

## Range Setting Notes July 2010



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## Trap Setting

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## THE ROLE OF THE RANGE SETTER

Another day on the range:
John Younger says the course was great
The A Graders are mumbling quietly
The B Graders are resigned to their fate
The C Graders are calling you rude names
The rest just want to report you to the RSPCA....!
Car park judgements are often harsh and rarely accurate .....!

## Setter as Handicapper

The handicapper for the Melbourne cup lives for the day he brings home a 24 horse dead heat.

The setter on a target range lives for the day everyone thinks every one of his targets was Interesting, fun and fair...

In both instances the final results are what tell us if the handicapper/setter is any good.

After the event is over and the dust has settled a check of the average scores will tell the setter an awful lot about the day. If most shooters within each grade have achieved somewhere near the best expected with their skills and handicap your work is done...and done well.

The handicap system is not only a test of the individual shooter skills. It is a direct reflection on the standard of targets set on the day.

- If $C$ Grade shooters are returning a total of 23 per round - it's a kindergarten range.
or
- If AA shooters are the only people scoring above 16 - the range was set by Dracula.

Range setters need to have a method of measuring and comparing the level of difficulty they create.
This is best done at the end of the day using the scores recorded in each grade on the day.
It is a simple average of all scores in each grade after the top and bottom scores have been removed. The average is then divided to bring it back to a single round of 25 .

## A Fairness Gauge

| 25 Target <br> Average | Too Easy | Good | Challenging | Too Hard |
| :--- | :---: | :---: | :---: | :---: |
| AA Grade | Over 24 | $23-24$ | $20-22$ | $<19$ |
| A Grade | Over 21 | $17-20$ | $15-16$ | $<14$ |
| B Grade | Over 18 | $14-17$ | $12-13$ | $<11$ |
| C Grade | Over 15 | $12-14$ | $9-11$ | $<9$ |

## OFF THE GUN SCORES OVER 75 TARGETS

|  | Bill | John | Jack | Jill | Rod | Ray | Sam | Fred | TOTAL | Indicator | 25 <br> Average |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| A <br> Grade | 66 | 47 | 47 | 52 | 58 | 45 | 60 | 40 | $309 / 6$ | 51.5 | 17.1 |

This is a reasonably fair course for A Grade shooters but is a challenge.

## ON THE SAME DAY

|  | Bob | Alex | Jim | Santo | Will | Reg | Sox | May | TOTAL | Indicator | 25 <br> Average |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| C <br> Grade | 27 | 36 | 46 | 32 | 38 | 33 | 41 | 37 | $217 / 6$ | 36.1 | 12 |

This is a fair course for C Grade shooters - Both the A's and C's found it a challenge with targets to talk about afterwards... Their handicap cards remain in good shape.

## NOTES

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## TARGET PRESENTATION

| Singles | A single target launched from any trap |
| :--- | :--- |
| Simultaneous Pair | Is a pair where both targets are launched simultaneously from either one <br> or two traps. If two traps are used they must be operated by a single <br> button or controller. |
| Report Pair | Is a pair where the second target is launched at the sound of the gun firing <br> at the first target. May be from one or two traps and any target mix. |
| Rabbits | A thicker target launched edge-on along the ground. It rolls and bounces <br> along the ground. |
| Battue | The is a thin target thrown edge on to the shooter and which turns to give <br> the shooter a brief look at the face during flight. |
| Looper | This is normally a standard size target thrown upright in a large arc and <br> stays face on to the shooter through most of its flight. At some ranges a <br> rabbit target is used. |
| Springing Teal | Typically a single or pair of targets thrown upward and away from the <br> shooter. |
| Tower Targets | Often launched from a high tower or hill that pass high overhead. <br> Standard, Battue, Mini and Midi targets are thrown in all directions. |
| Mini | Usually thrown from towers with flight paths that stay clear of trees and <br> other vegetation - to allow maximum vision. |
| Midis | Used for all standard target trajectories adding additional difficulty because <br> of its size. The midi is often used as part of a pair. Midis launch quickly <br> and slow noticeably during flight. |
| Novelty Targets | ZZ, Colour Bombs, thrown in a manner to confuse and amuse. |

## NOTES

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## TARGET SIZES

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| :--- | :--- | :--- |
|  |  |  |
| Standard <br> Standard Clay Target 108mm <br> -110 mm diameter and 25-26 <br> mm in height. | Midis <br> A smaller target the same <br> shape as a standard but only <br> 90 mm in diameter | Minis <br> Smaller targets $60-75 \mathrm{~mm}$, <br> depending on Manufacturer <br> and 20 mm thick |
|  |  |  |
|  |  | Battue <br> A thin target 108-110 mm in <br> diameter made to fly very fast <br> through the air and turn in mid <br> flight |
| Rabbits <br> A thicker standard 108- <br> 110 mm diameter flat target <br> the shape of a wheel <br> designed to run along the <br> ground. | ZZ <br> A plastic, standard sized <br> target attached to a propeller <br> of different colour designed to <br> zigzag in flight in a totally <br> unpredictable manner - Not <br> used on FGA ranges. |  |

## WHAT IS A DUD TARGET?

$\left.$| Target Selection | Single, Doubles and exotic targets not as per FGA rules. |
| :--- | :--- |
| Target Mix | A mini as second of an on-report pair <br> Sim pairs too far apart in flight. |
| Visibility | Pull, two, three....where the hell is it... <br> Black Target against dark background - Light colour against cloud <br> Target obscured by trees until late in flight <br> Target disappearing into gully too quickly |
| Speed | Target thrown too slow and fades quickly <br> Targets thrown too fast and breaks targets on the plate <br> Target disappears before 2 |
| Angle shot option |  |\(\left|\begin{array}{l}Tower targets driven into the ground <br>


Battue's that fail to turn face on until too late\end{array}\right|\)| Rabbits with inconsistent presentation to shooters. |
| :--- |
| Rabbits moving away at acute angles from the shooter. | \right\rvert\, | Trajectory | Insufficient flight space for two shots. <br> Too much speed on targets |
| :--- | :--- |
| Obstacles | Poor trap placement |

## the range setters logbook

| Stand |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Singles Standard | From Right First | $\mathbf{1}$ |  |  | $\mathbf{2}$ |  | $\mathbf{1}$ |
| Simultaneous Pair | Left and Right Standard |  |  |  |  |  | $\mathbf{2}$ |
| Report Pair | Left then Right Standard | $\mathbf{4}$ |  |  |  |  |  |
| Rabbits | Singles |  |  | $\mathbf{2}$ |  |  |  |
| Battue |  |  |  |  |  |  | $\mathbf{1}$ |
| Looper |  |  |  |  |  | $\mathbf{1}$ |  |
| Report Pair | Midi first the Looper on <br> report |  |  |  |  | $\mathbf{2}$ |  |
| Springing Teal | Singles Left and Right |  | $\mathbf{2}$ |  |  |  |  |
| Sim Pair Springing <br> Teal | Left and Right |  | $\mathbf{2}$ |  |  |  |  |
| Tower Targets | Sim Pair Standard |  |  | $\mathbf{2}$ |  |  |  |
| Report Pair | Mini first then Standard |  |  |  | $\mathbf{2}$ |  |  |
| Midis |  |  |  |  |  | $\mathbf{1}$ |  |
| Total Targets |  | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{4}$ | $\mathbf{4}$ | $\mathbf{4}$ | $\mathbf{4}$ |
| Total Traps |  | $\mathbf{2}$ | $\mathbf{2}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{3}$ |


| Presentation | Rule | Number |
| :--- | :--- | :---: |
| Doubles | Up to 7 total | 7 |
| Exotics | Maximum 8 Required | 8 |

OFF THE GUN SCORES OVER ...75.... TARGETS

|  | Total <br> Shooters | Total <br> Shooters <br>  <br> Low | Total <br> Scores <br>  <br> Low | Total <br> Average | 25 <br> Average | Rating |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| AA Grade |  |  |  |  |  |  |
| A Grade | 8 | 6 | 309 | 51.5 | 17.1 | 0 |
| B Grade |  |  |  |  |  |  |
| C Grade | 8 | 6 | 217 | 36.1 | 12 | 0 |


| Ratings | Too Easy $=-1$ | Good $=0$ | Challenging $=-1$ | Too Hard $=-2$ |
| :--- | :--- | :--- | :--- | :--- |


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## SAFETY

## Range Setter's "TOP 40"

- Every club will have a set of Range Safety Orders as approved by the Police.
- Every range will also planning permit that sets out conditions for each shoot.
- All competition is conducted in accordance with the Rules of Simulate Field.
- RANGE SETTERS should be aware of the contents of these three documents.

Range setters should have a very clear knowledge of the safety aspects that apply to traps and trap placement. The Range Safety Officer has a checklist that applies to all aspects of range setup and operation.

The Range Setter should take particular note of the following points:

## Shooter Safety

1. Squads waiting are kept well clear of traps
2. Shooter knowledge of safety rules confirmed (signs provided)
3. Shooting areas are safe before targets are thrown with adequate protection from fallout of broken targets

## Trapper Safety

4. Mandatory red flags at all traps - Red flags in trap houses
5. Red flags stationed and used when servicing auto traps
6. Traps in safe working condition. Targets thrown cleanly and safely.
7. Impenetrable barriers are installed where necessary
8. Clays stored on opposite side of throwing arm and outside the throwing arm radius
9. Warning signs on every trap to indicate unauthorised repairs/filling prohibited
10. 200 metre safety fallout zone compliant
11. Check to insure clays breaking on leaving the trap will not hit the trapper
12. Check to insure that clays being broken with shot and fragments cannot hit any person (particularly In-comers)
13. Protection from shooters - Check to see competitors cannot point the firearm at either the trapper or another competitor on a different station
14. Safety equipment provided to trappers is clean and well maintained
15. Trappers and ground maintenance staff are provided with and wear, safety glasses, gloves, hearing protection and high visibility jackets.
16. All trappers sign in (name, address, contact details \& signature) - critical for insurance cover
17. Duty of care is observed to ensure welfare of trappers (water, food, shade, rest breaks etc).
18. All trappers and ground maintenance staff are trained in all aspects of using and maintaining the clay target throwing devices
19. One trapper per manual trap - one trapper per trap house unless multiple traps in trap house
20. All traps fitted with safety guards or barriers
21. Safety railings are installed on all towers and ladders - refer to the relevant state OHS guidelines
22. Safe means of hauling clays to tower is provided and maintained
23. All trap houses are kept clean and free of clutter

## Range Safety

24. Impenetrable barriers are installed where necessary
25. Shot fall-out is not over traps, walking, shooting or public areas or car parks,
26. Check to insure that clays being broken with shot and fragments will not hit other competitors or spectators
27. No improvised targets are used
28. Range safety orders displayed prominently in or around clubhouse
29. Fire pump / extinguishers in-date and operational.
30. Club shooting rules displayed as per range safety orders.

## Trap Preparation and Maintenance

31. Batteries are fully charged and transported safely
32. Trap cables and buttons are free of wear or damage
33. Remote control units are free of wear or damage and fully charged
34. Stocks of clay targets are placed beside each trap prior to the start of shooting
35. Tyre pressures on trailer mounted traps are correct - to avoid target inconsistency
36. Rubber strips and other trap fixtures are fully maintained to avoid target breakage.
37. Traps are kept clean of target debris
38. Traps are firmly anchored to the ground or support structure
39. Spare traps are placed strategically around the range prior to the start of shooting
40. All traps and clays are stored in a cool dry environment when not in use.

NOTES


## RANGE SAFETY FRAMEWORK

The safety framework addresses all of the following:
Appointment of safety officers to address all areas of safety and duty of care
Regular audits of the range site starting with perimeter and directional signage and moving through every aspect of the facilities, amenities and procedures employed.
A program of training sessions and presentations for junior members of the Branch exploring all aspects of range and shooting safety.
(C) A program of training sessions and presentations for Adult members of the Branch ensuring they fully understand the elements and reasoning for all safety measures.
Adherence to the requirements of other agencies with respect to safety at the range food handling certificates etc.
Generating an awareness of any special needs that may need to be addressed for members or visitors including suitable wheelchair access and a safe children's play area.

## Invest in Access

While access for people with a disability is not strictly a safety issue it is an area that benefits greatly from inclusion in the Branch consideration of risks. Facilities designed to be fully accessible are by their very nature safer and user friendly

## Invest in Signage

All ranges are urged to invest in quality signage that addresses three purposes:
Safety issues at appropriate points around the course and within the communal areas.
(e Important messages to competitors
Way finding and directional signage
It is important that the different types of signage are differentiated and specific signs are located where they are needed.

## Safety Signage

As a minimum requirement the following safety messages should be displayed:
Shooters must not reload or attend to malfunctioned traps. Only club officials are permitted to reload or repair malfunctioning traps.
Unless under direct supervision, all competitors must possess a firearm licence for the category and type of shotgun they use.
Novice and Junior shooters must be accompanied by a licensed adult shooter.
All non Field and Game member shooters and voluntary workers must sign the visitor's book.

Dogs must be kept on a leash at all times.
Alcohol is not to be consumed by a shooter until they have fired their last shot for the day and the firearm is safely stored away. It is the shooters responsibility to not consume alcohol if they think they may be in a shoot off.

Do not be too frugal with safety signage. If a sign relates to traps, place one at every trap installation and have portable signs available for placement near traps that have been temporarily placed in the field.

## Important Messages

There will be a range of important messages you wish to convey including reminders of rules and competition procedures. If a message is permanent, invest in permanent signage.
For competition the following signs are recommended as a basic list:
e It is the shooter's responsibility to ensure that your handicap card is maintained with all scores shot and handicap correctly calculated.

AR All scores will be used to calculate handicaps, including "Birds-Only".
AR All shooters should make themselves conversant with the rules of Australian Simulated Field.

## Way Finding

Way finding signage represents all paths facilities and amenities. Some consistency is recommended but not all signage needs to be fancy and colour coordinated.

The key is to ensure:
A. All signs are large enough and clear enough to be read by all

Signs can be found easily from all important areas of the site
(e) Signs are placed for the convenience of visitors who are not familiar with the site - visitors need signs that members don't require.


## Avoiding Clutter

Every club house has a wide range of materials that are attached to walls, posts, trees, and sometimes, people.

Keep the message clear. If a message is best suited to the notice board that is where it should go and members should be encouraged to find it there.

Old campaign posters should be removed when they have passed their impact use-by date. And other messages should not be placed over safety signage at any time.

## TARGET SAFETY - THE RULES OF AUSTRALIAN SIMULATED FIELD

### 16.0 Trapper Safety

16.1 All trap houses must be equipped with a red flag. The flag must be located in a prominent position within the trap house, and must be used by the trapper prior to he/she leaving the trap house. The trap house must be constructed so that the trapper enters or leaves the trap house under protection of the red flag. The trapper must wait until the all clear is given before leaving the safety of the trap house. The red flag for automatic traps is to be placed at the shooting station and when required it is to be carried out to the trap and displayed there until the repair / refill is completed and then returned back to the shooting station before re-commencement of shooting.
16.2 All trappers must be adequately protected from shot, muzzle blast, trap operations, etc. and also be issued with adequate eye, ear and hand protection.
16.3 Where traps are located on towers, a ladder must be provided on the tower and a safe means of hauling up targets or other equipment must also be provided. Safety railings must be provided on the platforms and ladders.
16.4 Where there is a possibility of the shooter pointing their gun at the trap house and this cannot be restricted by safety cages or other barriers, an impenetrable barrier between the shooter and the trap must be provided.
16.5 Only one trapper is allowed at each trap while shooting is in progress.
16.6 All traps must be fitted with safety guard..

### 23.0 Ground Setting

### 23.1 Grounds should be set with the following points in mind;

- All targets should be within the effective range of a 12 gauge shotgun, when loaded with the maximum permissible load/shot size.
- A shooter must be able to fire two shots at each double barrel target.
- Every attempt should be made to avoid setting targets that end their flight behind an obstacle as this creates problems for shooters and Referees.
- Always set targets so they are clearly visible against the background.
- Do not position shooting stands so that they handicap short or tall persons.
- Shooting stand position should suit both left and right handed shooters.
- Avoid edge-on rabbit targets.
- Avoid targets that can only be shot at the end of their trajectory as wind can drastically affect such targets, especially battues.
- Avoid setting more than one very difficult target per stand.
23.2 Grounds will consist of layouts with six to nine stations per layout. There must be 7 pairs of targets maximum per layout. As a general guideline Branches should aim to present a wide range of targets.
23.3 Under no circumstances should target trajectories be such that targets or fragments present a danger to shooters or spectators. Incoming targets in particular must be set so that targets and fragments will fall well clear of all participants.
23.4 Grounds must include 8 exotic targets. The mix of 8 exotic targets per ground should ideally be 2 each of the following 4 target types: battues, rabbits, midis, and minis. If trap or ground restrictions make this preferred mix impossible, Branches may consider an alternative mix of exotic targets as long as no more than three of any one type is used. In this situation Branches may also consider the use of standard targets presented as a looper, however, once again, no more than three of these targets may be used (refer Rule 2.0.1).
23.5 Walk ups and seated stands are not permitted.
23.6 Consideration should be given to sun position throughout the event.
23.7 Trajectory of targets to be marked to enable resetting of traps to original position if necessary by ground administrator.


### 24.0 Traps

24.1 All traps used must be in first class order and of sufficient power to throw the targets required at each station.
24.2 All traps should be positioned to enable servicing without disrupting shooting on other stands
24.3 Safety guards MUST be fitted to all traps.

### 25.0 Stands

25.1 Shooting stands must be 1 m square or diameter.
25.2 Where safety dictates cages and/or a barrier to limit gun swing should be provided. Barriers should be made of a suitable material (e.g. timber, polythene pipe).
25.3 Sufficient moveable stands should be available to those setting the range. The use of cages, when available, is preferred.

### 26.0 Trappers

26.1 Trappers must be fully trained in the safe use of traps and safety procedures (refer to the FGA Trapper Training Manual).
26.2 Trappers must be able to follow the target program for that station. Host Branches should consider providing trappers with written instructions on target sequence.
26.3 Trappers must be supplied with eye, ear and hand protection.

## AUTO TRAP SUPPLIER CONTACTS

| ATLAS | BEOMAT | CHAMPION |
| :--- | :--- | :--- |
| Spartan Global Pty. Ltd | New Zealand - Anna Hagman- <br> Grunwell | Nioa Trading |
| Unit 4, 6 Ovata Drive, <br> TullaMarine <br> VIC 3043 | 48 Western Road, <br> Laingholm, <br> Auckland 0604 | PO Box 181, <br> Banyo QLD 4014 |
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