ALL-WEATHER ANNUAL RIFLE TRAINING DATABOOK M16A4/M4 SERVICE RIFLE WITH M7 RCO

LAST NAME, INITIALS:	
UNIT:	
WEAPON SERIAL #:	RCO SERIAL #:
RANGE: TARGET:	RELAY: DATE:

Rite in the Rain.

USE A PENCIL
—— or ——
ALL-WEATHER PEN

COLLIMATOR	SETTING	AFIMO
ALPHA N	UMERIC 1 5 9 13 17	3 7 11 15 C G K O
BUIS BZO	ELEV	WIND

Rifleman's Creed

THIS IS MY RIFLE.

There are many like it, but this one is mine. My rifle is my best friend. It is my life. I must master it as I must master my life.

My rifle, without me, is useless. Without my rifle, I am useless. I must fire my rifle true. I must shoot straighter than my enemy who is trying to kill me. I must shoot him before he shoots me. I will...

My rifle and myself know that what counts in this war is not the rounds we fire, the noise of our burst, nor the smoke we make. We know that it is the hits that count.

We will hit...

My rifle is human, even as I, because it is my life. Thus, I will learn it as a brother. I will learn its weaknesses, its strength, its parts, its accessories, its sights and its barrel. I will keep my rifle clean and ready, even as I am clean and ready. We will become part of each other.

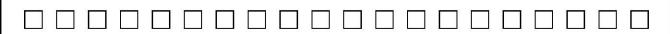
We will...

Before God, I swear this creed. My rifle and myself are the defenders of my country. We are the masters of our enemy.

We are the saviors of my life...

So be it, until victory is America's and there is no enemy, but peace!

-Major General William H. Rupertus -





1. TREAT EVERY WEAPON AS IF IT WERE LOADED.

- NEVER POINT A WEAPON AT ANYTHING YOU DO NOT INTEND TO SHOOT.
- 3. KEEP YOUR FINGER STRAIGHT AND OFF THE TRIGGER UNTIL YOU ARE READY TO FIRE.
- 4. KEEP THE WEAPON ON SAFE UNTIL YOU INTEND TO FIRE.

WEAPONS HANDLING

	WEAPON CONDITIONS
CONDITION 1	SAFETY ON, MAGAZINE INSERTED, ROUND IN CHAMBER, BOLT FORWARD, EJECTION PORT COVER CLOSED.
CONDITION 2	NOT APPLICABLE TO THE M16A4 RIFLE.
CONDITION 3	SAFETY ON, MAGAZINE INSERTED, CHAMBER EMPTY, BOLT FORWARD, EJECTION PORT COVER CLOSED.
CONDITION 4	SAFETY ON, MAGAZINE REMOVED, CHAMBER EMPTY, BOLT FORWARD, EJECTION PORT COVER CLOSED.

WEAPON COMMANDS				
"MAKE A CONDITION 3 WEAPON"	TAKES THE WEAPON FROM CONDITION 4 TO CONDITION 3			
"MAKE A CONDITION 1 WEAPON "	TAKES THE WEAPON FROM CONDITION 3 TO CONDITION 1			
"FIRE"	ENGAGE TARGET(S)			
"CEASE FIRE"	CEASE TARGET ENGAGEMENT			
"MAKE A CONDITION 4 WEAPON"	TAKES THE WEAPON FROM ANY CONDITION TO CONDITION 4			
"SHOW CLEAR"	REQUIRES A SECOND INDIVIDUAL TO INSPECT THE WEAPON BEFORE THE WEAPON IS PLACED INTO CONDITION 4			



USER SERVICEABILITY INSPECTION

Perform a user serviceability inspection before beginning live fire to ensure the weapon is in acceptable operating condition. This inspection complements, but does not replace, the pre-fire inspection (PFI) conducted by a qualified armorer. Specific inspection areas are:

- 1. Weapon is in Condition 4.
- 2. Compensator: Centered, and tight.
- 3. Barrel: Tight.
- 4. BUIS tightly secured to rail system, adjustable, straight. Front Sight Post: Adjustable, straight, shape.
- 5. Rail System: Securely mounted to barrel nut and no cracks or chips.
- Sighting System: RCO attached correctly and secured, lenses not cracked, scratched, or broken, and reticle not canted.
- 7. Stock: Tight on lower receiver, then break weapon down shotgun style.
- 8. Chamber/barrel: Remove bolt carrier group; clear of obstructions, no major pitts or cracks.
- 9. Gas System: Check for cracks, chips, bulges, dents, carbon build up. Ensure piston rod is not bent.
- 10.Bolt Carrier Group: Properly assembled, operates correctly, check for cracks, fractures, or missing components. Inspect firing pin for straightness, cracks, blunt or sharp end.
- 11. Lubrication: Lubricated for operational condition and climate, replace bolt carrier group, and reassemble weapon.

FUNCTION CHECK

A function check is performed after reassembling the rifle to ensure the rifle is operational.

- 1. Ensure rifle is in Condition 4.
- 2. Pull charging handle to rear and release. Ensure selector lever is on SAFE. Move the trigger to the rear hammer should not fall.
- 3. Place selector lever on SEMI. Move the trigger to the rear and <u>hold to rear</u> hammer should fall. While holding the trigger to the rear, pull charging handle to rear and release. Release trigger until you hear a "clunk".
- 4. Place selector lever on AUTO, pull the charging handle to the rear then move the trigger to the rear and **hold** to rear hammer should fall. While holding the trigger to the rear, pull charging handle to rear and release then release and move the trigger. The hammer should not fall. The AUTO sear should have released the hammer while holding the trigger to the rear. With the hammer in the forward position, attempt to place the selector lever on SAFE, it should not move.
- 5. Pull charging handle to rear and release. Place selector lever on SAFE, close ejection port cover.



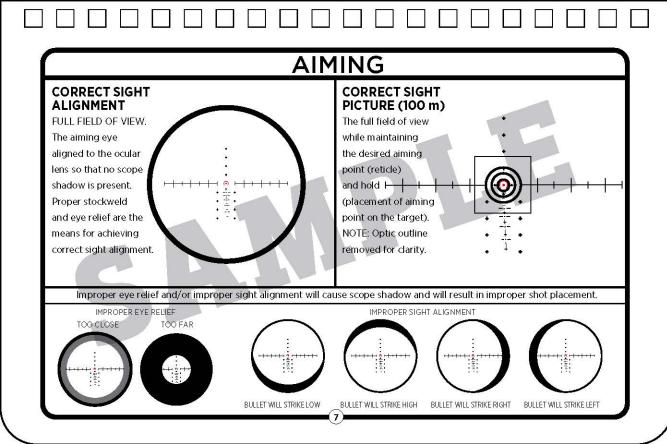
CORRECTIVE ACTION

Corrective action is the process of identifying the cause of a stoppage, clearing the stoppage, and returning the weapon to operation.

INDICATOR	CORRECTIVE ACTION			
Bolt is forward or ejection port cover closed.	Observe, taprack, bang.			
Bolt is locked to the rear.	Observe, conduct a speed reload.			
Brass is obstructing chamber area. (Usually indicates double feed or failure to eject)	Observe, lock bolt to rear, remove magazine. Clear out the obstruction. Conduct a reload.			
Brass stuck above the bolt.	Observe, place the weapon on SAFE, remove the magazine. Hold the bolt face back with a sturdy object while pushing forward on the charging handle to clear obstruction. Conduct reload.			
Audible pop (reduced report), reduced recoil, or excessive smoke escaping from the chamber area. (May indicate a bullet is lodged in the bore)	 STOP FIRING! Observe, Place weapon in Condition 4. Push rear take down pin all the way, pivot lower receiver. Remove bolt carrier. Inspect bore for obstruction by projectile. Insert cleaning rod into bore from muzzle end and clear obstruction. Reload, sight in, and attempt to fire (take weapon to an armorer if in training). 			

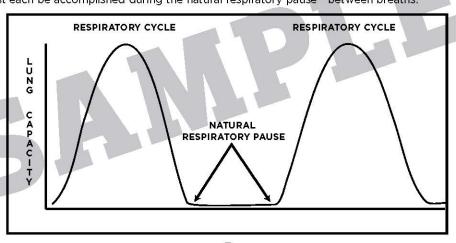
7 COMMON FACTORS OF SHOOTING POSITIONS

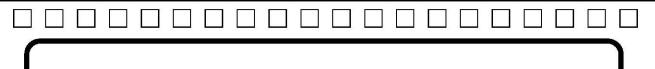




BREATH CONTROL

Breathing causes the body to move, which is transferred to the rifle, making it impossible to maintain sight picture. Therefore, natural point of aim, aiming refinement and shot delivery must each be accomplished during the natural respiratory pause - between breaths.





TRIGGER CONTROL

TRIGGER CONTROL

Trigger Control is the skillful manipulation of the trigger to the rear that causes the rifle to fire without disturbing sight alignment or sight picture.

UNINTERRUPTED TRIGGER CONTROL

Uninterrupted trigger control is when the trigger is moved straight to the rear with a single, smooth motion.

INTERRUPTED TRIGGER CONTROL

Interrupted trigger control is when trigger pressure is interrupted when an error in the aiming process is detected. The applied pressure is kept on the trigger until the error is corrected.

Common Errors

- Lateral movement of the trigger (not straight to the rear)
- Grip pressure: trigger finger not moving independently from the hand and other fingers

FOLLOW-THROUGH / RECOIL RECOVERY

As a shot is fired, the natural recoil of a weapon will test a shooter's position. If proper bone support, muscular control and natural point of aim are applied, the weapon will return to the shooter's natural point of aim, ready for another shot.

FOLLOW-THROUGH - Follow-through is the continued application of the fundamentals until the round has exited the barrel. In combat, follow-through is important to avoid altering the impact of the round by keeping the rifle as still as possible until the round exits the barrel.

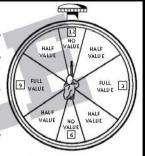
RECOIL RECOVERY - Management of recoil in preparation to deliver a follow-on shot. Pressure on the trigger is released smoothly until you hear and feel the trigger reset with a "clunk". The finger remains on the trigger to provide consistency in trigger control while firing successive shots.

Common

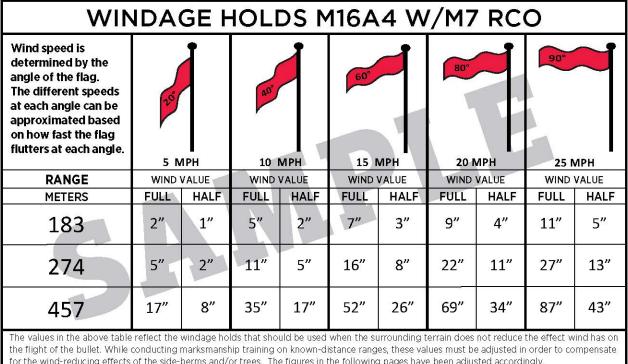
- Trigger Control: removing the finger from the trigger
- Anticipation bucking, flinching
- Position natural point of aim not achieved, forward elbow not providing vertical support

WIND

,	CLASSIFICATION					
DIRECTION	Determine wind direction by observing the direction vegetation is moving, by feeling the wind blow against the body, or by observing the direction of a flag.					
VALUE	Winds are classified according to the direction from which they are blowing in relation to the direction of fire. The clock system indicates wind direction and value. The target is always at 12 o'clock.					



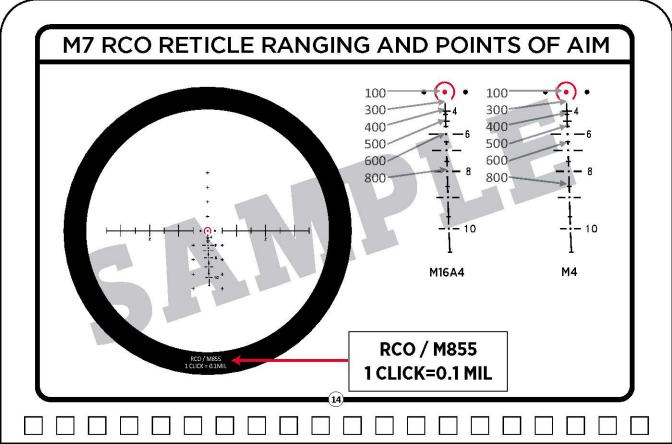
	VELOCITY (OBSERVATION METHOD)					
Under 3 MPH	The wind can hardly be felt on the face, but the presence of a slight wind can be detected by drifting smoke.					
3 - 5 MPH	Wind can be felt lightly on the face.					
5 - 8 MPH	Wind keeps tree leaves in constant motion.					
8 - 12 MPH	Wind will raise dust and loose paper.					
12 - 15 MPH	Wind will cause small trees to sway.					
15 - 25 MPH	Wind will cause large trees to sway.					



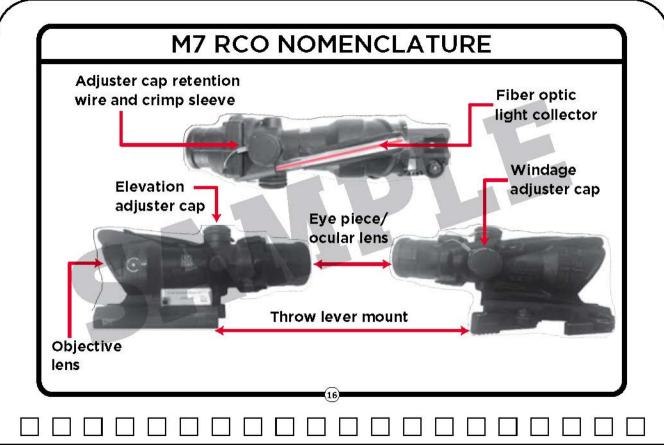
for the wind-reducing effects of the side-berms and/or trees. The figures in the following pages have been adjusted accordingly.

WINDAGE HOLDS M4 W/M7 RCO Wind speed is 90° determined by the 80° angle of the flag. The different speeds at each angle can be approximated based on how fast the flag flutters at each angle. 5 MPH **10 MPH 15 MPH 20 MPH 25 MPH** RANGE WIND VALUE WIND VALUE WIND VALUE WIND VALUE WIND VALUE **METERS** HALF **FULL** HALF HALF FULL FULL HALF **FULL FULL** HALF 183 3" 5" 2" 8" 4" 10" 5" 9" 19" 274 6" 3" 13" 6" 18" 9" 25" 12" 32" 16" 10" 40" 20" 60" 30" 81" 40" 101" 457 20" 50" The values in the above table reflect the windage holds that should be used when the surrounding terrain does not reduce the effect wind has on

the flight of the bullet. While conducting marksmanship training on known-distance ranges, these values must be adjusted in order to compensate for the wind-reducing effects of the side-berms and/or trees. The figures in the following pages have been adjusted accordingly.



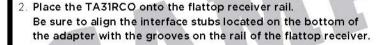
	DEFINITIONS					
AIMING POINT	The precise point where the tip of the front sight post or squad day optic reticle pattern is placed in relationship to target.					
ZERO (RCO)	Elevation and windage settings required to place a single shot or the center of a shot group in a predesignated location on a target 100 meters/yards, from a specific firing position, under ideal weather conditions.					
HOLD (RCO) The placement of the aiming point relative to the target required to place a single shot, or the center of a shot group, in a predesignated location on a target at a specific range, from a specific firing position, under specific weather conditions						
ZERO (BUIS)	Elevation and windage settings required to place a single shot or the center of a shot group in a predesignated location on a target at a specific range, from a specific firing position, under specific weather conditions.					
TRUE ZERO (BUIS)	The elevation and windage settings that are required to place a single shot or the center of a shot group, in a predesignated location on a target at a specific range, from a specific firing position, under ideal weather conditions.					
	(IS)					





MOUNTING THE M7 RCO

Prior to attempting to mount the optic, open the throw levers.
 Throw levers should be on the right side of the mount.



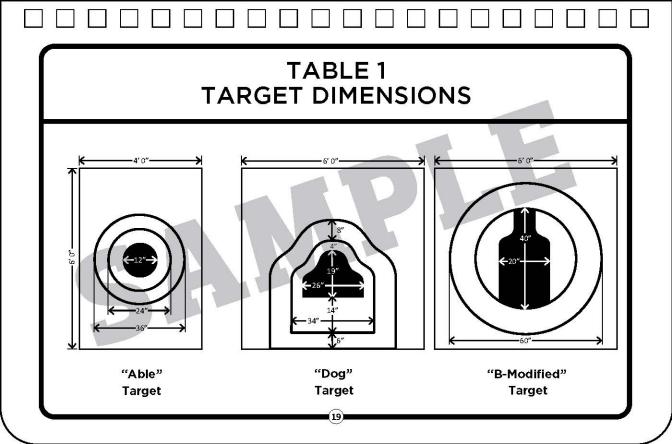
3. The TA31RCO can be placed in any of the slots on top of the receiver to allow for proper eye relief adjustment. Once the ideal position has been determined, apply <u>forward pressure</u> on the optic and move the throw levers into the locked position (move the levers back toward the stock).

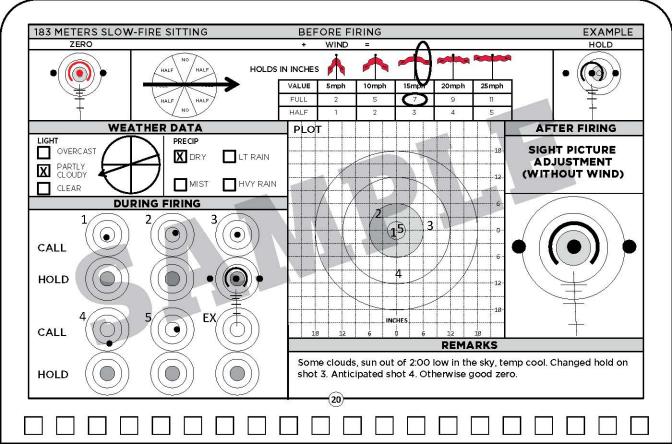


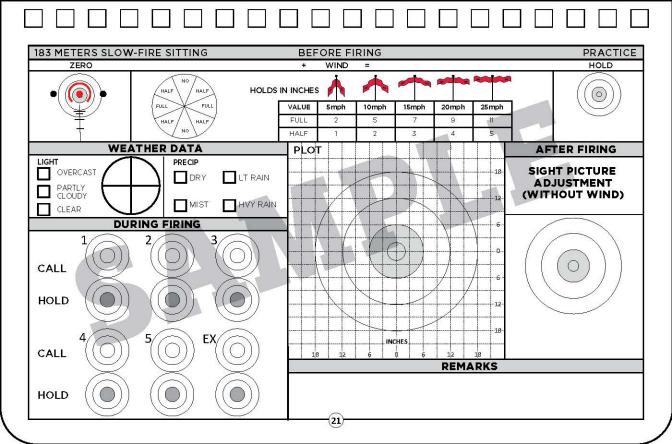


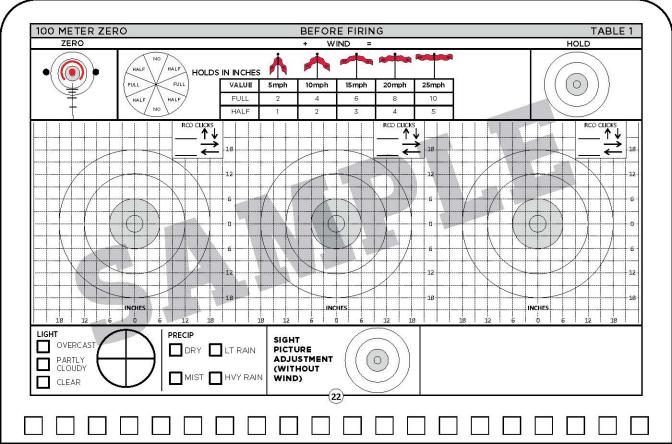
TABLE 1A COURSE OF FIRE

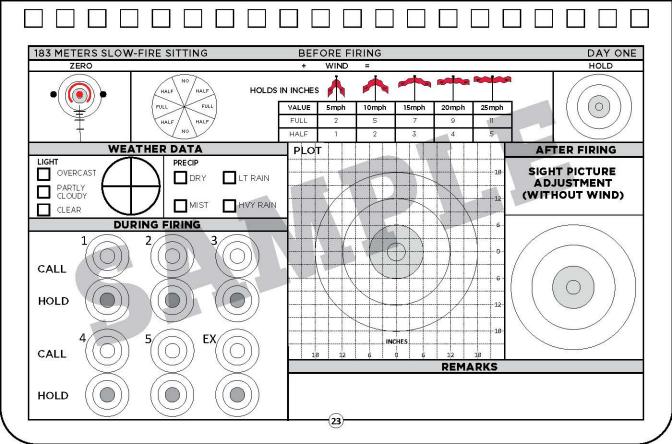
BLOCK / DAY		STAGE	RANGE IN METERS	TIME	АММО	FILL PLAN # MAGS / # RNDS EA.	TARGET	POSITION	SLING
1 & 2	1	SLOW-FIRE	183	25 MIN	20	4/5	ABLE	SITTING KNEELING STANDING ANY	AS DESIGNED
	2	RAPID-FIRE		60 SEC 60 SEC	20	2/10	DOG	SITTING	
	3	SLOW-FIRE		5 MIN	5	1/5	ABLE	SITTING	
	4	RAPID-FIRE	274	60 SEC 60 SEC	20	2/10	DOG	STANDING TO PRONE	
	5	SLOW-FIRE	457	15 MIN	1 5	1/10	B-MOD.	PRONE	
	1	SLOW-FIRE	183	20 MIN	15	3/5	ABLE	SITTING KNEELING STANDING	
	2	RAPID-FIRE		60 SEC	10	1/10	DOG	SITTING	AS
3	3	SLOW-FIRE		5 MIN	5	1/5	ABLE	SITTING	DESIGNED
100	4	RAPID-FIRE	274	60 SEC	10	1/10	DOG	STANDING TO PRONE	
	5	SLOW-FIRE	457	10 MIN	10	1/10	B-MOD.	PRONE	
(18)									

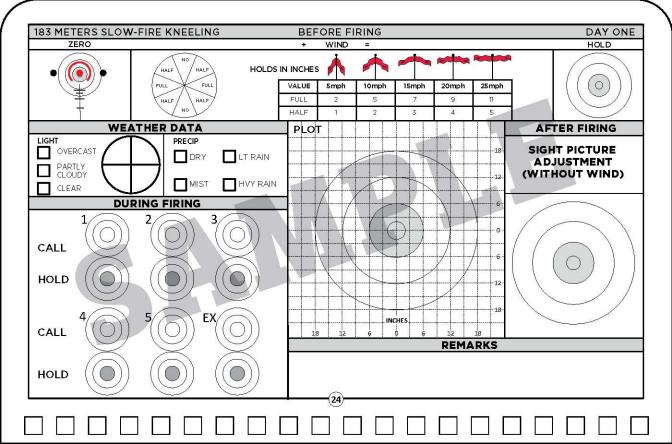


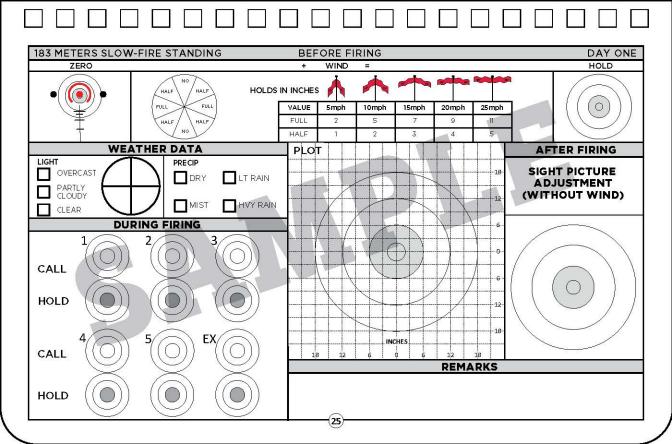


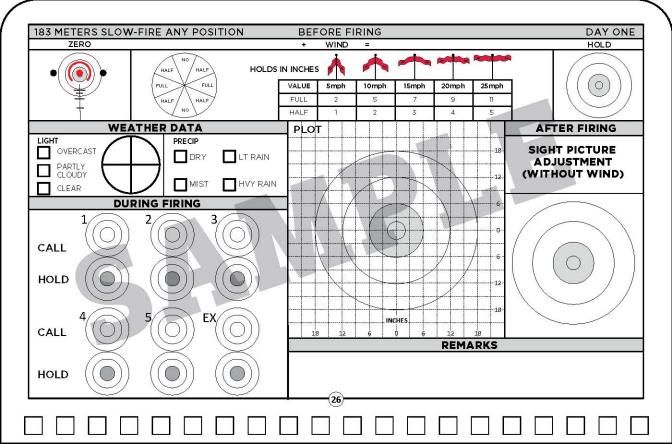


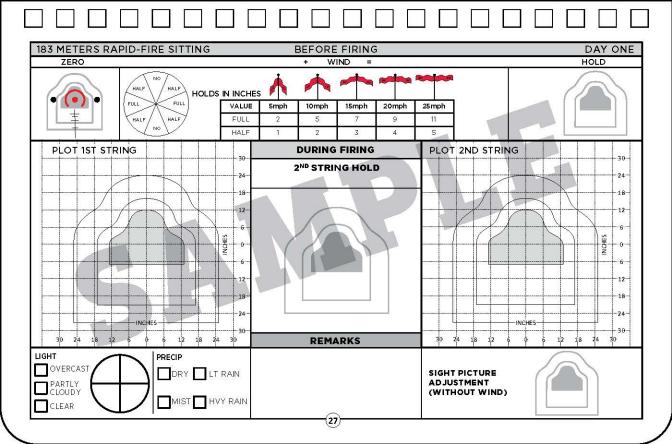


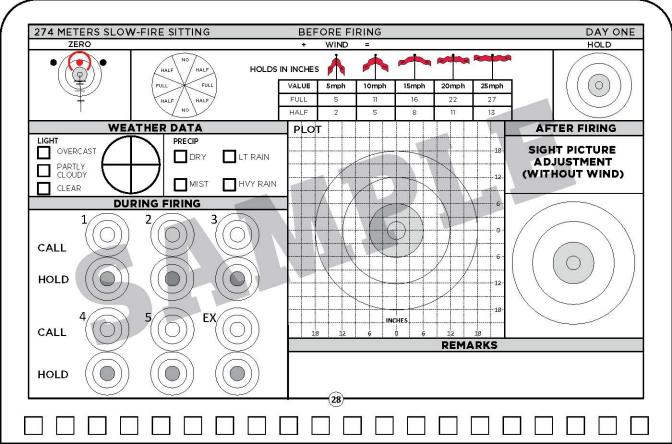


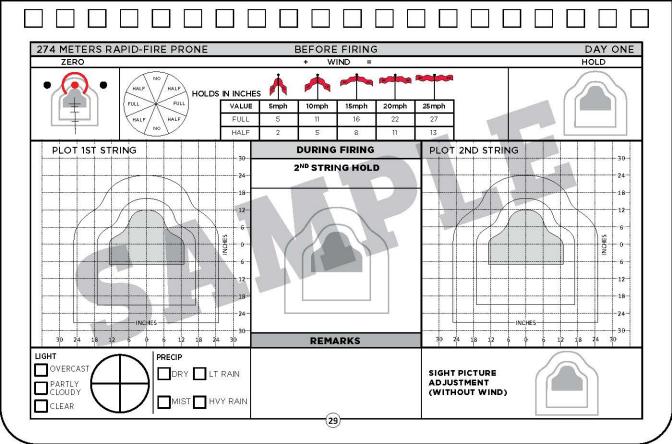


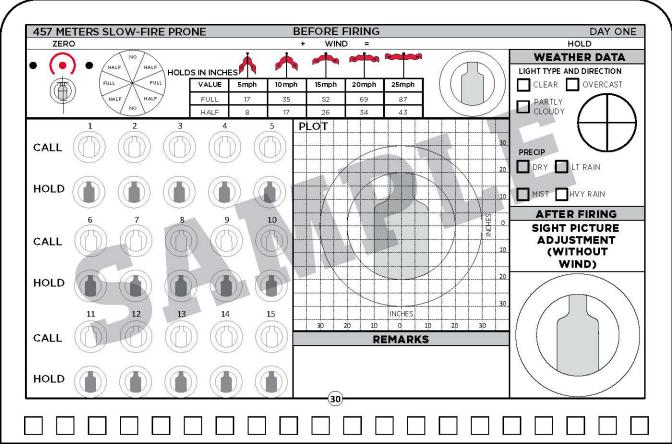


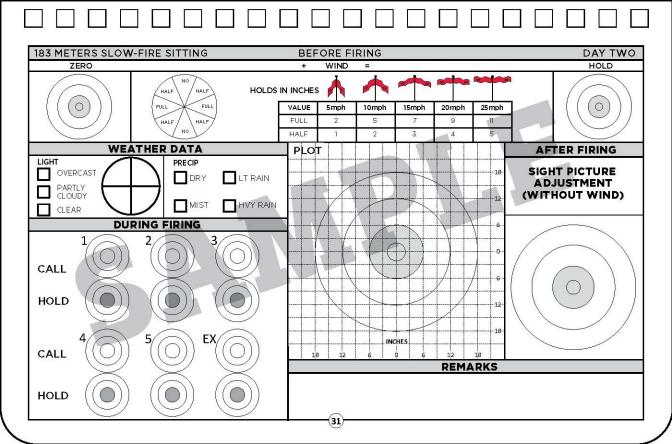


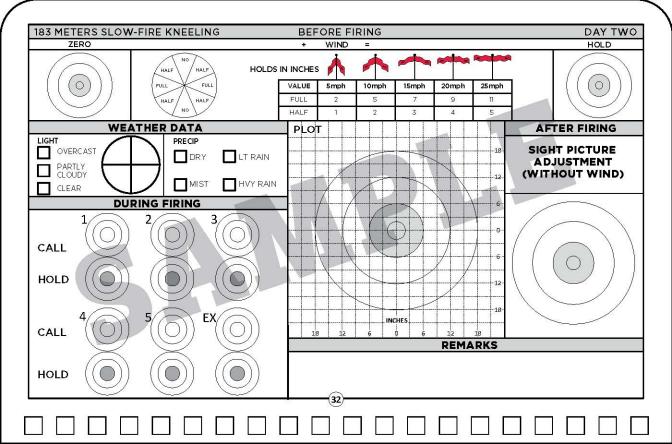


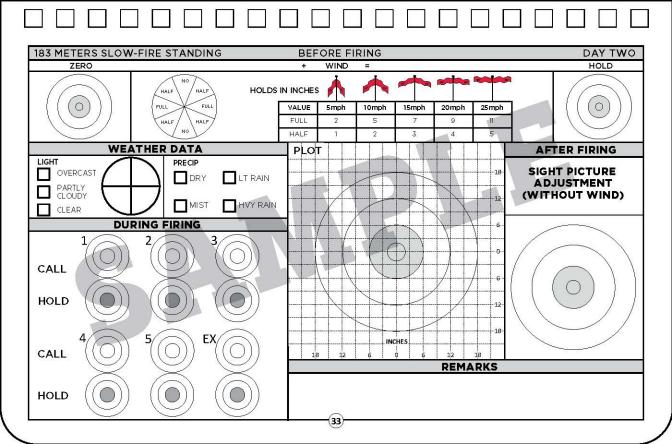


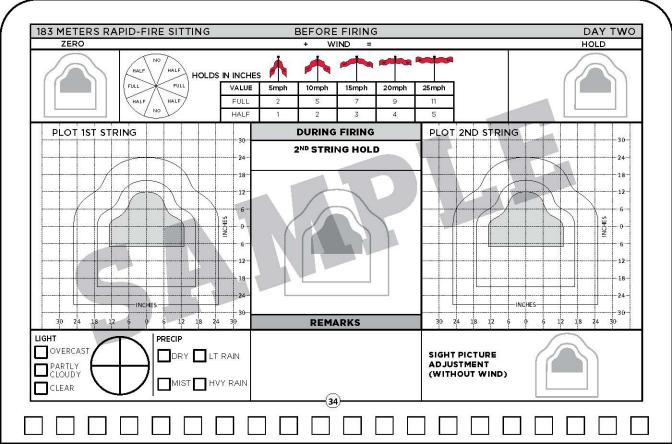


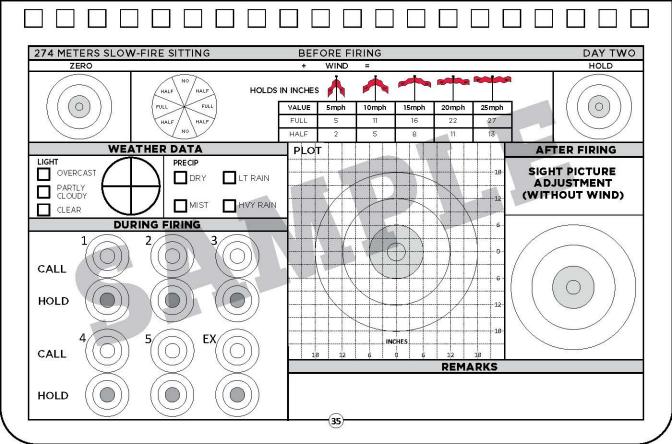


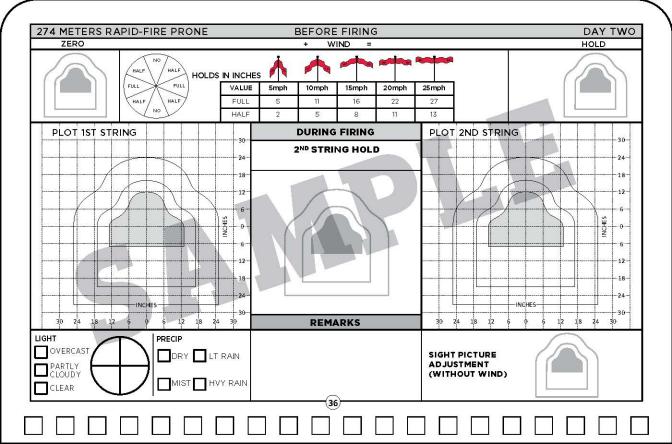


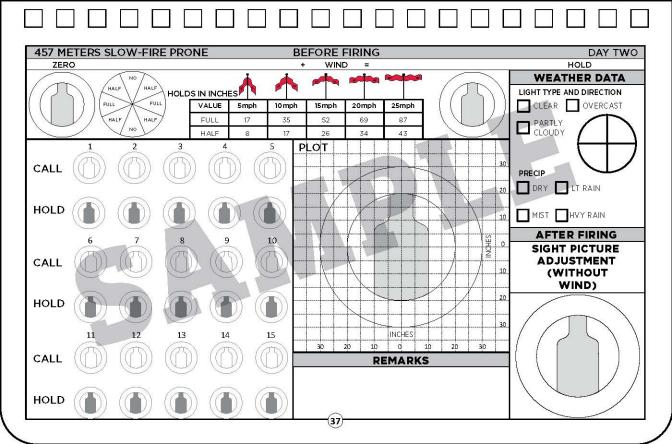


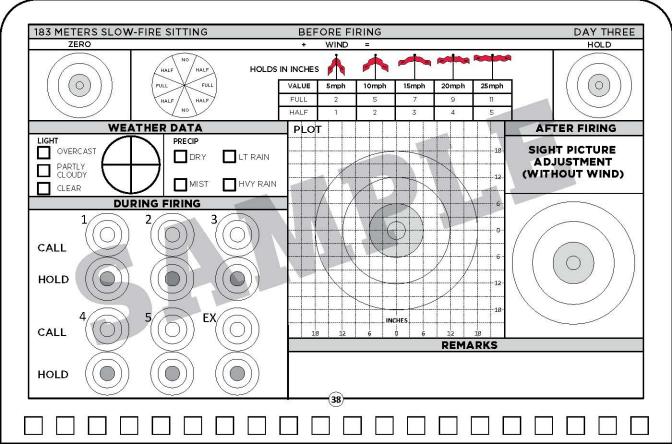


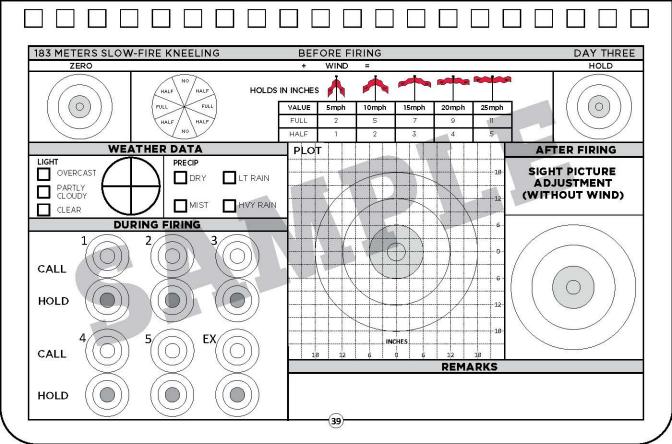


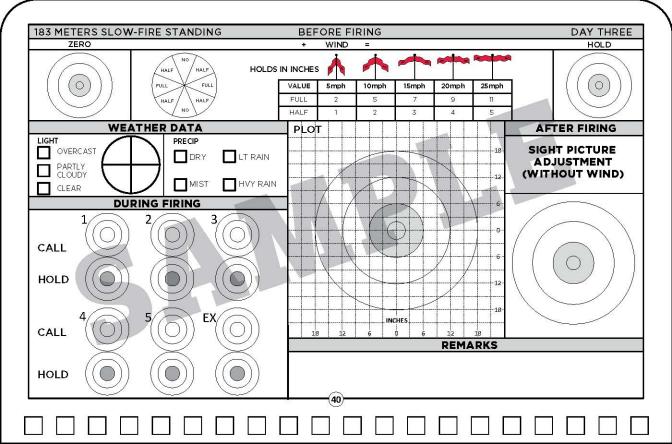


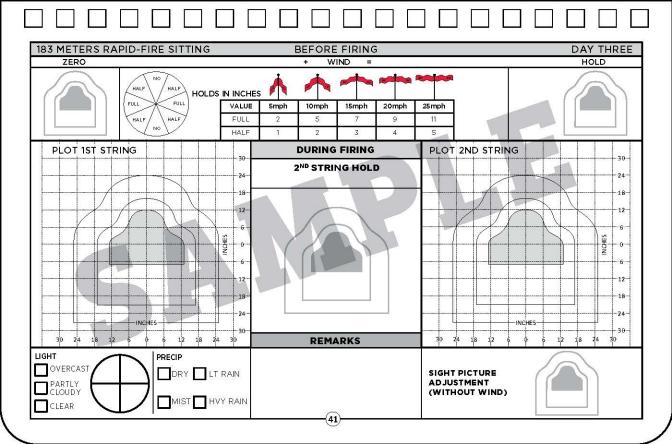


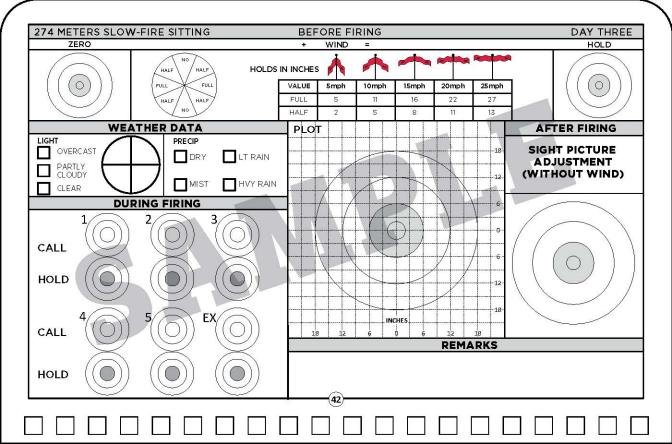


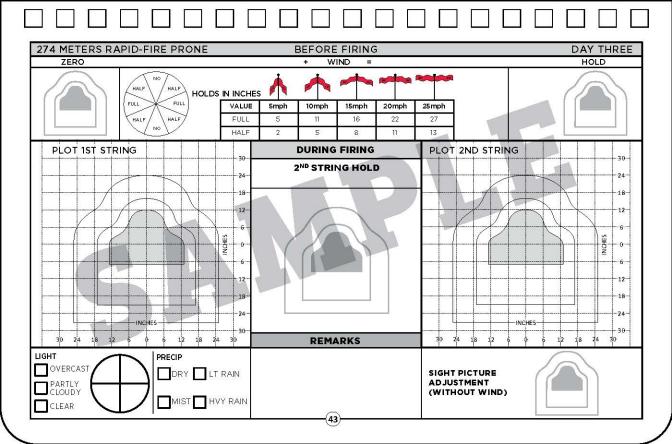












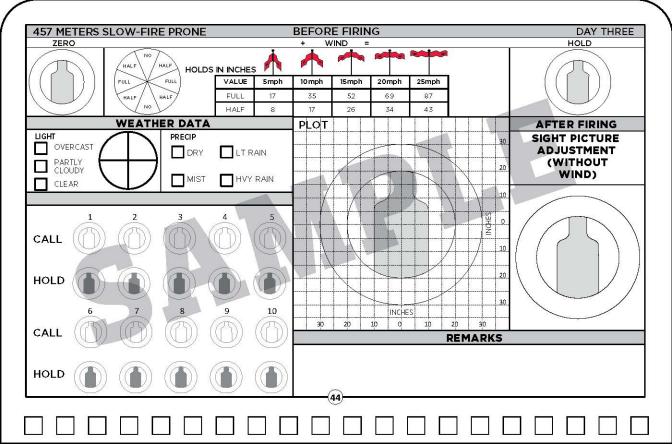


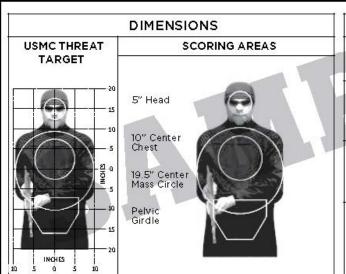


TABLE 2

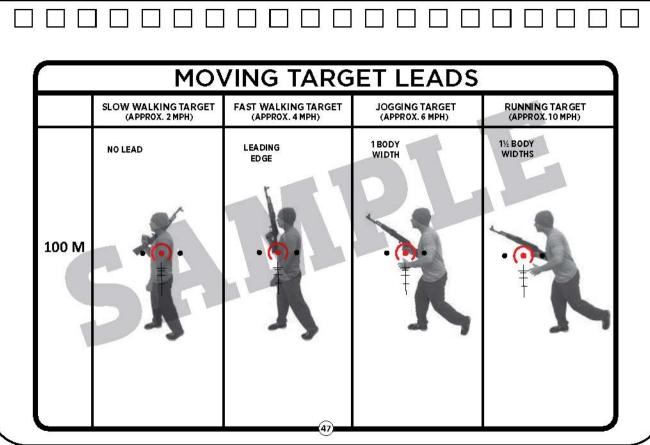
SHOT DELIVERY

CONTROLLED PAIR	Two shots in quick succession to the torso with a separate sight picture for each shot. A Controlled Pair is an immediate target engagement technique for targets greater than 15 meters.
FAILURE TO STOP	This is a controlled pair to the torso followed by an additional shot to an alternate aiming point ("T-Box" or Pelvic Girdle).
	A method of engaging multiple targets:
"BOX DRILL"	1) Start with the greatest threat and fire a pair to the torso. Utilize the recoil of the last shot and present your weapon to the next target and fire another pair.
	2) Assess the same target. Then, if required, engage an alternate aim point.
	3) Utilize the recoil of the last shot and present your weapon to an alternate aim point on the first target. Aim and fire a single shot. Follow through back to the same alternate aim point and then assess both targets.
	This is referred to as a box drill due to its square method of shot placement.

TABLE 2 TARGETS



SCORING AREAS			
5" Head	A shot placed in the center of a human head will destroy the brain and cause immediate incapacitation and loss of life.		
10" Center Chest	A shot through the heart or the connecting vascular structure will likely cause the target to bleed to death within 10-30 seconds.		
19.5" Center Mass Circle	A shot placed in the 19.5" center mass area will cause trauma of tissue, organs, and may disable the theat.		
Pelvic Girdle	Destruction of the pelvic bone will likely cause the target to become immobile, which will allow you more space and time for follow on shots.		



SCORING

	Points possible	Qualification
Table 1	250	≥ 190 points
Table 2	100	≥ 60 points

Aggregate Score

