

25 METER RANGE BATTLE SITE ZERO

Utah Army National Guard Small Arms Readiness Team (SART)
Camp W. G. Williams Range Control

Report to Range Control and attend Range Safety Briefing (RSB), pick up range keys and miscellaneous range clearing forms. Range control can issue the following supplies or equipment: Radios, staple guns, staples, zero targets, paddles (paddles are no longer stored at range), yellow engineer tape (for marking safety personnel). Pencils, tags or score sheets for recording, earplugs and cleaning rods and cleaning items are unit responsibilities and should be drawn from unit supply room.

After leaving Range Control and on the way to the range you are responsible for checking and if needed raise the main Range flag (the main range flagpole is located near the water tanks and just past the airstrip on way to range).

Range personnel, safety personnel, ammo detail, medical personnel, and any other support personnel should arrive at the 25-meter range at least 30 minutes prior to troops arriving.

Unlock the rest rooms, the tower and inspect the equipment in the tower and the down range area. Turn on power to PA system and radio. Locate the flagpole raise the red range flag. Staple the zero-targets to the target boards. Insure that each firing potion to be used has 2 sand bags. Remember rocks are not to be used in place of sandbags, see the Safety Briefing. Inspect range for safety hazards; insure impact area is clear. Ammo detail prepares distribution point with ammo and magazines (three round magazines can be pre-loaded). Medical support arrives and has a designated evacuation vehicle. Tower personnel verify an all GO on the Range Checklist.

TROOPS ARRIVE

Immediately locate NCOIC as troops arrive at range. Have the NCOIC or OIC in charge fall the troops into a formation. Establish coordination between the OIC and the tower operator. Control of the unit should be through the chain of command; range discipline should be stressed and maintained. Unit leadership should control the flow of the troops on and off the firing line at the direction of the tower operator and range safety personnel.

SAFETY BRIEFING

Conduct the safety briefing as per **Range Safety Briefing (Day Fire)** or per FM 23-9 and range SOP. Safe weapon handling and especially safe muzzle control is to be explained to troops during safety briefing.

OTHER INSTRUCTION

Any necessary weapon instructions are given at this time including changing the sight from the normal setting to the 25-meter zero setting and ensure everyone has earplugs.
Call Range Control and request permission to go hot.

The concept of mechanical zeroing and the process of zeroing a M16 rifle should be instructed prior to arriving at the 25-meter range.

The safety briefing and other range instructions should now be completed.

RANGE SCENARIO

The following type of range commands will be used by the tower operator. These commands can be slightly modified to suit the situation. Take notice of the sequence of events so that an effective operation can be performed.

TOWER COMMANDS

ALL RANGE NCO'S REPORT TO THE FIRING LINE.

MOVE THE FIRST RELAY TO THE STAIRS LEADING TO THE FIRING LINE AND STAND FAST AT THE BOTTOM.

RANGE NCO'S, IS THE FIRING LINE READY TO RECEIVE TROOPS?

FIRST RELAY, MOVE TO YOUR DESIGNATED FIRING POSITION STARTING WITH TARGET NUMBER ___?

WHEN YOU ARRIVE AT YOUR FIRING POINT, GROUND YOUR WEAPONS AND STAND FAST BEHIND YOUR FIRING POSITION.

FIRERS ENTER YOUR FIGHTING POSITION AND ASSUME A GOOD SUPPORTED FIGHTING POSITION, ALL FIRERS BE SURE TO USE THE SANDBAGS FOR MAXIMUM SUPPORT.

If you are only going to use 20 firing positions for example, on each relay, try and center your firers on the line by starting at say, position 21.

If the KD range is in use: ONLY use lanes 30 and up.

TOWER COMMANDS CONT.

COACHES FOR THE FIRST RELAY RACK YOUR WEAPONS AND REPORT TO THE AMMUNITION SUPPLY POINT.

AMMO DETAIL. ISSUE EACH OF THE COACHES 18 ROUNDS OF AMMUNITION AND 2 MAGAZINES.

COACHES, MOVE IN A SINGLE FILE TO THE STAIRS LEADING TO THE FIRING LINE AND STAND FAST AT THE BOTTOM OF THE STAIRS.

RANGE NCO's ARE ALL FIRERS IN POSITION AND READY?

COACHES FOR THE FIRST RELAY, MOVE ONTO THE FIRING LINE AND PROCEED TO YOUR DESIGNATED FIRING POINT STARTING WITH TARGET NUMBER ___?

FIRERS LOOK BEHIND YOU TO SEE IF YOU HAVE A COACH WITH YOUR AMMUNITION.

FIRERS PLEASE RAISE YOUR HAND IF YOU DO NOT SEE A COACH BEHIND YOUR POSITION.

(No other personnel are allowed on the firing line other than the firers, coaches, and safety personnel.)

M16A1 FIRERS, CHECK YOUR REAR SIGHT, YOU SHOULD HAVE SELECTED THE REAR APERTURE WITH THE STAMPED LETTER "L" VISIBLE IN YOUR SIGHT PICTURE.

M16A2 FIRERS, CHECK YOUR REAR SIGHT. YOU SHOULD HAVE SELECTED THE SMALL REAR APERTURE AND STARTING WITH THE REAR SIGHT SCRUED ALL THE WAY DOWN, MAKE SURE FLAT SURFACE WITH THE MARKING OF 8/3 IS FACING 90° TO THE LEFT AND THEN ONE CLICK UP PAST 8/3 ON THE ELEVATION KNOB. THIS IS THE 25-METER SETTING. PUT UP YOUR HAND IF YOU NEED HELP AND A RANGE NCO WILL ASSIST YOU.

NOTE: The range NCO's should be very familiar with the M16A2 zero procedures.

IF YOU HAVE NOT ALREADY DONE SO, INSERT YOUR HEARING PROTECTION AT THIS TIME.

Call Out: ARE THERE ANYONE DOWN RANGE?
 ARE THERE ANYONE DOWN RANGE?
 ARE THERE ANYONE DOWN RANGE?

WAIT, LISTEN AND SCAN THE RANGE FOR PERSONNEL AND LARGE ANIMALS
DOWN RANGE.

NOTE: The tower operator should be very observant by frequently scanning all troop areas, looking for possible safety violations. Also observe the target area and impact area looking for animals wandering into the area. Also look for possibly targets in need of stabling or repairs.

FIRING FIRST 3 ROUNDS

COACHES, YOU WILL BE LOADING 3 ROUNDS INTO EACH MAGAZINE FOR EACH STAGE OF THE ZEROING.

COACHES, LOAD AND ISSUE ONE 3 ROUND MAGAZINE TO YOUR FIRER.
(3-5 second pause while magazines are transferred to firers)

FIRERS, WITH A MAGAZINE OF 3 ROUNDS LOCK AND LOAD.

READY ON THE RIGHT?

(Pause until ready, as indicated by the white side of the paddle held by range NCO's on right side)

READY ON THE LEFT?

(Pause until ready, as indicated by the white side of the paddle held by range NCO's on left side)

THE FIRING LINE IS READY!

COMMENCE FIRING!

Wait until last soldier has completed firing, total time elapsed from start to finish for firing should not be longer than approx. 3 minutes.

CEASE-FIRE, CEASE-FIRE, CEASE-FIRE.

LOCK AND CLEAR ALL WEAPONS! REMOVE YOUR MAGAZINE, BOLTS LOCKED TO THE REAR, SELECTORS ON SAFETY.

GROUND YOUR WEAPONS. STEP TO THE REAR OF THE FIGHTING POSITION.

RANGE NCO's ARE WE CLEAR ON THE RIGHT?

(Pause until see white paddle from range NCO's on right)

ARE WE CLEAR ON THE LEFT?

(Pause until see white paddle from range NCO's on left)

THE FIRING LINE IS NOW CLEAR.

FIRERS, EXIT YOUR FIGHTING POSITION.

FIRERS AND COACHES, YOU MAY NOW MOVE DOWNRANGE AND INSPECT YOUR TARGET.

MAKE SURE YOU TRIANGULATE YOUR TARGET WITH A PEN OR PENCIL AND PUT YOUR NAME ON TOP LEFT CORNER AND DATE ON TOP RIGHT CORNER.

FIRST TARGET TRIANGULATION

At this time, firers and coaches move down range to the targets. Tower operator and safety personnel monitors the firing line to insure that no one handles/touches any weapons while personnel are downrange. Allow approximately 1 minute for targets to be inspected and shot groups to be triangulated.

FIRERS, COACHES AND SAFETY PERSONNEL, REPORT BACK TO THE FIRING LINE.

All personnel should then return to behind the firing line.

No sight changes are made at this time. Sight changes are made after the second 3 shot group is fired.

FIRING SECOND 3 ROUNDS

THE FIRING LINE IS NO LONGER CLEAR.

FIRERS ENTER YOUR FIRING POSITION; DO NOT MAKE ANY SIGHT ADJUSTMENTS.

ASSUME A SUPPORTED FIGHTING POSITION.

COACHES, ISSUE ONE 3 ROUND MAGAZINE TO YOUR FIRER.
(3-5 second pause while magazines are transferred to firers)

WITH A MAGAZINE OF 3 ROUNDS, LOCK AND LOAD.

READY ON THE RIGHT?

(Pause until ready, as indicated by the white side of the paddle held by range NCO's on right side)

READY ON THE LEFT?

(Pause until ready, as indicated by the white side of the paddle held by range NCO's on left side)

THE FIRING LINE IS READY.
COMMENCE FIRING.

Wait until last soldier has completed firing, total time elapsed from start to finish for firing should not be longer than approx. 3 minutes.

CEASE-FIRE, CEASE-FIRE, CEASE-FIRE.

LOCK AND CLEAR ALL WEAPONS, REMOVE YOUR MAGAZINE, BOLTS LOCKED TO THE REAR, SELECTORS ON SAFETY.

GROUND YOUR WEAPONS. STEP TO THE REAR OF THE FIGHTING POSITION.

RANGE NCO's ARE WE CLEAR ON THE RIGHT?
(Pause until see white paddle from range NCO's on right).

ARE WE CLEAR ON THE LEFT?
(Pause until see white paddle from range NCO's on left).

THE FIRING LINE IS NOW CLEAR, FIRERS EXIT YOUR FIGHTING POSITION.

FIRERS AND COACHES, YOU MAY NOW MOVE DOWNRANGE AND INSPECT YOUR TARGET.

SECOND TARGET TRIANGULATION

At this time, firers and coaches move down range to the targets. Tower operator and safety personnel monitors the firing line to insure that no one handles/touches any weapons while personnel are downrange. Allow approximately 1 minute for targets to be inspected and shot groups to be triangulated.

FIRERS, COACHES AND SAFETY PERSONNEL, REPORT BACK TO THE FIRING LINE.
(All personnel should then return to behind the firing line).

FIRING THIRD 3 ROUNDS

(Repeat second firing)

THE FIRING LINE IS NO LONGER CLEAR.

FIRERS, ENTER YOUR FIGHTING POSITION AND MAKE SIGHT CORRECTIONS AS NEEDED.

ARE THERE ANY FIRERS WHO FEEL THEIR WEAPON IS ZEROED AND WISH TO LEAVE THE FIRING LINE?

FIRERS WHO HAVE COMPLETED FIRING YOU MAY EXIT THE FIGHTING POSITION AND PICK UP YOUR WEAPON AND MOVE TO THE CENTER OF THE FIRING LINE. HAVE YOUR WEAPON RODDED BY THE SAFETY NCOIC.

AFTER YOU HAVE THE RIFLE RODDED YOU MAY EXIT THE FIRING LINE.

COACHES FOR THE FIRERS LEAVING THE FIRING LINE, PICK UP ANY UNFIRED AMMO AND MAGAZINES. RETURN UNFIRED AMMO AND MAGAZINES TO THE AMMO SUPPLY POINT.

HAVE ALL FIRERS COMPLETED THEIR SIGHT CORRECTIONS?

(Pause if necessary)

ASSUME A SUPPORTED FIGHTING POSITION.

COACHES, ISSUE ONE 3 ROUND MAGAZINE TO YOUR FIRER.

(3-5 second pause while magazines are transferred to firers)

WITH A MAGAZINE OF 3 ROUNDS, LOCK AND LOAD.

READY ON THE RIGHT?

(Pause until ready, as indicated by the white side of the paddle held by range NCO's on right side)

READY ON THE LEFT?

(Pause until ready, as indicated by the white side of the paddle held by range NCO's on left side)

THE FIRING LINE IS READY.

COMMENCE FIRING.

Wait until last soldier has completed firing, total time elapsed from start to finish for firing should not be longer than approx. 3 minutes.

CEASE-FIRE, CEASE-FIRE, CEASE-FIRE.

LOCK AND CLEAR ALL WEAPONS, REMOVE YOUR MAGAZINE, BOLTS LOCKED TO THE REAR, SELECTORS ON SAFETY.

GROUND YOUR WEAPONS. STEP TO THE REAR OF THE FIGHTING POSITION.

RANGE NCO's ARE WE CLEAR ON THE RIGHT?

(Pause until see white paddle from range NCO's on right).

ARE WE CLEAR ON THE LEFT?

(Pause until see white paddle from range NCO's on left).

THE FIRING LINE IS NOW CLEAR, FIRERS EXIT YOUR FIGHTING POSITION.

FIRERS AND COACHES, YOU MAY NOW MOVE DOWN RANGE TO INSPECT TARGETS.

THIRD TARGET TRIANGULATION

At this time, firers and coaches move down range to the targets. Tower operator and safety personnel monitor the firing line to insure that no one handles/touches any weapons while personnel are downrange. Allow approximately 1 minute for targets to be inspected and shot groups to be triangulated.

FIRERS, COACHES AND SAFETY PERSONNEL: REPORT BACK TO THE FIRING LINE.

(All personnel should then return to behind the firing line).

Repeat the sequence (second or third firing) of events with sight corrections after each shot group fired. All personnel should be zeroed (battle sight zero) after firing approx. 18 rounds.

FIRERS FOR THE FIRST RELAY, YOU HAVE NOW COMPLETED ZEROING.

M16A1: MOVE YOUR REAR SIGHT FROM THE L POSITION TO THE STANDARD POSITION.

M16A2: TURN YOUR REAR ELEVATION KNOB BACK ONE CLICK TO THE 8/3 POSITION. THE FLAT SURFACE WITH THE 8/3 MARKING SHOULD AGAIN FACE TO THE LEFT.

ALL FIRERS FOR RELAY 1, PICK UP YOUR WEAPON AND MOVE TO THE CENTER OF THE FIRING LINE WHERE THE SAFETY NCOIC WILL INSPECT AND ROD YOUR WEAPON.

AFTER YOUR WEAPON HAS BEEN RODDED, EXIT THE FIRING LINE AND RACK YOUR WEAPON.

COACHES FOR THE FIRST RELAY, PICKUP ANY UNFIRED AMMO AND MAGAZINES. EXIT THE RANGE AND MOVE TO THE AMMO SUPPLY POINT, TURN IN YOUR UNFIRED AMMO AND MAGAZINES.

SECOND RELAY

FIRERS FOR RELAY 2, PICKUP YOUR WEAPONS AND PREPARE TO MOVE TO THE FIRING LINE.

COACHES FOR RELAY 2, RACK YOUR WEAPONS, AND MOVE TO THE AMMO SUPPLY POINT AND DRAW AMMO AND MAGAZINES.

Follow the above listed sequences of events to move relay 2 and subsequent relays to the firing line.

NOTE: Personnel who have just completed zeroing should record their Battle Site Zero before leaving the range. Battle Site Zero is recorded IAW STP 21-1 Common Soldier task #071-311-2004 for M16A1 rifle and task #071-311-2030 for an M16A2 rifle. The battle site information is placed on a tag or taped which is then attached to the individual weapon.

COMPLETION OF FIRING

When all relays have completed firing and moved off the firing line, have your ammo detail or designated detail perform a police call of the firing line. All fired brass is recovered at this time. Lower the range flag and secure it in the flag box. Call Range Control and request to go cold on 25-meter range. Turn off the power to the PA system and radio with breaker #4 also make sure breaker #5 is off but leave all other breakers on in the power box. The heater may be left on at a low setting in the winter. Remove trash and any personal belongings, sweep out the tower and lock it up.

Direct the shooters, coaches, support personnel, ammo detail, medical personnel to report to Modified Record Fire Range or as indicated on unit training schedule.

Remove any trash from the range area, inspect range area a last time and move out. Made a note of any problems with range equipment or facility and report it on the 25M RANGE CLEARING FORM. Be prepared to transmit to Range Control or hand carry the following information: Unit name, OIC or your name, date and time (starting and finishing times), number soldiers or individuals involved with the operation, and number of rounds used and the DODIC numbers.

RANGE SAFETY BRIEFING DAY FIRING

14 March 2003

1. Always use safe weapon handling and at all times point the muzzle of your weapons in a safe direction and fingers off the trigger until you are ready to fire. Always treat your weapon as loaded even in the break area.
 - a. On the firing line keep weapons grounded until a command has been given allowing you to handle your weapons. Take all commands from the tower.
 - b. Never handle your weapon with someone down range or in the front of the firing line.
 - c. All weapons on the firing line have to be cleared before they are removed from the firing line by:
 1. Remove magazines.
 2. Lock the bolt to the rear.
 3. Place the selector on safe.
 4. All weapon barrels must be checked visually from the breach or by inserting a rod in to the barrel by a safety NCO.
2. Follow all commands from the tower including enter and exit at the center of the firing range.
3. Anyone can and should call a **CEASE-FIRE** when they notice an unsafe act by calling **CEASE-FIRE** and placing both hands in the air facing the tower. When a cease-fire has been called, place the selector on safe and ground your weapons.
4. No firing should be attempted with a severely dirty weapon.
5. All weapons must be well lubricated before they enter the range.
6. Do not discharge your weapons outside your firing lane.
7. Inspect your firing position before entering for snakes, insects and other animals.
8. Left handed persons firing M16A1 rifles must use brass deflectors. Note M16A2 and newer rifles have the brass deflector build into the weapon.
9. **DO NOT SUBSTITUTE SANDBAGS WITH ROCKS.** Rocks are no substitute for sandbags and can cause a very dangerous ricochet. All large rocks **WILL** be removed from the firing line before firing.
10. Once cleared off the firing line, police up and return all excess live ammo and brass in your care to the ammo supply point.
11. **Smoke only in designated areas.** A designated smoking area is normally an area with gravel surface and never in the buildings, ammo supply area and on the firing line.

12. **Knowledge and Safety** becomes very important when a person is clearing a malfunctioning weapon. During live fire the shooter is only authorized to perform SPORTS. All other corrective actions require a **QUALIFIED AMORER**. All military regulations and procedures are to be followed.

Any comments/questions?

4 November, 1999

RANGE NCO DUTIES

The following are the duties of the range NCO's (can also be referred to as: Range safety NCO's, Block NCO's, Line NCO's and firing line NCO's).

- a. Signal to range tower whether the range section for your duty area is ready.
 1. Day firing. The range NCO will signal by the use of a paddle: **RED PADDLE FOR NOT READY & WHITE FOR READY.**
 2. Night Firing. The range NCO will show by the use of a green chem light to the tower that the line is **READY**, a red light will indicate to the tower that the line is **NOT READY**. After the firing has commenced all lights will be extinguished. **AN EMERGENCY CEASE-FIRE IS INDICATED BY THE USE OF A RED CHEM LIGHT OR A FLASH LIGHT** that is pointed at the tower.
- b. It is the range NCO's duty to see that the soldiers in his or her duty section is ready before indicating firing line being ready.
- c. It is the range NCO's duty to make sure that the shooters and the coaches are in place and the shooters has the ammunition required for the course of fire coming up.
- d. **IT IS THE RESPONSIBLY OF THE RANGE NCO THAT WEAPONS ARE HANDLED SAFELY AT ALL TIMES. That no one handles his or her weapon unless the command has been given.**
- e. It is the duty of the range safety NCO's to see that down range is clear of personnel and large animals, and to inform the tower of such activities when the range tower gives a command, which allows the soldiers to handle weapons.
- f. The range NCO will only allow the soldiers to point the muzzle of his or her weapon up and down range until the weapons have been checked by: Removing the magazine, clearing the chamber, locking the bolt to the rear, and passing a rod through the barrel.
- g. The range NCO will not allow any soldier on the firing line without proper hearing protection and he will not allow the firing to commence without it being worn properly.
- h. The range NCO will make sure the weapons are grounded as soldier move on to the firing line and the proper command is given to handle the weapons.
- i. The range NCO will make sure that all commands from the range tower are followed and he should at all times be able to repeat them to the soldiers on the firing line.
- j. The range NCO's should be very familiar with the **RANGE SAFETY BRIEFING** or the one found in FM 23-9 page D-1 & D-2.
- k. The range NCO's will be on the firing line ahead of the soldiers who are going to fire. His duty is to assist the

soldier with a smooth and safe experience on the firing range.

- 1 It is the responsibility of the occupying units OIC/NCOIC to make sure all weapons are reasonably clean and well lubricated for safe firing. A malfunctioning weapon can cause a soldier to become nervous and possibly

USAFACFS SAFETY LESSONS LEARNED

FORT SILL SAFETY OFFICE

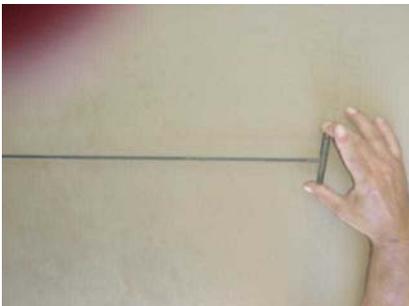
OCT 2001

An M16A2 rifle exploded during a recent range exercise on Fort Sill. The soldier's weapon was rodded, with a sectioned cleaning rod, to ensure the rifle barrel was clear and the soldier proceeded to the firing line. A three round magazine was issued to the soldier and when the first round was fired, the weapon exploded. A standard issue, sectioned, weapon-cleaning rod was used to rod the weapon. A section of cleaning rod came loose and stayed in the weapon causing the round to jam and resulted in an explosion. Two days later, a similar accident occurred on a small arms range at Fort Campbell Kentucky.



The standards for small arms listed in FM 23-9 M16A2 does not specify the type of rod to be used to clean an M16 rifle barrel.

To prevent this type of accident from recurring, recommend using clearing rods that are only one piece, and made of soft metal such as brass or aluminum.



DO NOT USE!
Sectioned cleaning rod

USE THIS!
One piece clearing rod