



Marksmanship Training

243 Ogopogo Royal Canadian Air Cadets

November 2021

Capt Nobakht, O

Attendance Secret word: **Marksmanship**



Reference: <http://www.758argus.ca/wp-content/uploads/2015/06/Cadet-Marksmanship-Program-Reference-Manual-Part-1.pdf>

Video

► <https://www.youtube.com/watch?v=j8xYJgGPRY>



<https://www.youtube.com/watch?v=j8xYJgGPRY>

Importance

- ▶ Safety! - Eliminate all incidents and accidents
- ▶ Knowledge of safe rifle handling
- ▶ Protect you and all others
- ▶ Win competitions!
- ▶ Marksmanship Handling Quiz

ZONE
(BRONZE)



PROVINCIAL
(SILVER/
ARGENT)



NATIONAL
(GOLD/OR)



Main Teaching Points

Week 1

- ▶ Daisy 853C Air Rifle
- ▶ Selecting the Master Eye
- ▶ Safety
- ▶ Rifle Range Layout
- ▶ Adopting the Prone Position
- ▶ Sight Picture
- ▶ KAHOTS

Week 2

- ▶ Pumping & Loading
- ▶ Unloading & Inspection
- ▶ Range Commands
- ▶ Targets
- ▶ Breathing
- ▶ Trigger Control



Daisy 853C Air Rifle

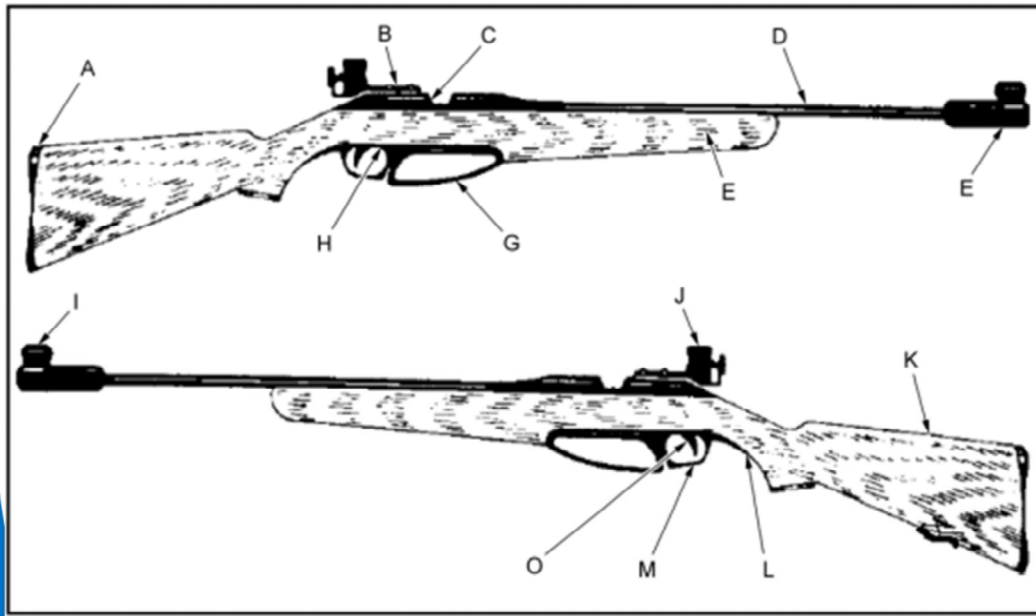
Reference: EO M106.01



Daisy 853C Air Rifle



Parts of Daisy 853C Air Rifle



- | | | |
|-----|-------------------|---|
| 1. | Feed Track | C |
| 2. | Small of the Butt | L |
| 3. | Barrel | D |
| 4. | Fore End | E |
| 5. | Rear Sight | J |
| 6. | Trigger | O |
| 7. | Bolt | B |
| 8. | Safety Catch | H |
| 9. | Muzzle | E |
| 10. | Pump Lever | G |
| 11. | Front Sight | I |
| 12. | Trigger Guard | M |
| 13. | Butt Plate | A |
| 14. | Stock | K |



Butt plate (end of the butt). It is the part of the rifle directly in contact with the marksman's shoulder. When fitted properly, the butt plate aids in achieving a snug fit, and a consistent placement of the rifle into the shoulder. The addition of butt spacers allows for this adjustment in length.

Spacers. Plastic inserts that can be added or removed from the butt plate to vary its length. To add or take away butt spacers, use a Phillips screwdriver to loosen the butt plate and slide in/out the amount of spacers desired.

Small of the butt (pistol grip). Curved area directly behind the trigger guard where the hand controlling the trigger grips the rifle.

Stock. Complete wooden portion of the rifle (from the butt plate end forward).

Fore end (of the stock). Wooden portion of the stock from the trigger guard forward, in which the barrel and the rifle mechanism are encased.

Sling. It is a web sling made of nylon. Links the rifle to the marksman's arm to support most of the weight of the rifle. One end attaches to the sling bracket and the other to the upper arm.

Sling bracket (hand stop). Adjustable metal clasp attached to the fore stock used to affix the sling to the rifle. It also acts as a hand stop, used to rest the left hand to prevent it from moving.

Trigger. Movable device that releases a spring and releases the rifle mechanism. This rifle has a single stage trigger that cannot be adjusted for weight.

Trigger guard. Metal band that surrounds and protects the trigger.

Safety catch. This is a mechanism that, once engaged, prevents the rifle from firing by locking the trigger in place. It is a cross bolt type device located on the trigger guard. The black side indicates that the rifle is unable to fire; the red side indicates the rifle is ready to fire. It should be ON (no red) at all times, unless firing.

Bolt. Metal lever used for opening or closing the rifle mechanism. It must be in the closed position in order to fire. For maximum safety when the rifle is uncased and not firing, the bolt should be kept open.

Pump handle. Metal lever used to compress the air required to fire the pellet. Whenever the rifle is in a “safe rifle status”, the pump lever should be left partially open.

Front sight. Global front sight that uses aperture inserts.

Rear sight. Micrometer sight adjustable for windage and elevation. It is easily attached to a metal rail located above the action. This rail allows for adjustment of the sight forward or backward, in order to maintain proper eye relief. The sight is attached using a small flat-blade screwdriver.

Muzzle. Front end of the barrel equipped with attachable barrel weight.

Barrel with barrel weight. Steel tube through which the pellet travels, extending from the muzzle to the chamber. The barrel weight ensures that the rifle’s weight is evenly distributed and that the rifle’s balance is maintained.

Bore. Interior of the barrel has spiral grooves cut into it. The lands are the ridges of metal between the grooves. Together, the grooves and lands are called rifling.

Feed track. Delicate area where the pellet is inserted manually onto a single pellet adapter, or with a fiveshot clip.

Single shot adapter. Plastic clip that aids in placing a pellet in the chamber.

Five-shot clip. Plastic clip that holds a maximum of five pellets and used to place the pellets in the chamber.

Chamber. Location where the pellet is held before firing.

Daisy 853C Air Rifle Characteristics

Note! Important
Points in purple

- ▶ Action: **Single pump pneumatic, straight pull-bolt**
- ▶ Total Length: 97.8 cm
- ▶ Total Weight: 2.5 kg
- ▶ Calibre: **0.177 calibre** (4.5 mm)
- ▶ Front Sight: Global type with interchangeable aperture inserts
- ▶ Rear Sight: Fully adjustable peep rear sight with micrometer click adjustment
- ▶ Muzzle Velocity: **150.8 metres per second**
- ▶ Loading: **Single** or auto indexing 5 pellet clip
- ▶ Stock: Full-length, sporter-styled hardwood with adjustable length
- ▶ Safety: **Manual crossbolt trigger block with red indicator**



Selecting the Master Eye

Ref: Cadet Marksmanship Program Reference Manual, 2005

EO C206.02



Let's Determine your Dominant Eye!

- ▶ Form a triangular opening with your thumbs and forefingers
- ▶ Stretch your arms out in front of you
- ▶ Focus on a distant object (10m) while looking through the triangular opening
- ▶ Bring your hands slowly to your face, keeping sight of the object through the opening; the opening will naturally come to your dominate eye



Safety

Ref: EO M106.02

EO M206.01



Safety

- ▶ Protecting Your Health
 - ▶ Safety glasses
 - ▶ Hand hygiene
- ▶ Everyone is a Safety Officer
- ▶ Range Safety Officer (RSO)
- ▶ Self-Discipline & Focus
- ▶ Horseplay is forbidden
- ▶ Malfunctions Process ----->



5.21 Personal Safety and Hygiene:

Pellet Handling. Lead is a toxic substance that must be handled with care, but so far no one has been able to make air rifle pellets from a non-lead substance that have sufficient accuracy for precision target shooting. Fortunately, several medical tests on air rifle shooters have proven that when shooters take the necessary precautions while firing air rifles, they do not face any health risks from this limited exposure to lead. These precautions include eating no food on the range, not having open beverage containers on the range and washing your hands immediately after every range activity. Hands should preferably be washed in cold water.

Safety Glasses. NJROTC cadets are required to wear safety glasses while firing air rifles. Some ranges also require this. The National Three-Position Air Rifle Council, AJROTC and MCJROTC make wearing safety glasses optional. The risk is extremely minimal, but since there is a remote possibility of having a pellet fragment bounce back, consideration should be given to using eye protection. If safety glasses are used, be sure to select quality glasses that do not distort the sight picture and target while aiming. Prescription glasses are adequate as eye protection; anyone who wears eyeglasses for distant vision should wear them while shooting.

Hearing Protection. Air rifles do not generate sufficient sound to cause

hearing loss and using hearing protection is optional.

Personal Clothing. Cadets should have a tight-fitting sweatshirt or long-sleeved work shirt to wear while firing. A glove for the hand that supports the rifle should be used if the unit does not have regular shooting gloves.

Four ACTS

- ▶ Assume every firearm is loaded
- ▶ Control the muzzle direction at all times
- ▶ Trigger finger must be kept off the trigger and out of the trigger guard
- ▶ See that the firearm is unloaded - prove it safe

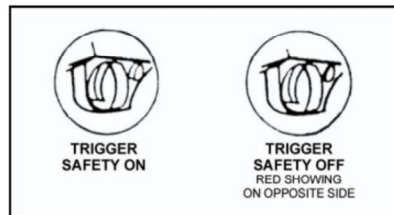
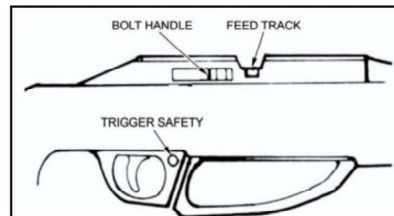


Safety

- ▶ Trigger control
- ▶ Safety on unless on firing line and when directed

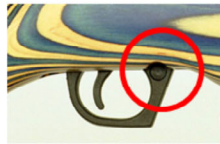
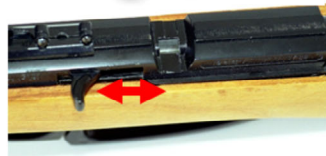
Remember: Safety Catch

ON = no red (safe)
OFF = red (ready)



Removing a Rifle from the Case

1. Place case on flat surface*
2. Ensure arrow is point in safe direction
3. Open case
4. Cock the action (bolt to rear)*
5. Confirm safety is on (no red)*
6. Confirm pump level is partially open
7. Slide safety rod (or cord) in barrel
8. Remove rifle from case
9. Remove safety rod when on firing line



- 1.Place case on flat surface*
- 2.Ensure arrow is point in safe direction
- 3.Open case
- 4.Cock the action (bolt to rear)*
- 5.Confirm safety is on (no red)*
- 6.Confirm pump level is partially open
- 7.Slide safety rod (or cord) in barrel
- 8.Remove rifle from case
- 9.Remove safety rod when on firing line

Carrying the Air Rifle



- ▶ Treat the rifle as if it is loaded
- ▶ Never point at anyone
- ▶ Hold in a safe direction, always (up and down)
- ▶ Handle with two hands
- ▶ Leave fingers off the trigger



Safe Rifle Status

ON Firing Line

- ▶ Safety catch is ON
- ▶ The bolt is to the rear
- ▶ The pump lever is partially open

OFF Firing Line

- ▶ Safety catch is ON
- ▶ The bolt is to the rear
- ▶ **Safety rod is in barrel**
- ▶ The pump lever is partially open

In Rifle Case

- ▶ Safety catch is ON
- ▶ Bolt is forward
- ▶ Action is not cocked
- ▶ Safety rod is in the case but not in the barrel
- ▶ Pump lever is partially open (5-8 cm)



Rifle Range Layout

Ref: Cadet Marksmanship Program Reference Manual, 2005



Video

► https://www.youtube.com/watch?v=es2mbjd7J_Y

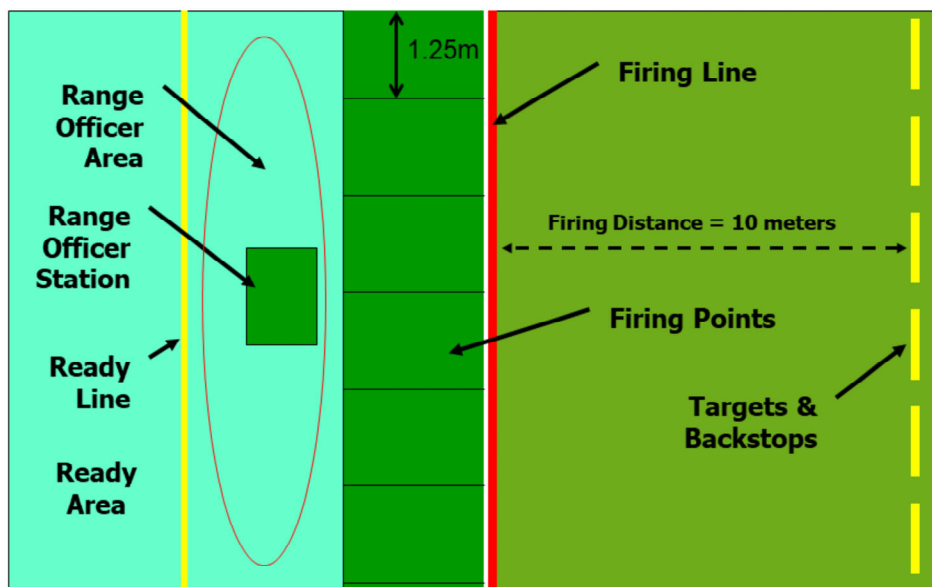


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Rifle Range Layout - Pictures



Rifle Range Layout



Adopting the Prone Position

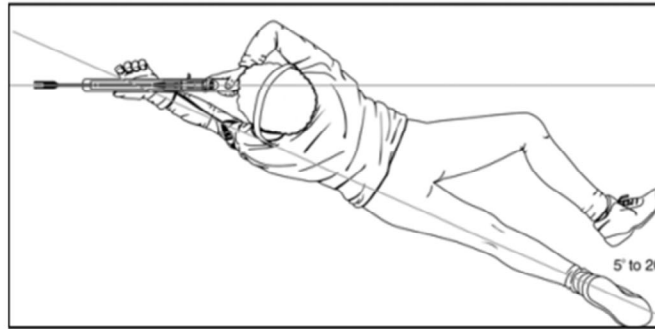
Ref: EO M106.03



Adopting the Prone Position

Should be:

- ▶ Natural
- ▶ Without strain
- ▶ Comfortable
- ▶ Stable
- ▶ Equal weight
- ▶ Consistent



The body should form a 5-20° angle to the line of sight;

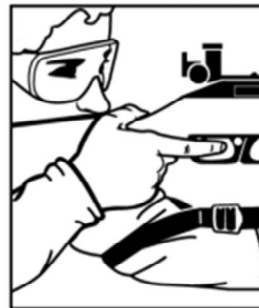
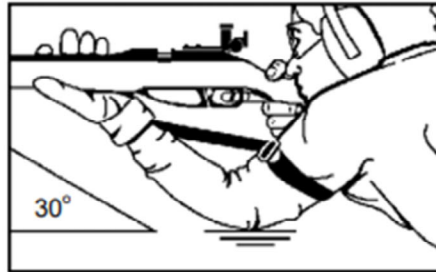
b. The body should not be twisted and the spine should be straight;

c. The left leg should be parallel with the spine;

d. The right foot should turn out and point to the right; the left foot should be straight behind on the toe or pointed to the right according to the comfort of the individual;

e. The right knee should be brought up so that the thigh forms an angle between 30-45° with the left leg. The right knee should be bent in order to improve stability. This causes the body to roll slightly to the left, raising the diaphragm off the ground, thus enhancing breathing. As the chest is also raised off the ground, body movements caused by normal heartbeat are minimized;

Adopting the Prone Position - cont...



- f. The left elbow should be positioned slightly to the left of the rifle. It should not be positioned directly under it or stability will be affected. In order to maintain consistency throughout the relay, the left elbow should not be moved, even while pumping the rifle;
- g. the left forearm must form at least an angle of 30° with the ground;
- h. The left hand should rest in the sling and firmly against the sling swivel and the fingers should not grip the fore end of the stock. The hand should be relaxed and the rifle should rest in the palm of the hand;
- i. Once a good position is established, the right hand should grip the small of the butt with constant pressure. The force applied by the right hand should never have to support the rifle. If a distinct pressure is necessary in order to keep the rifle in place, some aspect of the position will have to be changed;
- j. The right thumb should be placed on the stock directly behind the rear sight or around the small of the butt;
- k. The butt plate is kept firmly in the hollow of the right shoulder. In order to ensure that the butt plate is always placed in the same spot, cadets should grasp it with their thumb and forefinger and place it in their shoulder for each and every shot. The right elbow will naturally fall in the same spot throughout the relay; and

The elbows should always be in the same place, the head should exert the

same amount of pressure on the rifle, the eye relief should remain constant and the right knee should always be in the same position. If any of these points does not feel right or if cadets find their position uncomfortable, they should readjust it until it is perfect.

Sight Picture

Ref: EO M106.03

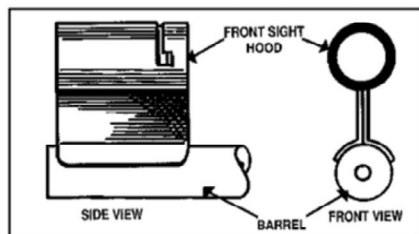
EO C206.02

EO C306.02

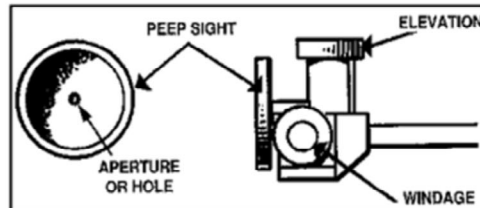


Aiming & Sight Picture

Front Sight



Rear Sight

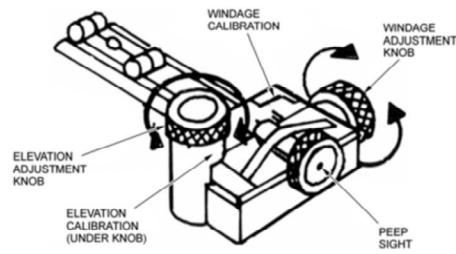


Adjusting Sights

Let's Practice!

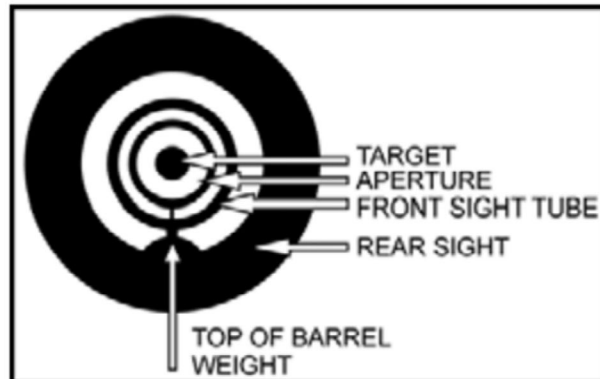
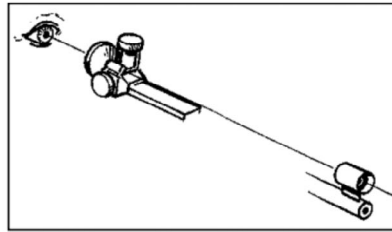
Remember: Sight Adjustment

**UP & RIGHT = clockwise
DOWN & LEFT = counterclockwise**



Sight Alignment

- ▶ Most critical element
- ▶ Sight Picture
- ▶ Repeated movements, exactly same



Kahoot!

Waiting for players...

Kahoots

www.kahoot.it

Gamepin:

