25th ID LIGHTNING ACADEMY

RAPPEL MASTER
COURSE RMPI HANDOUT



FY2027

RAPPEL MASTER PERSONNEL INSPECTION

Rappel Master Personnel Inspection (RMPI) is performed by a current and qualified Rappel Master. A Rappel Master inspects all rappellers who are rappelling off a tower or out of an aircraft. During the inspection, the rappel seat or harness and equipment are inspected for deficiencies that could potentially cause serious injury or death to a rappeller.

A Rappel Master's number one priority is **SAFETY**. At no time will a rappeller attempt a rappel without being properly inspected by a certified Rappel Master or commander-appointed personnel. Failure to check a rappeller before conducting any type of rappel could result in serious injury or death.

To assist you in training, this handout lists the *most common* deficiencies found while inspecting a rappeller utilizing a Hip Rappel Seat. There are two types of deficiencies you will see during RMPI training: deliberate and student-rigged. As a student you must seek clarification on how the deficiencies should be rigged during training. Be sure to only rig the deficiencies that appear in the RMPI Card (deliberate). Any additional deficiencies will slow down the training process. Your instructors will inspect every rappeller for proper rigging.

RMPI DEFICIENCIES BY INSPECTION SEQUENCE

Deficiency List	H	S	F
Square Knot On Wrong Side	x	x	x
Gloves Not Worn	x	x	x
Glove Unserviceable	x	x	x
Sleeve Not Down	x	x	x
Helmet Not Worn	x	x	x
Chinstrap Not Fastened	x	x	x
Chinstrap Loose	x	x	x
Rucksack Cheststrap Not Fastened			x
FLC Not Fastened		x	x
Shirt Not Tucked In	x	x	x
Overhand Lay Below Belt	x	x	x
Carabiner Missing	x	x	x
Carabiner Inverted	x	x	x
Carabiner Backward	x	x	x
Carabiner Not Around All Ropes	x	x	x
Overhand-Lay Improper	x	x	x
Carabiner Through Overhand Lay	x	x	x
Carabiner Touches Square Knot	x	x	x
Square Knot Improper	x	x	x
Overhand Knot Missing	x	x	x
Overhand Knot Improper	x	x	x
Overhand Knot Tied To Wrong Rope	x	x	x
Overhand Knot Tied To Both Ropes	x	x	x
Overhand Knot Tied Behind Half-Hitch	x	x	x
Ropes Out Of Pocket	x	x	x
Leg Ropes Crossed	x	x	x
Half Hitch Missing	x	x	x
Half Hitch Improper	x	x	x
Leg Ropes Too Close	x	x	x
Weapon Improperly Slung		x	x
Rucksack Not Secured			x
Seat Loose	x	x	x
Rope Routed Under Belt	x	x	x
Equipment On Break-Hand Side	x	x	x

H - Hollywood Configuration
S - Semi-combat Configuration
F - Full-combat Configuration

RMPI DEFICIENCIES DEFINED

SQUARE KNOT ON WRONG SIDE	THE SQUARE KNOT IS TIED ON THE BRAKE HAND SIDE HIP
GLOVES NOT WORN	AUTHORIZED RAPPELING GLOVES NOT WORN
GLOVES UNSERVICABLE	GLOVE EXPOSES SKIN OR FAILS STITCH RULE
SLEEVE NOT DOWN	SLEEVE MUST BE UNROLLED AND CUFFED AT THE WRIST
HELMET NOT WORN	HELMET MUST BE WORN
CHINSTRAP NOT FASTENED	HELMET CHINSTRAP MUST BE FASTENED
CHINSTRAP LOOSE	HELMET CHINSTRAP IS NOT ADJUSTED PROPERLY OR NOT BISECTING CHIN
SQUARE KNOT IMPROPER	THE KNOT DOES NOT FORM TWO INTERLOCKING BIGHTS
OVERHAND KNOT(S) MISSING	OVERHAND SAFETY KNOT(S) ADJACENT TO SQUARE KNOT IS NOT PRESENT
OVERHAND KNOT TIED BEHIND HALF-HITCH	HALF-HITCH IS BETWEEN THE SQUARE KNOT AND OVERHAND SAFETY KNOT
OVERHAND KNOT IMPROPER	ONE OR BOTH OVERHAND KNOTS ON THE SQUARE KNOT ARE HALF-HITCH KNOTS
OVERHAND KNOT(S) TIED TO WRONG ROPE	OVERHAND KNOT(S) MUST BE TIED TO WAIST ROPE ONLY
OVERHAND KNOT(S) TIED TO BOTH ROPES	OVERHAND KNOT(S) MUST BE TIED TO WAIST ROPE ONLY
ROPES OUT OF POCKET	EXCESS ROPE TAILS ARE NOT INSIDE POCKET (UNLESS TOO SHORT)
RUCKSACK CHEST STRAP NOT FASTENED	RUCKSACK SHOULDER STRAPS ARE NOT FASTENED AT THE CHEST
FLC NOT FASTENED	FLC NOT WORN AS DESIGNED
SHIRT NOT TUCKED IN	UNIFORM TOP IS NOT TUCKED INSIDE THE PANTS ALL AROUND
OVERHAND LAY BELOW BELT	THE OVERHAND LAY IS TIED BELOW THE TROUSER BELT
CARABINER MISSING	CARABINER IS NOT PRESENT
CARABINER INVERTED	GATE IS ON BOTIOM OF CARABINER
CARABINER BACKWARD	CARABINER GATE MUST OPEN DOWN AND AWAY FROM RAPPELLER
CARABINER NOT AROUND ALL ROPES	CARABINER MUST CONTAIN BOTH THE WAIST ROPE AND OVERHAND LAY
CARABINER THROUGH OVERHAND LAY	CARABINER IS ROUTED THROUGH WRAPS OF OVERHAND LAY
OVERHAND LAY IMPROPER	OVERHAND LAY IS WRAPPED ONCE OR MORE THAN TWO TIMES
CARABINER TOUCHES SQUARE KNOT	SQUARE KNOT IS TIED TOO CLOSE TO OVERHAND LAY
LEG ROPES CROSSED	ROPES ARE CROSSED UNDER AND BETWEEN LEGS
EQUIPMENT ON BRAKE-HAND SIDE	ANY ITEM ON BRAKE-HAND SIDE THAT DOES NOT BELONG
ROPE ROUTED UNDER BELT	ROPE IS ROUTED BETWEEN TROUSER BELT AND RAPPELLER
HALF-HITCH IMPROPER	HALF HITCH BEHIND RAPPELLER IS TIED WITH LEG ROPE GOING UP BETWEEN BODY AND WAIST ROPE BEFORE GOING OVER TOP OF WAIST ROPE
HALF HITCH-MISSING	HALF HITCH CREATED BY THE LEG ROPE BEHIND THE RAPPELLER IS MISSING
WEAPON IMPROPERLY SLUNG	WEAPON MUZZLE IS POINTING UP AND/OR TOWARD THE BRAKE HAND SIDE
LEG ROPES TOO CLOSE	LEG ROPES MUST BE MORE THAN 4" APART
SEAT LOOSE	SEAT EXTENDS 4" OR MORE AWAY FROM THE BODY
RUCKSACK NOT SECURED	ALL BUCKLES, EXCESS STRAPS, POUCHES, ETC... MUST BE SECURED

Square knot on wrong side

The square knot for a right-handed rappeler should be on the Left hip (guide hand side) of the rappeler.

On a left-handed rappeler the square knot will be located on the right hip.



Glove(s) not worn

At no time will a soldier rappel from a tower or aircraft without gloves



Glove(s) Unserviceable

3 consecutive broken stitches or 5 in a general area make a glove unserviceable





Sleeve(s) not down

Both sleeves must be bloused tight around the soldier's wrist and can not be buttoned on the outer most button.



Helmet not worn

Soldier must wear a helmet during all rappelling operations.

ACH not worn and Kevlar not worn are acceptable.



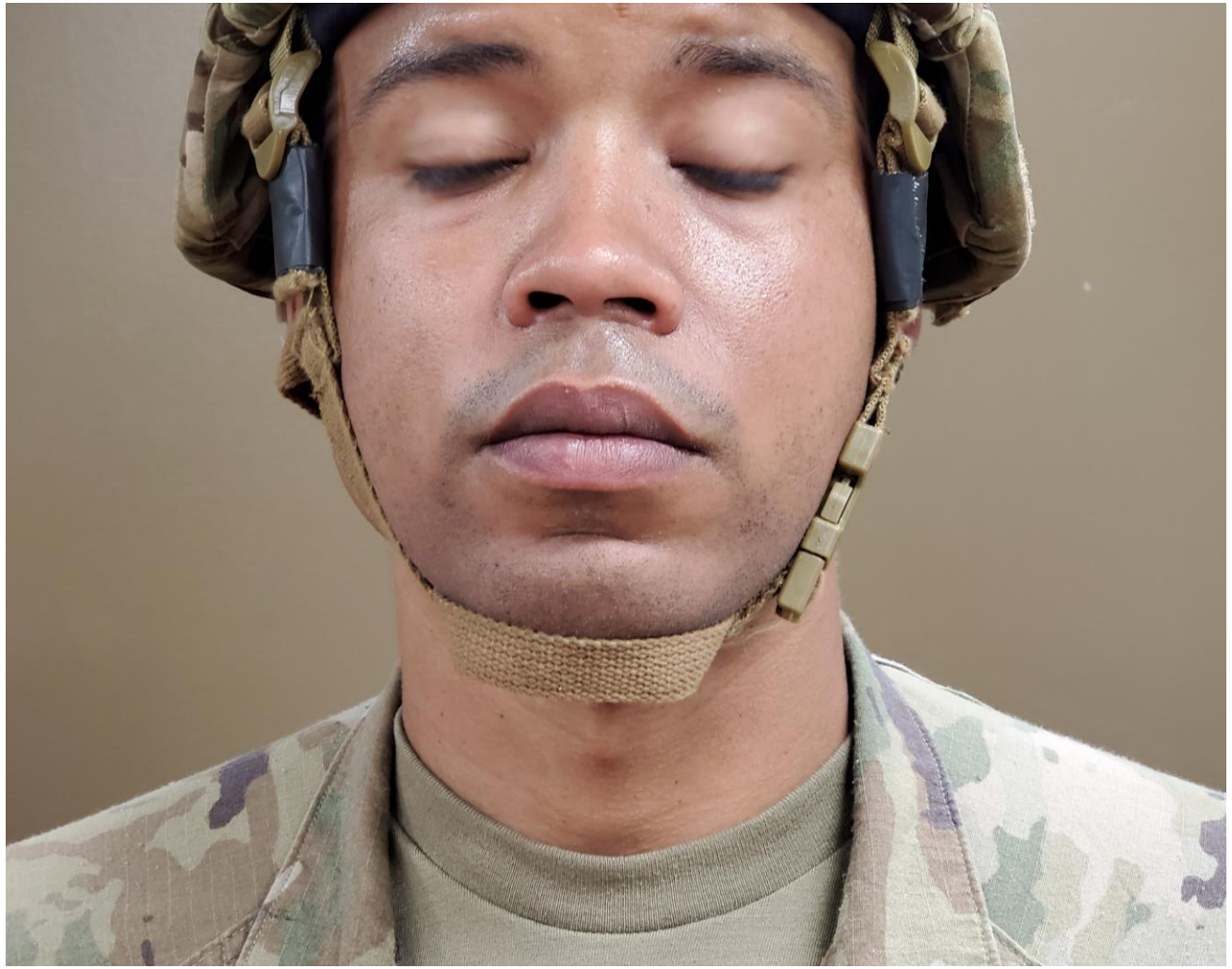
Chinstrap not fastened

Soldiers helmet must be secured by the chinstrap at all times.



Chinstrap loose

Soldier’s chinstrap must be secured and must be bisecting the soldier’s chin.



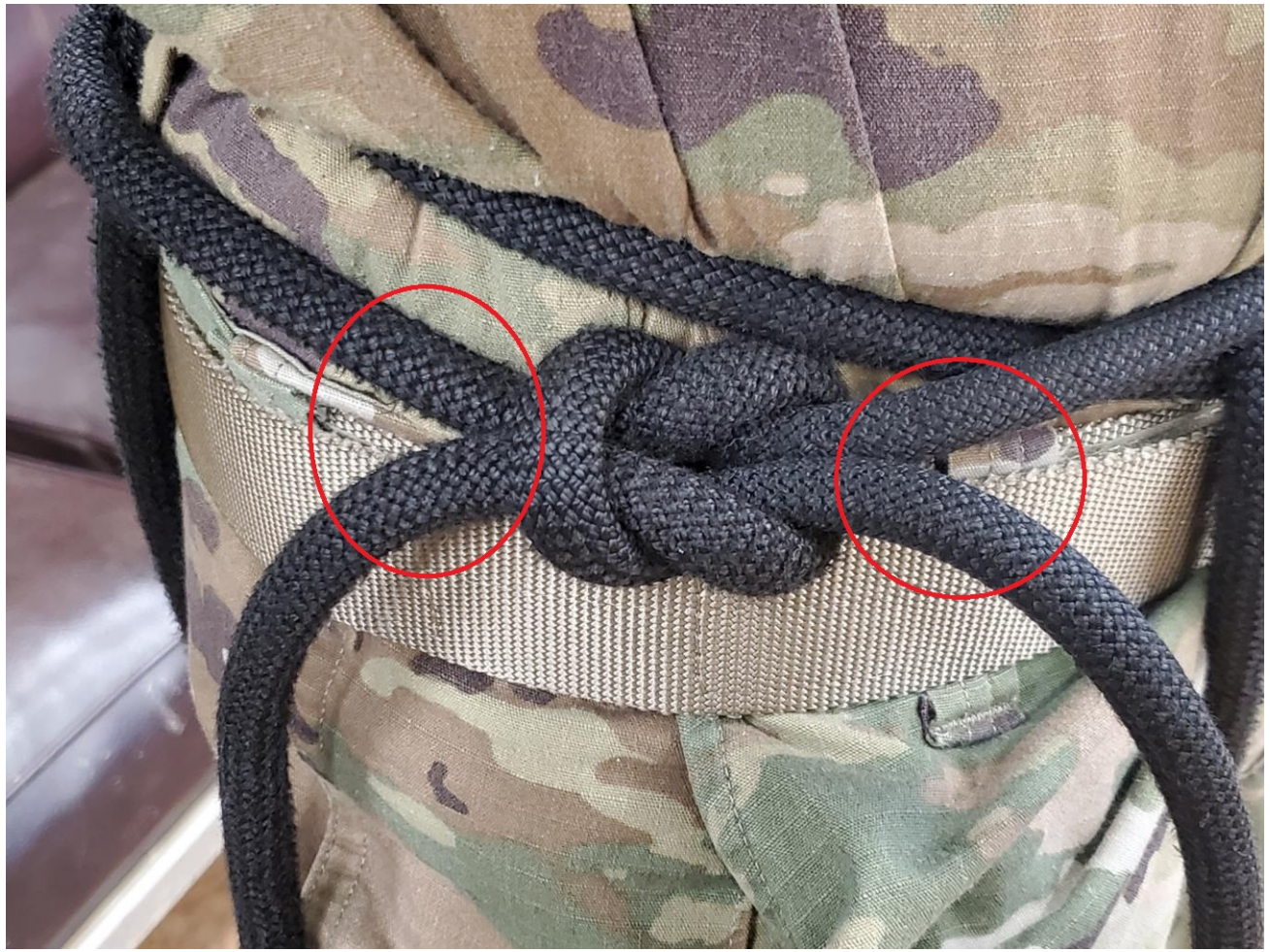
Square knot improper

The square knot does not form two interlocking bites.



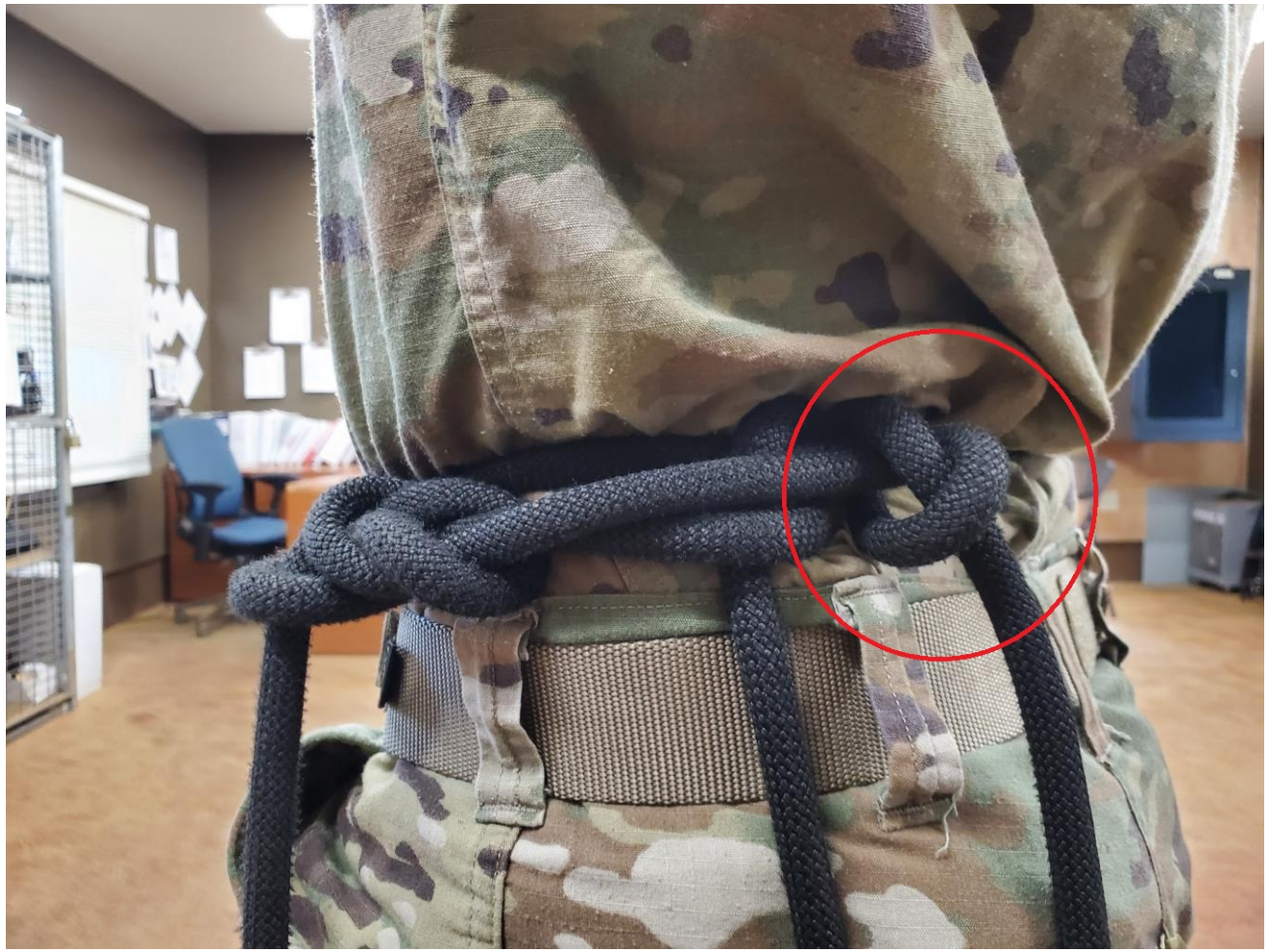
Overhand knot(s) missing

One or both overhand knots adjacent to square knot are missing



Overhand knot tied behind half-hitch

Half-hitch is between the square knot and overhand knot.



Overhand knot improper

One or more overhand knots on the square knot are tied as a half hitch



Overhand knot tied to wrong rope

Overhand knot(s) must be tied to the waist rope only.



Overhand knot tied to both ropes

Overhand knot must be tied to the waist rope only.



Ropes out of Pocket

All excess rope left after tying the two overhand safety knots must be inside soldier’s pocket or cargo pocket.



Rucksack chest strap not fastened

The rucksack shoulder straps must be fastened by the chest strap.



FLC not fastened

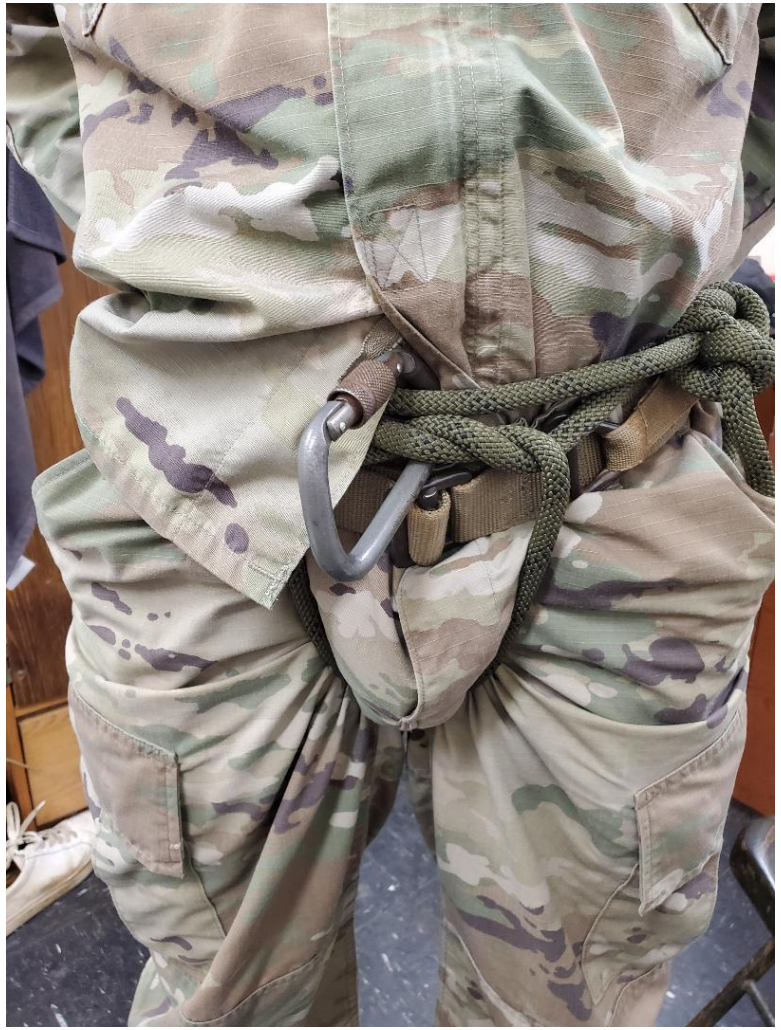
- FLC not worn as designed.
- All buckles must be fastened.





Shirt not tucked in

Soldier’s shirt must be completely tucked into trousers in the front and back.



Overhand lay below belt

Overhand lay is tied below the soldier's belt.



Carabiner missing

Carabiner is not present



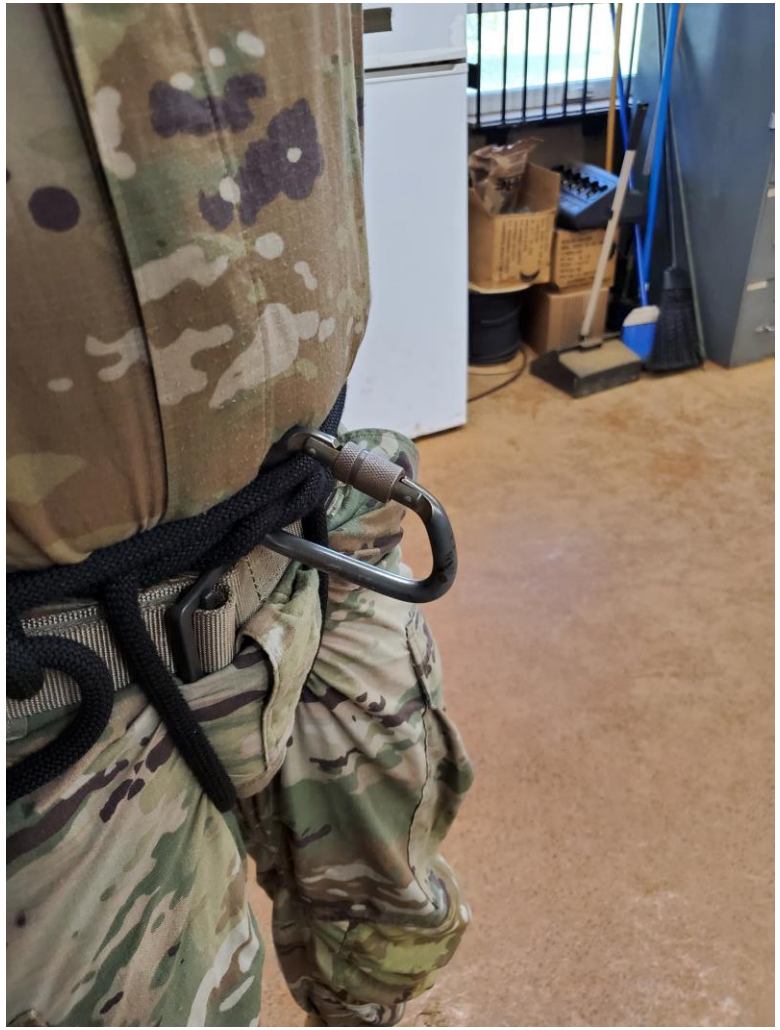
Carabiner Inverted

The carabiner must be around all ropes with the locking barrel facing up and open away from the soldier.



Carabiner backward(s)

Carabiner gate is on top but is opening in the wrong direction.



Carabiner not around all ropes

- Carabiner must have both the waist rope and double overhand lay inside of it.





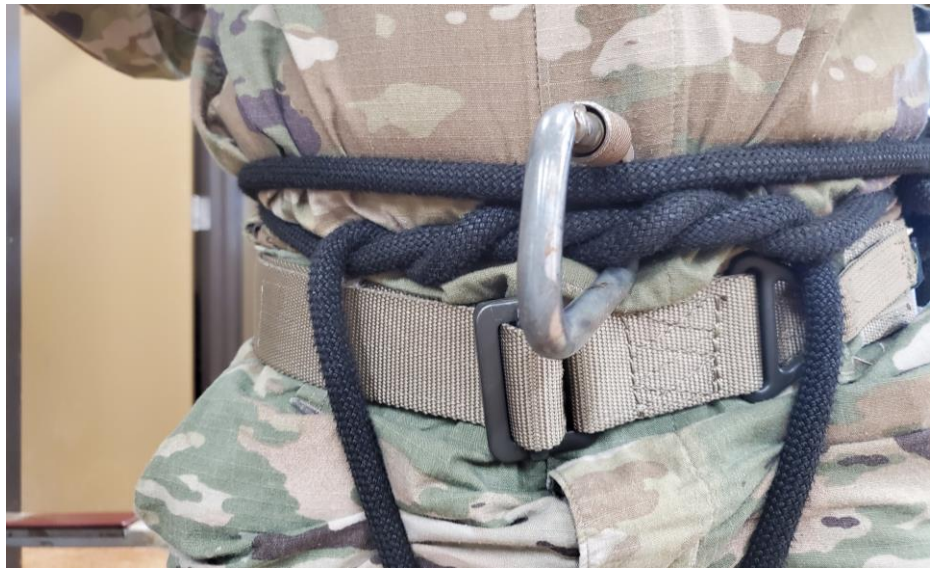
Carabiner through overhand lay

Carabiner is routed through the wraps of the overhand lay.



Overhand lay improper

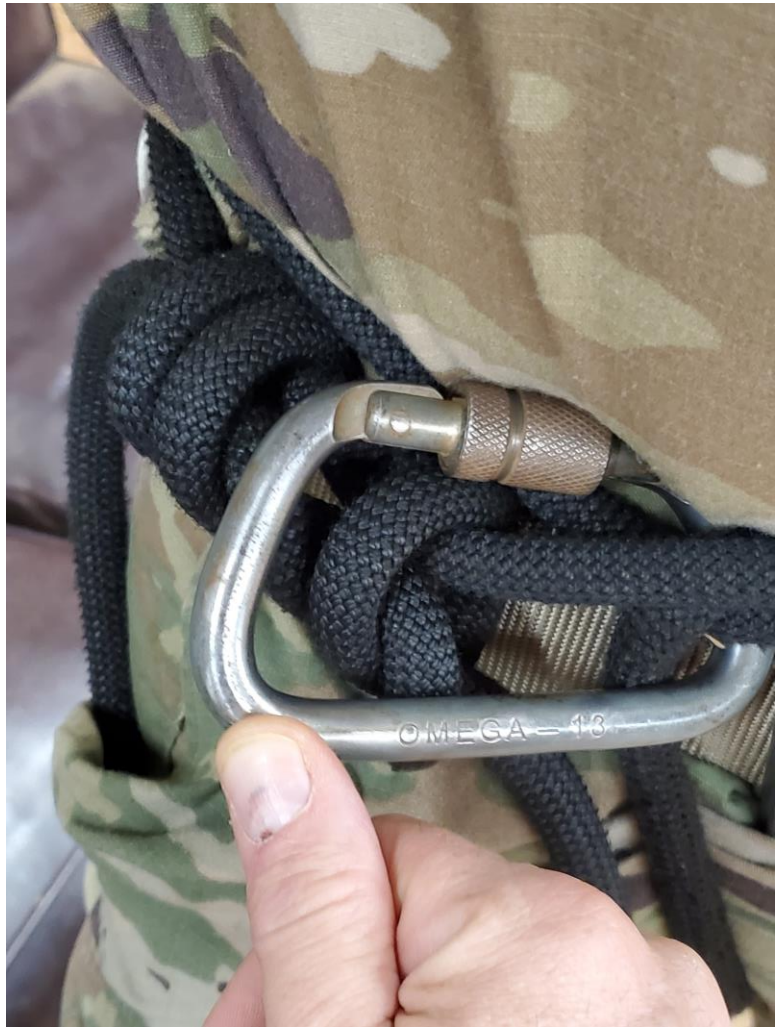
- Overhand lay must have five high points.





Carabiner touches square knot

Square knot is tied too close to overhand lay allowing the square knot to come in contact with the square knot.



Leg ropes crossed

Legs ropes are crossed under and between the legs.



Equipment on break hand side

- There can be no equipment on the break hand side of the soldier that could interfere with the soldier’s break hand.





Rope routed under belt

Rope is routed between the trouser belt and the soldier or through one of the belt loops.



Half Hitch Improper

The half hitch on the right side is correct. The locking bar must go over the top of the leg rope.

The Half Hitch on the left has the locking bar under the leg rope therefore it is improper.



Half-hitch missing

Half-hitch created with the leg rope on the back of the rappeler is missing.







Weapon improperly slung

- Weapon on combat must be on the non break hand side of the ruck.
- On semi the muzzle should point down and away from break hand side.

Leg ropes too close

Legs ropes must be more than 4 inches apart.



Seat Loose

Seat extends more then 4 inches away from the body.



Rucksack not secured.

All buckles, excess straps, pouches, etc. must be secured.

