	/ /	12/20/89
204	M	24	-	-	-	/ /	12/20/89
205	M	19	-	74	215	/ /	12/20/89
206	M	20	-	-	-	/ /	/ /
207	M	22	-	69	170	12/20/89	12/20/89
208	M	21	-	-	-	/ /	12/21/89
209	M	20	-	65	142	/ /	12/20/89

Table 5

Record#	SEX	AGE	RACE	HEIGHT (in)	WEIGHT (lb)	DATE ARRIVED IN PANAMA	DATE INJURED
210	M	22	-	-	-	/ /	/ /
211	M	21	-	69	155	/ /	12/20/89
212	M	23	-	70	174	/ /	12/20/89
213	M	21	-	71	165	/ /	12/20/89
214	M	32	-	74	185	/ /	12/20/89
215	M	32	-	-	-	/ /	/ /
216	M	20	-	69	168	/ /	/ /
217	M	-	-	73	155	/ /	12/20/89
218	M	20	-	-	-	/ /	12/20/89
219	M	21	-	-	-	/ /	12/18/89
220	M	20	-	-	-	/ /	/ /
221	M	-	-	71	187	/ /	12/24/89
222	M	22	-	-	-	/ /	12/21/89
223	M	22	-	73	205	/ /	12/20/89
224	M	21	-	72	150	/ /	12/20/89
225	M	-	-	-	-	/ /	12/20/89
226	M	28	CAUC	76	200	10/28/89	12/20/89
227	M	21	-	71	187	/ /	12/20/89
228	M	40	CAUC	69	162	09/05/89	12/20/89
229	M	18	-	70	147	/ /	12/20/89
230	M	20	-	72	180	/ /	12/21/89
231	M	-	-	-	-	/ /	/ /
232	M	-	-	69	168	/ /	12/24/89
233	M	23	-	-	-	/ /	/ /
234	M	34	-	-	-	/ /	/ /
235	M	25	-	64	146	/ /	12/20/89
236	M	20	-	-	-	/ /	12/21/89
237	M	22	-	-	-	/ /	12/20/89
238	M	20	-	68	170	/ /	12/20/89
239	M	25	CAUC	70	170	12/20/89	12/20/89

Table 5

Record#	SEX	AGE	RACE	HEIGHT (in)	WEIGHT (lb)	DATE ARRIVED IN PANAMA	DATE INJURED
240	M	18	-	69	137	/ /	12/20/89
241	M	23	-	-	-	/ /	12/20/89
242	M	31	-	-	-	/ /	/ /
243	M	21	-	63	155	/ /	12/20/89
244	M	21	HISP	70	145	12/20/89	12/22/89
245	M	35	-	-	-	/ /	/ /
246	M	30	-	68	198	/ /	12/20/89
247	M	33	-	69	163	/ /	12/20/89
248	M	46	-	67	178	/ /	12/23/89
249	M	31	BLACK	65	150	10/27/89	12/20/89
250	M	28	PHIL	66	135	04/03/89	12/20/89
251	M	27	HISP	71	180	/ /	12/20/89
252	M	19	-	66	147	/ /	12/20/89
253	M	26	-	-	183	/ /	12/22/89

Count (N)	225.0	143.0	154.0
Mean	24.0	70.0	171.0
SEM	0.4	0.2	1.6
Median	23.0	70.0	170.0
Variance	30.5	6.9	376.7
StDev (sd)	5.5	2.6	19.4
Maximum	46.0	76.0	230.0
Minimum	18.0	62.0	135.0
Range	28.0	14.0	95.0

Table 5

INJURY STATISTICS

Record#	Place Injured	Date Injured	Time Injured	State of Mind	Hostile Environment	Cause of Injury	PROJECTILE Type	PROJECTILE Distance
1	Unk	/ /	--	Unk	No	Accident	-	-
2	Unk	12/20/89	--	Unk	Yes	GSW	<50 cal	Unk
3	Unk	12/20/89	--	Unk	No	Jump	Unk	-
4	Unk	12/20/89	--	Unk	No	Jump	-	-
5	Unk	/ /	--	Unk	No	Accident	-	-
6	Unk	12/23/89	1400	Unk	Yes	Frag	Shrapnel	<50 ft
7	Unk	12/21/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
8	Unk	12/20/89	0900	Unk	Yes	GSW	Unk	Unk
9	Unk	12/20/89	--	Unk	No	Jump	-	-
10	Unk	12/20/89	--	Unk	Yes	GSW	<50 cal	Unk
11	Unk	12/21/89	0100	Unk	No	Jump	-	-
12	Unk	12/20/89	--	Unk	No	Accident	-	-
13	Urban	12/20/89	0830	Scared	Yes	Frag	Shrapnel	<50 ft
14	Unk	/ /	--	Unk	No	Nontrauma	-	-
15	Unk	/ /	--	Unk	Yes	Unk	-	-
16	Unk	12/20/89	0115	Unk	No	Accident	-	-
17	Unk	12/20/89	--	Unk	No	Jump	-	-
18	Unk	/ /	--	Unk	No	Heat Exh.	-	-
19	Unk	12/22/89	1500	Unk	Yes	GSW	Unk	Unk
20	Urban	12/20/89	0800	Enthusiastic	No	GSW	>50 cal	50-100 yds
21	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
22	Unk	12/20/89	--	Unk	No	Jump	-	-
23	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
24	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
25	Unk	12/20/89	1230	Unk	No	Jump	-	-
26	Unk	/ /	--	Unk	Yes	GSW	Unk	Unk
27	Unk	/ /	--	Unk	No	Psych	-	-
28	Unk	/ /	--	Unk	No	Jump	-	-
29	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft

Table 6

Record#	Place Injured	Date Injured	Time Injured	State of Mind	Hostile Environment	Cause of Injury	PROJECTILE Type	PROJECTILE Distance
30	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
31	Unk	12/21/89	--	Unk	No	Jump	-	-
32	Unk	/ /	--	Unk	Yes	GSW	Unk	Unk
33	Unk	12/21/89	2200	Unk	Yes	Frag	Shrapnel	<50 ft
34	Unk	12/25/89	--	Unk	No	Heat Exh.	-	-
35	Unk	12/20/89	--	Unk	No	Accident	-	-
36	Unk	12/20/89	0100	Unk	No	Jump	-	-
37	Unk	/ /	--	Unk	No	Jump	-	-
38	Unk	12/24/89	--	Unk	No	Frag	Unk	Unk
39	Unk	12/20/89	--	Unk	Yes	GSW	Unk	Unk
40	Unk	/ /	--	Unk	No	Jump	-	-
41	Unk	12/20/89	0130	Unk	Yes	GSW	Unk	Unk
42	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
43	Unk	/ /	--	Unk	No	Heat Exh.	-	-
44	Unk	12/20/89	0700	Unk	Yes	Frag	Shrapnel	<50 ft
45	Unk	/ /	--	Unk	No	Jump	-	-
46	Unk	12/23/89	--	Unk	Yes	GSW	Unk	Unk
47	Unk	12/22/89	--	Unk	No	Accident	-	-
48	Unk	12/20/89	1215	Unk	No	Accident	-	-
49	Urban	12/21/89	0200	Confident	Yes	Frag	Shrapnel	<50 ft
50	Unk	12/19/89	2400	Unk	Yes	Frag	Shrapnel	<50 ft
51	Unk	/ /	--	Unk	No	Nontrauma	-	-
52	Unk	12/20/89	0100	Unk	No	Jump	-	-
53	Unk	12/20/89	--	Unk	Yes	GSW	Unk	Unk
54	Unk	12/20/89	--	Unk	No	Jump	-	-
55	Unk	12/20/89	1250	Unk	No	Accident	-	-
56	Unk	12/20/89	--	Unk	No	Jump	-	-
57	Unk	12/20/89	0730	Unk	Yes	Frag	Shrapnel	<50 ft
58	Unk	12/20/89	--	Unk	Yes	Jump	-	-
59	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
60	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft

Table 6

Record#	Place Injured	Date Injured	Time Injured	State of Mind	Hostile Environment	Cause of Injury	PROJECTILE Type	PROJECTILE Distance
61	Unk	12/20/89	--	Unk	Yes	GSW	Unk	Unk
62	Unk	12/20/89	2100	Unk	Yes	Frag	Shrapnel	<50 ft
63	Unk	/ /	--	Unk	No	Jump	-	-
64	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
65	Unk	/ /	--	Unk	No	Accident	-	-
66	Unk	12/20/89	--	Unk	Yes	Jump	-	-
67	Unk	12/20/89	0200	Unk	Yes	Frag	Shrapnel	<50 ft
68	Unk	12/20/89	--	Unk	No	Jump	-	-
69	Jungle	12/20/89	0430	Unk	Yes	GSW	<50 cal	<50 ft
70	Unk	12/20/89	--	Unk	No	Accident	-	-
71	Unk	/ /	--	Unk	No	Heat Exh.	-	-
72	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
73	Unk	12/20/89	--	Unk	No	Jump	-	-
74	Unk	12/20/89	--	Unk	No	Jump	-	-
75	Unk	12/20/89	--	Unk	No	Jump	-	-
76	Urban	12/20/89	0330	Scared	Yes	GSW	<50 cal	<50 ft
77	Unk	/ /	--	Unk	No	Jump	-	-
78	Unk	12/20/89	0100	Unk	Yes	GSW	Unk	Unk
79	Unk	/ /	--	Unk	Yes	Accident	-	-
80	Unk	12/20/89	--	Unk	No	Jump	-	-
81	Unk	12/20/89	--	Unk	No	Jump	-	-
82	Unk	/ /	--	Unk	No	Accident	-	-
83	Unk	12/20/89	--	Unk	Yes	GSW	Unk	Unk
84	Unk	/ /	--	Unk	Yes	GSW	Unk	Unk
85	Unk	12/20/89	0330	Unk	No	GSW	<50 cal	<50 ft
86	Urban	12/20/89	0115	Confident	Yes	GSW	Unk	Unk
87	Unk	12/20/89	--	Unk	Yes	GSW	Unk	Unk
88	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
89	Unk	/ /	--	Unk	Yes	GSW	Unk	Unk
90	Unk	12/24/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
91	Unk	12/23/89	1900	Unk	No	Accident	-	-

Table 6

Record#	Place Injured	Date Injured	Time Injured	State of Mind	Hostile Environment	Cause of Injury	PROJECTILE Type	PROJECTILE Distance
92	Unk	/ /	--	Unk	No	Heat Exh.	-	-
93	Unk	12/20/89	--	Unk	No	Jump	-	-
94	Unk	12/22/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
95	Unk	12/20/89	--	Unk	No	Frag	Shrapnel	<50 ft
96	Unk	12/23/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
97	Unk	12/21/89	--	Unk	No	Jump	-	-
98	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
99	Unk	12/20/89	0830	Unk	No	Jump	-	-
100	Unk	12/20/89	0100	Unk	Yes	GSW	Unk	Unk
101	Urban	12/20/89	0900	Scared	Yes	GSW	<50 cal	<50 ft
102	Unk	12/20/89	0300	Unk	No	Jump	-	-
103	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
104	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
105	Unk	/ /	--	Unk	Yes	GSW	Unk	Unk
106	Unk	12/23/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
107	Unk	12/20/89	--	Unk	No	Jump	-	-
108	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
109	Unk	12/20/89	0100	Unk	No	Jump	-	-
110	Unk	12/20/89	--	Unk	No	Jump	-	-
111	Urban	12/20/89	1100	Tired	Yes	GSW	<50 cal	<50 ft
112	Urban	12/20/89	0715	Scared	No	Frag	Shrapnel	<50 ft
113	Unk	12/20/89	--	Unk	Yes	GSW	Unk	Unk
114	Unk	12/21/89	--	Unk	No	Jump	-	-
115	Unk	/ /	--	Unk	Yes	GSW	Unk	Unk
116	Unk	12/20/89	--	Unk	No	GSW	<50 cal	1
117	Unk	12/20/89	--	Unk	No	Jump	-	-
118	Unk	12/20/89	--	Unk	No	Accident	-	-
119	Unk	12/20/89	--	Unk	Yes	GSW	Unk	Unk
120	Unk	/ /	--	Unk	Yes	GSW	Unk	Unk
121	Urban	12/20/89	0430	Tired	Yes	GSW	<50 cal	<50 ft
122	Unk	12/20/89	--	Unk	No	Jump	-	-

Table 6

Record#	Place Injured	Date Injured	Time Injured	State of Mind	Hostile Environment	Cause of Injury	PROJECTILE Type	PROJECTILE Distance
123	Unk	12/20/89	--	Unk	No	Accident	-	-
124	Unk	/ /	--	Unk	No	Jump	-	-
125	Unk	/ /	--	Unk	No	Nontrauma	-	-
126	Unk	12/20/89	2000	Unk	Yes	Frag	Shrapnel	<50 ft
127	Unk	12/20/89	--	Unk	No	Jump	-	-
128	Unk	12/24/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
129	Unk	12/22/89	1500	Unk	Yes	GSW	Unk	Unk
130	Urban	/ /	--	Unk	No	Accident	-	-
131	Unk	12/25/89	--	Unk	No	Unk	-	-
132	Unk	12/20/89	1000	Unk	Yes	Frag	Shrapnel	<50 ft
133	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
134	Unk	12/20/89	--	Unk	No	Jump	-	-
135	Unk	12/21/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
136	Unk	12/20/89	0230	Unk	Yes	Frag	Shrapnel	<50 ft
137	Unk	12/20/89	--	Unk	Yes	GSW	Unk	Unk
138	Unk	/ /	--	Unk	No	Heat Exh.	-	-
139	Unk	12/20/89	1430	Unk	Yes	Frag	Shrapnel	<50 ft
140	CntrySide	12/20/89	0700	Confident	Yes	GSW	<50 cal	<50 ft
141	Unk	/ /	--	Unk	No	Nontrauma	-	-
142	Unk	12/21/89	--	Unk	Yes	GSW	Unk	Unk
143	Unk	/ /	--	Unk	No	Unk	-	-
144	Unk	12/20/89	1500	Unk	Yes	GSW	Unk	Unk
145	Unk	12/20/89	--	Unk	No	Jump	-	-
146	CntrySide	/ /	--	Unk	Yes	GSW	Unk	Unk
147	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
148	Urban	12/24/89	2330	Tired	No	GSW	<50 cal	<50 ft
149	Urban	12/20/89	0100	Scared	Yes	GSW	<50 cal	<50 ft
150	Unk	12/20/89	--	Unk	Yes	GSW	Unk	Unk
151	Unk	/ /	--	Unk	No	Jump	-	-
152	Unk	12/20/89	--	Unk	Yes	Jump	-	-
153	Unk	12/20/89	--	Unk	No	Jump	-	-

Table 6

Record#	Place Injured	Date Injured	Time Injured	State of Mind	Hostile Environment	Cause of Injury	PROJECTILE Type	PROJECTILE Distance
154	Unk	12/20/89	--	Unk	No	Jump	-	-
155	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
156	Unk	/ /	--	Unk	No	Heat Exh.	-	-
157	Unk	/ /	--	Unk	No	Psych	-	-
158	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
159	Unk	/ /	--	Unk	No	Jump	-	-
160	Unk	12/20/89	--	Unk	No	Accident	-	-
161	Unk	/ /	--	Unk	No	Jump	-	-
162	Suburb	12/20/89	0230	Scared	Yes	GSW	<50 cal	<50 ft
163	Unk	12/20/89	--	Unk	No	Jump	-	-
164	CntrySide	12/20/89	1400	Tired	No	GSW	<50 cal	<50 ft
165	Urban	12/20/89	0400	Scared	Yes	Frag	Shrapnel	<50 ft
166	Unk	12/20/89	0100	Unk	No	Jump	-	-
167	Unk	/ /	--	Unk	No	Heat Exh.	-	-
168	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
169	Unk	12/20/89	1130	Unk	Yes	GSW	Unk	Unk
170	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
171	Unk	/ /	--	Unk	Yes	Frag	Unk	Unk
172	Unk	/ /	--	Unk	No	Heat Exh.	-	-
173	Unk	12/22/89	1700	Unk	Yes	GSW	Unk	Unk
174	Unk	12/20/89	--	Unk	Yes	Frag	Unk	Unk
175	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
176	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
177	Unk	12/21/89	--	Unk	No	Accident	-	-
178	Unk	12/20/89	--	Unk	No	Jump	-	-
179	Urban	12/20/89	0130	Confident	Yes	GSW	<50 cal	<50 ft
180	CntrySide	12/20/89	0130	Scared	Yes	Frag	Shrapnel	<50 ft
181	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
182	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
183	Unk	/ /	--	Unk	No	Accident	-	-
184	Unk	12/20/89	0100	Unk	Yes	Frag	Shrapnel	<50 ft

Table 6

Record#	Place Injured	Date Injured	Time Injured	State of Mind	Hostile Environment	Cause of Injury	PROJECTILE Type	PROJECTILE Distance
185	Unk	/ /	--	Unk	No	Heat Exh.	-	-
186	Unk	/ /	--	Unk	Yes	Accident	-	-
187	Unk	12/20/89	1200	Unk	No	Accident	-	-
188	Unk	12/24/89	--	Unk	Yes	GSW	<50 cal	<50 ft
189	Unk	12/20/89	--	Unk	Yes	Frag	Unk	Unk
190	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
191	Unk	12/20/89	0215	Unk	No	Jump	-	-
192	Unk	12/20/89	--	Unk	Yes	GSW	<50 cal	<50 ft
193	Unk	/ /	--	Unk	No	Jump	-	-
194	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
195	Unk	12/20/89	--	Unk	Yes	Accident	-	-
196	Unk	12/20/89	--	Unk	No	Accident	-	-
197	Unk	12/20/89	--	Unk	No	Jump	-	-
198	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
199	Unk	/ /	--	Unk	No	Jump	-	-
200	Unk	/ /	--	Unk	No	Unk	-	-
201	Urban	12/20/89	0900	Enthusiastic	Yes	Burn	-	-
202	Unk	/ /	--	Unk	No	Jump	-	-
203	Unk	12/20/89	--	Unk	No	Jump	-	-
204	Unk	12/20/89	--	Unk	No	Jump	-	-
205	Unk	12/20/89	0100	Unk	No	Jump	-	-
206	Unk	/ /	--	Unk	No	Accident	-	-
207	Urban	12/20/89	0900	Enthusiastic	Yes	Burn	-	-
208	Unk	12/21/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
209	Unk	12/20/89	0330	Unk	Yes	Frag	Shrapnel	<50 ft
210	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
211	Unk	12/20/89	--	Unk	No	Jump		-
212	Unk	12/20/89	0600	Unk	Yes	Burn	-	-
213	Unk	12/20/89	--	Unk	No	Frag	Shrapnel	<50 ft
214	Unk	12/20/89	--	Unk	No	Jump	-	-
215	Unk	/ /	--	Unk	Yes	GSW	Unk	Unk

Table 6

Record#	Place Injured	Date Injured	Time Injured	State of Mind	Hostile Environment	Cause of Injury	PROJECTILE Type	PROJECTILE Distance
216	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
217	Unk	12/20/89	--	Unk	No	Jump	-	-
218	Unk	12/20/89	--	Unk	No	Jump	-	-
219	Unk	12/18/89	--	Unk	No	Accident	-	-
220	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
221	Unk	12/24/89	--	Unk	Yes	Frag	Shrapnel	<100 yds
222	Unk	12/21/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
223	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
224	Unk	12/20/89	--	Unk	No	Jump	-	-
225	Unk	12/20/89	--	Unk	No	Accident	-	-
226	Urban	12/20/89	0530	Enthusiastic	Yes	Frag	Shrapnel	<50 ft
227	Unk	12/20/89	--	Unk	No	Jump	-	-
228	Jungle	12/20/89	0430	Enthusiastic	Yes	GSW	<50 cal	<50 ft
229	Unk	12/20/89	0100	Unk	No	Jump	-	-
230	Unk	12/21/89	1500	Unk	Yes	Frag	Shrapnel	<50 ft
231	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
232	Unk	12/24/89	1500	Unk	No	GSW	<50 cal	<50 ft
233	Unk	/ /	--	Unk	No	Heat Exh.	-	-
234	Unk	/ /	--	Unk	No	Jump	-	-
235	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
236	Unk	12/21/89	--	Unk	No	Jump	-	-
237	Unk	12/20/89	--	Unk	No	Jump	-	-
238	Unk	12/20/89	--	Unk	Yes	GSW	Unk	Unk
239	Urban	12/20/89	0100	Unk	Yes	GSW	<50 cal	<50 ft
240	Unk	12/20/89	--	Unk	Yes	Frag	Shrapnel	<50 ft
241	Unk	12/20/89	0120	Unk	No	Jump	-	-
242	Unk	/ /	--	Unk	Yes	Frag	Shrapnel	<50 ft
243	Unk	12/20/89	0100	Unk	No	Jump	-	-
244	Urban	12/22/89	1400	Enthusiastic	Yes	GSW	<50 cal	<50 ft
245	Unk	/ /	--	Unk	No	Accident	-	-
246	Unk	12/20/89	0100	Unk	Yes	GSW	Unk	Unk

Table 6

Record#	Place Injured	Date Injured	Time Injured	State of Mind	Hostile Environment	Cause of Injury	PROJECTILE Type	PROJECTILE Distance
247	Unk	12/20/89	--	Unk	No	Jump	-	-
248	Unk	12/23/89	--	Unk	No	Nontrauma	-	-
249	Suburb	12/20/89	0620	Confident	Yes	Frag	Shrapnel	<50 ft
250	Urban	12/20/89	0500	Tired	Yes	GSW	<50 cal	<50 ft
251	Urban	12/20/89	0100	Confident	Yes	GSW	<50 cal	<50 ft
252	Unk	12/20/89	0100	Unk	No	Jump	-	-
253	Unk	12/22/89	--	Unk	Yes	GSW	Unk	Unk

Table 6

SEVERITY, CLINICAL STATISTICS AND ANATOMICAL REGION OF INJURY

Record#	Cause of Injury	ISS	TEMP	Specific Gravity	HCT	Heart Rate	Resp. Rate	Blood Pressure	1st* Injury	2nd* Injury	3rd* Injury	4th* Injury
1	Accident	1	98.0	--	--	80	16	140 / 90	18.52	--	--	--
2	GSW	4	97.8	--	40.8	80	16	136 / 70	12.12	--	--	--
3	Jump	4	99.9	1.025	44.1	64	16	146 / 86	18.51	--	--	--
4	Jump	1	96.9	--	--	72	16	100 / 62	18.52	--	--	--
5	Accident	10	--	1.015	42.7	111	20	134 / 94	21.01	31.02	--	--
6	Frag	9	--	--	38.0	80	20	120 / 80	11.12	20.02	15.02	16.22
7	Frag	13	99.3	--	--	88	18	118 / 64	12.57	12.01	--	--
8	GSW	4	--	--	40.4	88	20	118 / 80	31.02	--	--	--
9	Jump	1	98.2	--	43.7	69	16	112 / 68	16.52	--	--	--
10	GSW	4	99.2	1.030	--	70	20	148 / 82	25.02	--	--	--
11	Jump	5	97.0	--	--	68	16	110 / 70	19.02	16.22	--	--
12	Accident	2	--	--	--	80	20	142 / 80	16.51	--	--	--
13	Frag	4	--	--	--	-	-	- -	11.02	13.02	15.02	17.02
14	Nontrauma	0	97.2	--	46.5	62	16	126 / 68	--	--	--	--
15	Unk	1	--	--	--	-	-	- -	18.22	--	--	--
16	Accident	4	97.0	1.020	43.8	61	16	124 / 72	14.51	--	--	--
17	Jump	4	--	--	41.5	79	16	186 / 96	18.21	--	--	--
18	Heat Exh.	0	96.4	--	45.1	62	24	132 / 92	--	--	--	--
19	GSW	34	98.0	--	28.0	85	-	135 / 80	22.09	24.09	30.06	--
20	GSW	29	101.0	--	--	108	20	130 / 70	12.58	20.09	20.09	--
21	Frag	34	--	--	36.0	-	-	- -	23.09	25.09	16.03	18.02
22	Jump	1	98.2	--	--	60	18	102 / 82	25.02	--	--	--
23	Frag	4	98.8	--	--	76	16	130 / 54	19.32	--	--	--
24	Frag	1	97.5	--	--	90	16	118 / 59	15.02	--	--	--
25	Jump	4	98.6	1.025	41.0	64	16	110 / 70	18.21	--	--	--
26	GSW	9	--	--	40.3	-	-	- -	13.15	19.02	--	--
27	Psych	0	98.4	--	--	82	20	120 / 70	--	--	--	--
28	Jump	5	96.8	1.020	47.9	80	18	90 / 50	15.22	19.02	--	--
29	Frag	4	97.3	1.025	42.3	87	18	126 / 60	12.12	--	--	--
30	Frag	4	98.0	--	36.8	76	16	158 / 86	18.02	--	--	--

Table 7

Record#	Cause of Injury	ISS	TEMP	Specific Gravity	HCT	Heart Rate	Resp. Rate	Blood Pressure	1st* Injury	2nd* Injury	3rd* Injury	4th* Injury
31	Jump	4	98.6	1.025	42.5	93	-	134 / 90	16.21	--	--	--
32	GSW	4	--	--	--	-	-	- -	14.52	--	--	--
33	Frag	9	98.0	--	--	88	16	124 / 80	12.15	--	--	--
34	Heat Exh.	4	97.6	1.015	46.8	75	18	136 / 74	19.02	--	--	--
35	Accident	17	--	--	30.0	80	20	110 / 92	18.55	14.15	18.15	19.02
36	Jump	2	98.6	--	--	60	16	100 / 78	18.22	16.22	--	--
37	Jump	4	99.8	--	40.9	73	24	140 / 50	17.21	--	--	--
38	Frag	5	98.2	1.020	40.7	64	20	122 / 78	19.02	14.02	--	--
39	GSW	13	100.6	--	27.0	80	20	160 / 80	11.15	21.09	--	--
40	Jump	1	--	1.025	43.5	70	16	120 / 70	18.22	--	--	--
41	GSW	4	98.2	--	--	60	20	138 / 90	16.02	--	--	--
42	Frag	4	98.4	--	--	82	24	- -	17.52	--	--	--
43	Heat Exh.	4	97.5	1.020	36.0	79	20	108 / 72	--	--	--	--
44	Frag	4	--	--	38.8	74	12	- -	23.02	--	--	--
45	Jump	4	--	--	59.7	64	-	138 / 60	16.51	--	--	--
46	GSW	8	98.6	--	--	68	20	110 / 70	19.32	13.12	16.02	19.02
47	Accident	4	--	--	--	-	-	- -	16.51	--	--	--
48	Accident	1	--	--	--	80	20	140 / 80	31.02	--	--	--
49	Frag	13	--	--	--	-	-	- -	17.25	15.02	16.12	--
50	Frag	4	98.0	1.020	--	60	16	120 / 49	15.02	--	--	--
51	Nontrauma	0	--	--	--	-	-	- -	--	--	--	--
52	Jump	9	--	--	--	100	32	110 / 80	30.06	--	--	--
53	GSW	4	98.3	--	40.3	68	12	124 / 90	11.02	--	--	--
54	Jump	13	--	--	38.9	94	20	147 / 72	21.09	31.02	19.02	--
55	Accident	1	98.4	--	--	64	16	112 / 98	19.02	--	--	--
56	Jump	1	98.6	1.020	45.9	68	16	114 / 78	18.52	--	--	--
57	Frag	4	--	1.010	36.6	80	20	112 / 64	23.02	--	--	--
58	Jump	4	--	--	--	-	-	- -	16.21	--	--	--
59	Frag	4	97.4	1.025	43.8	64	24	152 / 120	25.02	--	--	--
60	Frag	15	96.9	--	42.3	78	16	120 / 88	14.06	15.02	--	--
61	GSW	4	97.2	--	44.9	80	20	136 / 80	14.52	18.52	--	--

Table 7

Record#	Cause of Injury	ISS	TEMP	Specific Gravity	HCT	Heart Rate	Resp. Rate	Blood Pressure	1st* Injury	2nd* Injury	3rd* Injury	4th* Injury
62	Frag	4	100.2	--	--	92	18	160 / 90	12.02	--	--	--
63	Jump	1	97.8	--	--	60	18	120 / 70	16.22	--	--	--
64	Frag	4	101.2	--	--	136	24	140 / 80	13.15	--	--	--
65	Accident	1	96.0	--	--	58	18	122 / 64	31.02	--	--	--
66	Jump	4	--	--	--	-	-	- -	17.01	--	--	--
67	Frag	4	--	--	38.6	80	20	150 / 82	17.02	--	--	--
68	Jump	1	98.0	1.025	--	68	18	128 / 70	18.02	--	--	--
69	GSW	4	--	--	36.3	60	-	160 / 80	14.58	--	--	--
70	Accident	1	--	--	--	60	14	130 / 28	25.02	--	--	--
71	Heat Exh.	4	100.0	1.005	38.0	126	18	134 / 82	--	--	--	--
72	Frag	4	--	1.025	42.2	88	16	142 / 80	32.02	--	--	--
73	Jump	4	98.8	1.010	39.8	42	18	116 / 66	30.01	--	--	--
74	Jump	1	99.0	--	--	60	16	99 / 68	16.22	--	--	--
75	Jump	9	99.4	--	41.5	74	18	122 / 52	16.21	18.22	--	--
76	GSW	8	--	--	--	-	-	- -	11.15	13.15	--	--
77	Jump	2	99.0	1.015	39.0	58	16	132 / 74	17.22	15.12	--	--
78	GSW	8	99.7	--	36.7	88	24	122 / 78	13.15	25.02	--	--
79	Accident	4	--	--	--	-	-	- -	12.22	--	--	--
80	Jump	4	100.9	--	--	100	20	150 / 100	15.01	--	--	--
81	Jump	4	100.2	1.025	43.0	67	16	152 / 72	16.21	--	--	--
82	Accident	2	96.9	--	39.0	60	12	136 / 82	14.12	18.12	--	--
83	GSW	4	98.6	1.015	39.7	96	20	150 / 90	18.02	--	--	--
84	GSW	4	--	--	--	-	-	- -	31.02	--	--	--
85	GSW	4	--	--	--	80	20	128 / 74	14.52	--	--	--
86	GSW	4	100.6	--	34.6	60	12	140 / 80	22.02	--	--	--
87	GSW	4	98.1	1.010	41.3	76	20	132 / 74	21.02	--	--	--
88	Frag	1	98.7	--	45.5	63	18	126 / 84	19.02	--	--	--
89	GSW	4	97.9	1.015	33.6	64	18	122 / 64	17.02	--	--	--
90	Frag	5	97.2	--	--	88	20	122 / 82	26.02	17.02	--	--
91	Accident	4	100.8	--	48.9	70	20	140 / 90	12.26	--	--	--
92	Heat Exh.	4	--	1.030	37.3	76	20	118 / 80	--	--	--	--

Table 7

Record#	Cause of Injury	ISS	TEMP	Specific Gravity	HCT	Heart Rate	Resp. Rate	Blood Pressure	1st* Injury	2nd* Injury	3rd* Injury	4th* Injury
93	Jump	1	98.8	--	--	76	16	150 / 100	12.12	--	--	--
94	Frag	9	--	--	--	80	20	120 / 80	18.02	16.02	19.02	22.02
95	Frag	4	98.8	--	40.7	76	20	140 / 80	22.02	--	--	--
96	Frag	13	99.7	1.015	40.1	76	18	140 / 78	18.55	14.52	--	--
97	Jump	4	99.1	1.025	--	76	16	108 / 64	18.51	--	--	--
98	Frag	4	98.0	--	47.8	60	16	120 / 60	16.55	--	--	--
99	Jump	1	--	1.015	41.1	60	16	112 / 70	31.02	--	--	--
100	GSW	8	98.8	1.010	35.0	52	20	122 / 68	17.02	25.03	--	--
101	GSW	4	98.8	--	31.6	88	16	140 / 80	19.02	--	--	--
102	Jump	4	--	--	39.8	80	-	120 / 80	18.01	--	--	--
103	Frag	22	--	1.025	32.5	64	18	120 / 80	21.09	25.09	31.02	16.22
104	Frag	4	97.3	--	--	60	16	134 / 70	13.12	--	--	--
105	GSW	5	99.0	1.020	43.7	64	18	128 / 72	13.02	18.22	--	--
106	Frag	13	101.6	--	42.1	80	-	150 / 74	16.25	18.02	25.02	--
107	Jump	4	100.4	--	45.9	100	24	140 / 70	16.01	--	--	--
108	Frag	9	96.0	--	28.1	60	-	122 / 60	12.08	--	--	--
109	Jump	8	--	1.025	39.9	72	18	148 / 62	18.21	18.51	--	--
110	Jump	4	--	1.025	42.0	100	20	142 / 64	16.21	--	--	--
111	GSW	9	--	--	34.0	-	-	- -	15.25	--	--	--
112	Frag	9	--	--	--	70	18	120 / 70	31.02	25.02	18.22	16.22
113	GSW	4	98.9	--	43.7	78	20	120 / 50	14.53	--	--	--
114	Jump	1	97.6	--	--	64	16	130 / 76	16.52	--	--	--
115	GSW	4	--	1.025	--	-	-	- -	14.52	15.12	--	--
116	GSW	4	97.5	--	--	68	16	122 / 74	11.02	15.02	--	--
117	Jump	2	98.6	--	--	92	16	120 / 78	18.12	16.22	--	--
118	Accident	1	98.6	1.015	44.2	72	20	128 / 70	16.22	--	--	--
119	GSW	4	--	--	40.9	88	12	136 / 80	16.02	--	--	--
120	GSW	13	--	--	25.0	96	24	- -	21.06	19.05	--	--
121	GSW	17	--	--	--	-	-	- -	19.05	11.13	32.02	--
122	Jump	5	--	1.020	37.8	63	18	130 / 70	18.21	16.22	--	--
123	Accident	1	98.6	1.020	41.8	68	12	120 / 76	18.12	--	--	--

Table 7

Record#	Cause of Injury	ISS	TEMP	Specific Gravity	HCT	Heart Rate	Resp. Rate	Blood Pressure	1st* Injury	2nd* Injury	3rd* Injury	4th* Injury
124	Jump	1	98.4	1.005	44.0	72	16	126 / 68	18.22	--	--	--
125	Nontrauma	0	--	--	37.0	72	20	118 / 64	--	--	--	--
126	Frag	4	98.7	1.020	44.8	76	20	140 / 80	15.02	--	--	--
127	Jump	4	100.2	--	--	60	-	140 / 98	18.51	--	--	--
128	Frag	13	99.5	--	34.7	80	16	102 / 74	22.09	14.53	25.02	12.52
129	GSW	8	98.4	--	31.9	90	16	120 / 70	19.32	12.02	--	--
130	Accident	1	96.3	1.030	44.7	-	16	116 / 56	19.02	18.22	--	--
131	Unk	4	97.5	--	41.6	60	16	108 / 70	19.32	--	--	--
132	Frag	4	98.2	--	46.1	60	-	124 / 78	17.02	15.02	--	--
133	Frag	4	--	--	44.6	72	16	102 / 70	13.12	17.02	18.02	--
134	Jump	1	98.6	--	--	62	20	150 / 74	16.22	--	--	--
135	Frag	4	99.5	1.020	31.7	72	-	136 / 80	11.02	32.02	--	--
136	Frag	13	98.0	1.020	37.6	110	24	130 / 86	18.55	12.12	12.55	--
137	GSW	9	100.9	--	36.3	88	16	154 / 88	13.05	--	--	--
138	Heat Exh.	4	97.1	1.020	37.6	80	16	104 / 64	--	--	--	--
139	Frag	4	95.6	--	44.5	52	20	130 / 80	19.02	--	--	--
140	GSW	27	--	--	--	108	24	80 / 40	16.08	21.09	19.32	20.09
141	Nontrauma	0	98.0	1.010	43.1	74	22	130 / 76	--	--	--	--
142	GSW	9	100.6	--	28.4	88	18	140 / 58	12.0[illegible]	11.02	--	--
143	Unk	1	--	--	44.1	66	17	132 / 84	22.02	24.02	--	--
144	GSW	5	98.0	--	--	69	20	112 / 66	12.02	18.02	--	--
145	Jump	4	98.4	1.015	41.9	84	20	120 / 60	18.21	--	--	--
146	GSW	9	--	--	--	-	-	- -	13.05	--	--	--
147	Frag	4	--	1.025	39.6	-	-	- -	11.02	--	--	--
148	GSW	8	--	--	--	-	-	- -	18.12	11.02	--	--
149	GSW	24	98.1	--	23.8	85	-	110 / 80	19.09	13.12	17.12	--
150	GSW	9	98.3	1.015	39.0	81	16	144 / 92	18.55	--	--	--
151	Jump	4	98.2	1.025	--	64	-	108 / 61	18.21	--	--	--
152	Jump	4	--	--	--	-	-	- -	30.01	--	--	--
153	Jump	4	--	--	--	-	-	- -	21.02	--	--	--
154	Jump	1	97.4	--	--	77	18	110 / 50	17.22	--	--	--

Table 7

Record#	Cause of Injury	ISS	TEMP	Specific Gravity	HCT	Heart Rate	Resp. Rate	Blood Pressure	1st* Injury	2nd* Injury	3rd* Injury	4th* Injury
155	Frag	2	97.4	--	38.9	72	20	120 / 80	17.02	18.02	--	--
156	Heat Exh.	4	97.4	1.005	37.6	80	18	124 / 58	--	--	--	--
157	Psych	0	98.4	--	36.5	54	18	130 / 62	--	--	--	--
158	Frag	4	98.5	--	41.0	73	16	118 / 50	15.02	--	--	--
159	Jump	4	97.5	1.010	--	62	16	127 / 69	31.02	18.22	--	--
160	Accident	1	98.4	1.030	--	65	18	139 / 67	16.22	--	--	--
161	Jump	1	97.2	1.025	--	69	18	124 / 52	17.02	15.02	--	--
162	GSW	9	--	--	35.1	72	-	150 / 70	15.05	--	--	--
163	Jump	1	96.6	--	--	80	24	118 / 70	15.02	--	--	--
164	GSW	9	--	--	--	-	-	- -	16.05	--	--	--
165	Frag	17	98.1	--	22.8	60	16	130 / 60	16.04	14.58	14.02	18.02
166	Jump	1	98.8	--	46.2	64	16	110 / 66	18.12	--	--	--
167	Heat Exh.	4	97.0	--	39.8	64	12	118 / 84	--	--	--	--
168	Frag	4	98.1	1.020	39.7	74	16	156 / 88	16.02	--	--	--
169	GSW	34	--	--	--	110	-	70 / 30	22.09	13.15	--	--
170	Frag	1	97.4	1.010	39.5	50	18	138 / 64	18.02	--	--	--
171	Frag	5	101.0	--	35.8	69	-	144 / 61	18.22	16.25	--	--
172	Heat Exh.	4	97.0	1.030	35.4	120	20	150 / 104	--	--	--	--
173	GSW	4	--	--	37.6	56	-	136 / 84	19.02	--	--	--
174	Frag	8	98.7	1.025	45.6	57	20	136 / 66	16.55	12.12	--	--
175	Frag	13	97.8	1.025	39.7	80	20	130 / 80	16.05	16.02	17.02	--
176	Frag	4	96.8	1.015	--	64	18	136 / 63	17.02	--	--	--
177	Accident	4	98.8	--	--	70	-	110 / 70	18.51	--	--	--
178	Jump	2	98.5	--	38.1	50	16	144 / 64	11.02	12.12	19.02	--
179	GSW	9	100.3	--	18.1	96	22	128 / 68	16.08	--	--	--
180	Frag	1	98.7	1.025	37.9	93	20	120 / 72	12.00	12.02	--	--
181	Frag	13	101.5	--	--	-	-	- -	18.55	31.02	17.02	12.15
182	Frag	4	97.0	1.025	45.5	114	24	120 / 80	21.09	--	--	--
183	Accident	5	97.0	1.025	45.3	70	18	130 / 90	19.02	15.22	--	--
184	Frag	13	97.6	--	48.7	64	-	118 / 68	18.55	12.02	--	--
185	Heat Exh.	4	97.0	1.025	36.4	80	16	104 / 64	--	--	--	--

Table 7

Record#	Cause of Injury	ISS	TEMP	Specific Gravity	HCT	Heart Rate	Resp. Rate	Blood Pressure	1st* Injury	2nd* Injury	3rd* Injury	4th* Injury
186	Accident	1	--	--	--	-	-	- / -	12.22	--	--	--
187	Accident	1	--	--	--	64	16	110 / 70	18.22	--	--	--
188	GSW	9	98.7	--	42.7	72	20	130 / 88	14.55	--	--	--
189	Frag	4	97.8	--	39.9	60	16	132 / 88	19.02	--	--	--
190	Frag	4	98.7	--	--	76	24	118 / 76	14.03	--	--	--
191	Jump	4	98.6	1.025	42.4	60	16	140 / 82	16.51	--	--	--
192	GSW	4	96.9	1.025	39.5	68	18	100 / 60	14.02	--	--	--
193	Jump	1	--	1.020	--	-	-	- / -	17.22	--	--	--
194	Frag	29	98.9	--	--	69	16	120 / 70	18.55	16.05	17.05	14.02
195	Accident	4	--	--	38.3	69	24	122 / 89	19.02	--	--	--
196	Accident	1	--	1.025	--	64	26	150 / 82	18.22	--	--	--
197	Jump	4	98.8	--	--	60	16	110 / 64	16.21	--	--	--
198	Frag	4	96.8	1.025	44.5	56	16	138 / 84	19.02	--	--	--
199	Jump	4	99.5	1.010	38.6	89	20	158 / 76	18.21	18.51	--	--
200	Unk	5	--	--	--	-	-	- / -	16.21	16.51	--	--
201	Burn	4	--	1.025	39.9	80	20	126 / 70	15.00	16.50	18.00	25.00
202	Jump	1	--	--	--	68	16	- / -	13.02	--	--	--
203	Jump	1	96.9	--	--	77	20	140 / 74	14.12	--	--	--
204	Jump	5	97.4	--	38.6	65	16	148 / 84	19.0[illegible]	15.02	16.02	--
205	Jump	1	98.4	--	--	80	20	150 / 100	16.12	--	--	--
206	Accident	1	96.4	--	43.5	62	12	110 / 65	19.02	--	--	--
207	Burn	1	98.6	1.025	52.7	64	20	110 / 80	16.00	--	--	--
208	Frag	4	98.2	--	--	60	-	116 / 60	13.02	--	--	--
209	Frag	9	99.1	--	44.0	84	20	110 / 20	12.02	16.12	25.02	--
210	Frag	4	96.2	--	40.2	60	12	144 / 66	18.02	--	--	--
211	Jump	4	--	--	37.0	118	20	150 / 100	18.02	--	--	--
212	Burn	4	97.3	--	--	59	18	118 / 60	15.02	16.02	--	--
213	Frag	4	100.5	1.020	41.5	87	116	142 / 78	15.25	--	--	--
214	Jump	4	98.0	--	--	64	-	90 / 58	19.32	--	--	--
215	GSW	1	97.9	--	--	68	18	135 / 72	15.22	--	--	--
216	Frag	4	96.1	1.025	39.8	74	16	126 / 68	16.02	--	--	--

Table 7

Record#	Cause of Injury	ISS	TEMP	Specific Gravity	HCT	Heart Rate	Resp. Rate	Blood Pressure	1st* Injury	2nd* Injury	3rd* Injury	4th* Injury
217	Jump	1	96.4	--	--	68	20	128 / 70	14.12	--	--	--
218	Jump	13	--	--	--	-	-	- -	15.05	15.21	12.15	--
219	Accident	1	97.5	1.030	38.2	52	18	126 / 58	18.51	--	--	--
220	Frag	1	97.0	--	40.0	50	16	132 / 82	14.12	--	--	--
221	Frag	9	97.2	--	39.4	78	20	124 / 90	19.35	--	--	--
222	Frag	5	98.3	--	--	96	20	102 / 60	15.02	15.22	--	--
223	Frag	4	--	1.025	37.4	62	14	160 / 92	15.02	--	--	--
224	Jump	1	98.3	--	--	80	18	92 / 50	18.22	--	--	--
225	Accident	1	--	1.025	45.0	50	16	112 / 58	32.02	31.02	--	--
226	Frag	8	--	--	--	-	-	- -	13.01	16.02	16.12	20.02
227	Jump	4	99.0	--	44.6	95	-	138 / 93	16.51	--	--	--
228	GSW	33	97.2	--	37.0	130	-	130 / 90	21.09	23.09	19.32	19.02
229	Jump	4	99.0	--	42.6	71	12	137 / 66	16.21	--	--	--
230	Frag	22	--	--	32.0	104	20	150 / 80	23.09	21.09	25.02	--
231	Frag	4	--	--	--	-	-	- -	16.15	--	--	--
232	GSW	4	97.5	--	46.6	65	20	120 / 80	23.02	--	--	--
233	Heat Exh.	4	97.8	1.005	36.4	96	24	130 / 94	--	--	--	--
234	Jump	1	99.2	--	--	83	16	142 / 86	16.22	--	--	--
235	Frag	4	99.0	--	46.1	76	12	104 / 62	16.15	--	--	--
236	Jump	1	97.0	--	--	60	16	121 / 74	31.02	--	--	--
237	Jump	1	99.4	1.010	--	76	18	108 / 62	18.02	--	--	--
238	GSW	4	99.9	--	27.2	88	18	140 / 85	15.02	--	--	--
239	GSW	9	99.8	--	32.6	80	20	120 / 40	16.05	18.05	--	--
240	Frag	13	98.6	--	--	64	16	130 / 80	11.55	17.02	18.02	19.32
241	Jump	9	99.9	--	--	80	-	98 / 48	16.25	31.02	19.09	--
242	Frag	4	99.2	1.020	37.6	80	20	112 / 80	18.02	18.52	--	--
243	Jump	4	98.6	--	42.0	74	20	150 / 72	16.25	--	--	--
244	GSW	9	--	--	29.0	65	16	120 / 65	12.15	--	--	--
245	Accident	4	97.1	1.030	45.8	57	18	116 / 68	32.02	19.02	--	--
246	GSW	9	98.4	--	42.6	84	20	110 / 70	15.25	--	--	--
247	Jump	1	98.6	--	42.5	82	16	118 / 80	18.22	--	--	--

Table 7

Record#	Cause of Injury	ISS	TEMP	Specific Gravity	HCT	Heart Rate	Resp. Rate	Blood Pressure		1st* Injury	2nd* Injury	3rd* Injury	4th* Injury
248	Nontrauma	0	--	--	41.0	64	-	-	-	--	--	--	--
249	Frag	13	100.9	--	35.4	92	32	146 /	90	22.09	12.03	15.02	17.02
250	GSW	13	97.0	--	37.0	90	20	145 /	70	18.17	16.02	--	--
251	GSW	29	--	--	--	-	-	-	-	24.09	18.05	30.06	24.09
252	Jump	4	100.1	--	46.9	72	18	142 /	60	16.21	--	--	--
253	GSW	18	99.6	--	33.3	89	16	128 /	80	23.09	21.09	--	--
Count (N)		253.0	178.0	80.0	156.0	222.0	199.0	218.0	218.0				
Mean		5.8	98.3	1.020	39.7	75.1	18.7	127.0	73.4				
SEM		0.4	0.1	0.001	0.5	1.0	0.5	1.1	0.9				
Median		4.0	98.4	1.020	40.0	72.5	18.0	127.0	74.0				
Variance		38.4	1.5	0.000	32.1	235.2	57.9	266.2	185.1				
StDev (sd)		6.2	1.2	0.007	5.7	15.3	7.6	16.3	13.6				
Maximum		34.0	101.6	1.030	59.7	136.0	116.0	186.0	120.0				
Minimum		0.0	95.6	1.005	18.1	42.0	12.0	70.0	20.0				
Range		34.0	6.0	0.025	41.6	94.0	104.0	116.0	100.0				

*Anatomy Injury Key

Extremity	10	Trunk	20	Hand/foot	.5	Bone	.01
Rt Arm	11	Rt Chest	21	Joint		Soft Tissue	.02
Rt Forearm	12	Lt Chest	22	Above	.1	Nerve	.03
Lt Arm	13	Rt Abdomen	23	Below	.2	Vessel	.04
Lt Forearm	14	Lt Abdomen	24			Bone+S/T	.05
Rt Thigh	15	Buttocks	25	Eye	.3	Bone+Nerve	.06
Rt Leg	16	Genitalia	26			Bone+Vessel	.07
Lt Thigh	17	Spine	30			Bone+N+V	.08
Lt Leg	18	Back	31			Organ	.09
Head	19	Neck	32				

Table 7

FLUID TREATMENT

Record#	AMBULATORY	CLINICAL ASSESSMENT (Shock)	MENTAL STATUS	RESP. STATUS	BLOOD Replaced	BLOOD Amount (Units RBC)	COLLOID Replaced	COLLOID Amount (ml)	CRYSTALLOID Replaced	CRYSTALLOID Amount (ml)
1	Yes	No	Normal	Normal	No	-	No	-	No	-
2	Yes	Unk	Normal	Normal	No	-	No	-	Yes	500
3	No	No	Normal	Normal	No	-	No	-	No	-
4	No	No	Normal	Normal	No	-	No	-	No	-
5	Unk	Unk	Normal	Normal	No	-	No	-	No	-
6	No	Yes	Normal	Distress	No	-	No	-	Yes	2250
7	Yes	Unk	Normal	Normal	No	-	No	-	Yes	2150
8	Yes	No	Normal	Normal	No	-	No	-	Yes	675
9	Yes	Unk	Normal	Normal	No	-	No	-	No	-
10	Yes	No	Normal	Normal	No	-	No	-	Yes	1000
11	Yes	No	Normal	Normal	No	-	No	-	No	-
12	No	No	Normal	Normal	No	-	No	-	No	-
13	-	-	-	-	No	-	No	-	No	-
14	Unk	No	Normal	Normal	No	-	No	-	No	-
15	-	-	-	-	No	-	No	-	No	-
16	No	No	Normal	Normal	No	-	No	-	Yes	1100
17	No	No	Normal	Normal	No	-	No	-	Yes	1115
18	Yes	No	Normal	Normal	No	-	No	-	Yes	3700
19	No	Unk	Normal	Normal	Yes	11	No	-	Yes	18050
20	No	Unk	Normal	Normal	Yes	5	No	-	Yes	15300
21	Unk	No	Normal	Normal	No	-	No	-	No	-
22	No	No	Normal	Normal	No	-	No	-	No	-
23	Yes	Unk	Normal	Normal	No	-	No	-	No	-
24	Yes	No	Normal	Normal	No	-	No	-	No	-
25	Yes	No	Normal	Normal	No	-	No	-	Yes	1200
26	Yes	No	Normal	Normal	No	-	No	-	Yes	2410
27	Yes	No	Normal	Normal	No	-	No	-	No	-
28	Yes	No	Normal	Normal	No	-	No	-	Yes	150

Table 8

Record#	AMBULATORY	CLINICAL ASSESSMENT (Shock)	MENTAL STATUS	RESP. STATUS	BLOOD Replaced	BLOOD Amount (Units RBC)	COLLOID Replaced	COLLOID Amount (ml)	CRYSTALLOID Replaced	CRYSTALLOID Amount (ml)
29	Yes	No	Normal	Normal	No	-	No	-	No	-
30	Yes	No	Normal	Normal	No	-	No	-	Yes	500
31	No	No	Normal	Normal	No	-	No	-	No	-
32	-	-	-	-	No	-	No	-	No	-
33	Yes	No	Normal	Normal	No	-	No	-	Yes	3200
34	Unk	No	Normal	Normal	No	-	No	-	No	-
35	No	No	Normal	Normal	No	-	No	-	Yes	2130
36	No	Unk	Normal	Normal	No	-	No	-	No	-
37	No	No	Normal	Normal	No	-	No	-	Yes	1250
38	Yes	No	Normal	Normal	No	-	No	-	No	-
39	No	No	Normal	Normal	Yes	2	No	-	Yes	5600
40	Unk	Unk	Normal	Normal	No	-	No	-	No	-
41	Yes	No	Normal	Normal	No	-	No	-	No	-
42	Unk	Unk	Normal	Normal	No	-	No	-	No	-
43	No	No	Normal	Normal	No	-	No	-	Yes	400
44	Unk	Unk	Normal	Normal	No	-	No	-	Yes	2800
45	No	No	Normal	Normal	No	-	No		No	-
46	No	No	Normal	Normal	No	-	No		Yes	4250
47	-	-	-	-	No	-	No	-	No	-
48	Yes	No	Normal	Normal	No	-	No	-	No	-
49	-	-	-	-	No	-	No	-	No	-
50	Yes	No	Normal	Normal	No	-	No	-	No	-
51	Unk	No	Normal	Normal	No	-	No	-	No	-
52	Unk	Unk	Normal	Normal	No	-	No	-	No	-
53	Unk	Unk	Normal	Normal	No	-	No	-	No	-
54	Unk	Unk	Normal	Normal	No	-	No	-	No	-
55	Yes	No	Normal	Normal	No	-	No	-	No	-
56	-	No	Normal	Normal	No	-	No	-	No	-
57	Unk	No	Normal	Normal	No	-	No	-	Yes	445
58	-	-	-	-	No	-	No	-	No	-

Table 8

Record#	AMBULATORY	CLINICAL ASSESSMENT (Shock)	MENTAL STATUS	RESP. STATUS	BLOOD Replaced	BLOOD Amount (Units RBC)	COLLOID Replaced	COLLOID Amount (ml)	CRYSTALLOID Replaced	CRYSTALLOID Amount (ml)
59	Yes	No	Normal	Normal	No	-	No	-	No	-
60	Unk	Unk	Normal	Normal	No	-	No	-	Yes	1200
61	Unk	No	Normal	Normal	No	-	No	-	No	-
62	Yes	No	Normal	Normal	No	-	No	-	No	-
63	No	No	Normal	Normal	No	-	No	-	No	-
64	No	No	Normal	Normal	No	-	No	-	Yes	750
65	Unk	No	Normal	Normal	No	-	No	-	No	-
66	-	-	-	-	No	-	No	-	No	-
67	Yes	No	Normal	Normal	No	-	No	-	Yes	750
68	Yes	Unk	Normal	Normal	No	-	No	-	No	-
69	No	No	Normal	Normal	No	-	No	-	Yes	2750
70	No	No	Normal	Normal	No	-	No	-	No	-
71	Yes	Yes	Normal	Normal	No	-	No	-	Yes	150
72	No	No	Normal	Normal	No	-	No	-	No	-
73	Yes	No	Normal	Normal	No	-	No	-	No	-
74	Unk	No	Normal	Normal	No	-	No	-	No	-
75	No	No	Normal	Normal	No	-	No	-	No	-
76	-	-	-	-	No	-	No	-	No	-
77	-	No	Normal	Normal	No	-	No	-	Yes	150
78	No	Unk	Normal	Normal	No	-	No	-	Yes	1800
79	-	-	-	-	No	-	No	-	No	-
80	No	No	Normal	Normal	No	-	No	-	Yes	2500
81	No	No	Normal	Normal	No	-	No	-	Yes	600
82	Yes	No	Normal	Normal	No	-	No	-	No	-
83	Unk	Unk	Normal	Normal	No	-	No	-	No	-
84	-	-	-	-	No	-	No	-	No	-
85	Yes	Unk	Normal	Normal	No	-	No	-	Yes	1400
86	No	Unk	Normal	Normal	No	-	No	-	Yes	2400
87	No	No	Normal	Normal	No	-	No	-	Yes	550
88	Yes	No	Normal	Normal	No	-	No	-	Yes	125

Table 8

Record#	AMBULATORY	CLINICAL ASSESSMENT (Shock)	MENTAL STATUS	RESP. STATUS	BLOOD Replaced	BLOOD Amount (Units RBC)	COLLOID Replaced	COLLOID Amount (ml)	CRYSTALLOID Replaced	CRYSTALLOID Amount (ml)
89	No	No	Normal	Normal	No	-	No	-	Yes	1650
90	Yes	No	Normal	Normal	No	-	No	-	No	-
91	Yes	Unk	Normal	Normal	No	-	No	-	Yes	1750
92	Yes	No	Normal	Normal	No	-	No	-	Yes	1150
93	No	Unk	Normal	Normal	No	-	No	-	No	-
94	Yes	No	Normal	Normal	No	-	No	-	No	-
95	Yes	Unk	Normal	Normal	No	-	No	-	No	-
96	No	No	Normal	Normal	No	-	No	-	Yes	4850
97	Unk	No	Normal	Normal	No	-	No	-	No	-
98	Yes	No	Normal	Normal	No	-	No	-	Yes	100
99	No	Unk	Normal	Normal	No	-	No	-	No	-
100	No	Unk	Normal	Normal	No	-	No	-	No	-
101	No	No	Normal	Normal	No	-	No	-	Yes	2900
102	Unk	No	Normal	Normal	No	-	No	-	No	-
103	No	Unk	Normal	Normal	No	-	No	-	Yes	4580
104	Unk	Unk	Normal	Normal	No	-	No	-	No	-
105	Unk	Unk	Normal	Normal	No	-	No		No	-
106	No	Unk	Normal	Distress	No	-	No		Yes	2400
107	No	No	Normal	Normal	No	-	No	-	Yes	5350
108	Unk	No	Normal	Normal	No	-	No	-	Yes	12000
109	Unk	No	Normal	Normal	No	-	No	-	Yes	1000
110	No	No	Normal	Normal	No	-	No	-	Yes	1600
111	No	No	Normal	Normal	No	-	No	-	No	-
112	No	Unk	Normal	Normal	No	-	No	-	Yes	3175
113	No	Unk	Normal	Normal	No	-	No	-	Yes	1600
114	Yes	No	Normal	Normal	No	-	No	-	No	-
115	Yes	No	Normal	Normal	No	-	No	-	No	-
116	No	No	Normal	Normal	No	-	No	-	No	-
117	No	No	Normal	Normal	No	-	No	-	No	-
118	No	No	Normal	Normal	No	-	No	-	Yes	150

Table 8

Record#	AMBULATORY	CLINICAL ASSESSMENT (Shock)	MENTAL STATUS	RESP. STATUS	BLOOD Replaced	BLOOD Amount (Units RBC)	COLLOID Replaced	COLLOID Amount (ml)	CRYSTALLOID Replaced	CRYSTALLOID Amount (ml)
119	Yes	No	Normal	Normal	No	-	No	-	No	-
120	No	No	Normal	Normal	No	-	No	-	Yes	3600
121	-	-	-	-	No	-	No	-	No	-
122	No	No	Normal	Normal	No	-	No	-	Yes	1100
123	No	No	Normal	Normal	No	-	No	-	No	-
124	No	Yes	Normal	Normal	No	-	No	-	No	-
125	No	No	Normal	Normal	No	-	No	-	Yes	125
126	No	No	Normal	Normal	No	-	No	-	No	-
127	No	No	Normal	Normal	No	-	No	-	No	-
128	No	No	Normal	Normal	No	-	No	-	Yes	1500
129	Yes	No	Normal	Normal	No	-	No	-	No	-
130	Unk	No	Normal	Normal	No	-	No	-	No	-
131	Unk	No	Normal	Normal	No	-	No	-	No	-
132	Yes	Unk	Normal	Normal	No	-	No	-	No	-
133	Unk	Unk	Normal	Normal	No	-	No	-	No	-
134	No	No	Normal	Normal	No	-	No	-	No	-
135	Yes	No	Normal	Normal	No	-	No	-	Yes	850
136	Unk	No	Normal	Normal	No	-	No	-	Yes	1125
137	Yes	No	Normal	Normal	No	-	No	-	Yes	2600
138	Unk	No	Normal	Normal	No	-	No	-	Yes	3600
139	No	No	Normal	Normal	No	-	No	-	No	-
140	No	No	Normal	Normal	Yes	28	No	-	Yes	23425
141	Yes	No	Normal	Normal	No	-	No	-	No	-
142	Yes	No	Normal	Normal	No	-	No	-	Yes	4400
143	Yes	No	Normal	Normal	No	-	No	-	No	-
144	Yes	No	Normal	Normal	No	-	No	-	No	-
145	-	Unk	Normal	Normal	No	-	No	-	Yes	1100
146	-	-	-	-	No	-	No	-	No	-
147	Yes	No	Normal	Normal	No	-	No	-	No	-
148	No	No	Normal	Normal	No	-	No	-	No	-

Table 8

Record#	AMBULATORY	CLINICAL ASSESSMENT (Shock)	MENTAL STATUS	RESP. STATUS	BLOOD Replaced	BLOOD Amount (Units RBC)	COLLOID Replaced	COLLOID Amount (ml)	CRYSTALLOID Replaced	CRYSTALLOID Amount (ml)
149	No	Unk	Rspnds/V.S.	Normal	No	-	No	-	No	-
150	Unk	Unk	-	-	No	-	No	-	No	-
151	No	No	Normal	Normal	No	-	No	-	No	-
152	-	-	-	-	No	-	No	-	No	-
153	-	-	-	-	No	-	No	-	No	-
154	No	No	Normal	Normal	No	-	No	-	Yes	150
155	Unk	Unk	-	Normal	No	-	No	-	Yes	150
156	Yes	No	Normal	Normal	No	-	No	-	Yes	150
157	Yes	No	Normal	Normal	No	-	No	-	No	-
158	Unk	No	Normal	Normal	No	-	No	-	Yes	1300
159	Yes	No	Normal	Normal	No	-	No	-	Yes	150
160	Yes	No	Normal	Normal	No	-	No	-	No	-
161	No	No	Normal	Normal	No	-	No	-	No	-
162	No	No	Normal	Normal	No	-	Yes	1000	Yes	5150
163	Yes	No	Normal	Normal	No	-	No	-	No	-
164	-	-	-	-	No	-	No	-	No	-
165	No	No	Normal	Normal	Yes	4	No	-	Yes	13400
166	Unk	No	Normal	Normal	No	-	No		No	-
167	Yes	No	Normal	Normal	No	-	No	-	Yes	150
168	No	Unk	Normal	Normal	No	-	No	-	No	-
169	No	No	No Rspnse	Distress	Yes	2	No	-	Yes	7000
170	Yes	No	Normal	Normal	No	-	No	-	Yes	80
171	No	Unk	Normal	Normal	No	-	No	-	Yes	2680
172	-	No	Normal	Normal	No	-	No	-	Yes	300
173	Yes	No	Normal	Normal	No	-	No	-	No	-
174	No	No	Normal	Normal	No	-	No	-	Yes	1050
175	Unk	No	Normal	Normal	No	-	No	-	Yes	1000
176	No	Unk	Normal	Normal	No	-	No	-	No	-
177	No	Unk	Normal	Normal	No	-	No	-	No	-
178	Yes	No	Normal	Normal	No	-	No	-	No	-

Table 8

Record#	AMBULATORY	CLINICAL ASSESSMENT (Shock)	MENTAL STATUS	RESP. STATUS	BLOOD Replaced	BLOOD Amount (Units RBC)	COLLOID Replaced	COLLOID Amount (ml)	CRYSTALLOID Replaced	CRYSTALLOID Amount (ml)
179	No	No	Normal	Normal	Yes	9	No	-	Yes	24550
180	Yes	No	Normal	Normal	No	-	No	-	No	-
181	-	-	-	Normal	No	-	No	-	No	-
182	Unk	No	Normal	Normal	No	-	No	-	Yes	100
183	Yes	No	Normal	Normal	No	-	No	-	No	-
184	No	No	Normal	Normal	No	-	No	-	Yes	800
185	Yes	No	Normal	Normal	No	-	No	-	Yes	1650
186	-	-	-	-	No	-	No	-	No	-
187	No	No	Normal	Normal	No	-	No	-	No	-
188	Yes	No	Normal	Normal	No	-	No	-	Yes	2250
189	No	No	Normal	Normal	No	-	No	-	No	-
190	No	Unk	Normal	Normal	No	-	No	-	No	-
191	Yes	No	Normal	Normal	No	-	No	-	No	-
192	No	No	Normal	Normal	No	-	No	-	No	-
193	No	No	Normal	Normal	No	-	No	-	Yes	150
194	No	No	Normal	Normal	No	-	No	-	Yes	4150
195	Yes	No	Normal	Normal	No	-	No	-	No	-
196	Unk	No	Normal	Normal	No	-	No	-	No	-
197	Yes	No	Normal	Normal	No	-	No	-	No	-
198	Yes	No	Normal	Normal	No	-	No	-	No	-
199	No	-	Normal	Normal	No	-	No	-	Yes	150
200	-	-	-	-	No	-	No	-	No	-
201	Yes	No	Normal	Normal	No	-	No	-	No	-
202	-	-	Normal	Normal	No	-	No	-	No	-
203	Yes	No	Normal	Normal	No	-	No	-	No	-
204	Yes	No	Normal	Normal	No	-	No	-	Yes	150
205	No	No	Normal	Normal	No	-	No	-	No	-
206	Yes	No	Normal	Normal	No	-	No	-	Yes	125
207	Unk	Unk	-	-	No	-	No	-	No	-
208	No	Unk	Normal	Normal	No	-	No	-	No	-

Table 8

Record#	AMBULATORY	CLINICAL ASSESSMENT (Shock)	MENTAL STATUS	RESP. STATUS	BLOOD Replaced	BLOOD Amount (Units RBC)	COLLOID Replaced	COLLOID Amount (ml)	CRYSTALLOID Replaced	CRYSTALLOID Amount (ml)
209	Yes	No	Normal	Normal	No	-	No	-	Yes	1250
210	Unk	Unk	Normal	Normal	No	-	No	-	Yes	150
211	Yes	No	Normal	Normal	No	-	No	-	Yes	950
212	Yes	No	Normal	Normal	No	-	No	-	No	-
213	Unk	Unk	Normal	Normal	No	-	No	-	No	-
214	No	No	Normal	Normal	No	-	No	-	No	-
215	Yes	No	Normal	-	No	-	No	-	No	-
216	Unk	No	Normal	Normal	No	-	No	-	No	-
217	No	No	Normal	Normal	No	-	No	-	No	-
218	-	-	-	-	No	-	No	-	No	-
219	Yes	No	Normal	Normal	No	-	No	-	No	-
220	Unk	No	Normal	Normal	No	-	No	-	Yes	150
221	Yes	No	Normal	Normal	No	-	No	-	Yes	1000
222	No	Unk	Normal	Normal	No	-	No	-	No	-
223	No	Unk	Normal	Normal	No	-	No	-	Yes	2100
224	Unk	No	Normal	Normal	No	-	No	-	No	-
225	Unk	Unk	Normal	Normal	No	-	No		No	-
226	-	-	-	-	No	-	No		No	-
227	No	No	Normal	Normal	No	-	No	-	No	-
228	No	Unk	-	-	Yes	6	No	-	Yes	5850
229	Unk	Unk	Normal	Normal	No	-	No	-	Yes	1500
230	No	Unk	Rspnds/V.S.	Normal	No	-	No	-	Yes	5150
231	-	-	-	-	No	-	No	-	No	-
232	No	No	Normal	Normal	No	-	No	-	No	-
233	Yes	Unk	Normal	Normal	No	-	No	-	Yes	500
234	Yes	No	Normal	Normal	No	-	No	-	No	-
235	No	Unk	Normal	Normal	No	-	No	-	Yes	1800
236	Yes	No	Normal	Normal	No	-	No	-	No	-
237	No	No	Normal	Normal	No	-	No	-	No	-
238	No	No	Normal	Normal	No	-	No	-	No	-

Table 8

Record#	AMBULATORY	CLINICAL ASSESSMENT (Shock)	MENTAL STATUS	RESP. STATUS	BLOOD Replaced	BLOOD Amount (Units RBC)	COLLOID Replaced	COLLOID Amount (ml)	CRYSTALLOID Replaced	CRYSTALLOID Amount (ml)
239	No	No	Normal	Normal	Yes	4	No	-	Yes	6650
240	No	Unk	Normal	Normal	No	-	No	-	Yes	1000
241	No	No	Normal	Normal	No	-	No	-	No	-
242	Unk	Unk	Normal	Normal	No	-	No	-	No	-
243	Yes	No	Normal	Normal	No	-	No	-	Yes	1200
244	Yes	No	Normal	Normal	No	-	No	-	Yes	5800
245	Unk	Unk	Normal	Normal	No	-	No	-	No	-
246	Unk	No	Normal	Normal	No	-	No	-	Yes	1100
247	No	Unk	Normal	Normal	No	-	No	-	No	-
248	Unk	Unk	Normal	Normal	No	-	No	-	No	-
249	No	No	Normal	Normal	No	-	No	-	Yes	75
250	No	No	Normal	Normal	Yes	2	No	-	Yes	9600
251	-	-	-	-	No	-	No	-	No	-
252	No	No	Normal	Normal	No	-	No	-	Yes	1600
253	No	No	Normal	Normal	No	-	No	-	Yes	3700

Table 8

TREATMENT

Record#	Transported by	Transported to	Treated by	Treatment	Antibiotics§	Antibiotics Type*	Morphine	Morphine by Choice	Records Accurate	Injury Classification
1	--	--	--	--	-	-	-	-	-	Ambulatory
2	--	--	--	--	Yes	Cef	-	-	-	--
3	--	--	--	--	-	-	-	-	-	--
4	--	--	--	--	-	-	-	-	-	--
5	--	--	--	--	-	-	-	-	-	--
6	--	--	--	--	Yes	Gent/Pipro	-	-	-	--
7	--	--	--	--	Yes	Cef/Gent	-	-	-	--
8	--	--	--	--	Yes	Cef	-	-	-	--
9	--	--	--	--	-	-	-	-	-	--
10	--	--	--	--	Yes	Cef	-	-	-	--
11	--	--	--	--	-	-	-	-	-	--
12	--	--	--	--	-	-	-	-	-	--
13	--	--	--	--	-	-	-	-	-	--
14	--	--	--	--	-	-	-	-	-	--
15	--	--	--	--	-	-	-	-	-	--
16	--	--	--	--	-	-	-	-	-	--
17	--	--	--	--	-	-	-	-	-	Incapacitated
18	--	--	--	--	-	-	-	-	-	--
19	--	--	--	--	Yes	Triple/Flagyl	-	-	-	--
20	--	--	--	--	Yes	Triple	-	-	-	--
21	--	--	--	--	-	-	-	-	-	--
22	--	--	--	--	-	-	-	-	-	--
23	--	--	--	--	-	-	-	-	-	--
24	--	--	--	--	Yes	Cef	-	-	-	Ambulatory
25	--	--	--	--	-	-	-	-	-	--
26	--	--	--	--	Yes	Cef/Gent	-	-	-	--
27	--	MEDDAC	MD/Nurse	--	-	-	-	-	-	Ambulatory
28	--	--	--	--	Yes	Cef	-	-	-	--
29	--	--	--	--	Yes	Cef	-	-	-	--

Table 9

Record#	Transported by	Transported to	Treated by	Treatment	Antibiotics§	Antibiotics Type*	Morphine	Morphine by Choice	Records Accurate	Injury Classification
30	--	--	--	--	Yes	Cef	-	-	-	--
31	--	--	--	--	-	-	-	-	-	--
32	--	--	--	--	-	-	-	-	-	--
33	--	--	--	--	Yes	Cef	-	-	-	--
34	--	--	--	--	-	-	-	-	-	--
35	--	--	--	--	Yes	Triple	-	-	-	--
36	--	--	--	--	-	-	-	-	-	--
37	--	--	--	--	-	-	-	-	-	--
38	--	--	--	--	-	-	-	-	-	--
39	--	--	--	--	-	-	-	-	-	--
40	--	--	--	--	-	-	-	-	-	--
41	--	--	--	--	Yes	Clind	-	-	-	--
42	--	--	--	--	-	-	-	-	-	--
43	--	--	--	--	-	-	-	-	-	--
44	--	--	--	--	-	-	-	-	-	--
45	--	--	--	--	-	-	-	-	-	--
46	--	--	--	--	Yes	Cef	-	-	-	--
47	--	--	--	--	-	-	-	-	-	--
48	--	--	--	--	-	-	-	-	-	--
49	--	--	--	--	-	-	-	-	-	--
50	--	--	--	--	Yes	Cef	-	-	-	--
51	--	--	--	--	-	-	-	-	-	--
52	--	--	--	--	-	-	-	-	-	--
53	--	--	--	--	Yes	Cef	-	-	-	--
54	--	MASH	MD/Nurse	Chest Tube	-	-	-	-	-	Incapacitated
55	--	--	--	--	-	-	-	-	-	--
56	--	--	--	--	-	-	-	-	-	--
57	--	--	--	--	Yes	Cef	-	-	-	--
58	--	--	--	--	-	-	-	-	-	--
59	--	--	--	--	Yes	Cef	-	-	-	--

Table 9

Record#	Transported by	Transported to	Treated by	Treatment	Antibiotics§	Antibiotics Type*	Morphine	Morphine by Choice	Records Accurate	Injury Classification
60	--	--	--	--	Yes	Cef	-	-	-	--
61	--	--	--	--	Yes	Cef	-	-	-	--
62	-	--	--	--	Yes	Cef	-	-	-	--
63	--	--	--	--	-	-	-	-	-	--
64	--	--	--	--	Yes	Clind	-	-	-	--
65	--	--	--	--	Yes	Cef	-	-	-	--
66	--	--	--	--	-	-	-	-	-	--
67	--	--	--	--	Yes	Cef/Gent	-	-	-	--
68	--	--	--	--	-	-	-	-	-	--
69	--	--	--	--	Yes	Cef	-	-	-	--
70	--	--	--	--	-	-	-	-	-	--
71	--	--	--	--	-	-	-	-	-	--
72	--	--	--	--	Yes	Cef	-	-	-	--
73	--	--	--	--	-	-	-	-	-	--
74	--	--	--	--	-	-	-	-	-	--
75	--	MASH	MEDIC	Ortho	-	-	-	-	-	Incapacitated
76	--	--	--	--	Yes	Triple	-	-	-	--
77	--	--	--	--	-	-	-	-	-	--
78	--	--	--	--	-	-	-	-	-	--
79	--	--	--	--	-	-	-	-	-	--
80	--	--	--	--	-	-	-	-	-	--
81	--	--	--	--	-	-	-	-	-	--
82	--	--	--	--	-	-	-	-	-	--
83	--	--	--	--	Yes	Cef	-	-	-	--
84	--	--	--	--	-	-	-	-	-	--
85	--	--	--	--	-	-	-	-	-	--
86	--	--	--	--	-	-	-	-	-	--
87	--	--	--	--	Yes	Cef	-	-	-	--
88	--	--	--	--	-	-	-	-	-	--
89	--	--	--	--	Yes	Cef	-	-	-	--

Table 9

Record#	Transported by	Transported to	Treated by	Treatment	Antibiotics§	Antibiotics Type*	Morphine	Morphine by Choice	Records Accurate	Injury Classification
90	--	--	--	--	-	-	-	-	-	--
91	--	--	--	--	-	-	-	-	-	--
92	--	--	--	--	-	-	-	-	-	--
93	--	--	--	--	-	-	-	-	-	--
94	--	--	--	--	-	-	-	-	-	--
95	--	--	--	--	Yes	Cef	-	-	-	--
96	--	--	--	--	Yes	Cef	-	-	-	--
97	--	--	--	--	-	-	-	-	-	--
98	--	--	--	--	Yes	Cef	-	-	-	Ambulatory
99	--	--	--	--	-	-	-	-	-	--
100	--	--	--	--	Yes	Cef,Pcn	-	-	-	--
101	--	--	--	--	Yes	Cef,Cipro	-	-	-	--
102	--	--	--	--	-	-	-	-	-	--
103	--	--	--	--	-	-	-	-	-	--
104	--	--	--	--	-	-	-	-	-	--
105	--	--	--	--	-	-	-	-	-	--
106	--	--	--	--	Yes	Triple	-	-	-	--
107	--	--	--	--	-	-	-	-	-	--
108	--	--	--	--	Yes	Cef	-	-	-	--
109	--	--	--	--	-	-	-	-	-	--
110	--	--	--	--	-	-	-	-	-	--
111	--	--	--	--	Yes	Triple	-	-	-	--
112	--	--	--	--	-	-	-	-	-	--
113	--	--	--	--	Yes	Cef	-	-	-	--
114	--	--	--	--	-	-	-	-	-	--
115	--	--	--	--	Yes	Cef	-	-	-	--
116	--	--	--	--	Yes	Cef	-	-	-	--
117	--	--	--	--	-	-	-	-	-	--
118	--	MASH	Medic	Ortho	-	-	-	-	-	Incapacitated
119	--	--	--	--	Yes	Cef	-	-	-	--

Table 9

Record#	Transported by	Transported to	Treated by	Treatment	Antibiotics§	Antibiotics Type*	Morphine	Morphine by Choice	Records Accurate	Injury Classification
120	--	--	--	--	-	-	-	-	-	--
121	--	--	--	--	-	-	-	-	-	--
122	--	--	--	--	-	-	-	-	-	--
123	--	--	--	--	-	-	-	-	-	--
124	--	--	--	--	-	-	-	-	-	--
125	--	--	--	--	-	-	-	-	-	--
126	--	--	--	--	Yes	Velocef	-	-	-	--
127	--	--	--	--	-	-	-	-	-	--
128	--	--	--	--	Yes	Cef	-	-	-	--
129	--	--	--	--	Yes	Triple	-	-	-	--
130	--	--	--	--	-	-	-	-	-	--
131	--	--	--	--	-	-	-	-	-	--
132	--	--	--	--	-	-	-	-	-	--
133	--	--	--	--	Yes	Cef	-	-	-	--
134	--	--	--	--	-	-	-	-	-	--
135	--	--	--	--	Yes	Cef	-	-	-	--
136	--	--	--	--	Yes	Triple	-	-	-	--
137	--	--	--	--	Yes	Cef/Triple	-	-	-	--
138	--	--	--	--	-	-	-		-	--
139	--	--	--	--	Yes	Clind	-	-	-	--
140	--	--	--	--	Yes	Gent/Amk	-	-	-	--
141	--	--	--	--	-	-	-	-	-	--
142	--	--	--	--	Yes	Triple	-	-	-	--
143	--	--	--	--	-	-	-	-	-	--
144	--	--	--	--	Yes	Cef	-	-	-	--
145	--	--	--	--	-	-	-	-	-	--
146	--	--	--	--	-	-	-	-	-	--
147	--	--	--	--	Yes	Cef	-	-	-	--
148	--	--	--	--	-	-	-	-	-	--
149	--	--	--	--	Yes	Triple	-	-	-	--

Table 9

Record#	Transported by	Transported to	Treated by	Treatment	Antibiotics§	Antibiotics Type*	Morphine	Morphine by Choice	Records Accurate	Injury Classification
150	--	--	--	--	Yes	Cef	-	-	-	--
151	--	--	--	--	-	-	-	-	-	--
152	--	--	--	--	-	-	-	-	-	--
153	--	--	--	--	-	-	-	-	-	--
154	--	--	--	--	-	-	-	-	-	--
155	--	--	--	--	Yes	Cef	-	-	-	--
156	--	--	--	--	-	-	-	-	-	Ambulatory
157	--	--	--	--	-	-	-	-	-	--
158	--	--	--	--	Yes	Cef	-	-	-	--
159	--	--	--	--	-	-	-	-	-	--
160	--	--	--	--	-	-	-	-	-	Ambulatory
161	--	--	--	--	-	-	-	-	-	--
162	--	--	--	--	Yes	Rocef/Gent	-	-	-	--
163	--	--	--	--	-	-	-	-	-	--
164	--	--	--	--	-	-	-	-	-	--
165	--	--	--	--	Yes	Triple	-	-	-	--
166	--	--	--	--	-	-	-	-	-	--
167	--	--	--	--	-	-	-	-	-	--
168	--	--	--	--	Yes	Cef	-	-	-	--
169	--	--	--	--	-	-	-	-	-	--
170	--	--	--	--	Yes	Cef	-	-	-	--
171	--	--	--	--	Yes	Cef	-	-	-	--
172	--	--	--	--	-	-	-	-	-	--
173	--	--	--	--	Yes	Cef	-	-	-	--
174	--	--	--	--	Yes	Cef	-	-	-	--
175	--	--	--	--	Yes	Cef/Gent	-	-	-	--
176	--	--	--	--	Yes	Cef	-	-	-	--
177	--	--	--	--	-	-	-	-	-	--
178	--	--	--	--	-	-	-	-	-	--
179	--	--	--	--	Yes	Triple	-	-	-	--

Table 9

Record#	Transported by	Transported to	Treated by	Treatment	Antibiotics§	Antibiotics Type*	Morphine	Morphine by Choice	Records Accurate	Injury Classification
180	--	--	Self	Pres/Bandage	Yes	Cef	-	-	-	--
181	--	--	--	--	-	-	-	-	-	--
182	--	--	--	--	-	-	-	-	-	--
183	--	--	--	--	-	-	-	-	-	--
184	--	--	--	--	Yes	Cef/Gent	-	-	-	--
185	--	--	--	--	-	-	-	-	-	--
186	--	--	--	--	Yes	Cef	-	-	-	--
187	--	--	--	--	-	-	-	-	-	--
188	--	--	--	--	Yes	Cef	-	-	-	--
189	--	--	--	--	-	-	-	-	-	--
190	--	--	--	--	Yes	Velocef	-	-	-	--
191	--	--	--	--	-	-	-	-	-	--
192	--	--	--	--	Yes	Cef	-	-	-	--
193	--	--	--	--	-	-	-	-	-	--
194	--	--	--	--	Yes	Cef/Gent	-	-	-	--
195	--	--	--	--	-	-	-	-	-	--
196	--	--	--	--	-	-	-	-	-	--
197	--	--	--	--	-	-	-	-	-	--
198	--	--	--	--	Yes	Velocef	-	-	-	--
199	--	--	--	--	-	-	-	-	-	--
200	--	--	--	--	-	-	-	-	-	--
201	--	--	--	--	-	-	-	-	-	--
202	--	--	--	--	-	-	-	-	-	--
203	--	--	--	--	-	-	-	-	-	--
204	--	--	--	--	-	-	-	-	-	--
205	--	--	--	--	-	-	-	-	-	--
206	--	--	--	--	-	-	-	-	-	--
207	--	--	--	--	-	-	-	-	-	--
208	--	--	--	--	Yes	Cef	-	-	-	--
209	--	--	--	--	Yes	Cef	-	-	-	--

Table 9

Record#	Transported by	Transported to	Treated by	Treatment	Antibiotics§	Antibiotics Type*	Morphine	Morphine by Choice	Records Accurate	Injury Classification
210	--	--	--	--	Yes	Cef	-	-	-	--
211	--	--	--	--	Yes	Triple	-	-	-	--
212	--	Battalion	Medic	--	-	-	-	-	-	Ambulatory
213	--	--	--	--	Yes	Cef	-	-	-	--
214	--	--	--	--	-	-	-	-	-	--
215	--	--	--	--	-	-	-	-	-	--
216	--	--	--	--	-	-	-	-	-	--
217	--	--	--	--	-	-	-	-	-	--
218	--	--	--	--	Yes	Vanco	-	-	-	--
219	--	--	--	--	-	-	-	-	-	--
220	--	--	--	--	Yes	Cef	-	-	-	--
221	--	--	--	--	Yes	Cef	-	-	-	--
222	--	--	--	--	-	-	-	-	-	--
223	--	--	--	--	-	-	-	-	-	--
224	--	--	--	--	-	-	-	-	-	--
225	--	--	--	--	-	-	-	-	-	--
226	--	--	--	--	-	-	-	-	-	--
227	--	--	--	--	-	-	-	-	-	--
228	--	--	--	--	-	-	-	-	-	--
229	--	--	--	--	-	-	-	-	-	--
230	--	--	--	--	Yes	Triple	-	-	-	--
231	--	--	--	--	-	-	-	-	-	--
232	--	--	--	--	Yes	Cef	-	-	-	--
233	--	--	--	--	-	-	-	-	-	--
234	--	--	--	--	-	-	-	-	-	--
235	--	--	--	--	Yes	Cef/Gent	-	-	-	--
236	--	--	--	--	-	-	-	-	-	--
237	--	--	--	--	-	-	-	-	-	--
238	--	--	--	--	Yes	Cef	-	-	-	--
239	--	--	--	--	Yes	Triple	-	-	-	--

Table 9

Record#	Transported by	Transported to	Treated by	Treatment	Antibiotics[§]	Antibiotics Type*	Morphine	Morphine by Choice	Records Accurate	Injury Classification
240	--	--	--	--	Yes	Cef	-	-	-	--
241	--	--	--	--	-	-	-	-	-	--
242	--	--	--	--	Yes	Cef	-	-	-	--
243	--	--	--	--	-	-	-	-	-	--
244	--	--	--	--	Yes	Triple	-	-	-	--
245	--	--	--	--	-	-	-	-	-	--
246	--	--	--	--	Yes	Cef	-	-	-	--
247	--	--	--	--	-	-	-	-	-	--
248	--	--	--	--	-	-	-	-	-	--
249	--	--	--	--	-	-	-	-	-	--
250	--	--	--	--	Yes	Triple	-	-	-	--
251	--	--	--	--	Yes	-	-	-	-	--
252	--	--	--	--	-	-	-	-	-	--
253	--	--	--	--	Yes	Amk/Pcn	-	-	-	--

[§] According to DR James Coffey, Vascular Surgeon of WRAMC, any wounded person reaching the Joint Casualty Collection Point at Howard Air Force Base and requiring resuscitation was treated with ROCEPHIN® antibiotics.

*Key to Antibiotics Use

Amk	-Amikacin
Cef	-Cefazolin
Cipro	-Ciprofloxacin
Clind	-Clindamycin
Gent	-Gentamicin
Flagyl	-Metronidazole
Pcn	-Penicillin
Pipro	-Pipracillin
Rocef	-Rocephin
Triple	-Penicillin, Gentamicin, Cleocin
Vanco	-Vancomycin
Velocef	-Cephradine

Table 9

APPENDIX II

DEPARTMENT OF THE ARMY

LETTERMAN ARMY INSTITUTE OF RESEARCH
PRESIDIO OF SAN FRANCISCO, CALIFORNIA 94129-6800

REPLY TO
ATTENTION OF:

SGRD-ULY-MT(340d) January 1990

MEMORANDUM THRU: C, Division of Military Trauma Research

TO: CDR, LAIR

SUBJECT: Squad Automatic Weapon (SAW M249)

1. The Squad Automatic Weapon (SAW) is a small caliber automatic rifle used in infantry units today. It provides gunner support for both offensive and defensive maneuvers. By design, it can produce a heavier volume of fire than the M-16 rifle.

2. Description: The SAW is an air-cooled, belt-fed, gas-operated, automatic weapon which fires from the open bolt position. It has the ability to fire at 750 rounds per minute (rpm) in normal operation with a maximum of 1000 rpm. Ammunition is a 5.56 mm round which is supplied in a 200 round ammunition box. The rounds are fed to the weapon through a disintegrating metallic split-link belt.

3. During the recent activity in Panama, the SAW was used extensively by infantry units. On at least one occasion, an individual was injured while a second squad person was performing routine maintenance on the weapon. Fortunately, the injured individual sustained soft tissue injuries and is expected to recover completely. This incident revealed a potential risk which was not previously identified in the manual on the Squad Automatic Weapon.

4. The Squad Automatic Weapon field manual, FM 23-14, describes, in detail, the assembly, disassembly, operation, performance, techniques, ammunition, and safety of the weapon. Safety is emphasized throughout the field manual. In the section on Disassembly and Assembly, the first step is to always clear the weapon upon receiving the SAW and preparing it for disassembly. The manual states that a "runaway" weapon is a possibility. A "runaway" weapon continues to fire without the use of the trigger. According to the manual, there are five circumstances during which this can occur, and we wish to report a sixth.

5. After a routine patrol, a unit was settling in for the evening. The platoon leader issued instructions to clean weapons for the next day's activities. The squad leader was seated on a bed and the Squad Automatic Rifleman with his M249 was across the room. The individual responsible for the SAW began to disassemble the weapon. However, it appears that he omitted the first step of clearing the weapon. He proceeded to remove the trigger housing which disengaged the sear from the bolt, allowed the bolt to go forward, and thus activated a runaway weapon. This unintentional firing of the SAW resulted in injuries to the squad leader.

6. The Field Manual (FM 23-14) emphasizes safety in all aspects of operation of the Squad Automatic Weapon, and notes the potential for a runaway weapon. However, the situation that is not mentioned is that if the trigger housing is removed and the weapon is loaded, i.e., two mistakes, then the potential exists for a runaway weapon. This appears to be the etiology of this case. To confirm this possibility, we visited the armory on Treasure Island and the 3rd Field Artillery Group of the Marine Reserves. LTC Smith and SGT Bauman of the USMC demonstrated the Squad Automatic Weapon and its assembly and disassembly. We noted that it was, in fact, possible to remove the trigger housing group and sear from the weapon while the bolt was in the back position. If the demonstration weapon had been loaded, a runaway weapon could have occurred.

7. Conclusions: We understand that this "runaway" situation requires two mistakes: 1) the weapon must be loaded, which is in direct violation of the manual on techniques for assembly and disassembly, and 2) the trigger mechanism must be removed with the bolt to the rear. Because this double mistake has occurred and has resulted in soldier injury at least once, we feel that it should be mentioned to appropriate authorities and noted in the manual. When soldiers are exposed to combat and stressful environments, accidents can and do occur. The best way to prevent accidents is to identify those at the highest risk.

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MAJ, MC
Research Fellow
Division of Military Trauma Research

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