U.S. Army Garrison-West Point DPTMS – Range Control Policy & Procedures

Standard Operating Procedure Range 12 *(Basra)* Demolition Range

Department of the Army

U.S. Army Garrison West Point

United States Military Academy

West Point, New York 10996-5000

Document History

Document Location

All hard copies will be located at Building 1403 Range Control Fire Desk. Also, electronic copies may be retrieved via DPTMS website (Training Link), or upon request.

Revision History

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Revision Number	Revision Date	Summary of Changes	Author
1	5 Mar	Minor Radio Frequency/Grammar Changes	Lake
2	1/7/16	Minor Changes	Lake

Approvals

This document requires the following approvals:

Name	Title
	USAG-WP, Range Manager
	USAG-WP, Chief of Training
	USAG-WP, Director of Plans, Training, Mobilization & Security

Distribution Formula

This document has been distributed to:

Office	Name Title
Scheduled User	Issued Hard-bound Binder copy during use of range/facility
USAG-WP	Range Control Office

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1. General Information

1.1 Purpose

This Standard Operating Procedure (SOP) provides standard instructions and checklists for unit and individuals using Range 12 *(Basra)* Demolition Range. It defines standardized steps and procedures to be followed for its safe and efficient use.

This SOP is directive based and complies with applicable United States Military Academy and Department of the Army Regulations, current doctrine, policy and guidance.

1.2 Applicability

This SOP is designed to provide units with safe range operating procedures and guidelines. It applies to all units of the U. S. Armed Forces, civilian organizations, and individuals who are authorized to use this range or training facility at West Point, and by all applicable users IAW West Point Regulation 350-11 and DA Pam 385-63.

1.3 Responsibility

Use this SOP in conjunction with AR 385-63, DA Pam 385-63 and West Point Reg. 350-11 which provide specific and detailed range firing responsibilities for using units. These directed and required actions are necessary for the safe conduct of all range firing and training. Full compliance IAW the afore-mentioned regulations as well as steps and procedures of this SOP, is the responsibility of the commanders, as well as the personnel of using organizations or units. Personnel of any non-DoD civilian agency or activity, using West Point ranges and training facilities must also comply with the provisions and requirements outlined in West Point Reg. 350-11.

1.4 References

All required and related publications are those covering the training conducted and those listed in the applicable chapters and Appendix A of West Point Reg. 350-11 or other respective regulations, policies and procedures. Additional references are also listed at Appendix A, of AR 385-63 and DA Pam 385-63. See FM 3-34.214, Explosives and Demolitions, dated 11 July 2007.

1.5 Suggested Improvements

The proponent of this Standard Operating Procedure (SOP) is the Director of Plans, Training, Mobilization and Security, U.S. Army Garrison West Point, ATTN: DPTMS, Building 621 Wilson Road, United States Military Academy, West Point, New York 10996-5000. Users are encouraged to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms).

2. Range Description & Characteristics

2.1 Range Description & Definitions

2.1.1 Range Description

Range 12 is used to train individuals on the employment techniques of explosives and demolitions.

NOTE: Use of C4 and other explosives requires closure of Mine Torne Road.   The only exceptions are Claymore Mine and Bangalores.

2.2 Range Location

Range 12 is located within training area Z6, vicinity grid WL 81067830. It is accessible from Range 11 and Mine Torne Road, across from Lake Stilwell. A key is necessary to access this range.

NOTE: With the exception of the grass area adjacent to Range 12, no training is authorized East of Range Road 26, to include the road leading into the Impact area.

2.3 Standard Supported Explosives & Demolitions

Range 12 consists of a designated demolition area where all explosives and demolitions must be detonated within a 25 meters radius of this area (vic grid WL81067830).

2.4 Authorized Weapons & Ammunition

NOTE: Total combined charge may not exceed 16 pounds.

WEAPON CALIBER	AMMUNITION DODIC
Trinitrotoluene (TNT)	.25 lb=M030; .50 lb=M031; 1 lb=M032
Dynamite	M1=M591
Composition C4	M5A1=M038; M112=M023
Shaped Charges	M2A4 (15lb)=M240
Bangalore Torpedo	M1A2=M028; M1A3=MP03

Detonation Cord & Blasting Caps
Claymore Mine

2.5 Range Specific Safety Measures

2.5.1 Danger Areas

EXPLOSIVES & DEMOLITONS	DANGER AREAS
ALL	Training Areas Z6 and E2.
	Range Road 26 between ranges 11 and 12.

2.5.2 Range Gate Guard Requirements

Range gate guards (two) will be posted at the north and south side of Range Road 26.

There is no gate guard shack on range 12. Gate guards are required at Gate # 66, vicinity Mine Torne Road and the rear entrance to Range 11.

2.5.3 Range and Gate Closures

Range 12 requires the closure of the following:

GATES	RANGES
Mine Torne Road Gate vic grid WL81507705	NA
Range 11 Rear entrance gate vicinity grid WL 80907890	
North and South side of Range 12 along Range Road 26.	

2.6 Range Targetry

Range 12 has designated pits for certain demolitions and explosives. There is NO designated concrete or steel demolition cutting areas on Range 12.

2.7 Range Support Facilities

Range 12 has the following range support facilities to support operations:

Range Tower	Latrine (One)
	Observation Blast Wall
Designated Mess Area	

NOTES: None

2.8 Authorized Parking

Military Vehicles – Designated area for military vehicles is on the road leading into Range 12 from Mine Torne Road.

Civilian Privately Owned Vehicles (POVs) – Should be parked on Mine Torne Road below Stilwell Dam.

2.9 Communications

All live fire ranges must maintain two separate means of communication with Range Control at all times. Primary means of communication with Range Control will be by Motorola Handheld "Livefire" Channel. Alternate means of communication will be by commercial telephone.

There is a commercial telephone located inside the range tower; telephone number is (845) 938-4356..

A quick reference phone index is located at the front of this SOP Binder.

2.10 Ingestion of C4

Under **NO CONDITIONS** will be C4 or any other explosive substance be ingested internally (eaten).   C4 explosive contains many toxic chemicals, to include cyclotrimethylenetrinitramine (RDX), dioctyl sebacate (acid found in brake fluid) or dioctyl adipate (acid), mineral oil (Group 1 Carcinogen – cancer causing), lead chromate (Carcinogen – cancer causing) and ethylene glycol (toxic and found in antifreeze). Ingestion of C4 will cause extreme nausea, vomiting, possible seizures and increased risk of various cancers.

DO NOT INGEST OR EAT C4 EXPLOSIVE!

3. Range Safety & Security Procedures

3.1 Individual Hearing Hazard Zone

DA Pam 40-501 specifies that hearing protection is required for any exposure noise decibel greater than 140 dBP. All personnel within the 140 dBP hearing hazard zone will wear approved single point hearing protection. This size varies based upon the amount (pounds) being used. Multi-use ranges will establish the zone based on the loudest weapon used. The following list of distances to the hazard contours for common military weapons is conservative (m = meters):

    a. Explosives & Demolition: One lb = 230 m; Five lbs = 394 m; and 16 lbs = 562 m.

3.2 Individual Personal Protection Equipment (PPE)

    a. Ballistic (Kevlar or Army Combat Helmet (ACH) **WILL** be worn for safety and protection by all personnel.
    b. Individual Body Armor (IBA) or Flak Jackets are required and **WILL** be worn by all personnel engaged in detonation of explosives and demolitions.
    c. Eye Protection. All personnel **WILL** wear individual approved eye protection.
    d. Hearing Protection. All personnel **WILL** wear approved single point hearing protection. This requirement applies to observers and range personnel.

3.3 General Explosives and Demolitions Handling

    a. For more specific demolition and explosive safety information refer to Chapter 6, FM 3-34.214.
    b. When dealing with explosives and demolitions, some general safety considerations should be followed:
        1) Do NOT divide responsibility for demolition operations.
        2) Ensure you are familiar with the required procedures and review references or obtain assistance.
        3) Use the minimum number of personnel necessary to accomplish the mission.
        4) Take your time and ensure you make your actions deliberate.
        5) Post guards at all times to prevent access inside the danger radius.
        6) Maintain control of the initiation source AT ALL times.
        7) Store blasting caps separately and at a safe distance from other explosives.
        8) Ensure that warnings are given before initiating give the warning "FIRE IN THE HOLE" three times.
        9) Dual initiate all demolitions, regardless of where they are single- or dual primed.
        10) Do NOT dismantle or alter the contents of any explosive material.
        11) DO NOT mix live and inert explosives.
        12) DO NOT use blasting caps underground. Use detonating cord or M151 or M152 boosters to prime underground charges.

3.4 Ammunition Handling & Storage

All training ammunition, pyrotechnic items or explosive material will be handled and stored IAW Chapter 2, FM 9-13 and DA Pam 385-64. Issuing and accounting for all training ammunition and explosive items will be IAW Chapter 11, DA Pam 710-2-1 (Supply Update). Contact the West Point Ammunition Supply Office for specific procedures for requesting, drawing and turning in ammunition and any residue.

Using units are responsible for the physical security, safeguarding, storing, and handling and will ensure the ammunition or explosive items are protected from the weather.

NOTE: Once explosives are issued at the range, the OIC is responsible to ensure it is **STRICTLY CONTROLLED**.

- **DO NOT** allow personnel to break off pieces of C4 unsupervised.

- **DO NOT** allow C4 to be passed around unsupervised.

- **DO NOT** allow portions removed during demolition operations to leave the range.

- Any piece of C4 removed from blocks or packaging must be **STRICTLY CONTROLLED** until used or turned-in. This is the responsibility of the OIC.

Failure to adhere to the security and safeguarding of explosives will result in decertification of the OIC and referral of the matter to the CID/Military Police.

3.5 Army Range Safety Memorandums/Messages (ARSMMs)

Interim changes may be published to AR or DA Pam 385-63 as Army Range Safety Memorandums/Messages (ARSMMs). A file of all current ARSMMs is maintained at Range Control. Range OIC/RSO personnel will be familiar with ARSMMs associated with specific training being conducted prior to conducting operation on the range.

3.6 Unexploded Ordnance (UXO) and Reporting of Duds

Do NOT touch or disturb any Unexploded Ordnance (UXO) encountered. Leave any UXO discovered in place, including all rounds observed as falling into or within the designated range impact area but which fail to function (detonate). All rounds that fall into the common impact are, but fail to detonate will be reported to Range Control at the conclusion of the range firing.

If a round, a suspicious item or ordnance, or a UXO item is found outside a designated range firing impact area do NOT disturb the item. Conspicuously mark the item, route traffic a safe distance around. Report the UXO immediately to Range control and initiate a dud report.

3.7 Ammunition Amnesty Program

The Ammunition Amnesty Program is designed to ensure maximum recovery of ammunition and explosives. This program is not intended to circumvent normal turn-in procedures. Small arms ammunition (up to and including 7.62mm) may be placed in the amnesty barrel next to Building 1403. Other munitions and ammunition above 7.62mm will be retrieved only by EOD, ASP or Range Control personnel. Documentation is not required for turn-in under the Ammunition Amnesty Program. Contact West Point ASP Office at commercial telephone 938-3216 for further information.

4. Range Operational Requirements/Responsibilities

4.1 Range Officer in Charge (OIC) / Range Safety Officer (RSO) Appointment Requirements

WEAPON SYSTEM	OFFICER IN CHARGE (OIC)			RANGE SAFETY OFFICER (RSO)		
	OFF	CADET	NCO	OFF	CADET	NCO
Practice hand grenade simunitions training devices; simulators, and small arms (5.56mm and below)	X	N/A	E6(P)	X	X (Wpns Qualified)	E5(P)
Chemical Agents (CS) and smoke	X	N/A	E6 (MOS Qualified)	X	N/A	E5
Aerial gunnery, live grenades, grenade launchers, grenade machine guns; Live mines, and demolitions.	X	N/A	E7	X	N/A	E6
Field Artillery and LASER ranges	X (0-3)	N/A	N/A	Battery XO X	N/A	N/A
Live Fire Exercises using organic weapons, team through squad.	X	N/A	N/A	X	N/A	E7
Mortars	X	N/A	N/A	X	N/A	E6
Direct fire antitank rockets	X	N/A	E7	X	N/A	E6
Specialty Non-LFX Courses	X	N/A	E6	X	X	X
Specialty Non-LFX Courses (Rappel) * Rappel Master Certified	X*	N/A	E7*	X	N/A	E6

Table 4-1, OIC / RSO Appointment Requirements

4.2 Range Officer in Charge (OIC)

The Range OIC holds the responsibility and accountability for the conduct of the activity and the adherence to governing regulations and guidance.

4.2.1 OIC Qualifications

A commissioned, warrant, or noncommissioned officer (NCO) may serve as a Range OIC. NCOs serving as OIC will be in the grade as shown in Table 4-1 above, at a minimum. Range OICs will be qualified on the weapon(s) systems being fired, and will have satisfactorily completed a range safety certification program in the weapon system(s) for which they are responsible conducted by their Battalion/Unit (O5 & above Command) to which they are assigned.

4.2.2 OIC Actions & Procedures before Range Occupation

STEP	ACTION	TAKEN
1	Thoroughly plan the range operation and/or training activity and determine the personnel and equipment support requirements.	
2	Be weapons system(s) qualified, and that his/her command safety certification and appointment is completed, and on file at Range Control.	
3	Receive the mandatory Range Control briefing within ONE DAY prior to use.	
4	Ensure a qualified RSO is command safety certified and appointed, and briefed by Range Control. OIC briefs the RSO on his/her duties to be performed.	
5	Verify that all personnel in a direct supervisory role or safety position are familiar with the provisions of this SOP, USMA Reg. 350-11, AR/DA Pam 385-63, and the FM/TMs governing the explosives and/or demolitions to be used.	
6	Ensures that the required and appropriate medical support personnel are qualified. All appropriate equipment and supplies are available to support the range operation(s) and/or training activity.	
7	Check in at Range Control upon arrival to the installation to receive an updated briefing and sign for the range and necessary support equipment.	
8	Assign an Ammo NCO to be responsible for, and to ensure that all demolitions and explosives are properly drawn, transported, handled, stored, and accounted for, from time of receipt, to the time of expenditure or turn in.	
9	Develops a composite risk management worksheet for all phases of the range operation(s) and/or training activity, and mitigate initial high and extremely high hazards through appropriate control measures, using DA Fm 2977.	

4.2.3 OIC Actions & Procedures before Operations

STEP	ACTION	TAKEN
1	Ensures the correct range/firing position and or training facility is occupied, and conducts a joint inventory with a Range Control representative to verify the presence and condition of the range facilities and equipment.	
2	Conducts a Range OIC brief to the RSO, Range Safety Assistants, Medical NCO, Assistant Instructors, Ammunition detail, Range Gate Guards reinforcing their duties and responsibilities on the conduct of the range operation.	
3	Directs and supervises that the required designated areas of the range are established and set up as required/planned.	
4	Establishes primary radio and secondary telephone communications with Range Control, and notifies Range Control upon initial occupation.	
5	Ensures that the red range flag is displayed during daylight operations, and that the red flashing light on the flag pole is displayed during periods of limited visibility.	
6	Verify that the down range portion of the range and impact area are clear of unauthorized personnel and that the appropriate range specific safety measures for range gates, barriers, gate guards and danger areas directed by Range Control have been taken (Refer to paragraph 2.5 of this SOP).	
7	Verify that the required medical personnel and equipment support is on site, with strip maps to local medical treatment facilities is present, prior to requesting a HOT status.	
8	Verify the continuous safety and security of ammunition on the range. Under NO circumstances will ammunition or explosives be unguarded or unattended. Ammunition must be stored in the designated area and NO smoking is allowed within 50 feet of the ammunition or the firing line.	
9	Verify that all personnel wear the required personal protection equipment.	

10	Ensures that all demolitions are dual initiated and that positive control is maintained of the initiation source AT ALL times.	
11	Ensure all applicable references and regulations are physically present and on hand:	
12	Receive authorization from Range Control to use Restricted Air Space (R-5206).	
13	Notifies Range Control and requests permission to place the range in a HOT status (Refer to paragraph 7.1).	
14	Implements risk management actions and applicable control measures identified for this phase of the range operations and/or training event.	

4.2.4 OIC Actions & Procedures during Operations

STEP	ACTION	TAKEN
1	Be present at all times in the range tower while the range is in a HOT status, and maintains a constant observation of the range, and the demolition area when emplacing explosives and demolitions. Be prepared to meet and brief all range visitors/VIPs, and range control personnel.	
2	Verify that all personnel prior to firing receive a range safety briefing, and that only authorized explosives and demolitions are used.	
3	Ensures that the range is clear and no personnel are inside the danger area.	
4	Verify that the quantity of explosives or demolitions DO NOT EXCEED 16 pounds total combined charge.	
5	Notifies Range Control when first detonation is fired down range (Refer to paragraph 7.2).	
6	Ensures that primary and secondary means of communication with Range Control are maintained, and that hourly radio checks are performed (Refer to paragraph 7.8)	
7	Ensures that communications are maintained with all road/gate guards.	
8	Verify that personnel and/or explosives do NOT move to or leave the firing line without being cleared, and only on permission by the Range Safety Officer.	
9	Maintains a constant observation of the demolition site at all times, and that the down range safety danger areas remain clear.	
10	Immediately calls or announces a self-imposed "Cease Fire" and notifies Range Control when (Refer to paragraph 7.5):	
10a	Any unsafe action is observed or reported by ANY individual observing an unsafe act.	
10b	When communications are lost with Range Control and/or Gate Guards.	
10c	When any personal injury, or malfunction occurs.	
10d	When any personnel, vehicle, animal or aircraft is observed down range, or in the safety zone danger areas.	
10e	When a range or woodland fire is observed.	
10f	When any rounds or projectiles are observed to land outside the prescribed impact area (NOTE: particular attention should be made on ranges 2, 6 and 12).	
10g	Whenever the OIC, RSO, or medical support leaves the range	
11	Verify that all malfunctions are handled IAW applicable FM/TM.	
12	Ensures that all misfires are handled IAW appropriate FM/TM.	
13	Notifies Range Control when a change in OIC/RSO is needed (refer to paragraph 7.7).	
14	Notifies Range Control when last detonation is fired down range (refer to paragraph 7.3).	
15	Implements risk management actions and applicable control measures identified for this phase of the range operations and/or training event.	

4.2.5 OIC Actions & Procedures after Operations

STEP	ACTION	TAKEN
1	Notify Range Control upon completion of firing/training and request permission to go COLD (reference procedure 7.4). Be prepared to report:	
1a	Number of personnel trained.	
1b	Number of explosives detonated by type and DODAC.	
2	Verify 100% accountability for all explosives and demolitions.	
3	Verify that ALL personnel are searched for explosives and or demolitions prior to their departure from the range.	
4	Notify Range Control if applicable, on any duds observed.	
5	Contact Range Control for range clearance/inspection after performing the following:	
5a	Range flag is lowered and red blinking lights are recovered (if applicable).	
5b	Police range. All prescribed CL V recoverable items, packing material and unexpended explosives are returned to the ASP.	
5c	Police range for all trash and place in local dumpster. NO MREs, kitchen waste or CL V ammunition dunnage will be placed in the dumpsters.	
5d	Check overall condition of the range to include all range support facilities.	
5e	Road barriers, gates are re-opened and gate guards are recovered.	
5f	Hand receipted range equipment and supplies are recovered, cleaned and prepared for turn-in.	
6	Conduct a joint inventory IAW range clearance agreement with a range control representative for clearance of range/training area.	
7	Return all hand-receipted range equipment, along with any applicable reports/forms to Range Control.	

4.3 Range Safety Officer (RSO)

A direct representative of the Range OIC and responsible to the OIC for insuring the adequacy of safety of firing, training operations, and ensuring compliance to governing regulations and guidance.

4.3.1 RSO Qualifications

A commissioned, warrant, or noncommissioned officer may serve as the RSO. NCO grade requirements will be in accordance with Table, 4-1 above, at a minimum. Personnel assigned as RSO will have NO other duties during that period of training. RSOs will be qualified on the weapon(s) systems being fired, and will have satisfactorily completed a range safety certification program in the weapon system(s) for which they are responsible conducted by their Battalion/Unit (O5 & above Command) to which they are assigned.

4.3.2 RSO Actions & Procedures before Operations

STEP	ACTION	TAKEN
1	Assist the Range OIC in the planning of the range operation and/or training activity when needed or as applicable to ensure its safe and efficient operation.	
2	Be weapons system(s) qualified, and that his/her command safety certification and appointment is completed, and on file at Range Control.	
3	Receive the mandatory Range Control briefing prior to use of range/training facility.	
4	Ensure that all personnel appointed to assistant range safety positions are qualified and familiar with the provisions of this SOP, West Point Reg. 350-11, AR/DA Pam 385-63, and FM 3-34.214.	
5	Ensure that all personnel appointed to assistant range safety officer (ARSO) roles are briefed and so qualified to assist as needed.	

6	Ensures that the down range portion of the range and visible portion of the impact area are clear of unauthorized personnel prior to range OIC requesting the range be placed in a HOT status.	
7	Ensures that the required medical personnel and equipment support is on site and remains on site at all times while the range is in a HOT status.	
8	Ensures the continuous safety and security of explosives on the range.	
9	Assist the Range OIC when needed or as applicable to ensure that the requirements for procedures 4.2.2 and 4.2.3 above are met.	

4.3.3 RSO Actions & Procedures during Operations

STEP	ACTION	TAKEN
1	Be present at all times during emplacement of explosives and demolitions at the demolition prescribed site and that all demolitions are located within 25 meters of WL81067830; and performs NO other duties except that of the RSO. Ensure safety is paramount.	
2	Receive and organize demolition teams, and conduct the following:	
2a	Ensure that all personnel receive a range safety briefing, and that only authorized explosives and demolitions are about to be used.	
2b	Ensures that all personnel wear the required personal protection equipment.	
3	Ensures that all personnel with explosives do NOT move to or from the demolition area without being cleared, and only on the permission of the RSO.	
4	Maintain a constant observation of the demolition area during emplacement, and that the visible down range safety area remains clear.	
5	Immediately announces and calls for a self-imposed "CEASE FIRE" and notifies the Range OIC when any of the following is heard or observed:	
5a	Any unsafe action is observed or reported by ANY individual observing an unsafe act.	
5b	When any personal injury, major weapon or ammunition malfunction occurs.	
5c	When any personnel, vehicle, animal or aircraft is visually observed down range.	
5d	When a range or woodland fire is observed.	
5e	Whenever the medical support leaves the range.	
6	Ensure that the range ammo issue point maintains accurate and proper accountability of all CL V items during operations on DA Fm 3020-R.	
7	Ensure that all malfunctions are handled IAW appropriate FM/TM.	
8	Ensures that all misfires are handled IAW applicable FM/TM.	
9	Notifies Range OIC when a change in RSO is needed (refer to paragraph 7.7).	

4.3.4 RSO Actions & Procedures after Operations

STEP	ACTION	TAKEN
1	Ensure 100% accountability for all explosives and demolitions.	
2	Ensure that ALL personnel are searched for ammunition prior to their departure from the range.	
3	Report to the Range OIC upon completion of firing/training the following:	
3a	The number of explosives expended by type and DODAC that was issued and tracked by the ammo issue point NCOIC.	
3b	That ALL prescribed CL V recoverable items, packing material and unexpended ammunition has been accounted for and is prepared for turn-in to the ASP.	

3c	The police of the range overall for all trash, and that the designated areas of the range that were established are recovered back to the original condition.	
3d	That the overall condition of the range and support facilities are in the original condition.	
3e	All hand receipted range equipment and supplies are recovered, cleaned and prepared for turn-in to the Range OIC and/or Range Control.	
4	Assist the Range OIC when needed or as applicable to ensure that the requirements for procedures 4.2.5 above are met.	

4.4 Range Gate Guards

The Range OIC will ensure gate guards are posted and gates are locked as required for the range being utilized as outlined in paragraph 2.5. Gate guards will be briefed on their duties, the training that is being conducted and perform their duties IAW West Point Reg. 350-11. Personnel acting as gate guards will:

STEP	ACTION	TAKEN
1	Greet all visitors, provide a short explanation of the training being conducted, identify the Range OICs name and location on the range, and warn of live firing as appropriate. They will direct authorized visitors to a specific location where the visitors will be met by the Range OIC. When entrance to the range is not authorized, the gate guard will advise visitors to wait or to use another route.	
2	Maintain continuous radio communications with Range Control or with the Range OIC accordingly. The arrival of visitors will be reported immediately to the Range OIC. If the gate guard is unsure whether a visitor is authorized on the range, the gate guard will contact the Range OIC for clarification before granting entrance.	
3	Remain at the gate shack or the gate if no shack is present. Maintain the assigned gate while the range is occupied.	
4	POV's will NOT be used to assist in barrier control or gate guard duty.	
5	Permit Range Control personnel and vehicles full and un-restricted access to all ranges and training areas while performing their assigned duties.	

5. Range Medical Requirements & Evacuation

5.1 Unit Medical Support Requirements

Units will comply with the following range medical support requirements:

a. Using units will provide the following medical support:

   (1) A trained medical aid person, 68W or 68Z MOS qualified. This individual will be equipped with a litter, radio communication, and a complete medical aid bag, containing all required CL VIII items that have a valid expiration date.

   (2) A dedicated medical evacuation vehicle, capable of transporting a litter, and properly equipped, and with a current PMCS. Medical aid personnel assigned to these ranges, along with the supporting medical vehicle, will not be used for any other duty.

5.1.1 Execution

a. Using unit medical personnel will review and familiarize themselves with the strip map route(s) to KACH ER and the local community hospital prior to live fire range operations are conducted.
b. Whenever the dedicated medical aid person or vehicle must leave the area for any reason the range must Cease Fire and remain in a "COLD" status until a replacement is provided, or until the assigned vehicle and medical personnel have returned to the range. Range Control will then grant the unit permission to re-open the range and place the range in a "HOT" status.
c. Medical support personnel at the range will provide treatment for minor injuries and basic first-aid for life-threatening injury or illness.
d. Medical evacuation vehicles will display all frequencies and telephone numbers in case of immediate use:
   a. Range Control Frequency is FM 46.70 or Motorola Handheld "Livefire" Channel .
   b. West Point Fire & Emergency Services Division – 845.938.5197
   c. Range Control VHF 126.20.
   d. KACH ER – 845.938.4004 / 5169.

5.2 Keller Army Community Hospital (KACH)

Injuries and/or illness requiring immediate emergency support will be immediately reported to the KACH ER, with the location of the range site for patient evacuation by KACH.

5.3 Serious Incident Report (SIR) Requirements

Full and immediate medical attention directed at the patient is the first and foremost priority. As soon as possible, the Range OIC or RSO will contact Range Control and report the medical injury/accident. Be prepared to provide at a minimum "the Five W's" (Who, What, When, Where and Why).

5.4 Emergency MEDEVAC Flight Requests

West Point does NOT have organic MEDEVAC capability to support training complex operations, therefore using units and organizations will plan medical evacuation with their own organic assets. Stat Flights are for the emergency evacuation of injured personnel by air ambulance. Only the emergency first responder on site, DES dispatcher or KACH medical personnel are authorized to request or terminate a

MEDEVAC mission. To obtain a Stat Flight, contact Range Control by Motorola Handheld "Livefire" Channel or by telephone at (845)938-3930. After Hours the Military Police Dispatch at (845)938-3333. Air Frequency is VHF 126.20.

9-LINE MEDEVAC		
ANNOUNCED		LINE INFO DESCRIPTION
LINE	LINE INFO	
1		Location of the Pick-Up site by 6-digit grid and any prominent terrain features nearby.
2		Unit Identification
3	A= B=	Number of Patients by evacuation category/precedence A=Urgent (requires immediate evacuation to prevent loss of life B=Priority (serious injury, but NOT life threatening
4	A= B= C= D=	Special equipment needed: A=none B=hoist C=extraction equipment D=ventilator
5	A= B=	Number of patients A=litter B=ambulatory
6		Number and types of wounds, injuries and illnesses
7		Method of marking landing zone/pick-up site A=panels B=pyrotechnic signal C=smoke signal D=none E=other
8		Patient nationality and status A=US military B=US civilian C=other (describe)
9		Terrain description of pick-up site, any site hazards; if none=so state

5.5 Hospital Strip Maps & Directions

5.5.1 Keller Army Community Hospital

Reference Tab 10A, Local Strip Map to Keller Army Community Hospital

5.5.2 St. Lukes Community Cornwall Campus Hospital, Cornwall, NY

Reference Tab 10B, Local Strip Map to Saint Lukes Community Hospital.

6. Range Concept of Operations

Range OIC's and RSO's should refer to FM 3-34.214, and the applicable chapters for the types of explosives and demolitions to be fired and the specific procedures associated with each.

6.1 Explosive Materials.

Explosive materials consist of blasting caps, time fuse and detonating cord.

6.1.1 Blasting Caps

a. Military blasting caps are extremely sensitive and can explode unless handled carefully. Blasting caps can detonate if exposed to extreme heat (cook of).
b. When installing caps in explosives, never force them into an explosive or cap well; the appropriate tool for making or enlarging the cap well will be used.
c. When taping the blasting cap onto the detonating cord, ensure that 1/8 to ¼ inch of the cap is clearly visible at both ends.
d. Blasting caps should NEVER be left unattended before or after attaching them to the charges or firing system.

WARNING - Never mix caps from different manufacturers or lots because this could result in misfires.

6.1.1.1 Nonelectric Blasting Caps

When using nonelectric blasting caps as an explosive material, the following procedures will be used:
a. Use ONLY authorized equipment and procedures when crimping nonelectric blasting caps to the time fuse or detonating cord.
b. Maintain blasting caps in the cap box until needed.
c. Do NOT blow into a nonelectric cap or attempt to remove any obstructions form the blasting cap well. Remove obstructions that will dislodge by using the wrist-to-wrist method.
d. Do NOT insert anything but time fuse or detonating cord into a nonelectric blasting cap. Do NOT twist the time fuse or detonating cord while attempting to insert it into a blasting cap.
e. Do NOT attempt to crimp a blasting cap that is installed in an explosive. Remove the blasting cap from the charge if the blasting cap has come loose from the time fuse or detonating cord, re-crimp the cap, and then reinstall the cap in the charge.
f. Avoid striking, pinching, and mashing nonelectric blasting caps during crimping activities. Use only M2 crimpers for all crimping operations.
g. Cut the fuse to allow an interval of NOT less than 10 seconds between firings when using nonelectric blasting caps to dual-prime demolitions.

6.1.1.2 Electric Blasting Caps

When using electric blasting caps as an explosive material the following procedures will be used:
a. Do NOT remove the short-circuiting shunt unless the cap is being tested or connected. (The shunt prevents accidental initiation by static electricity). Twist the bare ends of the lead wires together at least three times (180 degree turns) to provide a proper shunt, if the blasting cap has no shunt.
b. Always use proper grounding procedures when static electricity is present.
c. Protect the blasting caps by placing them in a metal can with a snug-fitting cover when transporting electric blasting caps near equipment with a transmitter.
d. Keep electric blasting caps at least 155 meters from energized power lines.
e. Use at least he minimum current required to fire electric blasting caps, and ALWAYs check circuit continuity before use.
f. Cover connections between blasting cap leads and firing wires with insulating tape, not the cardboard spool.

6.1.2 Time Fuse

When using time fuse the following procedures will be used:
   a. Conduct a test burn of at least 3 feet for each roll of time fuse. Perform another test burn before using the fuse if the fuse has not been used within 24 hours of the test burn.
   b. Use M2 crimpers to cut the time fuse. Use a sharp knife to cut the fuse if serviceable M2 crimpers are not available. Ensure that the fuse end is cut squarely. Make the cut on a non-sparking surface, such as wood.

NOTE: A rough or jagged-cut fuse can cause a misfire.

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   c. Avoid cutting the fuse until it is ready to be inserted into the igniter and blasting cap.
   d. Do NOT use the first or last 6 inches of the time fuse from a new or partial roll, as this helps to avoid problems from moisture infiltration).
   e. Avoid sharp bends, loops, and kinks in the time fuse, and avoid stepping on the fuse.

NOTE: Any of these conditions or actions can break the powder train and result in a misfire.

6.1.3 Detonating Cord

Detonating cord will not be carried or held around your neck. The additional 6-inch tail should not be cut off when cutting detonating cord because 6-inch tails are standard on the knots to avoid moisture infiltration. Sharp bends, loops and kinks should be avoided, and the cord should not be stepped on, as any of these conditions or actions can change the path of detonation or cause the cord to cut itself.

6.2 Bangalore Torpedo

TheM1A2 Bangalore torpedo has10 tubes, each with a 4-inch composition A3 booster (1/2 lb. each) at both ends of the 5-foot tube. The main explosive charge is 10.5 lbs. of composition B4.

The M1A3 Bangalore has 10 tubes, each with a 4-inch composition A3 booster (1/2 lb. each) at both ends of the 21/2 foot tube. The main explosive charge is 5 lbs. of composition B4.

Personnel must be a minimum of 100 meters from the charge at detonation. Personnel must be in a missile proof shelter, 300 meters if in a defilade, or 1000 meters if in the open.

6.3 Shaped Demolition Charge, M2A4 (15 lb.)

The Range OIC and RSO MUST be demolition certified.

6.4 M1 Military Dynamite

The Range OIC and RSO MUST be demolition certified.

6.5 M112 Block Demolition Charge

The Range OIC and RSO MUST be demolition certified.

6.6 TNT Block Demolition Charges

The Range OIC and RSO MUST be demolition certified.

6.7 M18A1 Claymore Mine

NOTE: Range 7 is RESTRICTED to ONLY one (1) M18A1 Claymore mine
to be emplaced and fired at a time, and by **electrical firing** ONLY..

6.7.1 M18A1 Safety Precautions

a. Before firing the Range OIC/RSO will check the mine to insure that the mine is installed correctly, and that the fragmentation face of the mine is pointed into the impact area and away from friendly troops.

b. The mine will be installed ONLY on command of the Range OIC/RSO.

c. All mines will be kept under guard until the Range OIC/RSO directs their issue.

Once the mine has been emplaced for firing it will not be disarmed, except by order of the Range OIC/RSO.The firing wire will NOT be connected to the firing device until ordered by the Range OIC/RSO.

6.7.2 M18A1 Operational Safety Factors

a. The individual installing a mine will carry the firing device on his person.
b. Mines must be installed in a manner that will prevent it from becoming disoriented.
c. Blasting caps will NOT BE inserted into the detonator wells until the mine has been emplaced in its firing position and aimed.
d. The safety bail on the firing device must be in the SAFE position after the completion of the firing circuit test.

6.7.3 M18A1 Misfire Procedures

a. Upon a misfire of an electrically employed M18A1 mine:
  1) Shout "MISFIRE".
  2) Check the firing device connection to the firing wire connector; make two (2) attempts to fire the mine.
  3) Using the M40 test set, check the continuity of the electrical firing circuit.
  4) If continuity check is good, make one (1) more attempt to fire the mine.
  5) If the mine fails to detonate, treat it as a dud and disconnect the firing wire connector from the firing device, notify Range Operations and wait 30 minutes.
  6) Notify Range Operations and the ASP for the mine to be destroyed (per TM 9-1300-206).

7. Radio Procedures

7.1 Requesting a Hot Status

RANGE: RANGE CONTROL, THIS IS RANGE 12, OVER

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. GO AHEAD, OVER.

RANGE: RANGE CONTROL, THIS IS RANGE 12. REQUEST A HOT TIME, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL, DO YOU PHYSICALLY HAVE ON SITE REQUIRED MEDICAL SUPPORT WITH EQUIPMENT, RANGE SAFETY SOP BINDER, IS THE CHAIN LINK BARRIER UP AT THE RG 11 ENTRANCE TO RG 12, IS THE RED RANGE FLAG FLYING, GATE GUARD WITH COMMO, AND AIRSPACE BEEN SECURED, OVER.

RANGE: RANGE CONTROL, THIS IS RANGE 12, YES, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. I GIVE YOU A HOT TIME OF _____ HOURS. MY INITIALS ARE _____. CONFIRM HOT TIME AND SEND YOUR RANGE OIC INITIALS, OVER.

RANGE: RANGE CONTROL, THIS IS RANGE 12. I CONFIRM HOT TIME OF _____. RANGE OIC INITIALS ARE _____, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. NOTIFY RANGE CONTROL WHEN FIRST ROUND IS FIRED DOWN RANGE. CONDUCT RADIO CHECKS WITH RANGE CONTROL HOURLY AT THE TOP OF THE HOUR, YOUR FIRST RADIO CHECK IS DUE AT _____. RANGE CONTROL OUT.

7.2 Reporting First Detonation Fired Down Range

RANGE: RANGE CONTROL, THIS IS RANGE 12, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. GO AHEAD, OVER.

RANGE: RANGE CONTROL, THIS IS RANGE 12. FIRST DETONATION FIRED DOWN RANGE, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. I COPY FIRST DETONATION FIRED DOWN RANGE AT _____, RANGE CONTROL OUT.

7.3 Reporting Last Detonation Fired Down Range

RANGE: RANGE CONTROL, THIS IS RANGE 12, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. GO AHEAD, OVER.

RANGE: RANGE CONTROL, THIS IS RANGE 12. LAST DETONATION FIRED DOWN RANGE, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. I COPY LAST DETONATION FIRED DOWN RANGE AT _____, RANGE CONTROL OUT.

7.4 Requesting a Cold Status

RANGE: RANGE CONTROL, THIS IS RANGE 12, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. GO AHEAD, OVER.

RANGE: RANGE CONTROL, THIS IS RANGE 12. REQUEST A COLD TIME, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. I GIVE YOU A COLD TIME OF _____. MY INITIALS ARE _____. CONFIRM COLD TIME, SEND YOU RANGE OIC INITIALS, YOUR AMMUNITION QUANTITY EXPENDED BY TYPE/DODAC AND THE NUMBER OF PERSONNEL TRAINED, OVER.

RANGE: RANGE CONTROL, THIS IS RANGE 12. I CONFIRM COLD TIME OF _____. RANGE OIC INITIALS ARE _____. _____ (#) ROUNDS OF _____ (DODAC) EXPENDED, WITH _____ (#) PERSONNEL TRAINED, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL, ROGER, OUT.

7.5 Requesting a Cease Fire Time

RANGE: RANGE CONTROL, THIS IS RANGE 12, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. GO AHEAD, OVER.

RANGE: THIS IS RANGE 12, REQUEST A CEASE FIRE TIME, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. I GIVE YOU A CEASE FIRE TIME OF _____ HOURS. MY INITIALS ARE _____. CONFIRM CEASE FIRE / ADMIN COLD TIME AND PROVIDE YOUR RANGE OIC INITIALS, OVER.

RANGE: RANGE CONTROL, THIS IS RANGE 12. I CONFIRM CEASE FIRE TIME OF _____. MY RANGE OIC INITIALS ARE _____, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL, ROGER, OUT.

7.6 Requesting to Lift Cease Fire Time

RANGE: RANGE CONTROL, THIS IS RANGE 12, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. GO AHEAD, OVER.

RANGE: RANGE CONTROL, THIS IS RANGE 12. REQUEST TO LIFE CEASE FIRE TIME AND RETURN TO A HOT STATUS, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. I LIFT YOUR CEASE FIRE TIME STATUS AND PLACE YOU BACK INTO A HOT STATUS AT _____ HOURS. MY INITIALS ARE _____. CONFIRM RETURN TO HOT STATUS AND PROVIDE YOUR RANGE OIC INITIALS, OVER.

RANGE: RANGE CONTROL, THIS IS RANGE 12. I CONFIRM RETURN TO HOT STATUS TIME OF _____. MY RANGE OIC INITIALS ARE _____, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL, ROGER, OUT.

7.7 Change of OIC / RSO.

RANGE: RANGE CONTROL, THIS IS RANGE 12, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. GO AHEAD, OVER.

RANGE: RANGE CONTROL, THIS IS RANGE 12. REQUEST A CHANGE OF OIC (or RSO), OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. SEND THE LAST NAME AND THE INITIALS OF THE NEW RANGE OIC (or RSO), WITH YOUR INITIALS, OVER.

RANGE: RANGE CONTROL, THIS IS RANGE 12. NEW OIC / RSO LAST NAME IS _____, NEW OIC / RSO INITIALS ARE _____. MY INITIALS ARE _____, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL. ROGER, OUT.

7.8 Requesting a Radio Check (Hourly at the Top of the Hour)

RANGE: RANGE CONTROL, THIS IS RANGE 12. RADIO CHECK, OVER.

RANGE CONTROL: RANGE 12, THIS IS RANGE CONTROL, ROGER RADIO CHECK, OUT.

8. Range Safety Brief

All firers will be briefed on the following items. This general safety brief in not all inclusive and requires the Range OIC / RSO to include commander's guidance, and/or any unit specific or other situational dependent areas of concern.
NOTE: Insert range, weapon and course of fire specifics that are required and/or applicable.

1. Identify the Range Officer in Charge (OIC) and the Range Safety Officer (RSO) at a minimum.
2. Identify the Location of Range Staff Cadre:
   a) Range OIC and RSO
   b) Assistant Range Safeties
   c) Medic & the Evacuation Vehicle
   d) Ammo Issue Point/Breakdown Building and CL V NCO
   e) Others as required
3. Prescribed uniforms and personal protection requirements (hearing, eye, helmet and IBA as applicable and required) while on the range.
4. Course of fire and standards for the explosives and/or demolitions systems being used.
5. Locations: Break/Smoking Areas, latrines, mess area, firing line and/or firing points, parking and bleacher site. Also include any off limit or restricted areas.
6. Ammunition holding area/ issue point procedures & security.
7. Procedures for Medical Emergency.
8. Procedures for range fires.
9. Severe weather plan, environmental requirements, issues and concerns.
10. Leave all WILDLIFE at this range alone.
11. ALL VEHICLES on this Range will have a GROUND GUIDE.
12. Movement to and from the demolition emplacement area is directed by OIC.
13. NO pushing, NO shoving or horseplay at ANY time.
14. Unit is responsible for a personnel & vehicle shakedown. No one will leave the range until this has been completed.
15. If you observe ANY UNSAFE situation, personnel, vehicles, aircraft, or wildlife down range call & indicate "CEASE FIRE" IMMEDIATELY everyone on the firing line echo "CEASE FIRE". Place all weapons on safe until the OIC or RSO have investigated the situation and declared it safe to resume training.
16. While on this Range you will take ALL COMMANDS FROM THE TOWER.

9. Risk Management & Mitigation

Range OIC will review, add and update DA Form 2977, Deliberate Risk Assessment Worksheet.

INSERT APPLICABLE RANGE
CRM WORKSHEET
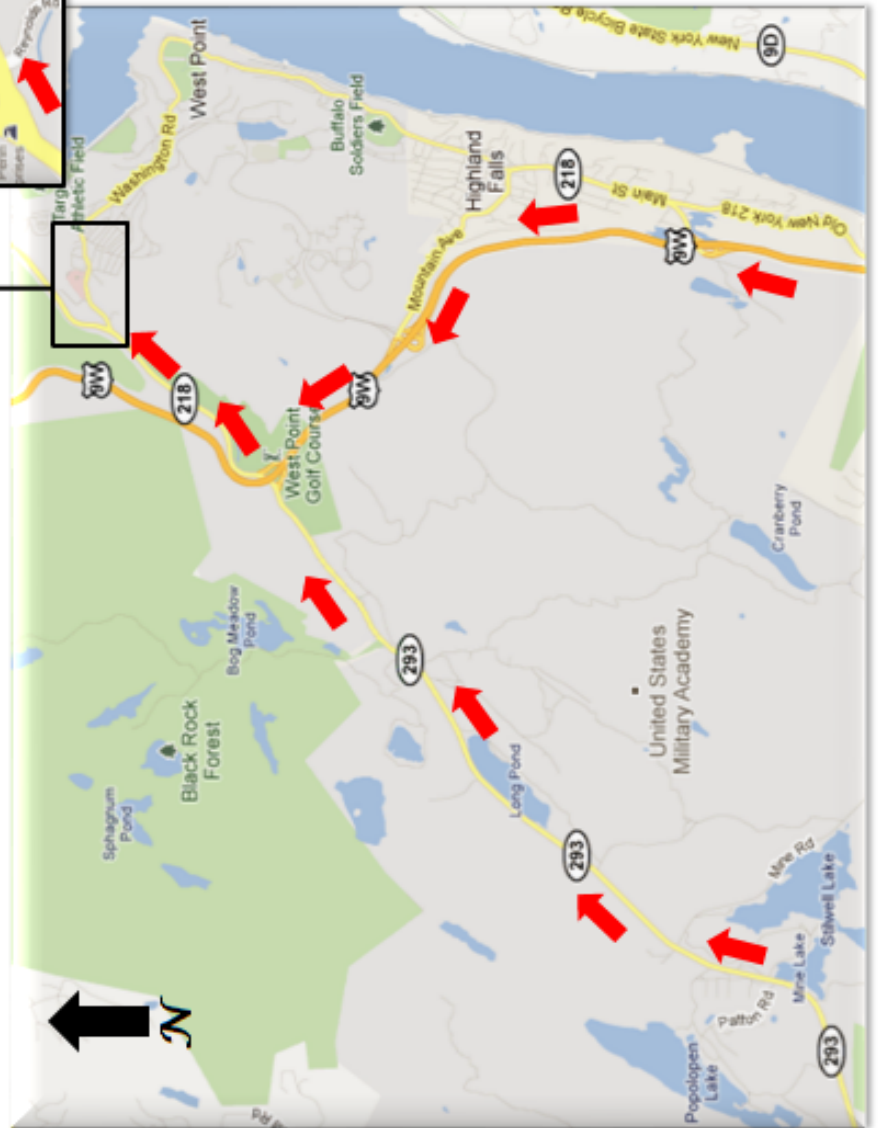
10. Reference Information, Reports & Forms

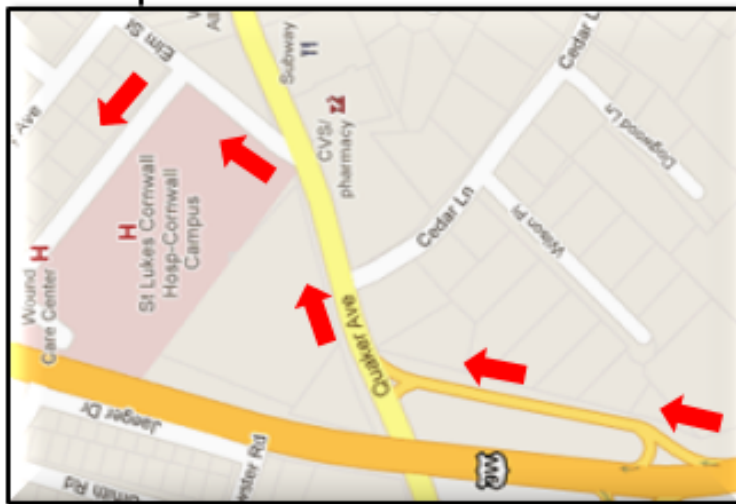| INDEX	
TAB	**NAME**
10A	Local Strip Map to Keller Army Community Hospital
10B	Local Strip Map to Saint Lukes Cornwall Community Hospital
10C	Open

DIRECTIONS
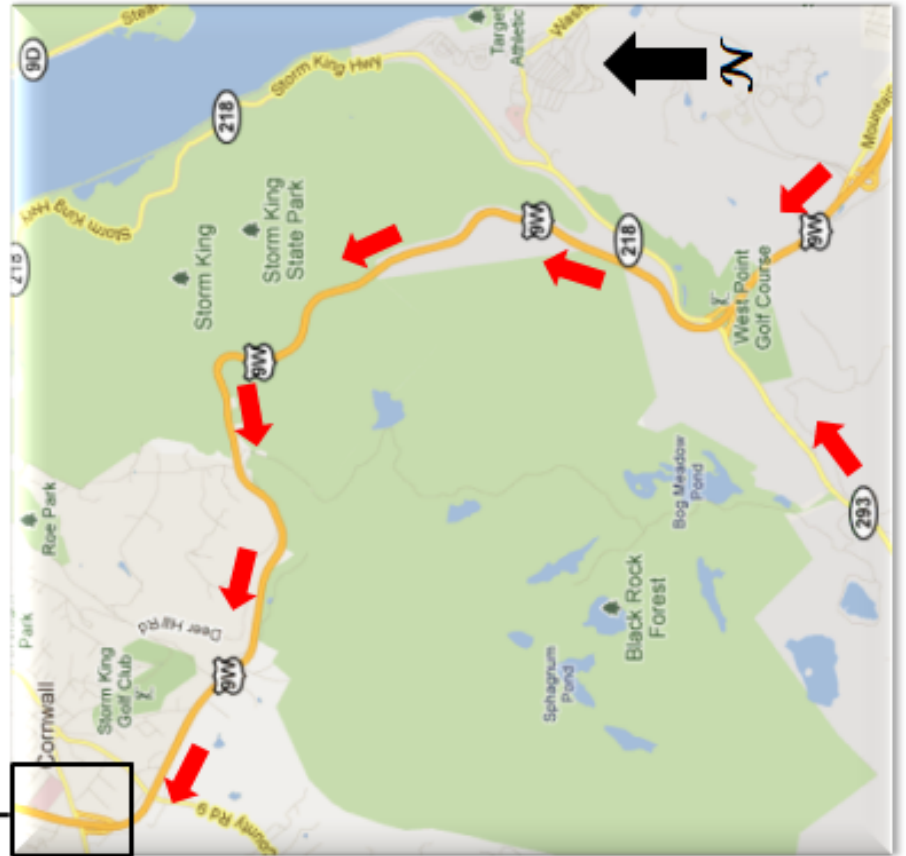
North on Route 293 or 9W.

Exit onto Route 218 N (approx. 1.2 miles to Washington Road Gate).

Enter Installation via Washington Road Gate.

Keller Army Community Hospital is on the left (approx. 3/10 miles from Washington Road gate).

LOCAL STRIP MAP TO KELLER ARMY COMMUNITY HOSPITAL
Phone #: (845) 938-4004

Tab 10A – Strip Map – Keller Army Community Hospital

**LOCAL STRIP MAP TO
ST. LUKES WOUND CARE CENTER
&
ST. LUKES CORNWALL HOSPTIAL
Phone #: (845) 458-4512**

DIRECTIONS

☐ North on Route 293 or 9W.

☐ Continue North on 9W to Cornwall.

☐ Exit 9W onto Quaker Ave exit.

☐ Turn left onto Elm Street.

Tab 10B – Strip Map to St. Lukes Cornwall Hospital