



The Safety Corner

From the Marine Corps Center for Lessons Learned June 8, 2007



Non-Combat Injuries

This issue of the Safety Corner highlights Non-Combat Fatalities and Injuries experienced during operations in the Global War on Terror.

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From the Director: This issue of the MCCLL Safety Corner provides a quick look at the non-combat injuries sustained by service members involved in combat operations in Iraq and Afghanistan. Bombs and bullets are not the only threats that can sideline service members. Non-combat injuries and illness also take many service members away from the battlefield.

How many times have we heard Marines and Sailors talk about "going into battle" or "preparing for war" prior to a big game? We have come to expect athletes to be in the best physical shape possible when they step onto the field of "battle", and the same goes for our military as we continue to fight the Global War on Terror (GWOT). Unfortunately, non-combat injuries, illnesses, and fatalities can have a significant impact on military missions.

Despite advances in technology and training, non-combat injuries and fatalities have been common during operations in Iraq and Afghanistan, significantly decreasing operational efficiency. Lower-extremity injuries, such as ankle sprains, knee and thigh injuries, and shin splints, are particularly prevalent in the military population. These injuries can result in loss of training time and available manpower during combat operations, thus decreasing military readiness and effectiveness.

Some of the major causes of non-combat injuries include injuries from sports, motor vehicle crashes, and falls. The leading cause of non-combat deaths in Iraq and Afghanistan have been vehicle and aircraft accidents. Reports (Impact of Illness and Non-Combat Injuries During Operation Iraqi Freedom and Enduring Freedom Afghanistan) <http://www.ajtmh.org/cgi/content/full/73/4/713> indicate that, DoD-wide, there have been over 5,000 sports-related injuries in Iraq and Afghanistan and 8,000 injuries from vehicle accidents.

On page two of this newsletter there is a four month snap shot of Al Anbar non-combat injuries. I think you will be very surprised at the number and casual factors of the injuries. Use this data to raise the awareness of the potential for accidents and take appropriate steps to reduce the risk where possible. Play hard, fight smart and keep complacency at bay.

I look forward to your comments, observations, and concerns.

Semper Fidelis,

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OIF CASUALTY CATEGORY WITHIN SERVICE		March 19, 2003 Through May 19, 2007			
CASUALTY TYPE	TOTAL	ARMY	NAVY ***	MARINES	AIR FORCE
Accident	403	278	10	105	10
Illness	63	53	7	2	1
Homicide	15	10	1	2	2
Self-Inflicted	111	95	3	13	
Undetermined	8	7	1		
Pending**	22	4	3	15	
TOTAL NON-HOSTILE DEATHS	622	447	25	137	13

** Pending means final category to be determined at a later date.

*** Navy totals include Coast Guard.

Source: Defense Manpower Data Center <http://64.233.167.104/search?q=cache:7iGL2flzSNwJ:siadapp.dmdc.osd.mil/personnel/CASUALTY/OIF-Total.pdf+CASUALTY+CATEGORY+WITHIN+SERVICE&hl=en&ct=clnk&cd=3&gl=us>

Non-Hostile Fatalities Breakdown by Phase Mar 03 Through 01 Jan 07

Invasion	17	Insurgency Anniversary	48
Fall of Baghdad	563	Resistance to Sovereignty	39
Stabilization	100	Fallujha Offensive	78
Initial Insurgency	27	Election Phase 05	115
Counter Offensive	35	Disengagement	83
Insurgent Offensive	38		
Total Non Hostile Fatalities		583	

The observations and recommendations contained in The Marine Corps Center for Lessons Learned (MCCLL) Safety Corner represent the considered judgment of Marines who have identified safety issues in their units. The purpose of this newsletter is to apprise other Marines of these safety recommendations and to encourage them to enter their own lessons into the Marine Corps Lessons Management System (LMS).



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Reported 2007 Non-Combat Injuries Sustained in Iraq

- 1 Jan 07 LCpl gunshot to right side of his chest and right thigh when M249 SAW accidentally discharged.
- 2 Jan 07 LCpl gunshot wound to left leg when weapon accidentally discharged.
- 5 Jan 07 LCpl hit his head on the door exiting a vehicle.
- 5 Jan 07 LCpl fell out of his rack causing head injuries.
- 5 Jan 07 LCpl throwing seabags fractured his left wrist.
- 11 Jan 07 LCpl was jumping over the hood of a moving car and struck his head on the ground causing injuries.
- 17 Jun 07 GySgt slipped and fell exiting from a HMMWV.
- 17 Jan 07 LCpl involved in a motor vehicle accident.
- 19 Jan 07 Sgt injured his right knee playing football.
- 20 Jan 07 Cpl broke his foot playing basketball.
- 24 Jan 07 LCpl fell out of his rack causing a grade 3 concussion.
- 24 Jan 07 Sgt poked in the eye playing football.
- 24 Jan 07 Sgt suffered burns on both arms putting wood on a fire.
- 25 Jan 07 LCpl fractured his right Tibia playing football.
- 25 Jan 07 Sgt twisted right knee playing soccer.
- 28 Jan 07 LCpl fractured his jaw playing basketball.
- 31 Jan 07 Spc fractured Tibia when another solider fell on his leg.
- 11-Feb-07 PFC armor plate fell on right forearm.
- 12-Feb-07 LCpl rolled ankle and ripped tendons jumping off the top of his bunk.
- 12-Feb-07 Cpl treated for right Knee instability.
- 12-Feb-07 SPC minor neck and back injuries when M2A2 rolled over.
- 13-Feb-07 1stLt stretching his leg, left foot was pinched between the gun breach and the turret floor.
- 13-Feb-07 LCpl injured Right Wrist playing basketball.
- 14-Feb-07 Cpl slipped and stabbed himself in the groin area.
- 18-Feb-07 SSgt possible fractures to his middle and ring finger's of right hand when troop commanders hatch slammed forward during an immediate stop.

- 18-Feb-07 Cpl struck by negligent discharge from his own weapon.
- 19-Feb-07 SPC fragmentation to both eyes when clearing a stoppage and cook off occurred.
- 19-Feb-07 LCpl stepped in a hole and broke lower left leg.
- 21-Feb-07 LCpl broke right ankle assisting in the construction of battalion observation point.
- 21-Feb-07 SPC injured shoulder while a passenger of a M1A1 which rolled over.
- 22-Feb-07 1stLt ruptured left pectoral major bench pressing.
- 22-Feb-07 LCpl injured right shoulder performing maintenance on a 7 ton.
- 03-Mar-07 Cpl laceration to fourth and fifth digits of right hand reaching for a knife.
- 05-Mar-07 Capt struck by negligent discharge from AK-47 fired by an Iraqi solider.
- 16-Mar-07 HM3 stepped in a pot hole and twisted his ankle.
- 17-Mar-07 SPC injured right knee when tower collapsed.
- 17-Mar-07 Sgt injured his back when tower collapsed.
- 17-Mar-07 Sgt sustained a laceration to his left hand when tower collapsed.
- 17-Mar-07 Cpl sustained two laceration to his nose when tower collapsed.
- 20-Mar-07 Sgt slipped and caught left foot on trailer.
- 23-Mar-07 LCpl motor vehicle accident, possible right lower leg fracture.
- 23-Mar-07 LCpl fractured left forearm from motor vehicle accident.
- 25-Mar-07 Cpl fractured left hand while firing an AT4 rocket during training.
- 26-Mar-07 Sgt minor cuts when vehicle was struck from behind by another vehicle.
- 28-Mar-07 Cpl fractured right fibula/tibia when three cases of ammo fell n his leg.
- 30-Mar-07 LCpl tripped and twisted left ankle.
- 31-Mar-07 Sgt stepped on an object and fractured bones in lower left leg.
- 07-Apr-07 LCpl broken ankle from leg sweep conducting MCMAP.
- 12-Apr-07 Cpl broken left tibia conducting MCMAP.
- 12-Apr-07 Cpl fractured right tibia while guiding an M1123.



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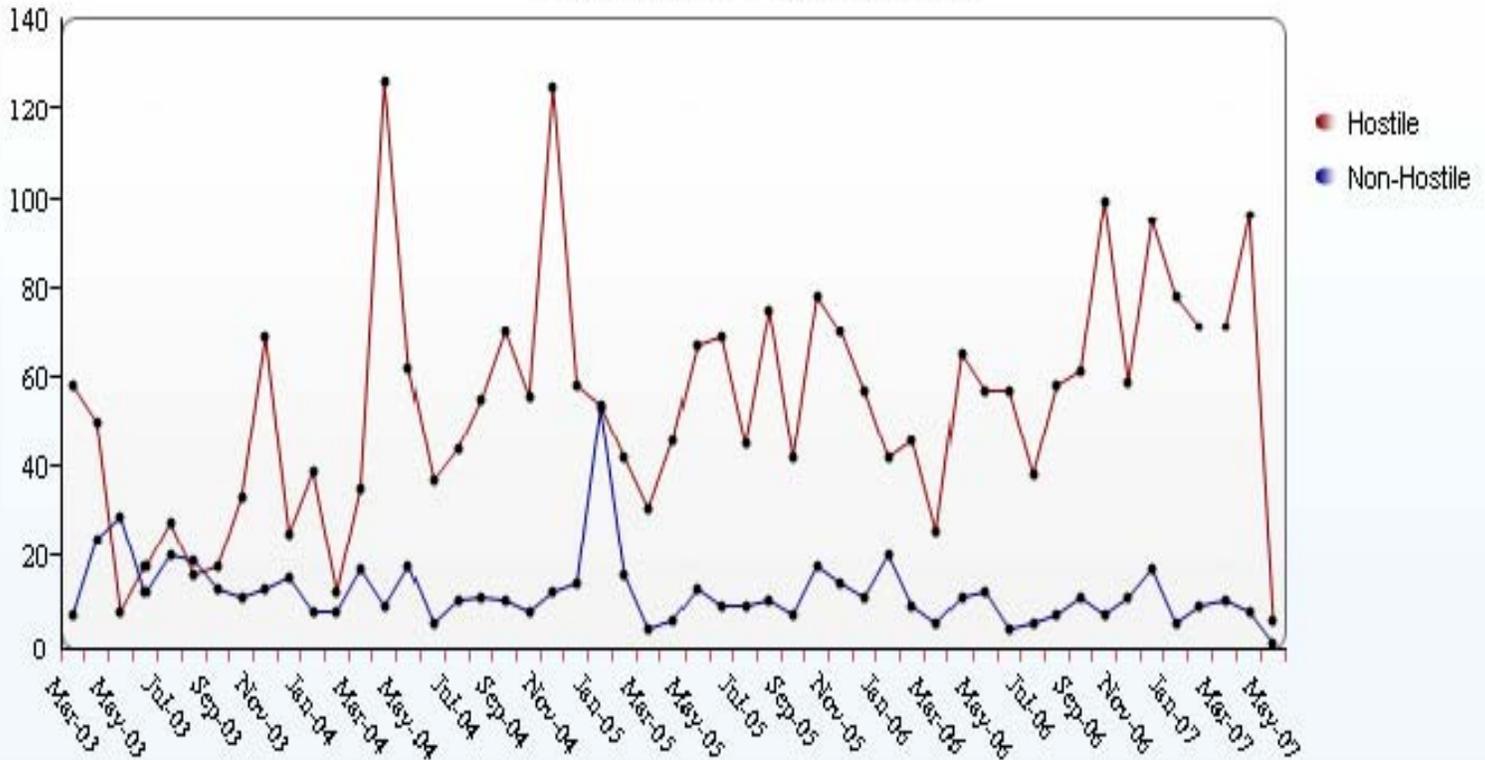
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Reported 2007 Non-Combat Injuries Sustained in Iraq (continued)

- 12-Apr-07 SSgt fractured right arm and right wrist dislocation when he fell off bicycle.
- 14-Apr-07 LCpl head and chest trauma when vehicle rolled over.
- 16-Apr-07 PFC sustained back injury when vehicle drove into a canal.
- 20-Apr-07 LCpl fell from tower wall and fracture to his elbow.
- 22-Apr-07 SPC injured right foot performing maintenance while the turret was traversing.
- 25-Apr-07 PO2 slipped on wet stairs and injured his knee.
- 28-Apr-07 LCpl fell from tower trailer and broke his clavicle
- 30-Apr-07 PFC laceration to face from vehicle accident.
- 30-Apr-07 LCpl tripped over cable and fractured his right tibia.
- 01-May-07 Sgt dislocated right knee playing soccer.
- 01-May-07 SPC blunt force trauma when he hit his knee on the gunners stool.

Hostile/Non-Hostile Deaths Mar 03 – May 07



An anonymous, cross-sectional survey was conducted by The American Society of Medicine and Hygiene to assess the prevalence and impact of common ailments among U.S. military personnel deployed to Iraq or Afghanistan.

Among 15,459 persons surveyed:

- Diarrhea: 76.8% in Iraq and 54.4% in Afghanistan
- Respiratory illness: 69.1%
- Non-combat injuries: 34.7%
- Leishmaniasis: 2.1%

For all causes:

- Required intravenous fluids: 25.2%
- Required hospitalization: 10.4%
- Required medical evacuation: 5.2%

Ground units:

- Missed a patrol because of illness: 12.7%,
- Air units grounded because of illness: 11.7%



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Negligence on the Battlefield Two Examples from OIF by Capt Edwards



Near-Miss With a .50 Cal.

Marines were tasked with security at a facility in Baghdad. An M2, .50-caliber heavy machine gun emplaced in one of the posts was the source of a negligent discharge. Facing outside the compound, the weapon was discharged by a Marine on post. No injuries occurred, but a civilian sport-utility vehicle down the road was hit. The weapon should have been in condition three: no round in the chamber, bolt closed, rounds on the feed-tray, feed-tray cover closed. (The M2 .50-caliber, heavy machine gun does not have a safety.) During guard's post turnovers, weapons conditions were not being checked, and Marines were assuming that a condition-three weapon was on the post. Sometime before the mishap, the M2 was put into condition one (round in the chamber, bolt closed, feed-tray cover closed). The Marine on post didn't know what condition the weapon was in, and he had not bothered to check. At some point during his post, a vehicle began to approach the compound. The Marine was leaning over some sandbags. To get a better view of the vehicle, he

raised himself up by pushing off the weapon--its trigger to be precise. The M2 discharged two rounds, confirmed by the shells lying beside the weapon. The negligence in this case simply was violation of the third safety rule: Keep your finger straight and off the trigger until you are ready to fire. The root cause was overall complacency in the post turnover.

Kicked Charging Handle

On a day in early April 2003, the Marines of Operation Iraqi Freedom were making their final push to Baghdad. Resistance came in pockets with intense fighting for small towns along several main supply routes (MSRs). For one platoon, the taking of an objective cost them two wounded in action (WIA)- not uncommon; however, one of the wounded was the victim of his own negligence, not enemy fire.

The platoon, mounted on amphibious assault vehicles (AAVs), was pushing north on an MSR when it came under fire from their flank. The platoon disembarked from their AAVs and began to attack a series of nearby buildings. An element of the Iraqi Republican Guard was dug-in around and inside the buildings, firing at the Marines. The platoon commander called for 81 mm mortars and coordinated an internal base of fire to support an assault of the objective.

The platoon's third squad was tasked with clearing the right one-third of the objective. Once given the signal, the squad assaulted, using hand grenades and rifle fire. One of the fire teams became exposed in the assault and were suppressed by enemy fire. At this point, the M249 squad automatic weapon (SAW) a Marine was carrying malfunctioned. Under the hail of gunfire, the young Marine panicked in his attempt to clear the stoppage. He desperately wanted to get his weapon back into the fight. Unfortunately he tried to clear the M249 improperly.

The Marine repeatedly had attempted to pull the charging handle to the rear, to no avail. Without opening the feed tray cover to check the reason for the stoppage, he had no idea what was happening to the rounds inside the chamber. He grasped the M249 with his right hand on the barrel and began kicking the charging handle to the rear to clear an apparent double feed. At this point, the Marine was in front of his weapon, with the muzzle pointed into his arm. The charging handle finally released to the rear, discharging one 5.56 mm round that went through his forearm and exited near his elbow. Now even more disoriented, the Marine jumped up and was shot again in the arm by Iraqi fire. He now was out of the fight and a burden to his platoon, which still was in the fight.

The Marine was MEDEVACed to the rear and, eventually, fully recovered. Several lessons can be learned from a mishap like this. The platoon commander's first assessment was lack of experience with the weapon. In the days before the Marines crossed the border, several new PFCs were assigned the M249, all of whom had minimal training with the weapon. The M249 is an open-bolt weapon that requires more training, maintenance, and overall weapons-handling experience to be used effectively in the fight. By TO, Marines carrying the M249 should be lance corporals and the second most senior men in conventional fire teams.

Second, the Marine used improper procedures to clear the stoppage. The method for combat does not differ from what one would do on the range or in training. The Marine first should have sought cover. Then he should have waited five seconds before he started trying to clear the weapon by pulling its charging handle to the rear (observing for feeding and ejecting). In combat, a Marine expectedly is going to run through this procedure, but seeking cover will give him enough time to allow for a hangfire. If the weapon feeds and ejects, he can get back in the fight. At this point, the Marine must determine whether he has a hot or cold barrel. Firing 200 rounds in two minutes will make a barrel hot, and there is potential for cookoffs.

The next step would be to lift the feed tray cover and check the operation of the weapon. A hot barrel would require the Marine to wait 15 minutes for a cookoff. In this situation, the Marine did not have time to wait. Before lifting the feed tray cover, he should have made sure the weapon was on safe. While lifting the feed tray cover, always look away to prevent a cookoff throwing shrapnel back into the your face. At this point, the Marine should have swept the feed tray and checked under it for rounds in the chamber.

Anytime a round is found, remove it if the barrel is cool. With a hot barrel, caution should be taken when removing a round from the chamber. With a jam having occurred and a hot barrel, it might be a smart time to change the barrel. Weapons handler should practice these techniques and procedures until they are comfortable and their immediate actions are as second nature as tying their shoes. In this instance, the root cause was inexperience with the M249. When one adds the chaos of war, an inexperienced Marine may make some poor decisions. It's the job of the leaders to assure our Marines have the necessary training to fall back on when the fight begins.